AS FILED WITH THE SECURITIES AND EXCHANGE COMMISSION ON DECEMBER 12, 1996

REGISTRATION NO. 333-

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

CIENA CORPORATION
(EXACT NAME OF REGISTRANT AS SPECIFIED IN ITS CHARTER)

DELAWARE	3661	23-2725311
(STATE OR OTHER JURISDICTION OF INCORPORATION OR ORGANIZATION)	(PRIMARY STANDARD INDUSTRIAL CLASSIFICATION CODE NUMBER)	(I.R.S. EMPLOYER IDENTIFICATION NO.)

8530 CORRIDOR ROAD
SAVAGE, MD 20763
(301) 317-5800
(ADDRESS, INCLUDING ZIP CODE AND TELEPHONE NUMBER, INCLUDING AREA CODE, OF REGISTRANT'S PRINCIPAL EXECUTIVE OFFICES)

G. ERIC GEORGATOS
VICE PRESIDENT, GENERAL COUNSEL
AND SECRETARY
CIENA CORPORATION
8530 CORRIDOR ROAD
SAVAGE, MD 20763
(301) 317-5800
(NAME, ADDRESS, INCLUDING ZIP CODE AND TELEPHONE NUMBER, INCLUDING AREA CODE, OF AGENT FOR SERVICE)

Copies to:

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	(202) 942-8400

APPROXIMATE DATE OF COMMENCEMENT OF PROPOSED SALE TO THE PUBLIC:
As soon as practicable on or after the effective date of this Registration Statement.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. [ ]

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. [ ]

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. [ ]

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box. [ ]

CALCULATION OF REGISTRATION FEE

TITLE OF EACH CLASS OF SECURITIES TO BE REGISTERED	PROPOSED MAXIMUM AGGREGATE OFFERING PRICE(2)	AMOUNT OF REGISTRATION FEE
Common Stock, $.01 par value(1).....	$109,250,000	$33,107

(1) The shares of Common Stock are not being registered for the purpose of sales outside the United States.
(2) Estimated solely for the purpose of computing the registration fee pursuant to Rule 457(o) under the Securities Act of 1933, as amended (the "Securities

Act").

THE REGISTRANT HEREBY AMENDS THIS REGISTRATION STATEMENT ON SUCH DATE OR DATES AS MAY BE NECESSARY TO DELAY ITS EFFECTIVE DATE UNTIL THE REGISTRANT SHALL FILE A FURTHER AMENDMENT WHICH SPECIFICALLY STATES THAT THIS REGISTRATION STATEMENT SHALL THEREAFTER BECOME EFFECTIVE IN ACCORDANCE WITH SECTION 8(a) OF THE SECURITIES ACT OF 1933 OR UNTIL THIS REGISTRATION STATEMENT SHALL BECOME EFFECTIVE ON SUCH DATE AS THE SECURITIES AND EXCHANGE COMMISSION, ACTING PURSUANT TO SAID SECTION 8(a), MAY DETERMINE.

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Information contained herein is subject to completion or amendment. A registration statement relating to these securities has been filed with the Securities and Exchange Commission. These securities may not be sold nor may offers to buy be accepted prior to the time the registration statement becomes effective. This prospectus shall not constitute an offer to sell or the solicitation of an offer to buy nor shall there be any sale of these securities
in any State in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such State.

SUBJECT TO COMPLETION, DATED DECEMBER 12, 1996

5,000,000 SHARES

[LOGO]

COMMON STOCK
(PAR VALUE $.01 PER SHARE)

Of the 5,000,000 shares of Common Stock offered, 4,000,000 shares are being offered hereby in the United States and 1,000,000 shares are being offered in a concurrent international offering outside the United States. The initial public offering price and the aggregate underwriting discount per share will be identical for both offerings. See "Underwriting".

Prior to this offering, there has been no public market for the Common Stock of CIENA Corporation. It is currently estimated that the initial public offering price per share will be between $17.00 and $19.00. For factors to be considered in determining the initial public offering price, see "Underwriting".

SEE "RISK FACTORS" BEGINNING ON PAGE 5 FOR CERTAIN CONSIDERATIONS RELEVANT TO AN INVESTMENT IN THE COMMON STOCK.

Application will be made for quotation of the Common Stock on the Nasdaq National Market under the symbol "CIEN".

THESE SECURITIES HAVE NOT BEEN APPROVED OR DISAPPROVED BY THE SECURITIES AND EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION NOR HAS THE SECURITIES AND EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION PASSED UPON THE ACCURACY OR ADEQUACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

	INITIAL PUBLIC OFFERING PRICE	UNDERWRITING DISCOUNT(1)	PROCEEDS TO COMPANY(2)
Per Share	$	$	$
Total (3)	$	$	$

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(1) The Company has agreed to indemnify the Underwriters against certain liabilities, including liabilities under the Securities Act of 1933. See "Underwriting".
(2) Before deducting estimated expenses of $1,100,000 payable by the Company.
(3) The Company has granted the U.S. Underwriters an option for 30 days to purchase up to an additional 600,000 shares at the initial public offering price per share, less the underwriting discount, solely to cover over-allotments. Additionally, the Company has granted the International Underwriters a similar option with respect to an additional 150,000 shares as part of the concurrent international offering. If such options are exercised in full, the total initial public offering price, underwriting discount and proceeds to the Company will be $, $ and $, respectively. See "Underwriting".

The shares offered hereby are offered severally by the U.S. Underwriters, as specified herein, subject to receipt and acceptance by them and subject to their right to reject any order in whole or in part. It is
expected that certificates for the shares will be ready for delivery in New York, New York, on or about , 1997, against payment therefor in immediately available funds.

GOLDMAN, SACHS & CO.

ALEX. BROWN & SONS
INCORPORATED

WESSELS, ARNOLD & HENDERSON

WILLIAM K. WOODRUFF & COMPANY

The date of this Prospectus is , 1997.

This diagram shows the
CIENA MultiWave 1600 system.

The Company intends to furnish to its stockholders annual reports containing audited financial statements and quarterly reports containing unaudited interim financial information for the first three fiscal quarters of each fiscal year of the Company.

IN CONNECTION WITH THE OFFERINGS, THE UNDERWRITERS MAY OVER-ALLOT OR EFFECT TRANSACTIONS WHICH STABILIZE OR MAINTAIN THE MARKET PRICE OF THE COMMON STOCK OFFERED HEREBY AT A LEVEL ABOVE THAT WHICH MIGHT OTHERWISE PREVAIL IN THE OPEN MARKET. SUCH TRANSACTIONS MAY BE EFFECTED ON THE NASDAQ NATIONAL MARKET, IN THE OVER-THE-COUNTER MARKET OR OTHERWISE. SUCH STABILIZING, IF COMMENCED, MAY BE DISCONTINUED AT ANY TIME.

PROSPECTUS SUMMARY

The following summary is qualified in its entirety by, and should be read in conjunction with, the more detailed information and financial statements and notes thereto appearing elsewhere in this Prospectus. Unless otherwise indicated, all information in this Prospectus assumes no exercise of the over-allotment options granted to the Underwriters and has been adjusted to reflect a five-for-one split of the Company's Common Stock effective on December 9, 1996 and the conversion of the Company's mandatorily redeemable convertible preferred stock (the "Convertible Preferred Stock") into 73,315,740 shares of Common Stock and the exercise of certain warrants to purchase 300,000 shares of Convertible Preferred Stock which are convertible into 1,500,000 shares of Common Stock upon the closing of the Offerings.

THE COMPANY

CIENA Corporation ("CIENA" or the "Company") designs, manufactures and sells dense wavelength division multiplexing ("DWDM") systems for long distance fiberoptic telecommunications networks. CIENA's DWDM solution, the MultiWave 1600 system, alleviates capacity, or bandwidth, constraints in high traffic fiberoptic routes without requiring the installation of new fiber. In addition, the MultiWave 1600 system enables flexible provisioning of additional bandwidth without requiring an upgrade of existing network transmission equipment. The MultiWave 1600 system can increase the carrying capacity of a single optical fiber 16 fold by allowing simultaneous transmission of up to 16 optical channels per fiber. This permits fiber currently carrying signals at transmission speeds of up to 2.5 gigabits per second ("Gb/s") to carry up to 40 Gb/s. CIENA's MultiWave 1600 system includes optical transmission terminals, optical amplifiers and network management software. CIENA's system is designed with an open architecture that allows the MultiWave 1600 system to interoperate with carriers' existing fiberoptic transmission systems having a broad range of transmission speeds and signal formats.

The Company believes it is a worldwide market leader in field deployment of open architecture DWDM systems. CIENA's MultiWave 1600 system was introduced into field trials in the long distance network of Sprint Corporation ("Sprint") in May 1996 and LDDS WorldCom ("WorldCom") in August 1996. The MultiWave 1600 system began carrying live traffic in the Sprint network in October 1996. The Company has a three-year non-exclusive supply agreement with Sprint which expires in December 1998, a supply agreement with WorldCom which, subject to certain conditions, is exclusive through December 1997 and an agreement to supply Teleway Japan Corporation ("Teleway") with the Company's MultiWave 1600 system. Through October 31, 1996, the Company recorded $54.8 million in revenue, all of which was derived from sales of the MultiWave 1600 system to Sprint. The Company is actively seeking additional customers among other long distance carriers in the worldwide telecommunications market.

The Company was incorporated in Delaware in November 1992. The Company's principal executive offices are located at 8530 Corridor Road, Savage, Maryland 20763, and its telephone number is (301) 317-5800.

THE OFFERINGS

The offering of 4,000,000 shares of Common Stock initially being offered in the United States (the "U.S. Offering") and the concurrent offering of 1,000,000 shares of Common Stock initially being offered outside the United States (the "International Offering") are collectively referred to herein as the "Offerings". The closing of the International Offering is conditioned upon the closing of the U.S. Offering and vice versa. See "Underwriting".

Common Stock offered by the Company	
U.S. Offering	4,000,000 shares
International Offering	1,000,000 shares
Common Stock to be outstanding after the Offerings(1)	93,007,325 shares
Proposed Nasdaq National Market Symbol	"CIEN"
Use of Proceeds	General corporate purposes. See "Use of Proceeds".

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(1) Excludes 11,707,960 shares of Common Stock issuable upon exercise of options and certain warrants outstanding on October 31, 1996, at a weighted average exercise price of $.95 per share. See "Capitalization" and "Management -- Stock Plans".

SUMMARY FINANCIAL INFORMATION(1)
(in thousands, except per share data)

	FOR THE PERIOD FROM INCEPTION (NOVEMBER 2, 1992) THROUGH OCTOBER 31, 1993	YEAR ENDED OCTOBER 31, 1994	1995	1996
STATEMENT OF OPERATIONS DATA:				
Revenue	$ --	$ --	$ --	$ 54,838
Gross profit	--	--	--	32,994
Operating expenses				
Research and development	--	1,287	6,361	8,922
Selling and marketing	--	295	481	3,780
General and administrative	123	787	896	3,905
Income (loss) from operations	(123)	(2,369)	(7,738)	16,387
Net income (loss)	$ (123)	$(2,407)	$(7,629)	$ 14,718
Pro forma net income per common and common equivalent share(2)				$ .15

	OCTOBER 31, 1996	
	ACTUAL	PRO FORMA AS ADJUSTED(3) (UNAUDITED)
BALANCE SHEET DATA:		
Cash and cash equivalents	$22,557	$105,757
Working capital	35,856	119,056
Total assets	67,301	150,501
Long-term debt, excluding current portion	2,673	2,673
Mandatorily redeemable preferred stock	40,404	--
Stockholders' equity	4,970	128,574

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(1) During the period from November 2, 1992 to October 31, 1995, CIENA was a development stage company. Planned principal operations commenced during fiscal year 1996.

(2) The pro forma weighted average common and common equivalent shares outstanding for the year ended October 31, 1996 was 99,107,000. Pro forma net income per common and common equivalent share is computed using the weighted average number of common and common equivalent shares outstanding. Weighted average common and common equivalent shares include Common Stock, stock options and warrants using the modified treasury stock method and the assumed conversion of all outstanding shares of Convertible Preferred Stock into Common Stock. See Note 1 of Notes to Financial Statements.

(3) As adjusted to reflect the exercise of certain outstanding warrants to purchase 300,000 shares of Convertible Preferred Stock which are convertible into 1,500,000 shares of Common Stock of the Company, the conversion upon the closing of the Offerings of all outstanding shares of Convertible Preferred Stock into 73,315,740 shares of Common Stock and the sale of Common Stock offered by the Company hereby (assuming an initial public offering price of $18.00) and the application of the estimated net proceeds therefrom.

RISK FACTORS

In addition to the other information in this Prospectus, prospective investors should consider carefully the following risk factors in evaluating the Company and its business before purchasing Common Stock in the Offerings.

CONCENTRATION OF POTENTIAL CUSTOMERS; DEPENDENCE ON MAJOR CUSTOMERS

The Company has only three current customers and few potential customers, consisting almost exclusively of long distance telecommunications carriers. There are only a small number of long distance telecommunications carriers, and the substantial capital requirements involved in the establishment of long distance fiberoptic networks significantly limit additional entrants into this market. The Company's business will for the foreseeable future be dependent on this small number of existing and potential customers, and that number may decrease if and as customers merge with or acquire one another. All of the Company's revenue for the fiscal year ended October 31, 1996 was derived from Sprint, and substantially all of the Company's revenue for fiscal 1997 is expected to be derived from Sprint and WorldCom. WorldCom may terminate all or any part of an outstanding purchase order upon the payment of a termination fee, and the Company's agreements with WorldCom and Sprint do not require minimum purchase commitments. There can be no assurance the Company will be able to develop additional customers in the long distance telecommunications market. Accordingly, the loss of any one of the Company's customers, or the reduction, delay or cancellation of orders or a delay in shipment of the Company's products to such customers, could materially and adversely affect the Company's business, financial condition and results of operations. See "Management's Discussion and Analysis of Financial Condition and Results of Operations".

The Company's dependence on sizable orders from very few customers makes the relationship between the Company and each customer critically important to the Company's business. While each customer relationship is typically structured around a detailed, heavily negotiated contract, as the relationship evolves over time, adjustments to such items as product specifications, laboratory and field testing plans, customer forecasts and delivery timetables, and installation and field support requirements may be required in response to customer demands and expectations. The inability of the Company to manage its customer relationships successfully would have a material adverse effect on the Company's business, financial condition and results of operations.

RECENT PRODUCT INTRODUCTION

The Company first began commercial shipments of its MultiWave 1600 system in May 1996. The Company's first operational systems only began carrying live traffic in October 1996 and therefore do not have a history of live traffic operation over an extended period of time. If reliability, quality or network monitoring problems should develop a number of material and adverse effects could result, including manufacturing rework costs, high service and warranty expense, high levels of product returns, delays in collecting accounts receivable, reduced orders from existing customers and declining level of interest from potential customers. The Company is aware of instances in which installation and activation of certain MultiWave 1600 systems have been delayed due to faulty components found in certain portions of these systems. Although the Company maintains accruals for product warranties, there can be no assurance that actual costs will not exceed these amounts. There is limited operating history of open architecture wavelength division multiplexing technology in fiberoptic networks, and in particular of MultiWave 1600 systems, and the equipment must be handled with care by trained installers. Accordingly, the Company expects there will be interruptions or delays from time to time in the activation of the systems, particularly because the Company does not control all aspects of the customer's installation and activation activities. If significant interruptions or delays occur, or if their cause is not promptly identified, diagnosed and resolved, confidence in the MultiWave 1600 system could be undermined. An undermining of confidence in the MultiWave 1600 system would materially and adversely affect the Company's customer relationships, business, financial condition and results of operations.

MANAGEMENT OF EXPANSION

The Company is experiencing rapid expansion in all areas of its operations, particularly in manufacturing, and the Company anticipates that this expansion will continue in the near future. Total personnel has grown from 49 on October 31, 1995 to 225 on October 31, 1996, with 125 of the 176 new employees devoted to manufacturing. This expansion has placed strains on the managerial, financial and personnel resources of the Company and will continue to do so. The rapid pace and volume of new hiring could adversely affect the efficiency of the Company's manufacturing process. Any delays or difficulties in the Company's manufacturing process caused by these factors or others could make it difficult for the Company to meet its customers' requirements. The Company is in the process of substantially increasing its flow of materials, manufacturing capacity, optical assembly, final assembly and final component module and system test functions to respond to customer demand. The pace of the Company's expansion, in combination with the complexity of the technology involved in the manufacture of the Company's systems, demands an unusually high level of managerial effectiveness in anticipating, planning, coordinating and meeting the operational needs of the Company and the needs of the Company's customers for quality, reliability, timely delivery and post-installation field support. Given the small number of potential customers for the Company's systems, the adverse effect on the Company resulting from a lack of effective management in any of these areas will be magnified. The Company's key management employees have not had previous experience in managing companies undergoing such rapid expansion. Inability to manage the expansion of the Company's business could have a material adverse effect on its business, financial condition and results of operations. In addition, the Company's manufacturing expansion and related capital expenditures are being made in anticipation of a level of customer orders that has not been historically experienced by the Company and that may not be achieved. See "Management's Discussion and Analysis of Financial Condition and Results of Operations".

DEPENDENCE ON A SINGLE PRODUCT -- THE MULTIWAVE 1600 SYSTEM

The MultiWave 1600 system is the Company's only product and is focused exclusively on providing additional bandwidth to long distance telecommunications carriers. Accordingly, a softening or slowdown in demand for the Company's product or for additional bandwidth by long distance telecommunications carriers would materially and adversely affect the Company's business, financial condition and results of operations. There can be no assurance that the Company will be successful in developing any other products or taking other steps to reduce the risk associated with any softening or slowdown in the demand for additional bandwidth, nor is there any assurance the Company will be able to leverage successfully its DWDM technology into other network applications. Conversely, if the demand for additional bandwidth accelerates, there is no assurance that the Company's MultiWave 1600 system will deliver sufficient capacity as rapidly as needed, or that competing DWDM products from other vendors offering higher capacity would not displace or render obsolete the MultiWave 1600 system.

FLUCTUATION IN QUARTERLY AND ANNUAL RESULTS

The Company's revenue and operating results may vary significantly from quarter to quarter and from year to year as a result of a number of factors, including the size and timing of orders, product mix and shipments of systems. The timing of order placement, size of orders, satisfaction of contractual customer acceptance criteria, as well as order delays or deferrals and shipment delays and deferrals, may cause material fluctuations in revenue. Delivery of new equipment for installation is also likely to be deferred during the high telecommunications traffic periods in November and December so as not to risk network reliability problems. The Company's expense levels in the future will be partially based on its expectations of long term future revenue and as a result net income in any quarterly period in which material orders are shipped or delayed could vary significantly. Due to this likelihood of significant quarterly fluctuation in operating results, the Company believes quarter-to-quarter comparisons of its results of operations, particularly during the next two to three years of

operations, may not necessarily be meaningful indicators of year-to-year performance. See "Management's Discussion and Analysis of Financial Condition and Results of Operations".

LONG AND UNPREDICTABLE SALES CYCLES

The Company expects that the period of time between initial customer contact and an actual purchase order may span a year or more. In addition, even when committed to proceed with deployment of equipment, long distance telecommunications carriers typically undertake extensive and lengthy product evaluation and factory acceptance and field testing of new equipment before purchasing and installing any of it in their networks. Additionally, the purchase of network equipment such as DWDM equipment is typically carried out by network operators pursuant to multiyear purchasing programs which may increase or decrease annually as the operators adjust their capital equipment budgets and purchasing priorities. The Company's customers do not typically share information on the duration or magnitude of planned purchasing programs, nor do they consistently provide to the Company advance notice of contemplated changes in their capital equipment budgets and purchasing priorities. These uncertainties substantially complicate the Company's manufacturing planning. Curtailment or termination of customer purchasing programs, decreases in customer capital budgets or reduction in the purchasing priority assigned to equipment such as DWDM equipment, particularly if significant and unanticipated by the Company, could have a material adverse effect on the Company's business, financial condition and results of operations. Long distance carriers may also encounter delays in their build out of new routes or in their installation of new equipment in existing routes, with the result that orders for the MultiWave 1600 system may be delayed or deferred. Any delay or deferral of orders for the MultiWave 1600 system would have a material adverse effect on the Company's business, financial condition and results of operations.

COMPETITION

The competition to achieve higher and more cost-effective bandwidth in the global telecommunications industry is intense and is dominated by a small number of very large companies with greater financial, technical and marketing resources, greater manufacturing capacity and more established customer relationships with network operators than the Company. Each of Lucent Technologies Inc., formerly part of AT&T Corporation ("Lucent"), Alcatel Alsthom Group ("Alcatel"), Northern Telecom Inc. ("Nortel"), NEC Corporation ("NEC"), Pirelli SpA ("Pirelli"), Siemens AG ("Siemens") and ECI Telecom Ltd. ("ECI") offer various forms of alternative transmission enhancing equipment and in some cases are offering or have announced an intention to offer DWDM equipment. Such competitors use their advantages in resources and alternative equipment in different ways. For example, Lucent, Alcatel, Nortel, NEC and Siemens are already providers of a full complement of switches, fiberoptic transmission terminals and fiberoptic signal regenerators and thereby can position themselves as vertically integrated, "one-stop shopping" solution providers to potential customers. Further, in certain cases, competitors have offered the Company's target customers, on an immediate delivery basis, off-the-shelf time division multiplexing ("TDM") transmission equipment at comparatively lower prices, with a promise to upgrade to DWDM or other improved equipment in the future. The substantial system integration resources and manufacturing capability of the TDM suppliers, in combination with any difference in timeliness of delivery, can be important to long distance network operators. Finally, as and when these competitors are able to offer DWDM systems in combination with their own fiberoptic transmission terminals, they can be expected to press further on the attractiveness of a "one-stop shopping" solution. The Company expects competition in general to intensify substantially, especially over the next few quarters, and further expects competition to be broadly based on varying combinations of price, manufacturing capacity, timely delivery, system reliability, service commitment and installed customer base, as well as on the comprehensiveness of the system solution in meeting immediate network needs and foreseeable scaleability requirements. There can be no assurance that the Company will be able to compete successfully with its existing or new competitors or that competitive pressures faced by the Company will not result in lower prices for the Company's

products and otherwise materially and adversely affect its business, financial condition and results of operations.

TECHNOLOGICAL CHANGE AND NEW PRODUCTS

The Company expects that new technologies will emerge as competition in the telecommunications industry increases and the need for higher and more cost efficient bandwidth expands. The Company's ability to anticipate changes in technology, industry standards, customer requirements and product offerings and to develop and introduce new and enhanced products will be significant factors in the Company's ability to remain a leader in the deployment of open architecture DWDM systems. The market for telecommunications equipment is characterized by substantial capital investment and diverse and competing technologies such as fiberoptic, cable, wireless and satellite technologies. The accelerating pace of deregulation in the telecommunications industry will likely intensify the competition for improved technology. Many of the Company's competitors have substantially greater financial, technical and marketing resources and manufacturing capacity with which to compete for new technologies and for market acceptance of their products. The introduction of new products embodying new technologies or the emergence of new industry standards could render the Company's existing product uncompetitive from a pricing standpoint, obsolete or unmarketable. Any of these outcomes would have a material and adverse effect on the Company's business, financial condition and results of operations.

PROPRIETARY RIGHTS

The Company relies on patents, contractual rights, trade secrets, trademarks and copyrights to establish and protect its proprietary rights in its product. While the Company does not expect that its proprietary rights in its technology will prevent competitors from developing technologies and products functionally similar to the Company's, the Company believes many aspects of its DWDM technologies and know-how are proprietary, and intends to monitor closely the DWDM products introduced by competitors for any infringement of the Company's proprietary rights. Additionally, the Company expects that DWDM technologies and know-how in general will become increasingly valuable intellectual properties as the competition to achieve higher and more cost effective bandwidth intensifies. The Company believes this increasing value in an industry marked by a few very large competing suppliers represents a competitive environment where intellectual property disputes are likely. Such disputes may be initiated by competitors against the Company for tactical purposes to gain competitive advantage or overcome competitive disadvantage, even if the merits of a specific dispute are doubtful. As a result, in the future, litigation may be necessary to enforce any patents issued or assigned to the Company, to protect trademarks, trade secrets and other intellectual property rights owned by the Company, to defend the Company against claimed infringement of the rights of others and to determine the scope and validity of the proprietary rights of others. Any litigation could be costly and a diversion of management's attention, which could have a material adverse effect on the Company's business, financial condition and results of operations. Adverse determinations in litigation could result in the loss of the Company's proprietary rights, subject the Company to significant liabilities, require the Company to seek licenses from third parties or prevent the Company from manufacturing or selling its products, any of which could have a material adverse effect on the Company's business, financial condition and results of operations.

The Company has received, and may receive in the future, notices from holders of patents in the optical technology field that raise issues as to possible infringement by the Company's products. Pirelli sent a notice in December 1995 identifying eleven patents it possesses in the field of optical communications. The Company believes the MultiWave 1600 system does not infringe the patents cited in the notices received. However, questions of infringement in the field of DWDM technologies involve highly technical and subjective analyses. There can be no assurance that any such patent holders or others will not in the future initiate legal proceedings against the Company or that, if any such proceedings were initiated, the Company would be successful in defending against these actions. Even if the Company is successful in defending against any such actions, these actions

could have an adverse effect on existing and potential customer relationships and therefore could have a material adverse effect on the Company's business, financial condition and results of operations. The Company has agreed to indemnify Sprint, WorldCom and Teleway for liability that may be incurred in connection with the infringement of a third party's intellectual property rights and expects that it will be requested to agree to indemnify other potential customers in the future. There can be no assurance that such indemnification against alleged liability will not be required from the Company in the future.

Patent applications in the United States are not publicly disclosed until the patent issues. The Company anticipates that several competitors may have patent applications in progress that, if issued, could relate to the Company's products. If such patents were to issue, there can be no assurance that the patent holders or licensees will not assert infringement claims against the Company or that such claims will not be successful. The Company could incur substantial costs in defending itself and its customers against any such claims, regardless of the merits of such claims. Parties making such claims may be able to obtain injunctive or other equitable relief which could effectively block the Company's ability to sell its products, and each claim could result in an award of substantial damages. In the event of a successful claim of infringement, the Company and its customers may be required to obtain one or more licenses from third parties. There can be no assurance that the Company or its customers could obtain necessary licenses from third parties at a reasonable or acceptable cost or at all.

Substantial inventories of intellectual property are held by a few industry participants, such as Bell Laboratories (now owned by Lucent) and major universities and research laboratories. This concentration of intellectual property in the hands of a few major entities also poses certain risks to the Company in seeking to hire qualified personnel. The Company has on a few occasions recruited such personnel from competitors. The Company has in the past received letters from counsel to Lucent asserting that the hiring of their personnel compromises Lucent's intellectual property. There can be no assurance that other companies will not claim the misappropriation or infringement of their intellectual property, particularly when and if employees of these companies leave to work for the Company. To date, the Company has not experienced litigation concerning the assertions by Lucent, and believes there is no basis for claims against the Company. Nevertheless, there can be no assurance that the Company will be able to avoid litigation in the future, particularly if new employees join the Company after having worked for a competing company. Such litigation could be very expensive to defend, regardless of the merits of the claims.

DEPENDENCE ON SUPPLIERS

Suppliers in the specialized, high technology sector of the optical communications industry are generally not as plentiful or, in some cases, as reliable, as suppliers in more mature industries. The Company is dependent on a limited number of suppliers for components of the MultiWave 1600 system as well as equipment used to manufacture the MultiWave 1600 system. The MultiWave 1600 system has over 600 components, and certain key optical and electronic components are currently available only from a sole source, where the Company has identified no other supplier for the component. While alternative suppliers have been identified for certain other key optical and electronic components, those alternative sources have not been qualified by the Company. The Company has to date conducted its business with suppliers through the issuance of conventional purchase orders against the Company's forecasted requirements. The Company is seeking to negotiate long term supply agreements with key suppliers, but currently has no such agreements. The Company has from time to time experienced minor delays in the receipt of key components, and any future difficulty in obtaining sufficient and timely delivery of them could result in delays or reductions in product shipments which, in turn, could have a material adverse effect on the Company's business, financial condition and results of operations. In addition, the Company's strategy to have portions of its final product assembled and, in certain cases, tested, by third parties involves certain risks, including the potential absence of adequate capacity, the unavailability of or interruptions in access to certain process technologies, and reduced control over delivery sched-

ules, manufacturing yields, quality and costs. In the event that any significant supplier or subcontractor were to become unable or unwilling to continue to manufacture and/or test the Company's systems in required volumes, the Company would have to identify and qualify acceptable replacements. This process could also be lengthy and no assurance can be given that any additional sources would become available to the Company on a timely basis. A key item of equipment used to manufacture the MultiWave 1600 system is available only from a sole source. A delay or reduction in component or equipment shipments, an increase in component or equipment costs or a delay or increase in costs in the assembly and testing of products by third party subcontractors could materially and adversely affect the Company's business, financial condition and results of operations.

COMPETITORS AS SUPPLIERS

Certain of the Company's component suppliers are both primary sources for such components and major competitors in the market for system equipment. For example, the Company buys certain key components from Lucent, Alcatel, Nortel, NEC and Siemens, each of which offers optical communications systems and equipment which are competitive with the Company's MultiWave 1600 system. Lucent is the sole source of two integrated circuits and is one of two suppliers of Erbium-doped fiber. Alcatel and Nortel are suppliers of lasers used in the MultiWave 1600 system. NEC is a supplier of certain testing equipment. The Company's business, financial condition and results of operations could be materially and adversely affected if these supply relationships were to decline in reliability or otherwise change in any manner adverse to the Company.

LIMITED OPERATING HISTORY; HISTORY OF LOSSES

The Company was founded in November 1992 and introduced its MultiWave 1600 system in field trials in May 1996. Accordingly, the Company has only a limited operating history upon which an evaluation of the Company, its product and prospects can be based. The Company's prospects must be considered in light of the risks, expenses and difficulties frequently encountered by companies in their early stage of development, particularly companies in new and rapidly evolving markets and companies experiencing rapid expansion in their operations. To address these risks, the Company must, among other things, respond to competitive developments, continue to attract, retain and motivate qualified management and other employees, continue to upgrade its technologies and commercialize products and services which incorporate such technologies and achieve market acceptance for its MultiWave 1600 system. There can be no assurance that the Company will be successful in addressing such risks. The Company incurred net losses in each quarter from inception through the second quarter of fiscal 1996. While the Company reported net income for fiscal 1996, there can be no assurance that the Company will sustain profitability. See "Management's Discussion and Analysis of Financial Condition and Results of Operations".

DEPENDENCE ON KEY PERSONNEL

The Company's success depends to a significant extent upon a number of key technical and management employees. The loss of the services of any of the Company's key employees, none of whom is bound to a term of employment by an employment agreement, would have a material adverse effect on the Company. The Company generally does not maintain insurance policies on the lives of such employees. The Company's success will also depend in large part upon its ability to attract and retain highly-skilled technical, managerial, sales and marketing personnel, particularly those skilled and experienced with optical communications equipment. Competition for such personnel is intense and there can be no assurance that the Company will be successful in retaining its existing key personnel and in attracting and retaining the personnel it requires. Failure to attract and retain key personnel will have a material adverse effect on the Company's business, financial condition and results of operations.

DISCRETIONARY USE OF PROCEEDS

The net proceeds to the Company from the Offerings, estimated at approximately $82.6 million, will be used for general corporate purposes and have not been designated for any particular purpose. Accordingly, the Company will have broad discretion as to the application of such proceeds. See "Use of Proceeds".

SHARES ELIGIBLE FOR FUTURE SALE

Sales of substantial amounts of Common Stock in the public market after the Offerings could adversely affect prevailing market prices for the Common Stock. The 5,000,000 shares of Common Stock offered hereby will be freely tradeable without restriction in the public market as of the date of this Prospectus. Beginning 90 days after the date of this Prospectus, approximately shares will become eligible for sale in the public market, subject in some cases to the volume and other restrictions of Rule 144 under the Securities Act of 1933, as amended (the "Securities Act"). Of these shares, holders of shares and options and warrants to purchase shares are subject to lock-up agreements. Shares covered by these lock-up agreements are subject to restrictions on resale in the public market for a period of 180 days following the date of this Prospectus, subject to release, directly or indirectly at the discretion of the Representatives of the Underwriters. Upon the expiration of the lock-up period, approximately shares will become eligible for sale in the public market subject in some cases to the volume and other restrictions of Rule 144 under the Securities Act. The holders of approximately 74,815,680 shares of Common Stock are entitled to certain registration rights with respect to such shares under the Securities Act. In addition, the Company intends to file a registration statement under the Securities Act promptly following the effective date of this Registration Statement to register all of the shares of Common Stock issued or reserved for issuance upon the exercise of options issued or that may be issued under the Company's Amended and Restated 1994 Stock Option Plan and 1996 Outside Directors Stock Option Plan. As of October 31, 1996, there were outstanding options for the purchase of 11,032,960 shares, of which options for approximately 2,684,355 shares were vested. See "Management -- Stock Plans," "Underwriting" and "Shares Eligible for Future Sale".

NO PRIOR MARKET; POSSIBLE VOLATILITY OF STOCK PRICE

Prior to the Offerings, there has been no public market for the Common Stock of the Company. The initial public offering price will be determined by negotiations among the Company and the Representatives of the Underwriters. See "Underwriting" for a discussion of the factors to be considered in determining the initial public offering price. There can be no assurance that an active public market will develop or be sustained after the Offerings or that the market price of the Common Stock will not decline below the public offering price. Future announcements concerning the Company or its competitors, quarterly variations in operating results, announcements of technological innovations, the introduction of new products or changes in product pricing policies by the Company or its competitors, proprietary rights or product liability litigation or changes in earnings estimates by analysts could cause the market price of the Common Stock to fluctuate substantially. In addition, stock prices for many technology companies fluctuate widely for reasons which may be unrelated to operating results. These fluctuations, as well as general economic, political and market conditions such as recessions, international instabilities or military conflicts, may materially and adversely affect the market price of the Common Stock.

CONTROL BY EXISTING STOCKHOLDERS

The Company's officers, directors and their affiliates will, in the aggregate, beneficially own approximately 54.7% of the Company's outstanding shares after the Offerings. As a result, these stockholders, if acting together, would be able effectively to control substantially all matters requiring approval by the stockholders of the Company, including the election of directors. This ability may have the effect of delaying or preventing a change in control of the Company, or causing

a change in control of the Company which may not be favored by the Company's other stockholders.

EFFECT OF CERTAIN CHARTER, BYLAW AND OTHER PROVISIONS

Certain provisions of the Company's Third Amended and Restated Certificate of Incorporation, as amended (the "Certificate of Incorporation"), and bylaws and certain other contractual provisions could have the effect of making it more difficult for a third party to acquire, or of discouraging a third party from attempting to acquire, control of the Company. Such provisions could limit the price that certain investors might be willing to pay in the future for shares of the Company's Common Stock. Certain of these provisions allow the Company to issue preferred stock with rights senior to those of the Common Stock without any further vote or action by the stockholders, provide for a classified board of directors, eliminate the right of the stockholders to call a special meeting of stockholders, eliminate the right of stockholders to act by written consent, and impose various procedural and other requirements which could make it difficult for stockholders to effect certain corporate actions.

LITIGATION

The Company and certain directors are defendants in a lawsuit recently brought by entities controlled by a stockholder of the Company concerning alleged entitlement to additional shares of Convertible Preferred Stock. See "Business -- Legal Proceedings". No assurance can be given that this lawsuit will not result in an adverse effect on the Company's business, financial condition or results of operations.

IMMEDIATE AND SUBSTANTIAL DILUTION

Purchasers of the Common Stock offered hereby will suffer immediate and substantial dilution of $16.62 per share in the net tangible book value of the Common Stock from the initial public offering price (at an assumed initial public offering price of $18.00 per share). To the extent outstanding options to purchase the Company's Common Stock are exercised, there will be further dilution. See "Dilution".

USE OF PROCEEDS

The principal purpose of the Offerings is to increase the Company's working capital and equity base, create a public market for the Company's Common Stock, facilitate future access to public capital markets and provide increased visibility and credibility for the Company in its marketplace. The net proceeds to the Company from the sale of the 5,000,000 shares of Common Stock offered by the Company hereby are estimated to be approximately $82.6 million ($95.2 million if the over-allotment options are exercised in full) at an assumed initial public offering price of $18.00 per share, after deducting the underwriting discount and estimated offering expenses. The Company also expects to receive additional proceeds of approximately $0.6 million from the exercise of certain outstanding warrants to purchase 300,000 shares of Convertible Preferred Stock which are convertible into 1,500,000 shares of Common Stock.

The Company has no current plans for the net proceeds of the Offerings. The Company intends to add the net proceeds from the Offerings and from the exercise of warrants to working capital, where such proceeds will be available to support general corporate purposes which are expected to include capital equipment expenditures to support selling and marketing, manufacturing and product development activities. A portion of the proceeds may also be used to acquire or invest in complementary businesses or products or to obtain the right to use complementary technologies. From time to time, in the ordinary course of business, the Company evaluates potential acquisitions of such businesses, products or technologies. However, the Company has no present understandings, commitments or agreements with respect to any material acquisition of other businesses, products or technologies. Pending use of the net proceeds for any purposes, the Company intends to invest such funds in short-term, interest-bearing, investment grade obligations.

DIVIDEND POLICY

The Company has never paid or declared any cash dividends on its capital stock. It is the present policy of the Company to retain earnings to finance the growth and development of the business and, therefore, the Company does not anticipate declaring or paying cash dividends on its Common Stock in the foreseeable future. In addition, the Company's credit agreement with Mercantile-Safe Deposit & Trust Company prohibits the Company from paying cash dividends on its capital stock.

CAPITALIZATION

The following table sets forth the capitalization of the Company as of October 31, 1996 (i) on an actual basis and (ii) as adjusted to reflect the exercise of certain outstanding warrants to purchase 300,000 shares of Convertible Preferred Stock which are convertible into 1,500,000 shares of Common Stock of the Company, the conversion of all outstanding shares of Convertible Preferred Stock into 73,315,740 shares of Common Stock upon the closing of the Offerings and the sale of 5,000,000 shares of Common Stock offered by the Company hereby (at an assumed initial public offering price of $18.00 per share) and the application of the estimated net proceeds therefrom. This table should be read in conjunction with the Company's financial statements and notes thereto appearing elsewhere in this Prospectus.

	OCTOBER 31, 1996	
	ACTUAL	AS ADJUSTED
	(IN THOUSANDS)	
Long-Term Debt	$ 2,673	$ 2,673
Series A Convertible Preferred Stock, $.01 par value (the "Series A Preferred Stock"); 4,500,000 shares authorized, 3,590,157 shares issued and outstanding (actual); no shares authorized, issued and outstanding (as adjusted)(1)	3,492	--
Series B Convertible Preferred Stock, $.01 par value (the "Series B Preferred Stock"); 8,000,000 shares authorized, 7,354,092 shares issued and outstanding (actual); no shares authorized, issued and outstanding (as adjusted)(1)	10,962	--
Series C Convertible Preferred Stock, $.01 par value (the "Series C Preferred Stock"); 3,750,000 shares authorized, 3,718,899 shares issued and outstanding (actual); no shares authorized, issued and outstanding (as adjusted)(1)	25,950	--
Stockholders' equity:		
Preferred Stock, $.01 par value; no shares authorized, issued and outstanding (actual); 20,000,000 shares authorized, no shares issued and outstanding (as adjusted)(2)	--	--
Common Stock, $.01 par value, 180,000,000 shares authorized; 13,191,585 shares issued and outstanding (actual); 93,007,325 shares issued and outstanding (as adjusted)(2)(3)	132	930
Additional paid-in capital	339	123,145
Notes receivable from stockholders	(60)	(60)
Retained earnings	4,559	4,559
Total stockholders' equity	4,970	128,574
Total capitalization	$48,047	$ 131,247

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(1) See Note 8 of Notes to Financial Statements.

(2) See Note 14 of Notes to Financial Statements.

(3) Excludes 19,426,505 shares of Common Stock reserved for issuance under the Company's Amended and Restated 1994 Stock Option Plan, under which options to purchase 10,957,960 shares at a weighted average exercise price of $.96 were outstanding as of October 31, 1996, and 750,000 shares reserved for issuance under the Company's 1996 Outside Directors Stock Option Plan, under which options to purchase 75,000 shares at a weighted average exercise price of $2.30 were outstanding as of October 31, 1996. Also excludes 675,000 shares of Common Stock reserved for issuance pursuant to the exercise of warrants outstanding as of October 31, 1996. See "Management -- Stock Plans" and Note 9 of Notes to Financial Statements.

DILUTION

The pro forma net tangible book value of the Company as of October 31, 1996 was $46.0 million or approximately $.52 per share of Common Stock. Pro forma net tangible book value per share represents the amount of the Company's pro forma stockholders' equity, less intangible assets, divided by 88,007,325 pro forma shares of Common Stock outstanding as of October 31, 1996. The preceding pro forma information gives effect to (i) the conversion of the Company's Convertible Preferred Stock into 73,315,740 shares of Common Stock and (ii) the exercise of certain warrants to purchase 300,000 shares of Convertible Preferred Stock which are convertible into 1,500,000 shares of Common Stock. Assuming the sale by the Company of 5,000,000 shares of Common Stock offered hereby at an assumed initial public offering price of $18.00 per share and receipt of the estimated net proceeds therefrom, the pro forma adjusted net tangible book value of the Company as of October 31, 1996 would have been approximately $128.6 million or $1.38 per share. This represents an immediate increase in such net tangible book value of $.86 per share to existing stockholders and an immediate dilution of $16.62 per share to new investors. The following table illustrates this per share dilution:

Assumed initial public offering price per share		$ 18.00
Pro forma net tangible book value per share as of October 31, 1996	$.52	
Increase per share of Common Stock attributable to the Offerings	.86	
Pro forma net tangible book value per share after the Offerings		1.38
Net tangible book value dilution per share to new investors		$ 16.62

The following table summarizes, on a pro forma basis as of October 31, 1996, the total number of shares of Common Stock purchased from the Company, the total consideration paid to the Company and the average price per share paid, by existing stockholders and by new investors (at an assumed initial public offering price of $18.00 per share and without giving effect to the underwriting discount and estimated offering expenses):

	SHARES PURCHASED		TOTAL CONSIDERATION		AVERAGE PRICE PER SHARE
	NUMBER	PERCENT	AMOUNT	PERCENT	
Existing stockholders(1)	88,007,325	94.6%	$ 41,416,000	31.5%	$ .47
New investors	5,000,000	5.4	90,000,000	68.5	$ 18.00
Total	93,007,325	100.0%	$131,416,000	100.0%	

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(1) Excludes 19,426,505 shares of Common Stock reserved for issuance under the Company's Amended and Restated 1994 Stock Option Plan, under which options to purchase 10,957,960 shares at a weighted average exercise price of $.96 were outstanding as of October 31, 1996, and 750,000 shares reserved for issuance under the Company's 1996 Outside Directors Stock Option Plan, under which options to purchase 75,000 shares at a weighted average exercise price of $2.30 were outstanding as of October 31, 1996. Also excludes 675,000 shares of Common Stock reserved for issuance pursuant to the exercise of warrants outstanding as of October 31, 1996. See "Management -- Stock Plans" and Note 9 of Notes to Financial Statements.

SELECTED FINANCIAL DATA

The following selected financial data as of October 31, 1995 and 1996 and for the years ended October 31, 1994, 1995 and 1996 have been derived from the audited financial statements of the Company included elsewhere in this Prospectus. The selected financial data as of October 31, 1993 and 1994 and for the period from inception (November 2, 1992) through October 31, 1993 have been derived from the Company's accounting records.

The data set forth below are qualified by reference to, and should be read in conjunction with, the financial statements and notes thereto and "Management's Discussion and Analysis of Financial Condition and Results of Operations" thereof included elsewhere in this Prospectus.

	FOR THE PERIOD FROM INCEPTION (NOVEMBER 2, 1992) THROUGH OCTOBER 31, 1993(1)	YEAR ENDED OCTOBER 31,(1)		
		1994	1995	1996
	(IN THOUSANDS EXCEPT PER SHARE DATA)			
STATEMENT OF OPERATIONS DATA:				
Revenue	$ --	$ --	$ --	$ 54,838
Cost of goods sold	--	--	--	21,844
Gross profit	--	--	--	32,994
Operating expenses:				
Research and development	--	1,287	6,361	8,922
Selling and marketing	--	295	481	3,780
General and administrative	123	787	896	3,905
Total operating expenses	123	2,369	7,738	16,607
Income (loss) from operations	(123)	(2,369)	(7,738)	16,387
Other income (expense), net	--	(38)	109	581
Income (loss) before income taxes	(123)	(2,407)	(7,629)	16,968
Provision for income taxes	--	--	--	2,250
Net income (loss)	$(123)	$(2,407)	$(7,629)	$ 14,718
Pro forma net income per common and common equivalent share(2)				$ .15

	OCTOBER 31,(1)			
	1993	1994	1995	1996
	(IN THOUSANDS)			
BALANCE SHEET DATA:				
Cash and cash equivalents	$ 10	$ 1,908	$ 5,032	$22,557
Working capital	(35)	932	3,069	35,856
Total assets	13	2,497	7,383	67,301
Long-term debt, excluding current portion	--	392	856	2,673
Mandatorily redeemable preferred stock	--	3,492	14,454	40,404
Stockholders' equity (deficit)	(35)	(2,388)	(9,930)	4,970

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(1) The Company has a 52 or 53 week fiscal year which ends on the Saturday nearest to the last day of October in each year. For purposes of financial statement presentation, each fiscal year is described as having ended on October 31. Fiscal 1994 and 1995 comprised 52 weeks and fiscal 1996 comprised 53 weeks.

(2) The pro forma weighted average common and common equivalent shares outstanding for the year ended October 31, 1996 was 99,107,000. Pro forma net income per common and common equivalent share is computed using the weighted average number of common and common equivalent shares outstanding. Weighted average common and common equivalent shares include Common Stock, stock options and warrants using the modified treasury stock method and the assumed conversion of all outstanding shares of Convertible Preferred Stock into Common Stock. See Note 1 of Notes to Financial Statements.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis should be read in conjunction with "Selected Financial Data" and the Company's financial statements and notes thereto included elsewhere in this Prospectus. The information in this Prospectus contains certain forward-looking statements that involve risks and uncertainties. The Company's actual results may differ materially from the results discussed in the forward-looking statements. Factors that might cause such a difference include, but are not limited to, those discussed in "Risk Factors", "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Business" as well as those discussed elsewhere in this Prospectus.

OVERVIEW

CIENA was incorporated in November 1992. From incorporation through April 1994, the Company's principal objective was to secure sufficient equity financing to enable the Company to commence product development efforts based on its optical communications technology. The Company secured its initial round of equity financing in April 1994.

The engineering design and development efforts begun in April 1994 took on greater product focus in early 1995 as the Company began working with Sprint to refine the Company's design of its DWDM system to meet Sprint's requirements. Satisfactory preliminary laboratory testing at Sprint in October 1995 led to the execution of a three-year non-exclusive supply agreement in December 1995. The agreement called for factory acceptance testing, followed by field testing, prior to any obligation of Sprint to pay for any systems. The Company passed the factory acceptance testing in April 1996, and shipped commercially deployable systems for field testing in May 1996. Field testing was satisfactorily passed in July 1996, and live traffic began being carried over the Company's MultiWave 1600 system in October 1996. The Company made initial contact with WorldCom in February 1995 and WorldCom agreed in July 1996 to commence field testing of the MultiWave 1600 system in August 1996. A supply agreement with WorldCom, which, subject to certain conditions, is exclusive through December 1997, was signed in September 1996. The Company also has shipped a MultiWave 1600 system for Teleway's network in Japan.

The Company recognizes product revenue in accordance with the shipping terms specified. For transactions where the Company has yet to obtain customer acceptance or has agreements pertaining to installation services, revenue is deferred until no significant obligations remain. Revenue for installation services is recognized as the services are performed. Amounts received in excess of revenue recognized are recorded as deferred revenue. For distributor sales where risks of ownership have not transferred, the Company recognizes revenue when the product is shipped through to the end user. The Company's initial recognition of revenue from Sprint occurred in the quarter ended July 31, 1996, after notification by Sprint of satisfactory completion of field testing. All of the Company's revenue of $54.8 million through October 31, 1996 was derived from MultiWave 1600 system sales to Sprint.

The Company is currently engaged in continued efforts to expand its manufacturing capabilities. Approximately one-third of the Company's current 50,500 square foot facility in Savage, Maryland is used for manufacturing operations; the Company intends to convert the entire facility to manufacturing operations by April 30, 1997, while transferring other operating functions to an approximately 96,000 square foot facility, approximately 10 miles from Savage, near the Baltimore/Washington International Airport.

RESULTS OF OPERATIONS

FISCAL YEARS ENDED 1994, 1995 AND 1996

For the fiscal years ended October 31, 1994 and 1995, the Company was in the development stage, generated no revenue and had losses from operations of $2.4 million and $7.7 million, respectively. By the end of fiscal year 1995, the Company had begun to devote substantial resources to the development of manufacturing capabilities and the expansion of its selling and marketing efforts and general and administrative support infrastructure. The level of expenditures increased toward the end of fiscal 1996, as increased demand for the Company's MultiWave 1600 system required rapid expansion of manufacturing capabilities and of technical and field support

staff. For the fiscal year ended October 31, 1996, the Company generated revenue of $54.8 million, had gross profit of $33.0 million and incurred operating expenses of $16.6 million.

QUARTERLY RESULTS OF OPERATIONS

The tables below set forth the operating results and percentage of revenue represented by certain items in the Company's statements of operations for each of the four quarters in the fiscal year ended October 31, 1996. This information is unaudited, but in the opinion of the Company reflects all adjustments (consisting only of normal recurring adjustments) that the Company considers necessary for a fair presentation of such information in accordance with generally accepted accounting principles. The results for any quarter are not necessarily indicative of results for any future period. Operating results as a percentage of revenue for the quarters ended January 31 and April 30, 1996 are excluded due to the absence of revenue for those periods:

	FISCAL QUARTER ENDED			
	JAN. 31, 1996	APR. 30, 1996	JUL. 31, 1996	OCT. 31, 1996
	(IN THOUSANDS, EXCEPT PER SHARE DATA)			
Revenue	$ --	$ --	$ 16,923	$ 37,915
Cost of goods sold	--	--	7,346	14,498
Gross profit	--	--	9,577	23,417
Operating expenses:				
Research and development	2,473	1,746	1,964	2,739
Selling and marketing	491	700	1,130	1,459
General and administrative	499	526	1,064	1,816
Total operating expenses	3,463	2,972	4,158	6,014
Income (loss) from operations	(3,463)	(2,972)	5,419	17,403
Other income (expense), net	129	237	75	140
Income (loss) before income taxes	(3,334)	(2,735)	5,494	17,543
Provision (benefit) for income taxes	--	--	(4,600)	6,850
Net income (loss)	$ (3,334)	$ (2,735)	$ 10,094	$ 10,693
Pro forma net income (loss) per common and common equivalent share	$ (.03)	$ (.03)	$ .10	$ .11
Pro forma weighted average common and common equivalent shares outstanding	99,107	99,107	99,107	99,107

	FISCAL QUARTER ENDED			
	JAN. 31, 1996	APR. 30, 1996	JUL. 31, 1996	OCT. 31, 1996
	(AS A PERCENTAGE OF REVENUE)			
Revenue	--	--	100.0%	100.0%
Cost of goods sold	--	--	43.4	38.2
Gross profit	--	--	56.6	61.8
Operating expenses:				
Research and development	--	--	11.6	7.2
Selling and marketing	--	--	6.7	3.8
General and administrative	--	--	6.3	4.8
Total operating expenses	--	--	24.6	15.8
Income (loss) from operations	--	--	32.0	46.0
Other income (expense), net	--	--	0.4	0.3
Income (loss) before income taxes	--	--	32.4	46.3
Provision (benefit) for income taxes	--	--	(27.2)	18.1
Net income (loss)	--	--	59.6%	28.2%

THREE MONTHS ENDED JANUARY 31, 1996, APRIL 30, 1996, JULY 31, 1996 AND OCTOBER 31, 1996

REVENUE. The Company began shipping the MultiWave 1600 system for field testing in May 1996 with customer acceptance by Sprint occurring in July 1996. Revenue totalled $16.9 million for the quarter ended July 31, 1996. Revenue for the quarter ended October 31, 1996 increased 124% over the previous quarter to $37.9 million. The increase in revenue from quarter to quarter was due to the increased sales to Sprint influenced by increases in the Company's manufacturing capacity and customer confidence. While the Company achieved quarter to quarter revenue growth

of 124% from the third to fourth quarters of fiscal 1996, the Company does not expect to sustain this rate of sequential quarterly revenue growth in future periods. See "Risk Factors".

GROSS PROFIT. Cost of goods sold consists of component costs, direct compensation costs, warranty and other contractual obligations, royalties, license fees and overhead related to the Company's manufacturing operations. Gross margins were 56.6% and 61.8% for the quarters ended July 31, 1996 and October 31, 1996, respectively. The increase in gross margin was affected by fixed overhead costs being allocated over a larger revenue base and an improvement in manufacturing efficiencies. The Company's gross margins in the future may be affected by a number of factors, including competitive market pricing, manufacturing volumes and efficiencies and fluctuations in component costs. The Company's future gross margins may also be affected by the mix of product features and configurations sold in a period as well as the extent of services provided.

RESEARCH AND DEVELOPMENT EXPENSES. Research and development expenses consist of compensation costs for research and development staff, depreciation of test equipment, certain software development costs and prototype materials. Research and development expenses fluctuated from $2.5 million for the quarter ended January 31, 1996 to $1.7 million, $2.0 million and $2.7 million for the quarters ended April 30, July 31 and October 31, 1996, respectively. First quarter activity was attributable in part to selecting materials and equipment while building prototype systems which in turn supported the development activities for the second and third quarters. The fourth quarter development expenditures of $2.7 million, which were significantly greater in absolute dollars than the previous two quarters, were related to increased staffing levels, outside consulting services and the purchase of prototype materials for the development of the optical add/drop multiplexer. During the third and fourth quarters, research and development expenses were 11.6% and 7.2% of revenue, respectively. The decrease in research and development expenses as a percentage of revenue from quarter to quarter was a function of the rapid revenue growth. The Company expects that its research and development expenditures will generally continue to increase in absolute dollars during fiscal 1997 to support the continued development of new MultiWave features and products and develop possible product cost reductions. The Company has expensed research and development costs as incurred.

SELLING AND MARKETING EXPENSES. Selling and marketing expenses consist of compensation costs for selling and marketing staff, certain pre-sales and post-sales support, travel expenses, trade shows and other marketing programs. Selling and marketing expenses increased from quarter to quarter during fiscal year 1996. The costs incurred were $0.5 million, $0.7 million, $1.1 million and $1.5 million for the quarters ended January 31, April 30, July 31, and October 31, 1996, respectively. The quarterly increases were primarily the result of increased payroll costs reflecting the hiring of new employees for sales, technical assistance and field support for the Company's customers. Other factors contributing to the increases in the third and fourth quarters included commissions earned and trade show participation. During the third and fourth quarters, selling and marketing expenses were 6.7% and 3.8% of revenue, respectively. The decrease in selling and marketing expenses as a percentage of revenue was a function of the rapid revenue growth. The Company anticipates that its selling and marketing expenses will increase in absolute dollars during fiscal 1997 as additional personnel are hired and offices are opened to allow the Company to pursue new market opportunities and service new customers.

GENERAL AND ADMINISTRATIVE EXPENSES. General and administrative expenses consist principally of expenses for finance, administration and general management activities. The expenses totalled $0.5 million, $0.5 million, $1.1 million and $1.8 million for the quarters ended January 31, April 30, July 31, and October 31, 1996, respectively. The increases in general and administrative expenses in the third and fourth quarters compared to the first and second quarters were primarily due to increased staffing. The Company also incurred significant legal expenses in the fourth quarter of 1996 in connection with certain litigation. The Company believes that its general and administrative expenses will increase in fiscal 1997 as a result of the expansion of the Company's

administrative staff required to support its expanding operations and an increase in expenses associated with operating as a public company.

OTHER INCOME (EXPENSE), NET. Other income (expense), net, consists of interest income earned on the Company's cash and cash equivalents, net of interest expense associated with the Company's debt obligations. The Company believes that other income (expense), net, will fluctuate from quarter to quarter primarily depending upon the level of the Company's cash balances, funding required for daily operations and the retirement of its debt obligations. The Company believes that other income will increase in absolute dollars in fiscal 1997 as a result of the investment of the net proceeds of the Offerings.

PROVISION (BENEFIT) FOR INCOME TAXES. During fiscal years 1993 through 1995 and the first two quarters of fiscal 1996, a valuation allowance had been recorded to offset the Company's net deferred tax assets, including the possible future benefit from realization of tax operating loss carryforwards. The recording of such valuation allowance was based upon management's determination that realization of the net deferred tax assets was not "more likely than not" (as defined in Statement of Financial Accounting Standards No. 109, "Accounting for Income Taxes"). During the third quarter of 1996, the Company received product acceptance from its initial customer and started profitable operations, at which time the Company fully reversed its previously established deferred tax valuation allowance. The tax benefit of $4.6 million recorded in the third quarter reflects the impact of such reversal. See Note 10 of Notes to Financial Statements.

LIQUIDITY AND CAPITAL RESOURCES

Since inception, the Company has financed its operations and capital expenditures principally through the sale of Convertible Preferred Stock for proceeds totalling $40.6 million and capital lease financing totalling $4.1 million. At the end of fiscal 1996, the Company's principal source of liquidity was its cash of $22.6 million. In November 1996, the Company established an unsecured $15.0 million bank revolving line of credit. Borrowings under this line bear interest at the bank's prime rate. As of November 30, 1996, there were no borrowings outstanding under the line of credit. The line of credit expires in November 1997 and requires that the Company maintain certain financial ratios and minimum profitability and tangible net worth. See Note 6 of Notes to Financial Statements.

Capital equipment expenditures from inception through October 31, 1996 totalled $11.7 million. These expenditures were primarily for test, manufacturing and computer equipment. The Company expects additional capital equipment expenditures to be made during fiscal 1997 to support selling and marketing, manufacturing and product development activities. In addition, since its inception the Company has used $2.4 million for the construction of leasehold improvements and expects to use an additional $5.0 million of capital in the construction of leasehold improvements for its new facility and the conversion to full manufacturing of its current facility during fiscal 1997.

The Company believes that the proceeds from the Offerings, combined with its existing cash balance, its line of credit and the cash flows expected from future operations, will be sufficient to meet the Company's capital requirements for at least the next 18 to 24 months.

BUSINESS

OVERVIEW

CIENA designs, manufactures and sells DWDM systems for long distance fiberoptic telecommunications networks. CIENA's DWDM solution, the MultiWave 1600 system, alleviates capacity, or bandwidth, constraints in high traffic fiberoptic routes without requiring the installation of new fiber. In addition, the MultiWave 1600 system enables flexible provisioning of additional bandwidth without requiring an upgrade of existing network transmission equipment. The MultiWave 1600 system can increase the carrying capacity of a single optical fiber 16 fold by allowing simultaneous transmission of up to 16 optical channels per fiber. This permits fiber currently carrying signals at transmission speeds of up to 2.5 Gb/s to carry up to 40 Gb/s. CIENA's MultiWave 1600 system includes optical transmission terminals, optical amplifiers and network management software. CIENA's system is designed with an open architecture that allows the MultiWave 1600 system to interoperate with carriers' existing fiberoptic transmission systems having a broad range of transmission speeds and signal formats.

The Company believes it is a worldwide market leader in field deployment of open architecture DWDM systems. CIENA's MultiWave 1600 system was introduced into field trials in the long distance network of Sprint in May 1996 and WorldCom in August 1996. The MultiWave 1600 system began carrying live traffic in the Sprint network in October 1996. The Company has a three-year non-exclusive supply agreement with Sprint which expires in December 1998, a supply agreement with WorldCom which, subject to certain conditions, is exclusive through December 1997 and an agreement to supply Teleway with the Company's MultiWave 1600 system. Through October 31, 1996, the Company recorded $54.8 million in revenue, all of which was derived from sales of the MultiWave 1600 system to Sprint. The Company is actively seeking additional customers among other long distance carriers in the worldwide telecommunications market.

INDUSTRY BACKGROUND

The four largest long distance carriers in the United States, AT&T Corporation ("AT&T"), MCI Communications Inc. ("MCI"), Sprint and WorldCom, have widely deployed fiberoptic cable forming the backbone of their long distance networks. Growth in utilization of long distance networks has increased both the type of traffic -- from voice alone to voice, data and video -- and the volume of traffic carried over these fiberoptic networks. This growth in utilization has been caused by factors such as:

- increased use of office automation, distributed computing, electronic mail, facsimile transmission, electronic transaction processing, video conferencing, remote access telecommuting, local and wide area networking and the growing use of the Internet;

- widespread deregulation of the telecommunications industry and the consequent increase in competition among, and lowering of prices by, service providers in the long distance market; and

- development of high bandwidth, network access technologies, such as cable modems, hybrid fiber coaxial architectures and digital subscriber lines, that permit users to transmit and receive high volumes of information.

Increased utilization creates transmission bottlenecks on heavily used routes that were originally designed for significantly less traffic. Although exact statistics are not available, the Company believes that this increase in type and volume of utilization has caused some long distance telecommunications carriers to handle traffic over certain long distance routes at or near the maximum capacity of the existing installed fiber and electronic-based transmission systems currently in use.

The growth in demand for, and the resulting strains on, capacity of the fiberoptic telecommunications networks have been coupled with an increasing need for network reliability to support

mission critical data communications. As end-users become more dependent on around-the-clock network availability, they become less tolerant of service interruptions which can be caused by factors such as equipment failure, fiber cuts or high traffic volume.

This demand for greater reliability has led long distance carriers to adopt "ring architecture" in which long distance routes are linked in a ring configuration so that in the event of a fiberoptic cable cut or other equipment failure between two points of the ring, the signal can be immediately redirected through the reverse "protection path" of the ring. The service break associated with a fiber cut or other equipment failure in a network using ring architecture can be restored in approximately 50 milliseconds, which is essentially unnoticeable by the consumer. However, many ring architectures now being deployed demand twice as much fiber capacity (due to the need to maintain a redundant alternative path to serve as a protection path for each fiber in use) as non-ring based architectures. AT&T, Sprint and WorldCom have all announced an intention to implement ring architecture for their networks, which will place greater bandwidth demand on their existing fiberoptic networks.

The shortage of bandwidth available in existing fiberoptic networks can be addressed in several ways. One solution is to install additional fiberoptic cable along existing routes or in new fiberoptic routes. However, the installation of additional fiber, and particularly the creation of new fiberoptic routes, is a costly and time-consuming process, involving extensive negotiation and acquisition of necessary rights of way, as well as the actual construction effort. The Company believes that the average cost of creating new underground fiberoptic routes is approximately $43,400 per kilometer ($70,000 per mile). Another solution is to increase the transmission speed of the installed systems. However, this approach is also costly. Existing long distance telecommunications routes generally use TDM fiberoptic transmission terminals at either end of the route to send and receive signals. Opto-electronic signal regenerators ("regenerators") are then placed between terminals along the fiberoptic cables, spaced at regular intervals of 35-50 kilometers (approximately 22 to 31 miles). These regenerators process, amplify and re-time the signal through a process that involves conversion of the optical signal to electronic form and back to optical form. However, terminals and regenerators are "bit-rate specific," meaning upgrade of a route segment to handle higher transmission speeds requires replacement of all terminals and regenerators. A large number of regenerators are needed on a route of significant length, and any upgrade of a route segment using TDM technology would require a significant investment in new equipment as well as significant installation costs.

Certain types of existing fiber have been shown to display incompatibility problems with very high speed TDM equipment. "Non-dispersion shifted" fiber constitutes the majority of fiber installed in North America and Europe, while "dispersion shifted" fiber has been popular in Japan. "Reduced dispersion" fiber is a recent development that is beginning to see applications in some new fiber installations. At lower transmission rates, such as 2.5 Gb/s, TDM-based equipment is technically viable for use with these fiber types and widely available commercially. As an upgrade to existing telecommunications links with transmission rates below 2.5 Gb/s, TDM at 2.5 Gb/s can represent an alternative incremental approach to the enhancement of transmission capacity. However, at the 10 Gb/s transmission rate, transmission over non-dispersion shifted fiber can result in significant impairments to and distortion of the signal.

CIENA and others have observed that the potential for an alternative technological solution to laying new fiber or upgrading capacity to higher electronic transmission rates exists because the bandwidth intrinsic to existing fiber is vastly underutilized. For example, transmission systems which use TDM and transmit at 2.5 Gb/s use substantially less than one percent of the inherent bandwidth of the fiber currently deployed in United States fiberoptic networks. An optical multiplexing technology called wavelength division multiplexing ("WDM") has long been recognized for its potential to better utilize fiber bandwidth by enabling the simultaneous transmission of multiple optical signals on discrete channels on a single fiber. Until recently, however, technological barriers have limited exploitation of the potential of WDM as a commercially viable solution. DWDM is an

extension of WDM technology and refers to the simultaneous transmission of more than four channels on a single fiber.

THE CIENA SOLUTION

CIENA has deployed a DWDM system that enhances the transmission capacity of a single optical fiber 16 fold, without requiring significant modification or upgrade to transmission equipment. The MultiWave 1600 system includes terminals, optical amplifiers and network management software that enable simultaneous transmission of up to 16 optical channels on a single fiber at rates of up to 2.5 Gb/s per channel. The MultiWave 1600 system permits the transmission of optical signals over routes of up to 600 kilometers (372 miles) without opto-electronic regeneration. CIENA's implementation of DWDM technology incorporates the following features:

- OPEN ARCHITECTURE SYSTEM. CIENA's system is designed with an open architecture that allows the MultiWave 1600 system to interoperate with carriers' existing fiberoptic transmission systems having a broad range of transmission speeds and signal formats. This approach is distinguished from a closed architecture system design pursued by companies that manufacture other telecommunications equipment and may seek to preserve the market for their network equipment.

- MODULAR DESIGN. The MultiWave 1600 system design is modular and allows capacity-specific configurations and the ability to add additional capacity through a modular upgrade. This enables a customer to select the number of channels to use in a particular fiber and preserves the customer's ability to respond quickly to increased demand for capacity without significant additional equipment purchases.

- TACTICAL IMPLEMENTATION. CIENA's MultiWave 1600 system can be tactically implemented on a route-by-route basis, providing relief on capacity constrained routes without mandating a network-wide architectural or transmission equipment change. In the context of new network construction, the Company believes that its ability to permit 40 Gb/s capacity per fiber, together with the elimination of multiple regenerators, make the MultiWave 1600 system cost-efficient.

- SCALEABLE AMPLIFIERS. The Company's optical amplifiers, when installed to accommodate 16 channels, do not need to be changed as channels are added or as transmission speeds are increased to up to 2.5 Gb/s. Unlike a TDM upgrade solution which involves replacement of all transmission equipment along a fiber route, a channel upgrade of a CIENA MultiWave 1600 system involves no replacement of existing transmission equipment until all 16 channels are in service. Similarly, increases in transmission rates up to a maximum of 2.5 Gb/s do not require replacement of or modification to the optical amplifiers.

- MANAGEMENT SOFTWARE. CIENA's MultiWave 1600 system includes network management software enabling customers to receive early warnings of network problems and to manage and monitor network performance. The Company's commitment to providing standards compliant network management interfaces at all levels, from individual network elements to the element management system, affords rapid integration into existing telecommunication management operations. The Company provides standards compliant network management systems based upon Simple Network Management Protocol (SNMP), Transmission Control Protocol/Internet Protocol (TCP/IP) and the International Telecommunications Union (ITU) Telecommunications Management Network (TMN) standards.

- FIBER COMPATIBILITY. The CIENA MultiWave 1600 system is compatible with dispersion shifted, reduced dispersion and non-dispersion shifted fiber. Non-dispersion shifted fiber constitutes the majority of fiber installed in North America and Europe.

CIENA's MultiWave 1600 system is based upon the use of three core enabling technologies that assist in overcoming many of the constraints that limited commercial introduction of WDM technology: Erbium-doped fiber amplifiers enabling the direct amplification of optical signals without the use of electronic regenerators; in-fiber Bragg gratings enabling precise filtering of multiple optical signals

in a single fiber; and network management software developed by the Company permitting a customer to manage effectively the status and functions of the CIENA MultiWave 1600 system in conjunction with the network operator's management of other parts of its network.

CIENA'S STRATEGY

The Company's strategy is to maintain and build upon its market leadership in the deployment of DWDM systems. Important elements of the Company's strategy include:

- MAINTAIN LEADERSHIP IN DEPLOYMENT OF DWDM IN LONG DISTANCE NETWORKS. The Company believes that the technological, operational and cost benefits of the Company's DWDM systems create competitive advantages for long distance telecommunications carriers worldwide. The Company also believes that achieving early widespread operational deployment of its systems in a particular carrier's network will provide CIENA significant competitive advantages with respect to additional DWDM deployments and channel upgrades within that network and will enhance its marketing to other carriers as a field proven supplier. The Company therefore intends to continue aggressively pursuing DWDM deployment opportunities among long distance carriers in the domestic and foreign long distance markets. The Company will focus its MultiWave product development efforts on expanding the current 16 channel capacity of the MultiWave 1600 system to 40 channels while adding operational features designed to make MultiWave products as attractive and flexible as possible to long distance telecommunications carriers.

- CONTINUE TO EMPHASIZE TECHNICAL SUPPORT AND CUSTOMER SERVICE. The Company markets a technically advanced system to sophisticated customers. The nature of the Company's system and market require a high level of technical support and customer service. The Company expects to have full-time customer support offices in Kansas City, Kansas (to support Sprint), Tulsa, Oklahoma (to support WorldCom) and other selected locations where it develops significant customer relationships, to provide on-going support to its customers.

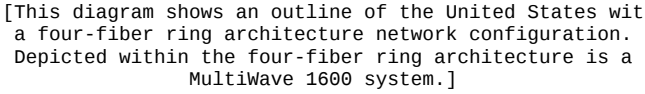
- CONTINUE TO DEVELOP WORLD CLASS MANUFACTURING CAPABILITY. The Company's system serves a mission critical role in its customers' networks. Quality assurance and manufacturing excellence are necessary for the Company to achieve success. CIENA believes it has developed and will continue to enhance a world class manufacturing capability. The Company invested $5.9 million in capital improvements in fiscal 1996 and hired 125 employees in that year to increase manufacturing capacity and efficiency and improve manufacturing quality. The Company is working actively to achieve ISO 9001 certification.

- EXPAND SALES AND MARKETING EFFORTS. The nature of the target customer base for MultiWave 1600 systems requires a focused sales effort on a customer-by-customer basis. The Company will continue to increase its sales and marketing efforts by focusing on the worldwide market of long distance carriers. In fiscal 1996, the Company increased its sales and marketing force by 12 persons. The Company will continue to strengthen its marketing programs and increase its international presence through both direct sales and international distributors.

- LEVERAGE CORE COMPETENCIES IN FIBEROPTIC COMMUNICATIONS. The Company expects to leverage the core competencies it has developed in the design, development, manufacturing and commercial introduction of the MultiWave 1600 system by exploring other areas in the telecommunications market where these competencies can be used to solve related problems. This may take the form of new product development or may involve strategic alliances or acquisitions.

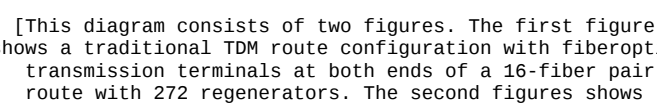
NETWORK ARCHITECTURE

A CIENA MultiWave 1600 system is a combination of equipment and software that is installed on a particular long distance route segment. A MultiWave 1600 system consists of one MultiWave terminal on each end of the route segment, one or more MultiWave optical amplifiers along the route (depending on route length) and CIENA's WaveWatcher network management software. The diagram below depicts an operating configuration of a deployed MultiWave 1600 system in a four-fiber ring architecture network configuration:



The MultiWave terminal at one end of the route multiplexes the customer's optical signals into as many as 16 discrete optical channels and transmits those channels simultaneously on the outbound fiber of the fiber pair. A MultiWave terminal at the other end of the route demultiplexes the inbound multichannel signal into 16 individual signals that are directed to the customer's receivers. Optical amplifiers placed along the route provide optical amplification of the composite multichannel signal over long route lengths. The Company's WaveWatcher software provides continuous network management capability by monitoring system functions.

The diagram below compares (i) traditional transmission equipment configuration for a high traffic (16 signal) long distance route of 600 kilometers (372 miles), using TDM transmission terminals and regenerators with (ii) the same high traffic (16 signal) long distance route configured with a MultiWave 1600 system.



In the TDM configuration above, 16 fiber pairs, and a total of 272 regenerators, are needed to transport 16 channels over the route. Each regenerator converts the channels from optical to electrical and back to optical format at 35-50 kilometer (22 to 31 mile) intervals. In order to upgrade the transmission capacity of the typical TDM network route, as shown forth above, using traditional TDM technology, all the fiberoptic transmission terminals and all 272 regenerators would need to be replaced. This process entails significant equipment costs, requires rerouting of transmissions and can be time-consuming and, potentially, an operational bottleneck. While the TDM configuration above is typical, the actual number of regenerators may be less than depicted above.

By contrast, as shown above, the same high traffic (16 signal) long-distance route can be configured with a MultiWave 1600 system. The 272 regenerators are replaced with four MultiWave optical amplifiers and only one fiber pair is required for transmission of 16 signals. As a result, 15 of the 16 fiber pairs that were previously used are freed for future use. The maintenance costs associated with the 272 regenerators are eliminated and replaced by the lower maintenance costs of four optical amplifiers. Because each regenerator must be housed in a weather-protected, environmentally controlled shelter, elimination of regenerator sites may also significantly lower operational costs. Increasing the availability of a number of fiber pairs is especially significant to carriers that have implemented or are planning to implement ring architectures and those providing leased transmission capacity to other operators.

THE MULTIWAVE 1600 SYSTEM

A MultiWave 1600 system is installed in a discrete route segment defined at each end by the presence of the customer's fiberoptic transmission terminals. The MultiWave 1600 system features

an open architecture which interoperates with a broad range of models of fiberoptic transmission terminals. The MultiWave 1600 system can be flexibly configured based on the customer's capacity needs with up to 16 channels, and the initial channel configuration, if less than 16 channels, can be supplemented whenever additional capacity is needed. The modular design of the MultiWave 1600 system allows the network operator to add capacity without interrupting existing MultiWave traffic.

MULTIWAVE TERMINAL. The CIENA MultiWave terminal is a modular DWDM terminal which can multiplex and amplify signals from transmitters into 16 discrete optical channels for transmission over a pair of fibers to the other MultiWave terminal and demultiplex the received multichannel signal into 16 individual signals. The MultiWave terminal functions in the same manner over a broad range of transmission speeds, up to approximately 2.5 Gb/s per channel, and operates without material modifications to existing fiberoptic transmission systems. Each MultiWave terminal consists of up to two channel shelves (up to eight channels per shelf) and a common equipment shelf. The MultiWave terminal can transport over total route lengths of up to 600 kilometers (372 miles) at up to 2.5 Gb/s per channel without regeneration or impairment of the signal.

MULTIWAVE OPTICAL AMPLIFIER. The CIENA MultiWave optical amplifier is a modular Erbium-doped fiber amplifier that provides direct composite optical amplification of the 16 optical channels carried by the MultiWave 1600 system. A single MultiWave optical amplifier shelf is capable of amplifying the system's entire 40 Gb/s capacity (16 channels times approximately 2.5 Gb/s per channel). CIENA's MultiWave optical amplifiers take the place of the customer's existing regenerators on routes of up to 600 kilometers (372 miles), and can be spaced as much as 120 kilometers (74 miles) apart.

WAVEWATCHER NETWORK MANAGEMENT SYSTEM. WaveWatcher is the MultiWave 1600 system's integrated network management software package. The network element manager uses a separate out-of-band optical service channel to communicate network management information and provides a single view of multiple CIENA systems through graphical user interfaces and supported operating system interfaces. WaveWatcher has been designed to adhere to evolving open system standards for network management software and operates on a UNIX platform. WaveWatcher provides fault, performance, security and configuration management of optical networking systems.

The Company is also introducing an optical add/drop multiplexer to enable carriers to reroute traffic to different geographic areas without requiring extensive termination equipment. A network operator may optically remove up to four channels from the composite signal at a point along a fiber route where the optical add/drop multiplexer is installed. The installation of an additional optical add/drop multiplexer at a different point along that route would enable the network operator to reuse those channels. The optical add/drop multiplexer also will provide optical amplification for up to 16 channels.

A typical MultiWave 1600 system ranges in price from $500,000 to $1,500,000, depending on such factors as customer needs for number of channels, route length (which affects the number of optical amplifiers required), network management software configuration and other negotiated terms and conditions. As required, systems initially configured for less than 16 channels can be upgraded to carry up to 16 channels at additional cost.

PRODUCT DEVELOPMENT

The Company expects the primary focus of its product development efforts will be in the further enhancement and refinement of the MultiWave 1600 system. The Company will focus its product development efforts on expanding the current 16 channel capacity of the MultiWave 1600 system to 40 channels while adding operational features designed to make the Company's products attractive to a wide range of network operators.

The Company has developed core competencies in DWDM technology through the design, development, manufacturing and commercial introduction of the MultiWave 1600 system. In the

future, the Company intends to migrate its core competencies in this area to other segments of the telecommunications network. This migration may take the form of new product development or may involve strategic alliances or acquisitions.

As of October 31, 1996, there were 38 persons working in the Company's research and development area. The Company's research and development expenditures were $1.3 million, $6.4 million and $8.9 million for fiscal 1994, 1995 and 1996, respectively.

CUSTOMERS

SPRINT RELATIONSHIP

In December 1995, the Company entered into a three-year supply agreement with Sprint, with the option for Sprint to extend the term of the agreement for an additional year. Prices for all equipment purchased by Sprint under the terms of the supply agreement are fixed for the initial three-year term but the prices charged to Sprint for any deliverable under the supply agreement will not at any time be higher than the Company's final net price to any "similarly situated customer". The supply agreement does not obligate Sprint to make any minimum purchases from the Company. The agreement requires that the Company set up and maintain, at the Company's expense, certain test facilities for a period of 10 years.

The Company is obligated to provide software and equipment support until December 2005 and must maintain two years of backwards compatibility for any enhancements or upgrades to the software. The Company also warrants each deliverable provided by the Company for 60 months from the date of delivery, with Sprint having the right until December 2005 to purchase an unlimited number of one-year extensions of any or all warranties. Upgrades are provided at no cost to Sprint during the warranty or extended warranty periods. The supply agreement contains penalties for failure to respond to various types of system failures in a timely manner. The supply agreement with Sprint also provides Sprint with a license to use, modify and enhance the Company's source code under certain conditions.

WORLDCOM RELATIONSHIP

In September 1996, the Company entered into a supply agreement with WorldCom. Pursuant to the terms of the supply agreement, upon the successful completion of the field test, the Company will be the exclusive supplier of DWDM systems for WorldCom through December 1997. The agreement does not require a minimum purchase commitment; if WorldCom, however, does not purchase a certain minimum amount of equipment, all prices for equipment purchased under the agreement increase. WorldCom may terminate all or any part of an outstanding purchase order upon the payment of a termination fee.

The Company has granted to WorldCom, pursuant to the supply agreement, a license to use certain software. The Company has also granted WorldCom the option to purchase the source code for certain software at any time during the term of the agreement for a one-time payment. If WorldCom exercises this option, the Company has no further obligation to provide support or maintenance services or to provide upgrades or enhancements with respect to this software.

Under product and pricing attachments currently in effect, the Company provides WorldCom with software upgrades at no charge for a period of 10 years from installation and provides a five-year warranty for products.

TELEWAY RELATIONSHIP

The Company has entered into a two-year agreement with NISSHO Electronics Corporation ("NISSHO") to act as a distributor of the Company's MultiWave 1600 system in Japan. Through NISSHO, the Company has shipped a MultiWave 1600 system to Teleway.

OTHER POTENTIAL CUSTOMER RELATIONSHIPS

The Company is actively working to develop customer relationships with long distance carriers worldwide. The Company has contacted other long distance carriers and is responding to requests for proposals as well as engaging in direct sales efforts.

Under the Telecommunications Act of 1996, regional Bell operating companies ("RBOCs") are newly eligible to enter the long distance market once they have met certain requirements for opening their local markets to competition. The Company anticipates that one or more of the RBOCs will move into the long distance market, although the timing of that move is uncertain, and the question of how such a move will be implemented is unclear -- e.g., through the establishment of owned network facilities, through the purchase of long distance capacity from other long distance carriers, or through some combination of the two. In the deregulated market, utility companies are also known to be exploring the use of their existing rights of way to develop fiberoptic-based telecommunications networks, although it is not possible to predict the pace or scope of their efforts.

Internationally, the market for DWDM systems is still developing. The deregulation and competition which have characterized the United States long distance market are much less pronounced in most international markets, and the data communications applications which fuel the demand for high bandwidth transmission systems in the United States are not as widely used in international markets. The Company intends to concentrate its international sales and marketing efforts in countries or regions where there is competition among two or more long distance carriers, where there are significant bandwidth constraints and where there is significant potential for near term growth in telecommunications services.

SALES AND MARKETING

The Company has organized its resources for the separate but coordinated approach to United States customers and international customers. In the United States market, a sales team, comprised of an account manager, systems engineers and technical support and training personnel, is assigned responsibility for each customer account, and for the coordination and pursuit of sales contacts. In the international market, the Company currently pursues prospective customers through direct sales efforts, as well as through distributors, independent marketing representatives and independent sales consultants. The Company has distributor or marketing representative arrangements covering Austria, Germany, Italy and Switzerland in Europe, and the Republic of Korea and Japan in Asia. The Company has additional representative support in the U.K., Belgium and Brazil. The Company intends to establish a direct sales presence in Europe and in Asia over the next 12 to 18 months.

The Company's MultiWave 1600 systems require a relatively large investment, and the Company's target customers in the long distance telecommunications market -- where network capacity and reliability are critical -- are highly demanding and technically sophisticated. There are only a small number of such customers in any country or geographic market. Also, every network operator has unique configuration requirements which impact the integration of DWDM systems with existing transmission equipment. The convergence of these factors leads to a very long sales cycle for the MultiWave 1600 system, often more than a year between initial introduction to the Company and commitment to purchase, and has further led CIENA to pursue sales efforts on a focused, customer-by-customer basis.

In support of its worldwide selling efforts, the Company conducts marketing programs intended to position and promote its products within the telecommunications industry. Marketing personnel coordinate the Company's participation in trade shows and conduct media relations activities with trade and general business publications.

COMPETITION

The market for increased bandwidth is highly competitive, and the Company expects the level of competition to increase in the future. In addition, competition in the telecommunications equipment industry generally is intense, particularly in that portion of the industry devoted to delivering higher and more cost effective bandwidth throughout the telecommunications network. However, the Company believes that its position as a leading supplier of open architecture DWDM systems and the field-tested design and technology of its product give it a current competitive advantage.

The competition faced by the Company is dominated by a small number of very large, usually multinational, vertically integrated companies, each of which has substantially greater financial, technical and marketing resources, and greater manufacturing capacity as well as more established customer relationships with long distance carriers than the Company. Included among the Company's competitors are Lucent, Nortel, Alcatel, NEC and Pirelli. Each of the Company's major competitors are believed to be in various stages of development, introduction or deployment of DWDM products directly competitive with the Company's MultiWave system. Pirelli, in particular, is known to have deployed open architecture WDM equipment and has announced the introduction of a 32-channel DWDM system. Lucent has an especially prominent role in the market because of its historical affiliation with AT&T. Lucent has announced it is supplying closed architecture DWDM system equipment to AT&T, and has announced an intention to introduce in the near future an open architecture DWDM system. Although Lucent's prior affiliation with AT&T may have inhibited its relationships as a supplier to other carriers, the spin-off of Lucent into a separate company may make it more attractive to potential customers as a supplier.

In addition to DWDM suppliers, traditional TDM-based transmission equipment suppliers compete with the Company in the market for transmission capacity. Lucent, Alcatel, Nortel, Fujitsu and NEC are already providers of a full complement of such equipment. These and other competitors have introduced or are expected to introduce equipment which will offer 10 Gb/s transmission capability, and MCI has recently announced limited deployment of such equipment. The viability of widescale deployment of 10 Gb/s TDM based equipment has yet to be demonstrated. Because of the transmission rate employed, the 10 Gb/s TDM equipment requires digital multiplexing circuits operating at microwave frequencies, which can lead to instability. This can complicate reproducibility, which may in turn result in delays in introduction and higher manufacturing costs. More significantly, at the 10 Gb/s transmission rate, dispersion distortion effects in the fiber can result in significant impairments and limitations, particularly in transmission over non-dispersion shifted fiber, which comprises most of the installed fiber in current long distance networks in the United States. However, at lower rates, such as 2.5 Gb/s, TDM-based equipment is technically viable and widely available commercially, and, as an upgrade to existing lower transmission rate telecommunications links, can represent an alternative incremental approach to the enhancement of transmission capacity.

Additionally, while the Company believes the open architecture of its MultiWave 1600 system is attractive to some customers, certain of the Company's competitors are able to offer more extensive TDM-based product lines under closed architectures which may provide perceived network-wide cost and operating efficiencies not available from the Company. For example, Lucent, Alcatel, Nortel and NEC are already providers of a full complement of TDM terminals, switches and regenerators, and thereby seek to position themselves as vertically integrated, "one-stop shopping" solution providers to potential customers. The Company expects competition in general to intensify substantially over the next few quarters. The Company believes that competition is based on varying combinations of price, manufacturing capacity, timely delivery, system reliability and service commitment, installed customer base, as well as on the comprehensiveness of the system solution in meeting immediate network needs and foreseeable scaleability requirements. Further, in certain cases, competitors have offered the Company's target customers on an immediate delivery basis, off the shelf TDM transmission equipment at comparatively lower prices, with a promise to upgrade to DWDM or other improved equipment in the future. While the Company is ramping up its

manufacturing capability as rapidly as it believes prudent, the Company is not currently able to offer MultiWave 1600 system delivery times of less than three to four months. The substantial system integration resources and manufacturing capability of the TDM competitors, in combination with any difference in timeliness of delivery, can be important to long distance network operators for whom a less significant increase in transmission capacity (as opposed to the 16-fold increase available through MultiWave) is acceptable. In addition, as and when these competitors are able to offer DWDM systems in combination with their own terminals, they can be expected to further emphasize the attractiveness of a one-stop shopping solution.

MANUFACTURING

The Company manufactures the in-fiber Bragg gratings and Erbium-doped fiber amplifiers used in the MultiWave 1600 system, and conducts all optical assembly, final assembly and final component, module and system test functions, at its manufacturing facility in Savage, Maryland. The Company has invested significantly in automated production capabilities and manufacturing process improvements and expects to further enhance its manufacturing process with additional production process control systems. However, certain critical functions, including aspects of fiber splicing, require a highly skilled manual work force, and the Company puts significant efforts into training and maintaining the quality of its manufacturing work force. The Company is also currently working towards obtaining an ISO 9001 certification, which it believes will be a further competitive strength.

Electronic board assemblies are currently subcontracted to third parties to enable the Company to concentrate on its core manufacturing competencies in gratings production and optical assembly capabilities. The Company has not experienced any significant delays or material unanticipated costs resulting from the use of subcontractors; however, such a strategy involves certain risks, including the potential absence of adequate capacity, the unavailability of or interruptions in access to certain process technologies, and reduced control over delivery schedules, manufacturing yields, quality and costs. In the event that any significant subcontractor were to become unable or unwilling to continue to manufacture and/or test the Company's assemblies in required volumes, the Company would have to identify and qualify acceptable replacements. This qualification process could also be lengthy and no assurance can be given that any additional sources would become available to the Company on a timely basis. A delay or reduction in component shipments, or a delay or increase in costs in the assembly and testing of products by third party subcontractors, could materially and adversely affect the Company's business, financial condition and results of operations.

The Company's MultiWave 1600 system utilizes in excess of 600 parts, many of which are customized for the Company. Component suppliers in the specialized, high technology end of the optical communications industry are generally not as plentiful or, in some cases, as reliable, as component suppliers in more mature industries. Certain key optical and electronic components used in the Company's MultiWave 1600 system are currently available only from sole sources. The Company has from time to time experienced minor delays in the receipt of these components, and any future difficulty in obtaining sufficient and timely delivery of them could result in delays or reductions in product shipments which, in turn, could have a material adverse effect on the Company's business, financial condition and results of operations. While alternative suppliers have been identified for certain other key optical and electronic components, those alternative sources have not been qualified. The time and expense involved in qualifying each additional source are significant. Accordingly, the Company will for the near term continue to be dependent on sole and single source suppliers of certain key components. See "Risk Factors -- Dependence on Suppliers" and "-- Competitors as Suppliers".

PATENTS AND OTHER INTELLECTUAL PROPERTY RIGHTS

The Company has licensed certain key enabling technologies with respect to the production of in-fiber Bragg gratings, utilized publicly available technology associated with Erbium-doped fiber

amplifiers, and applied its design, engineering and manufacturing skills to develop its MultiWave 1600 system. The Company also licenses from third parties certain software components for its network management software. The Company has applied for trademark registration for Ciena, MultiWave and WaveWatcher. Opposition has been filed with the United States Patent and Trademark Office with respect to the Company's registration of WaveWatcher. The Company also relies on contractual rights, trade secrets and copyrights to establish and protect its proprietary rights in its products.

The Company intends to enforce vigorously its intellectual property rights if infringement or misappropriation occurs. However, the Company does not expect its proprietary rights in its technology will prevent competitors from developing technologies and equipment functionally similar to the Company's.

The Company's practice is to require its employees and consultants to execute non-disclosure and proprietary rights agreements upon commencement of employment or consulting arrangements with the Company. These agreements acknowledge the Company's exclusive ownership of all intellectual property developed by the individual during the course of his work with the Company and require that all proprietary information disclosed to the individual will remain confidential.

As of December 4, 1996, the Company had received seven United States patents, had received notice of allowance of two more, and had 16 pending patent applications. The issued patents relate to (i) an optical monitoring channel for WDM systems capable of surviving failure of an optical amplifier, (ii) an in-fiber Bragg grating system for optical cable television systems that allows the network operator to remove and insert different optical frequencies and switch video signals on demand, (iii) a WDM optical communication system with remodulators to carry multiple optical signals of different wavelengths simultaneously, (iv) a WDM system that can be expanded with additional optical signals, (v) an optical system which uses optical amplifiers with flattened gain curves, (vi) a method for removing and inserting optical carriers in a WDM system and (vii) an optical system with tunable in-fiber gratings. Allowed patent applications relate to other aspects of in-fiber Bragg gratings technology and other aspects of WDM system design. In addition, the Company holds a non-exclusive license from General Instrument Corporation of Delaware for a portfolio of 32 United States and foreign patents relating to optical communications, primarily for video-on-demand applications. See "Risk Factors -- Proprietary Rights".

EMPLOYEES

As of October 31, 1996, the Company employed 225 persons, of whom 38 were primarily engaged in research and development activities, 135 in manufacturing, 20 in sales, marketing, customer support and related activities and 32 in administration. None of the Company's employees are currently represented by a labor union. The Company considers its relations with its employees to be good.

FACILITIES

The Company's principal executive offices, manufacturing and research and development facilities are all located in Savage, Maryland and consist of approximately 50,500 square feet under a lease that will expire in December 2001, absent exercise of a renewal option for an additional five years. The base rent averages approximately $35,775 per month for the first six years. The Company signed a lease in October 1996 for a facility approximately 10 miles from Savage, near the Baltimore/Washington International Airport ("BWI"). This facility consists of approximately 96,000 square feet, and is expected to be suitable for occupancy by March 1997. Base rent is approximately $102,000 per month, with annual rate increases each of the ten years of the initial lease term, with a final year rate of approximately $126,000 per month. The Company intends to convert substantially all of its current Savage, Maryland, facility into a manufacturing facility (manufacturing

currently occupies approximately 19,000 of the 50,500 square feet at the Savage facility), and relocate the corporate, sales and marketing and product development functions to the BWI facility.

LEGAL PROCEEDINGS

Kevin Kimberlin and parties controlled by him (the "Kimberlin Parties") are owners of Common Stock, Series A, Series B and Series C Preferred Stock and certain warrants to purchase Series B Preferred Stock. On November 20, 1996, the Kimberlin Parties filed suit in U.S. District Court for the Southern District of New York against the Company, and certain directors of the Company, alleging that the Kimberlin Parties were entitled to purchase additional shares of Series C Preferred Stock at the time of the closing of the Series C Preferred Stock financing, but were denied that opportunity by the defendants. The lawsuit alleges that certain rights of first refusal existing under the Series B Preferred Stock Purchase Agreement entitled the Kimberlin Parties to purchase more shares of Series C Preferred Stock than were in fact purchased by them at the time of the closing of the Series C financing in December 1995. The lawsuit claims breach of contract, breach of fiduciary duty and violation of Securities and Exchange Commission Rule 10b-5 by the defendants. The Kimberlin Parties seek to recover unspecified actual and punitive damages.

The number of shares to be purchased by each party to the Series C Preferred Stock financing was communicated in writing to the Kimberlin Parties in December 1995 prior to the Series C closing. Further, as permitted under the Series B Preferred Stock Purchase Agreement, the Series C Preferred Stock Purchase Agreement expressly stated that all rights of first refusal referred to in the lawsuit were waived. The required number of Series B investors, including the Kimberlin Parties, signed the Series C Preferred Stock Purchase Agreement containing that waiver. In July 1996, the Kimberlin Parties reaffirmed to the Company in writing that their beneficial ownership of shares did not include any shares which they have subsequently claimed in the lawsuit they were entitled to purchase. The Company believes that the Kimberlin Parties' claims, brought as the Offerings were being prepared, are without merit and intends to defend itself vigorously.

The Company is not currently a party to any other legal proceedings.

MANAGEMENT

DIRECTORS AND EXECUTIVE OFFICERS

The table below sets forth certain information concerning each of the directors and executive officers of the Company:

NAME	AGE	POSITION
Patrick H. Nettles, Ph.D.	53	President, Chief Executive Officer and Director
David R. Huber, Ph.D.	46	Senior Vice President, Chief Scientist and Director
Steve W. Chaddick.....	45	Senior Vice President, Products and Technologies
Lawrence P. Huang.....	45	Senior Vice President, Sales and Marketing
Stephen B. Alexander.....	37	Vice President, Transport Products
Joseph R. Chinnici.....	42	Vice President, Finance and Chief Financial Officer
Mark Cummings.....	45	Vice President, Operations
W. Michael Fagen.....	41	Vice President, Business Development
G. Eric Georgatos.....	41	Vice President, General Counsel and Secretary
Jesus Leon.....	52	Vice President, Access Products
Rebecca K. Seidman.....	50	Vice President, Human Resources Development
Jon W. Bayless, Ph.D.(1)(2).....	56	Chairman of the Board of Directors
Harvey B. Cash.....	58	Director
Clifford W. Higgerson(2).....	57	Director
Billy B. Oliver(1).....	71	Director
Michael J. Zak(1)(2).....	43	Director

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(1) Member of the Compensation Committee

(2) Member of the Audit Committee

PATRICK H. NETTLES, PH.D., has served as Chief Executive Officer of the Company since February 1994, as President and Chief Executive Officer since April 1994 and as Director since February 1994. From 1992 until 1994, Dr. Nettles served as Executive Vice President and Chief Operating Officer of Blyth Holdings Inc., a publicly-held supplier of client/server software. From late 1990 through 1992, Dr. Nettles was President and Chief Executive Officer of Protocol Engines Inc., a development stage enterprise, formed as an outgrowth of Silicon Graphics Inc., and targeted toward very large scale integration based solutions for high-performance computer networking. From 1989 to 1992, Dr. Nettles was Chief Financial Officer of Optilink, a venture start-up which was acquired by DSC Communications. Dr. Nettles received his B.S. degree from the Georgia Institute of Technology and his Ph.D. from the California Institute of Technology.

DAVID R. HUBER, PH.D., founded the Company in November 1992, served as President from November 1992 until April 1994 and has served as Director since November 1992. From April 1994 until September 1996 he served as Vice President and Chief Technical Officer. Dr. Huber has served as Senior Vice President and Chief Scientist since September 1996. From 1989 through 1992, Dr. Huber managed the Lightwave Research and Development Program for the Jerrold Communications Division of General Instruments. Dr. Huber holds a B.S. degree in physics from Eastern Oregon State College and a Ph.D. degree in electrical engineering from Brigham Young University.

STEVE W. CHADDICK has served as Senior Vice President, Products and Technologies since September 1996, and was previously Vice President of Product Development for the Company since joining it in 1994. Prior to joining the Company, Mr. Chaddick was Vice President of Engineering at AT&T Tridom, a company he co-founded in 1983 and which was acquired by AT&T in 1988. AT&T

Tridom focused on the development of very small aperture satellite terminal systems. Mr. Chaddick was responsible for all product development at AT&T Tridom, including hardware, embedded systems software and network management software. Mr. Chaddick received both his B.S. and M.S. degrees in electrical engineering from the Georgia Institute of Technology.

LAWRENCE P. HUANG has served as Senior Vice President, Sales and Marketing of the Company since November 1996 and served as Vice President, Sales and Marketing of the Company since joining it in April 1994. Prior to joining CIENA, Mr. Huang was Vice President/General Manager and Vice President of Sales and Marketing of AT&T Tridom, which he co-founded with Mr. Chaddick in 1983. Mr. Huang holds a B.S. in industrial management from the Georgia Institute of Technology and an M.B.A. from Georgia State University.

STEPHEN B. ALEXANDER has served as Vice President, Transport Products since September 1996, and was previously Director of Lightwave Systems at the Company since joining it in 1994. From 1982 until joining the Company, he was employed at MIT Lincoln Laboratory, where he last held the position of Assistant Leader of the Optical Communications Technology Group. Mr. Alexander is an Associate Editor for the Journal of Lightwave Technology and a General Chair of the conference on Optical Fiber Communication (OFC) for 1997. He is author of the tutorial text Optical Communication Receiver Design. Mr. Alexander received both his B.S. and M.S. degrees in electrical engineering from the Georgia Institute of Technology.

JOSEPH R. CHINNICI joined the Company in February 1994 as Controller, and became Vice President, Finance and Chief Financial Officer in May 1995. From 1993 through 1994, Mr. Chinnici served as a financial consultant for Halston Borghese Inc. From 1977 to 1993, Mr. Chinnici held a variety of accounting and finance assignments for Playtex Apparel Inc. (now a division of Sara Lee Corporation), ending this period as Director of Operations Accounting and Financial Analysis. Mr. Chinnici holds a B.S. in accounting from Villanova University and an M.B.A. from Southern Illinois University.

MARK CUMMINGS joined the Company in May 1996 as Vice President, Manufacturing and was promoted to Vice President, Operations in September 1996. From 1985 to 1996, Mr. Cummings was Vice President, Operations for Cray Communications, Inc., an international manufacturer of communications equipment. From 1975 to 1985, Mr. Cummings was Manager of Manufacturing Engineering at Taylor Instruments, and from 1973 to 1975, an Industrial Engineer at Siemens Stromberg Carlson Inc. Mr. Cummings holds a B.S. in electronic technology from the State University of New York at Buffalo, and is currently in the Masters program in advanced manufacturing systems at the University of Maryland.

W. MICHAEL FAGEN has served as Vice President, Business Development of the Company since joining it in October 1995. From 1991 through 1995, Mr. Fagen pursued advanced degree studies in international relations at George Washington University, Washington, D.C. and Universidad Para la Paz, San Jose, Costa Rica. Prior to 1991, Mr. Fagen served as Director of Sales for Telebit Corporation; Director of Marketing and Strategic Account Development for Vitalink Communications Corporation; National Account Manager for AT&T/Southern Bell; and Marketing Representative for Major Accounts at IBM Corp. Mr. Fagen holds a B.A. from The University of the South, an M.A. in international relations from La Universidad Para la Paz and a Ph.D. in political science (pending) from the George Washington University.

G. ERIC GEORGATOS has served as the Company's Vice President, General Counsel and Secretary since February 1996. From 1980 to 1995, Mr. Georgatos was an attorney and member of Gray Cary Ware & Friedenrich, a Professional Corporation, a law firm based in California, where he served as outside general corporate counsel for a variety of emerging companies. Mr. Georgatos holds a B.S. degree in business administration from the University of Southern California and a J.D. from the University of California Los Angeles.

JESUS LEON joined the Company in November 1996 as Vice President, Access Products. From December 1995 to October 1996, Mr. Leon served as Vice President, Engineering, for the Access Systems Division of Alcatel Standard Electrica, S.A. ("Alcatel Electrica"), a division of Alcatel Alsthom Group. Alcatel Electrica is a leading global supplier of telecommunications equipment. Mr. Leon led Alcatel Electrica's product development for all access products with responsibility for over 1,200 engineers in Europe, Australia and South Africa. Mr. Leon served in various positions with Alcatel Electrica from 1990-1991. Mr. Leon holds a B.S.E.E. and M.E. from the University of Florida, an A.B.D. (all but doctoral dissertation) from the Georgia Institute of Technology and an M.B.A. from Georgia State University.

REBECCA K. SEIDMAN joined the Company in April 1996 as Director of Human Resources Development, and was promoted to Vice President, Human Resources Development in June 1996. From 1984 until joining the Company, Ms. Seidman served consecutively as Director of Marketing, Vice President, Administration, and Principal of Walpert, Smullian & Blumenthal, P.A., a regional accounting and consulting firm. Ms. Seidman is a Phi Beta Kappa graduate of Goucher College and co-author of Total Quality Distribution, a book discussing practical applications of Total Quality in the wholesale distribution industry.

JON W. BAYLESS, PH.D. has been a Director of the Company since April 1994 and has served as Chairman of the Board of Directors since November 1996. Dr. Bayless is a general partner of various venture capital funds associated with Sevin Rosen Funds where, since 1981, he has focused on developing business opportunities in the fields of telecommunications and computers. Mr. Bayless is also the controlling stockholder and sole director of Jon W. Bayless, Inc., the general partner of Atlantic Partners L.P., which is the general partner of Citi Growth Fund L.P., a venture capital investment firm. Dr. Bayless currently serves as a director of 3DX Technologies Inc. and of several private companies. Dr. Bayless is also Chairman of the Board of Directors of Shared Resource Exchange, Inc. Shared Resource Exchange, Inc. filed for reorganization under Chapter 11 of the Federal Bankruptcy Code in August 1996. A plan under Chapter 11 has been approved. Dr. Bayless has held faculty positions at Southern Methodist University, Virginia Polytechnic Institute, and the Catholic University of America. He holds patents in the field of digital telecommunications, and is a senior member of the Institute of Electronic Engineers. Dr. Bayless earned his B.S. degree in electrical engineering at the University of Oklahoma. He earned his M.S. degree in electrical engineering at the University of Alabama, and his Ph.D. in electrical engineering at Arizona State University.

HARVEY B. CASH has been a Director of the Company since April 1994. Mr. Cash is a general partner of InterWest Partners, a venture capital firm in Menlo Park, California which he joined in 1985. Mr. Cash is Chairman of the Board of Cyrix Corporation and serves on the board of directors of ProNet, Inc., Benchmarq, Microelectronics, Heritage Media Corporation, AMX Corporation, i(2) Technologies Inc. and Aurora Electronics, Inc. He is also an advisor to Austin Ventures. Mr. Cash received a B.S. in electrical engineering from Texas A&M University and an M.B.A. from Western Michigan University.

CLIFFORD W. HIGGERSON has been a Director of the Company since April 1994. Mr. Higgerson has since 1991 been a general partner of Vanguard Venture Partners, a venture capital firm specializing in high technology start-ups, located in Palo Alto, California. Prior to joining Vanguard in July 1991, Mr. Higgerson was the managing partner of Communications Ventures, Inc. and prior to that was a Managing Partner of Hambrecht & Quist. Mr. Higgerson is also a director of Advanced Fibre Communications and Digital Microwave Corp. Mr. Higgerson earned his B.S. in electrical engineering from the University of Illinois and an M.B.A. in finance from the University of California at Berkeley.

BILLY B. OLIVER has been a Director of the Company since June 1996. Since his retirement in 1985 after nearly 40 years of services at AT&T, Mr. Oliver has worked as a self-employed communications consultant. During his last 15 years with AT&T, he held the position of Vice President,

Engineering Planning and Design, where he was directly involved in and had significant responsibility for the evolution of AT&T's long distance network during that period. He was a co-recipient of the Alexander Graham Bell Medal for the conception and implementation of Nonhierarchical Routing in AT&T's network. Mr. Oliver is also a director of Digital Microwave Corp., Communications Network Enhancement Inc. and Enterprise Network Services Inc. Mr. Oliver earned his B.S.E.E. degree from North Carolina State University.

MICHAEL J. ZAK has been a Director of the Company since December 1994. He has been employed by Charles River Ventures of Boston, Massachusetts since 1991 and has been a general partner of Charles River Partnership VII and its related entities since 1993. From 1986 through 1991, he was a founder and corporate officer of Concord Communications, Inc., a manufacturer of data communications systems. He is a director of ON Technology Corporation as well as five other private companies. Mr. Zak has a B.S. degree in engineering from Cornell University and an M.B.A. from Harvard Business School.

BOARD OF DIRECTORS

Upon the effective date of the Registration Statement of which this Prospectus is a part, the Board of Directors will be divided into three classes. Each class of Directors will consist of two or more Directors. At each annual meeting of stockholders following the Offerings, one class of Directors will be elected to a three-year term to succeed the Directors of the same class whose terms are then expiring. The Class I Directors, whose terms will expire at the 1997 annual meeting of stockholders, will be Dr. Nettles and Mr. Bayless, the Class II Directors, whose terms will expire at the 1998 annual meeting of stockholders, will be Messrs. Zak and Cash, and the Class III Directors, whose terms will expire at the 1999 annual meeting of stockholders, will be Messrs. Oliver, Higgerson and Huber. See "Description of Capital Stock -- Delaware Law and Certain Provisions of the Third Amended and Restated Certificate of Incorporation".

Officers are elected by and serve at the discretion of the Board of Directors. There are no family relationships among the Directors or officers of the Company.

COMMITTEES OF THE BOARD OF DIRECTORS

The Company has established an Audit Committee of non-employee Directors to make recommendations concerning the engagement of independent public accountants, review the plans and results of the audit engagement with the independent public accountants, review the independence of the independent public accountants, consider the range of audit and non-audit fees and review the adequacy of the Company's internal accounting controls. Dr. Bayless and Messrs. Zak and Higgerson are the members of the Audit Committee. The Company has established a Compensation Committee of non-employee Directors to determine compensation for the Company's executive officers and to administer the Company's Amended and Restated 1994 Stock Option Plan and the Management Incentive Compensation Plan. Dr. Bayless and Messrs. Oliver and Zak are the members of the Compensation Committee.

COMPENSATION OF BOARD OF DIRECTORS

Members of the Board of Directors receive $2,500 for participation in each meeting of the full Board of Directors and $1,250 for each committee meeting and are reimbursed for out-of-pocket expenses incurred in connection with attendance at meetings. The Company has adopted the 1996 Outside Directors Stock Option Plan and, under such plan, non-employee Directors are eligible to receive stock options in consideration for their services. See "-- Stock Plans" and "-- 1996 Outside Directors Stock Option Plan".

EXECUTIVE COMPENSATION

The following summary compensation table sets forth the compensation paid by the Company during the fiscal year ended October 31, 1996 to the Company's chief executive officer and each of the Company's four other executive officers whose total compensation for services in all capacities to the Company exceeded $100,000 during such year (the "Named Executive Officers").

SUMMARY COMPENSATION TABLE

		ANNUAL COMPENSATION		LONG-TERM COMPENSATION
	YEAR	SALARY	BONUS	SECURITIES UNDERLYING OPTIONS
Patrick H. Nettles, Ph.D. ..... President and Chief Executive Officer	1996	$174,000	$154,000	875,000
David R. Huber, Ph.D. ..... Senior Vice President and Chief Scientist	1996	153,000	98,000	--
Steve W. Chaddick..... Senior Vice President, Products and Technologies	1996	132,000	87,000	312,500
Lawrence P. Huang..... Senior Vice President, Sales and Marketing	1996	132,000	87,000	312,500
Joseph R. Chinnici..... Vice President, Finance and Chief Financial Officer	1996	115,000	79,000	72,500

OPTION GRANTS

The following table provides information concerning grants of options to purchase the Company's Common Stock made during the fiscal year ended October 31, 1996 to each of the Named Executive Officers:

OPTION GRANTS IN LAST FISCAL YEAR

	NUMBER OF SECURITIES UNDERLYING OPTIONS GRANTED(1)	PERCENT OF TOTAL OPTIONS GRANTED EMPLOYEES IN FISCAL 1996	EXERCISE PRICE PER SHARE(2)	EXPIRATION DATE	POTENTIAL REALIZABLE VALUE AT ASSUMED ANNUAL RATES OF STOCK PRICE APPRECIATION FOR OPTION TERM(3)	
					5%	10%
Patrick H. Nettles, Ph.D.	875,000	15.1%	$2.30	6/21/06	$1,266,000	$3,207,000
David R. Huber, Ph.D.....	--	--	--	--	--	--
Steve W. Chaddick.....	312,500	5.4	2.30	6/21/06	452,000	1,146,000
Lawrence P. Huang.....	312,500	5.4	2.30	6/21/06	452,000	1,146,000
Joseph R. Chinnici.....	72,500	1.3	2.30	6/21/06	105,000	266,000

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(1) All options are immediately exercisable at the date of grant, but shares purchased upon exercise of options are subject to repurchase by the Company based upon a scheduled vesting period.

(2) All options were granted at an exercise price equal to the fair market value of the Company's Common Stock as determined by the Board of Directors of the Company on the date of grant. The Company's Common Stock was not publicly traded at the time of the option grants.

(3) Potential realizable values are net of exercise price, but before taxes associated with exercise. Amounts represent hypothetical gains that could be achieved for the respective options if exercised at the end of the option term. The assumed 5% and 10% rates of stock price

appreciation are provided in accordance with rules of the United States Securities and Exchange Commission and do not represent the Company's estimate or projection of the future Common Stock price. Actual gains, if any, on stock option exercises are dependent on the future performance of the Common Stock, overall market conditions and the option holders' continued employment through the vesting period. This table does not take into account any appreciation in the price of the Common Stock from the date of grant to date. Assuming the fair market value of the Common Stock at the date of grant was the assumed initial public offering price of $18.00, the potential realizable value of these options (a) at a 5% assumed annual rate of stock price appreciation would be $23,643,000 for Dr. Nettles, $8,444,000 for Mr. Chaddick, $8,444,000 for Mr. Huang and $1,959,000 for Mr. Chinnici and (b) at a 10% assumed annual rate of stock price appreciation would be $38,839,000 for Dr. Nettles, $13,871,000 for Mr. Chaddick, $13,871,000 for Mr. Huang and $3,218,000 for Mr. Chinnici.

AGGREGATED OPTION EXERCISES IN LAST FISCAL AND FISCAL YEAR-END OPTION VALUES

The following table provides the specified information concerning unexercised options held as of October 31, 1996 by the Named Executive Officers:

	NUMBER OF SECURITIES UNDERLYING UNEXERCISED OPTIONS AT OCTOBER 31, 1996(1)		VALUE OF UNEXERCISED IN-THE-MONEY OPTIONS AT OCTOBER 31, 1996(2)	
	EXERCISABLE	UNEXERCISABLE	EXERCISABLE	UNEXERCISABLE
Patrick H. Nettles, Ph.D.	875,000	--	$11,935,000	--
David R. Huber, Ph.D.	--	--	--	--
Steve W. Chaddick.....	1,312,500	--	20,180,000	--
Lawrence P. Huang.....	1,312,500	--	20,180,000	--
Joseph R. Chinnici.....	322,500	--	4,968,000	--

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(1) All options are immediately exercisable at the date of grant, but shares purchased upon exercise of options are subject to repurchase by the Company based upon a scheduled vesting period. None of the shares underlying options held by Dr. Nettles are vested and 562,500, 578,125 and 113,540 of the shares underlying options held by Messrs. Chaddick, Huang and Chinnici, respectively, are vested.

(2) Calculated on the basis of the fair market value of the underlying securities as of October 31, 1996 of $15.94 per share, as determined by the Company's Board of Directors, less the aggregate exercise price. The value of vested in-the-money options held by Dr. Nettles is zero and the value of vested in-the-money options for Messrs. Chaddick, Huang and Chinnici is $8,954,000, $9,203,000 and $1,807,000, respectively.

No options to purchase the Company's Common Stock were exercised during the fiscal year ended October 31, 1996 by the Named Executive Officers.

No compensation intended to serve as incentive for performance to occur over a period longer than one fiscal year was paid pursuant to a long-term incentive plan during the last fiscal year to any of the Named Executive Officers.

EMPLOYMENT AGREEMENTS

In April 1994, the Company entered into employment agreements with each of Dr. Huber and Dr. Nettles. The employment agreements specify that Dr. Huber and Dr. Nettles are employees at will. In the event that either of them is terminated for cause, as defined in the employment agreements, he will receive a severance payment equal to his monthly base salary until the earlier of the expiration of six months or the commencement of employment with a person or entity other than the Company.

MANAGEMENT INCENTIVE COMPENSATION PLAN

The Company has established a management incentive compensation plan (the "Incentive Plan") pursuant to which management and non-management employees are eligible to earn up to certain percentages of their base salary as additional compensation, based upon the achievement of quarterly and annual objectives. Under the Incentive Plan, the Chief Executive Officer of the Company may earn up to 50% of his base salary, and Vice Presidents generally may earn up to 35% of their base salaries, as additional compensation upon the achievement of certain Company-wide objectives. Department directors and key managers are eligible to earn up to 15% of their base salaries in additional compensation based on the achievement of objectives which are specific to their functional department. Managers and all other salaried employees are eligible to earn up to 7.5% of their base salaries in additional compensation based on the achievement of objectives which are specific to their functional department. The quarterly objectives are determined on a quarter by quarter basis by the Board of Directors in consultation with management, and address a wide variety of activities with all functional areas of the Company based on the evolving needs of the Company. Bonuses are payable quarterly and at year-end under the Incentive Plan. In addition to amounts paid under the Incentive Plan during fiscal year 1996, the Company paid additional bonuses to all employees in that year.

STOCK PLANS

AMENDED AND RESTATED 1994 STOCK OPTION PLAN

A total of 20,050,000 shares of Common Stock are reserved for issuance under the Company's Amended and Restated 1994 Stock Option Plan (the "Option Plan"). At October 31, 1996, 259,345 shares of Common Stock subject to repurchase by the Company had been issued upon exercise of options, 364,150 shares of Common Stock not subject to repurchase had been issued upon exercise of options and 10,957,960 shares were subject to outstanding options at a weighted average exercise price of $.96. Options may be granted to employees (including officers), consultants, advisors and directors, although only employees and directors and officers who are also employees may receive "incentive stock options" intended to qualify for certain tax treatment. The exercise price of nonqualified stock options must equal at least 85% of the fair market value of the Common Stock as determined by the Board of Directors, and in the case of incentive stock options must be no less than the fair market value of the Common Stock as determined by the Board of Directors. These options are immediately exercisable at the date of grant, but shares purchased upon exercise of options are subject to repurchase by the Company based upon a scheduled vesting period. Generally, shares underlying options vest over four years and options must be exercised within ten years. The Option Plan provides for accelerated vesting in the event of a change of control of the Company, provided the subject options have been outstanding for at least 335 days. Furthermore, in the event of a change in control, the surviving or acquiring company shall either assume the Company's rights and obligations under outstanding stock option agreements or substitute options for the acquiring corporation's stock for the outstanding options.

1996 OUTSIDE DIRECTORS STOCK OPTION PLAN

A total of 750,000 shares of Common Stock have been reserved for issuance under the 1996 Outside Directors Stock Option Plan (the "Directors Plan"). As of October 31, 1996, options to purchase 75,000 shares have been granted under the Directors Plan. The Directors Plan provides for the automatic granting of nonqualified stock options to Directors of the Company who are not employees of the Company (the "Outside Directors"). Under the Directors Plan, each current Outside Director will automatically be granted an option to purchase 25,000 shares of Common Stock on the date of each annual meeting of stockholders after the close of the Offerings, provided that the Outside Director continues to serve in such capacity. Additionally, each new Outside Director will automatically be granted an option to purchase 75,000 shares of Common Stock upon assuming the office of Director. The exercise price of the options in all cases will be equal to the fair

market value of the Common Stock on the date of grant. Initial grants vest over a period of three years and annual grants vest in full on the first anniversary of the date of grant. Options generally must be exercised within ten years.

COMPENSATION COMMITTEE INTERLOCKS AND INSIDER PARTICIPATION

Dr. Bayless, Mr. Cash and Mr. Zak served during the fiscal year ended October 31, 1996 as members of the Compensation Committee of the Board of Directors. Dr. Bayless is an affiliate of Sevin Rosen Bayless Management Co., Sevin Rosen Fund IV L.P. and Sevin Rosen Fund V L.P. (collectively, the "Sevin Rosen Entities"), Mr. Cash is a general partner of InterWest Management Partners V, the general partner of InterWest Partners V, L.P., and of InterWest Investors V, L.P. (collectively, "InterWest"), and Mr. Zak is a general partner of the general partner of Charles River Partnership VII ("Charles River"). Although each of Sevin Rosen, InterWest and Charles River is a stockholder of the Company none of Mr. Cash, Mr. Zak or Dr. Bayless were at any time during the fiscal year ended October 31, 1996, or at any other time, an officer or employee of the Company. No member of the Compensation Committee of the Company serves as a member of the board of directors or compensation committee of any entity that has one or more executive officers serving as a member of the Company's Board of Directors or Compensation Committee. Mr. Cash is not a current member of the Compensation Committee. See "Certain Transactions".

LIMITATION OF LIABILITY AND INDEMNIFICATION

The Company's Certificate of Incorporation provides that a Director of the Company shall not be personally liable for monetary damages to the Company or its stockholders for a breach of fiduciary duty as a Director, except for liability as a result of (i) a breach of the Director's duty of loyalty to the Company or its stockholders, (ii) acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) an act related to the unlawful stock repurchase or payment of a dividend under Section 174 of Delaware General Corporation Law and (iv) transactions from which the Director derived an improper personal benefit. Such limitation of liability does not affect the availability of equitable remedies such as injunctive relief or rescission.

The Company's Certificate of Incorporation also authorizes the Company to indemnify its officers, Directors and other agents, to the full extent permitted under the Delaware General Corporation Law. The Company has entered into separate indemnification agreements with its directors and certain officers which may, in some cases, provide broader indemnification protection than the specific indemnification provisions contained in the Delaware General Corporation Law. The indemnification agreements require the Company, among other things, to indemnify such officers and Directors against certain liabilities that may arise by reason of their status or service as officers or Directors (other than liabilities arising from willful misconduct of a culpable nature), and to advance their expenses incurred as a result of any proceeding against them as to which they could be indemnified. In addition, these agreements extend similar indemnification arrangements to stockholders whose representatives serve as directors of the Company.

At present, except for the Kimberlin litigation referred to above under "Business -- Legal Proceedings," there is no pending litigation or proceeding involving a Director, officer, employee or agent of the Company where indemnification will be required or permitted. The Company is not aware of any threatened litigation or proceeding which may result in a claim for such indemnification. The Company expects to provide indemnification to its Directors named in the Kimberlin litigation.

CERTAIN TRANSACTIONS

STOCK SALES

In April 1994, the Company issued and sold shares of Series A Preferred Stock at a purchase price of $1.00 per share, in December 1994, the Company issued and sold shares of Series B

Preferred Stock at a purchase price of $1.50 per share and in December 1995, the Company issued and sold shares of Series C Preferred Stock at a purchase price of $7.00 per share. The shares of Series A, B and C Preferred Stock were initially convertible into one share of Common Stock, subject to adjustment. The Company effected a five-for-one stock split on December 9, 1996, and each share of Series A, B and C Preferred Stock will convert automatically into five shares of Common Stock upon the closing of the Offerings. In connection with these transactions, the Company also issued warrants to purchase Common Stock at an exercise price of $.02 per share. These warrants have been exercised and the shares of Common Stock issued upon exercise of the warrants are reflected in the table below.

The purchasers of Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock and Common Stock included, among others, the following directors, executive officers and holders of more than 5% of the Common Stock:

	NUMBER OF SHARES OF COMMON STOCK (ADJUSTED FOR FIVE-FOR-ONE SPLIT)	NUMBER OF SHARES OF SERIES A PREFERRED STOCK	NUMBER OF SHARES OF SERIES B PREFERRED STOCK	NUMBER OF SHARES OF SERIES C PREFERRED STOCK
Bessemer Venture Partners III L.P., Quentin Corporation, BVP III Special Situations, L.P. and affiliated parties (collectively the "Bessemer Entities")(1)	--	--	700,000	447,143
Charles River(2)	--	--	1,500,000	250,000
InterWest(3)	205,415	1,154,848	744,950	250,000
Japan Associated Finance Co., Ltd., JAFCO G-5 Investment Enterprise Partnership, JAFCO R-1(A) Investment Enterprise Partnership, JAFCO R-1(B) Investment Enterprise Partnership and U.S. Information Technology (collectively the "JAFCO Entities")(4)	--	--	1,000,000	171,429
Sevin Rosen Entities(5)	205,235	1,153,789	744,291	428,571
SVE Star Ventures Enterprises No. II Limited Partnership, SVE Star Ventures Enterprises No. III Limited Partnership, SVE Star Ventures Enterprises No. IIIA Limited Partnership, SVE Star Ventures Managementgesellschaft mbH Nr. 3 & Co. Beteiligungs KG and SVE Star Ventures Managementgesellschaft mbH Nr. 3 (collectively the "Star Venture Entities")(6)	--	--	1,000,000	322,143
Vanguard IV, L.P.(7)	136,220	750,000	493,999	142,850
Kevin Kimberlin(8)	76,560	421,520	426,733	72,533

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(1) Includes (i) 580,446 shares of Series B Preferred Stock held by Bessemer Venture Partners III, L.P. ("Bessemer III"); 22,222 shares of Series B Preferred Stock held by BVP III Special Situations L.P. ("BVP") and 97,332 shares of Series B Preferred Stock held by various individuals or entities who are employees of, or otherwise related to, these entities, and (ii) 403,176 shares of Series C Preferred Stock held by Bessemer III, 9,523 shares of Series C Preferred Stock held by BVP and 34,444 shares of Series C Preferred Stock held by various individuals or entities who are employees of, or otherwise related to, these entities.

(2) Michael J. Zak, an affiliate of Charles River, is a Director of the Company.

(3) Includes (i) 204,325 shares of Common Stock held by InterWest Partners V L.P. and 1,090 shares of Common Stock held by InterWest Investors V L.P., (ii) 1,148,848 shares of Series A Preferred Stock held by InterWest Partners V L.P. and 6,000 shares of Series A Preferred Stock held by InterWest Investors V L.P., (iii) 740,998 shares of Series B Preferred Stock held by InterWest Partners V L.P. and 3,952 shares of Series B Preferred Stock held by InterWest Investors V L.P. and (iv) 248,438 shares of Series C Preferred Stock held by InterWest Partners V L.P. and 1,562 shares of Series C Preferred Stock held by InterWest Investors V L.P. Harvey B. Cash, an affiliate of InterWest Partners V L.P., is a Director of the Company.

(4) Includes (i) 40,000 shares of Series B Preferred Stock held by Japan Associated Finance Co., Ltd. ("JAFCO"); 82,712 shares of Series B Preferred Stock held by JAFCO G-5 Investment Enterprise Partnership ("JAFCO G-5"); 38,644 shares of Series B Preferred Stock held by JAFCO R-1(A) Investment Enterprise Partnership ("JAFCO R-1(A)"); 38,644 shares of Series B Preferred Stock held by JAFCO R-1(B) Investment Enterprise Partnership ("JAFCO R-1(B)") and 800,000 shares of Series B Preferred Stock held by U.S. Information Technology Investment Enterprise Partnership ("USIT"), and (ii) 6,857 shares of Series C Preferred Stock held by JAFCO; 14,179 shares of Series C Preferred Stock held by JAFCO G5; 6,625 shares of Series C Preferred Stock held by JAFCO R-1(A); 6,625 shares of Series C Preferred Stock held by JAFCO R-1(B) and 137,143 shares of Series C Preferred Stock held by USIT.

(5) Includes (i) 204,325 shares of Common Stock held by Sevin Rosen Fund IV L.P. and 910 shares of Common Stock held by Sevin Rosen Bayless Management Co., (ii) 1,148,789 shares of Series A Preferred Stock held by Sevin Rosen Fund IV L.P. and 5,000 shares of Series A Preferred Stock held by Sevin Rosen Bayless Management Co., (iii) 740,998 shares of Series B Preferred Stock held by Sevin Rosen Fund IV L.P. and 3,293 shares of Series B Preferred Stock held by Sevin Rosen Bayless Management Co. and (iv) 285,714 shares of Series C Preferred Stock held by Sevin Rosen Fund IV L.P. and 142,857 shares of Series C Preferred Stock held by Sevin Rosen Fund V L.P. Jon W. Bayless, an affiliate of the Sevin Rosen Entities, is a Director of the Company. Mr. Bayless disclaims beneficial ownership of the shares owned by each of the foregoing entities except to the extent of his proportional interest, if any.

(6) Includes (i) 256,000 shares of Series B Preferred Stock held by SVE Star Ventures Enterprises No. II Limited Partnership ("Star Enterprises II"); 687,100 shares of Series B Preferred Stock held by SVE Star Ventures Enterprises No. III Limited Partnership ("Star Enterprises III") and 56,900 shares of Series B Preferred Stock held by SVE Star Ventures Enterprises No. IIIA Limited Partnership ("Star Enterprises IIIA"); and (ii) 33,548 shares of Series C Preferred Stock held by Star Enterprises II; 90,026 shares of Series C Preferred Stock held by Star Enterprises III; 7,528 shares of Series C Preferred Stock held by Star Enterprises IIIA; 107,143 shares of Series C Preferred Stock held by SVE Star Ventures Managementgesellschaft mbH Nr. 3 & Co. Beteiligungs KG and 83,898 shares of Series C Preferred Stock held by SVE Star Ventures Managementgesellschaft mbH Nr. 3.

(7) Clifford W. Higgerson, an affiliate of Vanguard IV, L.P., is a Director of the Company.

(8) The shares beneficially owned by Kevin Kimberlin include shares of Kevin Kimberlin Partners L.P. and Spencer Trask Holdings.

In April 1994, the Company sold 3,500,000 shares of Common Stock to Dr. Nettles at a purchase price of $.02 per share pursuant to a Stock Purchase and Stock Restriction Agreement dated April 9, 1994. In connection therewith, Dr. Nettles issued a note to the Company in the amount of $63,000. The note was paid in full in March 1995. Under the agreement, one quarter of the shares vested on the first anniversary date of the agreement and the remaining shares vested monthly at a rate of 1/48th per month. Until the shares are fully vested, they are subject to certain restrictions

including forfeiture in the event employment is terminated, restrictions on transferability and right of first refusal. As of October 31, 1996, 2,183,335 of the shares were vested under the agreement.

The Company believes that all transactions with affiliates described above were made on terms no less favorable to the Company than could have been obtained from unaffiliated third parties. All future transactions, including any loans, between the Company and its officers, directors, principal stockholders and their affiliates will be approved by a majority of the Board of Directors, including a majority of the independent and disinterested Outside Directors, and will continue to be on terms no less favorable to the Company than could be obtained from unaffiliated third parties.

LITIGATION SETTLEMENT

William K. Woodruff & Company, Inc. ("Woodruff") is participating in the Offerings as one of the representatives of the U.S. Underwriters and the International Underwriters as a result of the settlement of litigation instituted by Woodruff in July 1996 against the Company and certain stockholders of the Company. Under a 1994 agreement with the Company, Woodruff was granted a right of first refusal for retention as an "investment banker" in any transaction for which the Company intended to retain one or more investment bankers, subject to certain qualifications, at a predetermined level of compensation. The litigation brought by Woodruff sought to recover monetary, declaratory and injunctive relief, including injunctive relief compelling the Company to include Woodruff as a "co-manager" of the Company's initial public offering under Woodruff's interpretation of the 1994 agreement. Under the terms of the settlement, the Company has agreed to retain Woodruff as one of the representatives of the underwriters of the Company's initial public offering, granted Woodruff warrants to purchase 75,000 shares at an exercise price of $4.00 per share, made a cash payment to Woodruff of $87,500, and agreed to arrange for Woodruff to obtain a designated portion of the compensation to be paid to the underwriters of the Company's initial public offering. The Company entered into this settlement in order to avoid costly and potentially protracted litigation over the questions of Woodruff's entitlement to compensation for, and to participate as a "co-manager" in connection with, the Company's initial public offering.

PRINCIPAL STOCKHOLDERS

The following table sets forth certain information regarding the beneficial ownership of the Company's Common Stock as of November 30, 1996, and as adjusted to reflect the sale of the shares offered hereby, (i) by each person who is known by the Company to own beneficially more than 5% of the Company's Common Stock, (ii) by each Director and Named Executive Officer, (iii) by all officers and Directors as a group and (iv) by certain other holders.

DIRECTORS, OFFICERS AND PRINCIPAL STOCKHOLDERS	NUMBER OF SHARES BENEFICIALLY OWNED(1)	PERCENT OF OWNERSHIP	
		BEFORE THE OFFERINGS	AFTER THE OFFERINGS
Sevin Rosen Entities(2) Two Galleria Tower 13455 Noel Road, Suite 1670 Dallas, Texas 75240	11,838,490	13.5%	12.7%
InterWest(3) 3000 Sand Hill Road Building 3, Suite 255 Menlo Park, CA 94025	10,954,405	12.4	11.8
Charles River(4) c/o Charles River Ventures, Inc. 1000 Winter Street, Suite 3300 Waltham, MA 02154	8,750,000	10.0	9.4
Star Venture Entities Meir Barel Possartstrasse G D-81679 Munich, Germany	6,610,715	7.5	7.1
JAFCO Entities c/o Japan Associated Finance Co., Ltd. Toshiba Bldg., 10F 1-1-1, Shibaura, Minato-Ku Tokyo, Japan 105	5,857,145	6.7	6.3
Bessemer Entities 1025 Old Country Road Suite 205 Westbury, NY 11530	5,735,715	6.6	6.2
Vanguard IV, L.P.(5) 525 University Avenue Suite 600 Palo Alto, CA 94301	7,070,465	8.0	7.6
Patrick H. Nettles(6)	4,352,135	4.9	4.6
David R. Huber(7)	6,187,950	7.0	6.7
Steve W. Chaddick(8)	1,312,500	1.5	1.4
Lawrence P. Huang(9)	1,312,500	1.5	1.4
Joseph R. Chinnici(10)	322,500	*	*
Jon W. Bayless(11)	11,838,490	13.4	12.7
Harvey B. Cash(12)	10,954,405	12.4	11.8
Clifford W. Higgerson(13)	7,070,465	8.0	7.6
Billy B. Oliver(14)	75,000	*	*
Michael J. Zak(15)	8,750,000	10.0	9.4
All officers and directors as a group (16 persons)(16)	53,633,445	57.7	54.7
Kevin Kimberlin(17)	4,680,490	5.3	5.0
Weiss, Peck & Greer Venture Capital Funds(18)	3,625,000	4.1	3.9

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* Represents less than 1%.

(1) The persons named in this table have sole voting and investment power with respect to all shares of Common Stock shown as beneficially owned by them, subject to community property laws where applicable and except as indicated in the other footnotes to this table. Beneficial ownership is determined in accordance with the rules of the United States Securities and Exchange Commission. In computing the number of shares beneficially owned by a person and the percentage ownership of that person, shares of Common Stock subject to options or warrants held by that person that are currently exercisable or exercisable within 60 days after October 31, 1996 are deemed outstanding. Such shares, however, are not deemed outstanding for the purpose of computing the percentage ownership of any other person.

(2) Represents 11,081,830 shares of Common Stock beneficially owned by Sevin Rosen Fund IV L.P., 714,285 shares of Common Stock beneficially owned by Sevin Rosen Fund V L.P., and 42,375 shares beneficially owned by Sevin Rosen Bayless Management Company. Jon W. Bayless, a director of the Company, is a general partner of both SRB Associates IV L.P. the general partner of Sevin Rosen Fund IV L.P., and SRB Associates V L.P., the general partner of Sevin Rosen Fund V L.P., and is a principal of Sevin Rosen Bayless Management Company. Dr. Bayless disclaims beneficial ownership of the shares held by such entities except to the extent of his proportionate partnership interest therein.

(3) Represents 10,895,745 shares of Common Stock beneficially owned by InterWest Partners V L.P., and 58,660 shares of Common Stock beneficially owned by InterWest Investors V L.P. Harvey B. Cash, a director of the Company, is a special limited partner of InterWest Management Partners V L.P., which is a general partner of InterWest Partners V L.P. Mr. Cash is also the general partner of InterWest Investors V L.P. Mr. Cash disclaims beneficial ownership of the shares held by such entities except to the extent of his proportionate partnership interest therein.

(4) Michael J. Zak, a Director of the Company, is a general partner of the general partner of Charles River Partnership VII. Mr. Zak disclaims beneficial ownership of the shares held by such entity except to the extent of his proportionate partnership interest therein.

(5) Clifford W. Higgerson, a Director of the Company, is a general partner of Vanguard IV, L.P. Mr. Higgerson disclaims beneficial ownership of the shares held by such entity except to the extent of his proportionate partnership interest therein.

(6) Includes 875,000 shares of Common Stock issuable upon exercise of options, all of which are subject to a right of repurchase by the Company. Also includes 2,383,387 shares of Common Stock, which are not subject to a right of repurchase by the Company.

(7) Includes 1,200,000 shares of Common Stock held in trust by Dr. Huber's wife and 151,320 shares of Common Stock held by Mrs. Huber as custodian on behalf of their minor children.

(8) Includes 1,312,500 shares issuable upon exercise of stock options, of which 562,500 shares are not subject to a right of repurchase by the Company.

(9) Includes 1,312,500 shares issuable upon exercise of stock options, of which 578,125 shares are not subject to a right of repurchase by the Company.

(10) Includes 322,500 shares issuable upon exercise of stock options, of which 113,540 shares are not subject to a right of repurchase by the Company.

(11) Represents 11,081,830 shares of Common Stock beneficially owned by Sevin Rosen Fund IV L.P., 714,285 shares of Common Stock beneficially owned by Sevin Rosen Fund V L.P., and 42,375 shares of Common Stock beneficially owned by Sevin Rosen Bayless Management Co., which Dr. Bayless may be deemed to beneficially own by virtue of his status as a general partner of both SRB Associates IV L.P., the general partner of Sevin Rosen Fund IV L.P., and SRB Associates V L.P., the general partner of Sevin Rosen Fund V L.P., and as a principal of Sevin Rosen Bayless Management Co. Dr. Bayless disclaims beneficial ownership of the shares held by such entities except to the extent of his proportionate partnership interest therein.

(12) Represents 10,895,745 shares of Common Stock beneficially owned by InterWest Partners V L.P., and 58,660 shares of Common Stock beneficially owned by InterWest Investors V L.P. Harvey B. Cash, a director of the Company, is a special limited partner of InterWest Management Partners V L.P., which is a general partner of InterWest Partners V L.P. Mr. Cash is also the general partner of InterWest Investors V L.P. Mr. Cash disclaims beneficial ownership of the shares held by such entities except to the extent of his proportionate partnership interest therein.

(13) Represents 7,070,465 shares of Common Stock beneficially owned by Vanguard IV, L.P., which Mr. Higgerson may be deemed to beneficially own by virtue of his status as a general partner of Vanguard IV, L.P. Mr. Higgerson disclaims beneficial ownership of the shares held by such entities except to the extent of his proportionate partnership interest therein.

(14) Includes 75,000 shares of Common Stock issuable upon exercise of stock options granted pursuant to the 1996 Outside Directors Plan.

(15) Represents 8,750,000 shares of Common Stock beneficially owned by Charles River Partnership VII, which Mr. Zak may be deemed to beneficially own by virtue of his status as a general partner of Charles River Partnership VII. Mr. Zak disclaims beneficial ownership of the shares held by such entity except to the extent of his proportionate partnership interest therein.

(16) Includes 3,075,000 shares issuable upon exercise of stock options, of which 1,867,715 shares are subject to a right of repurchase by the Company.

(17) Kevin Kimberlin provided initial equity capital during the formation of the Company. The shares beneficially owned by Kevin Kimberlin include shares of Kevin Kimberlin Partners L.P. and Spencer Trask Holdings. The address of Kevin Kimberlin is c/o Spencer Trask, 535 Madison Avenue, New York, New York 10022. See "Business -- Legal Proceedings".

(18) Represents 1,979,250 shares held of record by WPG Enterprise Fund II, L.P. and 1,645,750 shares held of record by Weiss, Peck & Greer Venture Associates III, L.P. The address of the funds is 555 California Street, Suite 3130, San Francisco, California 94104, Attention: Christopher J. Schaepe.

DESCRIPTION OF CAPITAL STOCK

The authorized capital stock of the Company consists of 180,000,000 shares of Common Stock and 20,000,000 shares of preferred stock, par value $.01 per share. Each outstanding share of Convertible Preferred Stock will be automatically converted into five shares of Common Stock upon the closing of the Offerings being made hereby. Upon such conversion, such Convertible Preferred Stock will be canceled, retired and eliminated from the shares that the Company is authorized to issue. The following summary of the Company's capital stock does not purport to be complete and is subject to, and qualified in its entirety by, the Certificate of Incorporation and bylaws of the Company that are included as exhibits to the Registration Statement of which this Prospectus forms a part and by the provisions of applicable law.

COMMON STOCK

As of October 31, 1996, there were 86,507,325 shares of Common Stock outstanding and held of record by 112 stockholders, as adjusted to reflect the conversion of the outstanding shares of Convertible Preferred Stock into Common Stock upon the closing of the Offerings. The holders of Common Stock are entitled to one vote for each share held of record on all matters submitted to a vote of the holders of Common Stock. Subject to preferences applicable to any outstanding preferred stock, holders of Common Stock are entitled to receive ratably such dividends as may be declared by the Board of Directors out of funds legally available therefor. In the event of a liquidation, dissolution or winding up of the Company, the holders of Common Stock are entitled to share ratably in all assets remaining after payment of liabilities and the liquidation preference of any preferred stock. Holders of Common Stock have no preemptive or subscription rights, and there are no redemption or conversion rights with respect to such shares. All outstanding shares of Common Stock are fully paid and non-assessable, and the shares of Common Stock to be issued upon completion of the Offerings will be fully paid and non-assessable.

As of October 31, 1996, there were warrants to purchase 675,000 shares of Common Stock outstanding and warrants to purchase 300,000 shares of Convertible Preferred Stock outstanding. The warrants to purchase Convertible Preferred Stock expire unless exercised prior to the closing of the Offerings, and an aggregate of 1,500,000 shares of Common Stock are issuable upon conversion of such Convertible Preferred Stock.

UNDESIGNATED PREFERRED STOCK

The Board of Directors has the authority, without action by the stockholders, to designate and issue preferred stock in one or more series and to designate the dividend rate, voting rights and other rights, preferences and restrictions of each series any or all of which may be greater than the rights of the Common Stock. It is not possible to state the actual effect of the issuance of any shares of preferred stock upon the rights of holders of the Common Stock until the Board of Directors determines the specific rights of the holders of such preferred stock. However, the effects might include, among other things, restricting dividends on the Common Stock, diluting the voting power of the Common Stock, impairing the liquidation rights of the Common Stock and delaying or preventing a change in control of the Company without further action by the stockholders. The Company has no present plans to issue any shares of preferred stock.

REGISTRATION RIGHTS

Following the sale of the shares of Common Stock offered hereby, the holders of 74,815,740 shares issuable upon conversion of the outstanding shares of Convertible Preferred Stock or issued or issuable to certain holders of the warrants, and certain shares held by certain founders of the Company and their transferees will have certain rights to register those shares under the Securities Act. These rights are provided under the terms of certain agreements among the Company and the holders of such shares. Subject to certain limitations in such agreements, the

holders of at least 25% of such shares may require, on two occasions, that the Company use its best efforts to register such shares for public resale, subject to certain limitations. If the Company registers any of its Common Stock either for its own account or for the account of other security holders, the holders of such shares are entitled to include their shares of Common Stock in the registration, subject to the ability of the underwriters to limit the number of shares included in the Offerings. The holders of such shares may also require the Company on no more than one occasion every 12 months to register all or a portion of their registrable securities on Form S-3 when use of such form becomes available to the Company, provided, among other limitations, that the proposed aggregate selling price is at least $500,000, and that the total number of permitted demand registrations on Form S-3 is limited to six. All fees, costs and expenses of registrations pursuant to Form S-1 (other than underwriting discounts and commissions) will be borne by the Company. All expenses of demand registrations pursuant to Form S-3 shall be borne by the holders.

DELAWARE LAW AND CERTAIN PROVISIONS OF THE THIRD AMENDED AND RESTATED CERTIFICATE OF INCORPORATION

The Company is a Delaware corporation and subject to Section 203 of the Delaware General Corporation Law ("DGCL"). In general, Section 203 of the DGCL prevents an "interested stockholder" (defined generally as a person owning 15% or more of a Delaware corporation's outstanding voting stock) from engaging in a "business combination" (as defined) with a Delaware corporation for three years following the date such person became an interested stockholder, subject to certain exceptions such as the approval of the board of directors and of the holders of at least two thirds of the outstanding shares of voting stock not owned by the interested stockholder. The existence of this provision of law can be expected to have the effect of discouraging hostile takeover attempts, including attempts that might result in a premium over the market price for the shares of Common Stock held by stockholders.

The Company's Certificate of Incorporation provides that following the date of this Prospectus, the Board of Directors will be divided into three classes of directors with each class serving a staggered three-year term. The classification system of electing directors may tend to discourage a third party from making a tender offer or otherwise attempting to obtain control of the Company and may maintain the incumbency of the Board of Directors, as it generally makes it more difficult for stockholders to replace a majority of the directors. The Company's Certificate of Incorporation also eliminates, upon the closing of the Offerings, the right of stockholders to act without a meeting and does not provide for cumulative voting in the election of directors. These and other provisions may have the effect of deterring hostile takeovers or delaying changes in control or management of the Company. The amendment of any of these provisions would require approval by holders of 66 2/3% or more of the outstanding Common Stock.

TRANSFER AGENT AND REGISTRAR

The Transfer Agent and Registrar for the Common Stock is The First National Bank of Boston.

SHARES ELIGIBLE FOR FUTURE SALE

Prior to the Offerings, there has been no public market for the Common Stock. Future sales of substantial amounts of Common Stock in the public market could adversely affect the market price of the Common Stock.

Upon completion of the Offerings, the Company will have outstanding an aggregate of 93,007,325 shares of Common Stock, assuming (i) the issuance of 5,000,000 shares of Common Stock in the Offerings, (ii) no exercise of the Underwriters' over-allotment options and (iii) no exercise of options or warrants to purchase Common Stock after October 31, 1996 except for 1,500,000 shares issuable upon exercise of warrants expiring at the close of the Offerings. Of these shares, the 5,000,000 shares sold in the Offerings will be freely tradable without restriction or further

registration under the Securities Act, except for any shares purchased by "affiliates" of the Company as that term is defined in Rule 144 under the Securities Act. Sales by affiliates will be subject to certain limitations and restrictions described below. Beginning 90 days after the date of this Prospectus, approximately shares will become eligible for sale in the public market subject in some cases to the volume and other restrictions of Rule 144 under the Securities Act.

Of these shares, holders of shares and options and warrants to purchase shares are subject to lock-up agreements. Shares covered by these lock-up agreements are subject to restrictions on resale in the public market for a period of 180 days following the date of this Prospectus, subject to release, directly or indirectly, by the Representatives of the Underwriters.

Upon expiration of the lock-up period, shares will become eligible for sale in the public market, subject in most cases to the limitations of Rule 144. The remaining shares held by existing stockholders will become eligible for sale at various times over a period of less than two years and could be sold earlier if the holders exercise registration rights. In addition, holders of stock options could exercise these options and sell certain of the shares issued upon exercise as described below.

As of October 31, 1996, there were a total of 10,957,960 shares of Common Stock subject to outstanding options under the Amended and Restated 1994 Stock Option Plan, 2,684,355 of which were vested. Promptly following these Offerings, the Company intends to file a registration statement on Form S-8 under the Securities Act to register all of the shares of Common Stock issued or reserved for future issuance under the Option Plan and the Directors Plan. On the date 180 days after the effective date of this Prospectus, a total of shares of Common Stock subject to outstanding options will be vested and exercisable. After the effective date of the registration statement on Form S-8, shares purchased upon exercise of options granted pursuant to the Option Plan or Directors Plan generally would be available for resale in the public market.

In general, under Rule 144 as currently in effect, a person (or persons whose shares are aggregated) who has beneficially owned shares for at least two years (including the holding period of any prior owner except an affiliate) is entitled to sell in "broker's transactions" or to market makers, within any three-month period commencing 90 days after the date of this prospectus, a number of shares that does not exceed the greater of (i) one percent of the number of shares of Common Stock then outstanding (approximately 930,000 shares immediately after the Offerings) or (ii) generally, the average weekly trading volume in the Common Stock during the four calendar weeks preceding the required filing of a Form 144 with respect to such sale. Sales under Rule 144 are generally subject to the availability of current public information about the Company. Under Rule 144(k), a person who is not deemed to have been an affiliate of the Company at any time during the 90 days preceding a sale, and who has beneficially owned the shares proposed to be sold for a least three years (including the holding period of any prior owner except an affiliate), is entitled to sell such shares without having to comply with the manner of sale, public information, volume limitation or notice filing provisions of Rule 144. Under Rule 701 under the Securities Act, persons who purchase shares upon exercise of options granted prior to the effective date of the Offerings are entitled to sell such shares 90 days after the date of this Prospectus in reliance on Rule 144, without having to comply with the holding period and notice filing requirements of Rule 144 and, in the case of non-affiliates, without having to comply with the public information, volume limitation or notice filing provisions of Rule 144. The Commission has proposed to amend the holding period required by Rule 144 to permit sales of "restricted securities" after one year rather than two years and to permit "non-affiliates" to sell without restrictions, pursuant to Rule 144(k), after a holding period of two years (including the holding period of any prior owner except an affiliate). If such proposed amendment is adopted, restricted securities would become freely tradable (subject to any applicable contractual restrictions) at correspondingly earlier dates.

CERTAIN U.S. TAX CONSIDERATIONS APPLICABLE TO NON-U.S. HOLDERS OF THE COMMON STOCK

The following is a general discussion of certain U.S. federal income and estate tax consequences of the ownership and disposition of Common Stock by a person that, for U.S. federal income tax purposes, is a non-resident alien individual, a foreign corporation, a foreign partnership or a foreign estate or trust as defined in the U.S. Internal Revenue Code of 1986, as amended (the "Code") (a "non-U.S. holder"). This discussion does not consider specific facts and circumstances that may be relevant to a particular non-U.S. holder's tax position and does not deal with all aspects of United States federal income and estate taxation that may be relevant to non-U.S. holders, or with U.S. state and local or non-U.S. tax consequences. Furthermore, the following discussion is based on provisions of the Code, existing and proposed regulations promulgated thereunder, and administrative and judicial interpretations thereof as of the date hereof, all of which are subject to change, possibly with retroactive effect. Each prospective non-U.S. holder is urged to consult a tax adviser with respect to the U.S. federal tax consequences of holding and disposing of Common Stock, as well as any tax consequences that may arise under the laws of any U.S. state, municipality or other taxing jurisdiction.

An individual may, among other ways, be deemed to be a resident alien (as opposed to a non-resident alien) with respect to any calendar year by virtue of being present in the United States on at least 31 days in such calendar year and for an aggregate of at least 183 days during the current calendar year and the two preceding calendar years (counting for such purposes all of the days present in the current year, one-third of the days present in the immediately preceding year, and one-sixth of the days present in the second preceding year). Resident aliens are subject to U.S. federal tax as if they were U.S. citizens.

DIVIDENDS

As described above, the Company does not expect to pay dividends. In the event the Company does pay dividends, dividends paid to a non-U.S. holder of Common Stock will be subject to withholding of U.S. federal income tax at a rate of 30% of the gross amount of the dividend or such lower rate as may be specified by an applicable income tax treaty, unless the dividends are effectively connected with the conduct of a trade or business by the non-U.S. holder within the United States. Dividends that are effectively connected with such holder's conduct of a trade or business in the United States are subject to U.S. federal income tax on a net income basis at applicable graduated individual or corporate rates, and are not generally subject to withholding, if the holder complies with certain certification and disclosure requirement. Any such effectively connected dividends received by a foreign corporation may also, under certain circumstances, be subject to an additional "branch profits tax" at a 30% rate or such lower rate as may be specified by an applicable income tax treaty.

Dividends paid to an address outside the United States are presumed to be paid to a resident of the country of address (unless the payer has knowledge to the contrary) for purposes of the withholdings discussed above and for purposes of determining the applicability of a tax treaty rate. Under proposed U.S. Treasury regulations that are proposed to be effective for distributions after 1997 (the "Proposed Regulations") however, a non-U.S. holder of Common Stock who wishes to claim the benefit of an applicable treaty rate would be required to satisfy applicable certification requirements. The Proposed Regulations include special rules that apply to dividends paid to foreign partnerships. It is not certain whether, or in what form, the Proposed Regulations will be adopted as final regulations.

A non-U.S. holder of Common Stock that is eligible for a reduced rate of U.S. withholding tax pursuant to an income tax treaty may obtain a refund of any excess amounts withheld by filing an appropriate claim for refund with the U.S. Internal Revenue Service.

GAIN ON DISPOSITION OF COMMON STOCK

A non-U.S. holder generally will not be subject to U.S. federal income tax in respect of gain recognized on a disposition of Common Stock unless (i) the gain is effectively connected with a trade or business of the non-U.S. holder in the United States or, if a tax treaty applies, is attributable to a permanent establishment maintained by the non-U.S. holder in the United States, (ii) in the case of a non-U.S. holder who is an individual and holds the Common Stock as a capital asset, such holder is present in the United States for 183 or more days in the taxable year of the sale and certain other conditions are met, or (iii) the Company is or has been a "U.S. real property holding corporation" for federal income tax purposes at any time during the five-year period ending on the date of the disposition. The Company believes that it has not been and it is not a "U.S. real property holding corporation" for U.S. federal income tax purposes and does not currently anticipate becoming a "U.S. real property holding corporation." If an individual non-U.S. holder falls under clause (i) above, he or she will be taxed on his or her net gain derived from the sale at regular graduated U.S. federal income tax rates. If an individual non-U.S. holder falls under clause (ii) above, he or she will be subject to a flat 30% tax on the net gain derived from the sale which gain may be offset by U.S. capital losses. If a non-U.S. holder that is a foreign corporation falls under clause (i) above, it will be taxed on its gain at regular graduated U.S. federal income tax rates and, in addition, may be subject to the branch profits tax equal to 30% of its "effectively connected earnings and profits" within the meaning of the Code for the taxable year, as adjusted for certain items, or at such lower rate as may be specified by an applicable income tax treaty.

FEDERAL ESTATE TAXES

Common Stock owned or treated as owned by a non-U.S. holder at the time of death, or Common Stock of which the non-U.S. holder made certain in lifetime transfers, will be included in such holder's gross estate for U.S. federal estate tax purposes, unless an applicable estate tax treaty provides otherwise.

U.S. INFORMATION REPORTING REQUIREMENTS AND BACKUP WITHHOLDING TAX

The Company must report annually to the U.S. Internal Revenue Service and to each non-U.S. holder the amount of dividends paid to such holder and the tax withheld with respect to such dividends, regardless of whether withholding was required. Copies of the information returns reporting such dividends and withholding may also be made available to the tax authorities in the country in which the non-U.S. holder resides under the provisions of an applicable income tax treaty.

Under current law, backup withholding (which generally is a withholding tax imposed at the rate of 31% on certain payments to persons that fail to furnish certain information under the U.S. information reporting requirements) will generally not apply to dividends paid to a non-U.S. holder at an address outside the United States unless such non-U.S. holder is engaged in a trade or business in the United States or unless the payer has knowledge that the payee is a U.S. person. Under the Proposed Regulations, however, dividend payments generally will be subject to backup withholding unless applicable certification requirements are satisfied.

In general, backup withholding and information reporting will not apply to a payment of the proceeds of a sale of Common Stock to or through a foreign office of a broker. If, however, such broker is, for U.S. federal income tax purposes, a U.S. person, a controlled foreign corporation, or a foreign person that derives 50% of more of its gross income for certain periods form the conduct of a trade or business in the United States, such payments will not be subject to backup withholding but will be subject to information reporting, unless (1) such broker has documentary evidence in its records that the beneficial owner is a non-U.S. holder and certain other conditions are met, or (2) the beneficial owner otherwise establishes an exemption.

Payment to or through a U.S. office of a broker of the proceeds of a sale of Common Stock is generally subject to both backup withholding and information reporting unless the beneficial owner

certifies under penalties of perjury that it is a non-U.S. holder, or otherwise establishes an exemption.

Any amounts withheld under the backup withholding rules may be allowed as a refund or a credit against such holder's U.S. federal income tax liability provided the required information is furnished to the U.S. Internal Revenue Service.

LEGAL MATTERS

Certain legal matters with respect to the shares of Common Stock offered hereby will be passed upon for the Company by Hogan & Hartson L.L.P., Baltimore, Maryland and for the Underwriters by Hale and Dorr, Washington, D.C.

EXPERTS

The financial statements as of October 31, 1996 and 1995 and for each of the three fiscal years in the period ended October 31, 1996 included in this Prospectus have been so included in reliance on the report of Price Waterhouse LLP, independent accountants, given on the authority of said firm as experts in auditing and accounting.

ADDITIONAL INFORMATION

The Company has filed with the Securities and Exchange Commission a Registration Statement on Form S-1 under the Securities Act with respect to the Common Stock offered hereby. This Prospectus, which constitutes a part of the Registration Statement, does not contain all of the information set forth in the Registration Statement, certain items of which are contained in exhibits to the Registration Statement as permitted by the rules and regulations of the Commission. For further information with respect to the Company and the Common Stock offered hereby, reference is made to the Registration Statement, including the exhibits thereto. Statements made in this Prospectus concerning the contents of any document referred to herein are not necessarily complete. With respect to each such document filed with the Commission as an exhibit to the Registration Statement, reference is made to the copy of such documents filed as exhibits to the Registration Statement for a more complete description of the matter involved, and each such document shall be deemed qualified in its entirety by such reference. The Registration Statement, including the exhibits thereto, as well as other information filed with the Commission, may be inspected without charge at the Commission's principal office at 450 Fifth Street, N.W., Washington, D.C. 20549 and at the Commission's regional offices at 500 West Madison Street, Suite 1400, Chicago, Illinois 60661 and Seven World Trade Center, Suite 1300, New York, New York 10048. Copies of all or any part thereof may be obtained from the Commission upon the payment of certain fees prescribed by the Commission. The Commission also maintains a World Wide Web site that contains reports, proxy statements and other information regarding registrants, including the Company, that file such information electronically with the Commission. The address of the Commission's Web site is http://www.sec.gov.

CIENA CORPORATION

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REPORT OF INDEPENDENT ACCOUNTANTS

To the Board of Directors and
Stockholders of CIENA Corporation

In our opinion, the accompanying balance sheets and the related statements of operations, of cash flows and of changes in stockholders' equity (deficit) present fairly, in all material respects, the financial position of CIENA Corporation at October 31, 1996 and 1995, and the results of its operations and its cash flows for each of the three years in the period ended October 31, 1996, in conformity with generally accepted accounting principles. These financial statements are the responsibility of the Company's management; our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with generally accepted auditing standards which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for the opinion expressed above.

PRICE WATERHOUSE LLP
Falls Church, VA
November 27, 1996, except as to Note 14,
which is as of December 10, 1996

CIENA CORPORATION
BALANCE SHEETS
(IN THOUSANDS, EXCEPT SHARE DATA)

	OCTOBER 31,		PRO FORMA STOCKHOLDERS' EQUITY AT OCTOBER 31,
	1995	1996	1996
			(UNAUDITED)
ASSETS			
Current assets:			
Cash and cash equivalents	$ 5,032	$ 22,557	
Accounts receivable (net of allowance of $--)	8	16,759	
Inventories, net	--	13,228	
Deferred income taxes	--	1,834	
Prepaid expenses and other	22	634	
Total current assets	5,062	55,012	
Equipment, furniture and fixtures, net	2,239	11,863	
Other assets	82	426	
Total assets	$ 7,383	$ 67,301	
LIABILITIES, MANDATORILY REDEEMABLE PREFERRED STOCK AND STOCKHOLDERS' EQUITY (DEFICIT)			
Current liabilities:			
Current installments of capital lease obligations	$ 368	$ 960	
Current maturities of notes payable	--	69	
Accounts payable	541	6,278	
Accrued liabilities	1,084	5,242	
Income taxes payable	--	3,342	
Deferred revenue	--	3,265	
Total current liabilities	1,993	19,156	
Capital lease obligations, less current installments	856	2,186	
Notes payable, less current maturities	--	487	
Deferred rent	10	98	
Total liabilities	2,859	21,927	
Commitments and contingencies	--	--	
Mandatorily redeemable preferred stock -- par value $.01, 16,250,000 shares authorized:			
Series A -- 4,500,000 shares authorized; 3,542,520 and 3,590,157 shares issued and outstanding; zero outstanding pro forma	3,492	3,492	$ --
Series B -- 8,000,000 shares authorized; 7,354,092 shares issued and outstanding; zero outstanding pro forma	10,962	10,962	--
Series C -- 3,750,000 shares authorized; 3,718,899 shares issued and outstanding; zero outstanding pro forma	--	25,950	--
Stockholders' equity (deficit):			
Preferred stock -- par value $.01; 20,000,000 shares authorized; zero shares issued and outstanding; zero outstanding pro forma	--	--	--
Common stock -- par value $.01; 180,000,000 shares authorized; 11,935,415 and 13,191,585 shares issued and outstanding; 86,507,325 outstanding pro forma	119	132	865
Additional paid-in capital	110	339	40,010
Notes receivable from stockholders	--	(60)	(60)
Retained earnings (deficit)	(10,159)	4,559	4,559
Total stockholders' equity (deficit)	(9,930)	4,970	$ 45,374
Total liabilities, mandatorily redeemable preferred stock and stockholders' equity (deficit)	$ 7,383	$ 67,301	

The accompanying notes are an integral part of these financial statements

CIENA CORPORATION

STATEMENTS OF OPERATIONS
(IN THOUSANDS, EXCEPT PER SHARE DATA)

	YEAR ENDED OCTOBER 31,		
	1994	1995	1996
Revenue	$ --	$ --	$54,838
Cost of goods sold	--	--	21,844
Gross profit	--	--	32,994
Operating expenses:			
Research and development	1,287	6,361	8,922
Selling and marketing	295	481	3,780
General and administrative	787	896	3,905
Total operating expenses	2,369	7,738	16,607
Income (loss) from operations	(2,369)	(7,738)	16,387
Interest and other income (expense), net	(36)	195	877
Interest expense	(2)	(86)	(296)
Income (loss) before income taxes	(2,407)	(7,629)	16,968
Provision for income taxes	--	--	2,250
Net income (loss)	$(2,407)	$(7,629)	$14,718
Pro forma net income per common and common equivalent share			$ .15
Pro forma weighted average common and common equivalent shares outstanding			99,107

The accompanying notes are an integral part of these financial statements.

CIENA CORPORATION

STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY (DEFICIT)
FOR THE YEARS ENDED OCTOBER 31, 1994, 1995 AND 1996
(DOLLARS IN THOUSANDS)

	COMMON STOCK		ADDITIONAL	NOTES RECEIVABLE FROM	RETAINED EARNINGS	TOTAL STOCKHOLDERS' EQUITY
	SHARES	AMOUNT	PAID-IN-CAPITAL	STOCKHOLDERS	(DEFICIT)	(DEFICIT)
BALANCE AT OCTOBER 31, 1993	7,066,665	$ 71	$ 17	$ --	$ (123)	$ (35)
Issuance of common stock	3,750,000	37	39	(65)	--	11
Payment of expenses by stockholder	--	--	43	--	--	43
Net loss	--	--	--	--	(2,407)	(2,407)
BALANCE AT OCTOBER 31, 1994	10,816,665	108	99	(65)	(2,530)	(2,388)
Exercise of warrants	1,075,000	11	11	--	--	22
Exercise of stock options	43,750	--	--	--	--	--
Repayment of receivables from stockholders	--	--	--	65	--	65
Net loss	--	--	--	--	(7,629)	(7,629)
BALANCE AT OCTOBER 31, 1995	11,935,415	119	110	--	(10,159)	(9,930)
Exercise of warrants	676,425	7	--	--	--	7
Exercise of stock options	579,745	6	71	(60)	--	17
Compensation cost of stock options	--	--	2	--	--	2
Issuance of warrants for settlement of certain equity rights	--	--	156	--	--	156
Net income	--	--	--	--	14,718	14,718
BALANCE AT OCTOBER 31, 1996	13,191,585	$132	$ 339	$(60)	$ 4,559	$ 4,970

The accompanying notes are an integral part of these financial statements.

CIENA CORPORATION

STATEMENTS OF CASH FLOWS
(IN THOUSANDS)

	YEAR ENDED OCTOBER 31,		
	1994	1995	1996
Cash flows from operating activities:			
Net income (loss)	$ (2,407)	$ (7,629)	$ 14,718
Adjustments to reconcile net income (loss) to net cash (used in) provided by operating activities:			
Non-cash charges from equity transactions	75	--	158
Write down of leasehold improvements	--	--	883
Depreciation and amortization	25	355	1,007
Provision for inventory excess and obsolescence	--	--	1,937
Accrued interest on notes receivable from stockholders	(2)	--	(2)
Provision for warranty and other contractual obligations	--	--	1,584
Changes in assets and liabilities:			
(Increase) decrease in accounts receivable	4	(8)	(16,751)
Increase in prepaid expenses and other	(2)	(16)	(612)
Increase in inventories	--	--	(15,165)
Increase in deferred income taxes	--	--	(1,834)
Increase in other assets	(26)	(56)	(343)
Increase in accounts payable and accruals	820	757	8,311
Increase in income taxes payable	--	--	3,342
Increase (decrease) in deferred revenue and deferred rent	21	(11)	3,353
Net cash (used in) provided by operating activities	(1,492)	(6,608)	586
Cash flows from investing activities:			
Additions to equipment, furniture and fixtures	(585)	(2,036)	(11,514)
Net cash used in investing activities	(585)	(2,036)	(11,514)
Cash flows from financing activities:			
Proceeds from notes payable	--	--	556
Proceeds from bridge loan	200	--	--
Repayment of bridge loan	(200)	--	--
Net proceeds from issuance of or subscription to mandatorily redeemable preferred stock	3,460	10,962	25,950
Proceeds from issuance of common stock and warrants	11	22	24
Repayment of notes receivable from stockholders	--	65	--
Proceeds from lease financing activities	504	944	2,564
Principal payments on capital lease obligations	--	(225)	(641)
Net cash provided by financing activities	3,975	11,768	28,453
Net increase in cash and cash equivalents	1,898	3,124	17,525
Cash and cash equivalents at beginning of year	10	1,908	5,032
Cash and cash equivalents at end of year	$ 1,908	$ 5,032	$ 22,557
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION:			
Cash paid during the year for:			
Interest	$ 2	$ 86	$ 296
Income taxes	$ --	$ --	$ 742
SUPPLEMENTAL DISCLOSURE OF NON-CASH FINANCING ACTIVITIES:			
Issuance of common stock for notes receivable from stockholders	$ 65	$ --	$ 60

The accompanying notes are an integral part of these financial statements.

CIENA CORPORATION

NOTES TO FINANCIAL STATEMENTS

(1) THE COMPANY AND SIGNIFICANT ACCOUNTING POLICIES

Description of Business

CIENA Corporation (the "Company" or "CIENA"), a Delaware corporation, was incorporated on November 2, 1992 as HydraLite Incorporated. Subsequently, the Company changed its name to Cedrus Corporation and then to CIENA Corporation. The Company designs, manufactures and sells dense wavelength division multiplexing systems for long distance fiberoptic telecommunications networks. During the period from November 2, 1992 to October 31, 1995, CIENA was a development stage company as defined in Statement of Financial Accounting Standards No. 7, "Development Stage Enterprises". Planned principal operations commenced during fiscal 1996 and, accordingly, CIENA is no longer considered a development stage company.

During fiscal 1996, all of the Company's revenue was attributable to a single product and to a single customer. Additionally, the Company's access to certain raw materials is dependent upon single and sole source suppliers.

Fiscal Year

The Company has a 52 or 53 week fiscal year which ends on the Saturday nearest to the last day of October in each year (November 2, 1996; October 28, 1995; and October 29, 1994). For purposes of financial statement presentation, each fiscal year is described as having ended on October 31. Fiscal 1994 and 1995 comprised 52 weeks and fiscal 1996 comprised 53 weeks.

Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires the Company to make estimates, judgments and assumptions that affect the reported amounts of assets, liabilities, revenue and expenses, together with amounts disclosed in the related notes to the financial statements. Particularly sensitive estimates include reserves for warranty and other contractual obligations and for excess and obsolete inventories. Actual results could differ from the recorded estimates.

Pro Forma Stockholders' Equity

CIENA anticipates filing an initial registration statement with the Securities and Exchange Commission. If the contemplated Offerings are consummated under the terms presently anticipated, each share of the Mandatorily Redeemable Series A, B, and C Preferred Stock (collectively, the "Convertible Preferred Stock") will convert into five shares of the Company's Common Stock. Pro forma stockholders' equity as of October 31, 1996 reflects the anticipated conversion of the Convertible Preferred Stock into Common Stock.

Cash and Cash Equivalents

The Company considers all highly liquid investments purchased with original maturities of three months or less to be cash equivalents. The Company's entire cash and cash equivalents balance at October 31, 1996 was on deposit with one financial institution, which represents a concentration of credit risk as defined under Statement of Financial Accounting Standards No. 105, "Disclosure of Information about Financial Instruments with Off-Balance-Sheet Risk and Financial Instruments with Concentrations of Credit Risk". The majority of the Company's cash equivalents are invested in overnight repurchase agreements, which are secured by the U.S. Government.

(1) THE COMPANY AND SIGNIFICANT ACCOUNTING POLICIES -- (CONTINUED)

Inventories

Inventories are stated at the lower of cost or market, with cost determined on the first-in, first-out basis. The Company records a provision for excess and obsolete inventory whenever such an impairment has been identified.

Equipment, Furniture and Fixtures

Equipment, furniture and fixtures are recorded at cost. Depreciation and amortization are computed using the straight-line method over useful lives of 2-5 years for equipment, furniture and fixtures and of 6-10 years for leasehold improvements.

Revenue Recognition

The Company recognizes product revenue in accordance with the shipping terms specified. For transactions where the Company has yet to obtain customer acceptance or has agreements pertaining to installation services, revenue is deferred until no significant obligations remain. Revenue for installation services is recognized as the services are performed. Amounts received in excess of revenue recognized are included as deferred revenue in the accompanying balance sheets. For distributor sales where risks of ownership have not transferred, the Company recognizes revenue when the product is shipped through to the end user.

During fiscal 1996, all of the Company's revenue and related trade accounts receivable were derived from one customer, which is headquartered within the United States.

Revenue-Related Accruals

The Company provides for the estimated costs to fulfill customer warranty and other contractual obligations upon the recognition of the related revenue. Such reserves are determined based upon actual warranty cost experience, estimates of component failure rates, and management's industry experience. The Company's contractual sales arrangements generally do not permit the right of return of product by the customer.

Research and Development

The Company charges all research and development costs to expense as incurred.

Income Taxes

The Company accounts for income taxes in accordance with Statement of Financial Accounting Standards No. 109 (SFAS No. 109), "Accounting for Income Taxes". SFAS No. 109 is an asset and liability approach that requires the recognition of deferred tax assets and liabilities for the expected future tax consequences attributable to differences between the carrying amounts of assets and liabilities for financial reporting purposes and their respective tax bases, and for operating loss and tax credit carryforwards. In estimating future tax consequences, SFAS No. 109 generally considers all expected future events other than the enactment of changes in tax laws or rates. A valuation allowance is recorded if it is "more likely than not" that some portion or all of a deferred tax asset will not be realized.

(1) THE COMPANY AND SIGNIFICANT ACCOUNTING POLICIES -- (CONTINUED)

Computation of Pro Forma Net Income per Share

Pro forma net income per common and common equivalent share is computed using the weighted average number of common and common equivalent shares outstanding. Weighted average common and common equivalent shares include Common Stock, stock options and warrants using the modified treasury stock method and the assumed conversion of all outstanding shares of Convertible Preferred Stock into Common Stock. Since the conversion of the Convertible Preferred Stock has a significant effect on the earnings per share calculation, historical loss per share has not been calculated on the basis that it is irrelevant.

Pursuant to the requirements of the Securities and Exchange Commission, Common Stock, stock options, warrants and Convertible Preferred Stock issued by the Company during the twelve months immediately preceding the filing of an initial registration statement and through the effective date of such registration statement have been included in the calculation of the weighted average shares outstanding using the modified treasury stock method based on the estimated initial public offering price.

Software Development Costs

Statement of Financial Accounting Standards No. 86, "Accounting for the Costs of Computer Software to be Sold, Leased or Otherwise Marketed", requires the capitalization of certain software development costs incurred subsequent to the date technological feasibility is established and prior to the date the product is generally available for sale. The capitalized cost is then amortized over the estimated product life. The Company defines technological feasibility as being attained at the time a working model is completed. To date, the period between achieving technological feasibility and the general availability of such software has been short and software development costs qualifying for capitalization have been insignificant. Accordingly, the Company has not capitalized any software development costs.

Accounting for Stock Options

In October 1995, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 123 (SFAS No. 123), "Accounting for Stock-Based Compensation". The Company's adoption of SFAS No. 123 in fiscal 1997 will not have any effect on the Company's financial condition or results of operations, as the Company intends to continue to measure compensation cost of stock options granted to employees using the intrinsic value method provided by Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees".

(2) INVENTORIES

Inventories are comprised of the following (in thousands):

	OCTOBER 31, 1996
Raw materials	$ 8,585
Work-in-process	3,629
Finished goods	2,951
	15,165
Less reserve for excess and obsolescence	(1,937)
	$13,228

(3) EQUIPMENT, FURNITURE AND FIXTURES

Equipment, furniture and fixtures are comprised of the following (in thousands):

	OCTOBER 31,	
	1995	1996
Equipment, furniture and fixtures	$ 2,077	$ 11,647
Leasehold improvements	133	1,141
	2,210	12,788
Accumulated depreciation and amortization	(381)	(1,388)
Construction-in-progress	410	463
	$ 2,239	$ 11,863

In September 1994 and October 1995, the Company entered into separate master lease agreements to lease certain furniture and equipment. The Company may lease up to a maximum total of $4.5 million of furniture and equipment under these agreements, of which $4.1 million had been utilized as of October 31, 1996. Lease terms range from 36 to 48 months. In accordance with Statement of Financial Accounting Standards No. 13, "Accounting for Leases", the related leases have been recorded as capital lease transactions.

Furniture and equipment with a cost of $1,541,000 and $4,105,000 and accumulated depreciation of $311,000 and $1,080,000 have been accounted for as capital lease assets at October 31, 1995 and 1996, respectively. The Company has the option to purchase the assets at the end of the lease term.

(4) ACCRUED LIABILITIES

Accrued liabilities are comprised of the following (in thousands):

	OCTOBER 31,	
	1995	1996
Warranty and other contractual obligations	$ --	$ 1,584
Accrued compensation	434	2,314
Unbilled construction-in-progress and leasehold improvements	411	50
Other	239	1,294
	$ 1,084	$ 5,242

(5) CAPITAL LEASE OBLIGATIONS

Capital lease obligations are summarized as follows (in thousands):

	OCTOBER 31, 1996
Capital lease obligations, secured by related assets, payable in monthly installments including interest at rates ranging from 8.72% to 13.15% through June 2000	$ 3,146
Less current installments	(960)
Long-term capital lease obligations	$ 2,186

(5) CAPITAL LEASE OBLIGATIONS -- (CONTINUED)

Future minimum capital lease payments at October 31, 1996 are as follows (in thousands):

Fiscal year ending October 31,	
1997	$ 1,288
1998	1,202
1999	942
2000	377
	3,809
Less amounts representing interest	(663)
	$ 3,146

(6) LINE OF CREDIT

In November 1996, the Company entered into an unsecured line of credit agreement with a bank, which provides for borrowings of up to $15,000,000. Interest on borrowings is set at the bank's prime rate (at November 20, 1996 the rate was 8.25%). Among other provisions, the Company is required to maintain certain financial covenants, principally certain minimum working capital levels and monthly profitability levels. The line of credit agreement also prohibits the Company from paying cash dividends on its capital stock, and expires in November 1997.

(7) NOTES PAYABLE

In June 1996, the Company borrowed $556,000 from the Maryland Economic Development Corporation for construction of leasehold improvements and executed promissory notes of $500,000 and $56,000 with annual interest rates of 6.63% and 3.00%, respectively. Initial interest payments on the notes are due three and six months following the date of disbursement with quarterly principal payments commencing on March 31, 1997. The Company provided $56,000 on deposit in escrow as collateral towards the notes and has recorded such amount as a component of other assets in the accompanying balance sheet.

The notes payable are due as follows (in thousands):

Fiscal year ending October 31,	
1997	$ 69
1998	153
1999	104
2000	111
2001	119
	$ 556

(8) MANDATORILY REDEEMABLE PREFERRED STOCK

Each holder of Convertible Preferred Stock is entitled to vote on all matters on an as if converted basis. Dividends, if declared by the Board of Directors, are $.06, $.1275 and $.56 per share for the Series A, Series B and Series C Preferred Stock, respectively. No dividends have been declared through fiscal 1996. Subsequent to December 1, 2001, Series A dividends accrue on a quarterly basis and become cumulative. Upon liquidation, holders of the Series A, Series B and

(8) MANDATORILY REDEEMABLE PREFERRED STOCK -- (CONTINUED)

Series C Preferred Stock are entitled to receive $1.00, $1.50 and $7.00 per share, respectively, as adjusted for certain defined recapitalization events, plus accrued dividends, if any.

Holders of Convertible Preferred Stock may convert each of their shares into five shares of common stock at any time. Each outstanding share of Convertible Preferred Stock will be automatically converted into five shares of Common Stock upon (1) the consummation of the Offerings contemplated by the Company in its anticipated initial registration statement, or (2) the affirmative vote of the holders of record of (a) 67% of the outstanding shares of all series of Convertible Preferred Stock, voting together as one class to that effect, and (b) 85% of the outstanding shares of Series C Preferred Stock, voting separately as a class. Each outstanding share of Convertible Preferred Stock is mandatorily redeemable by the Company at the greater of purchase price or fair value upon the affirmative vote of holders of 72% of the outstanding shares for each individual series. A total of 50% of any such redemption is to be paid seven years from original issuance and 50% eight years from original issuance. The accompanying financial statements do not reflect any accretion to redemption value, because such accretion is not meaningful in light of the contemplated Offerings and the related expected conversion of all Convertible Preferred Stock to Common Stock.

During February 1994, the Company received a two month $200,000 bridge loan from two investors that subsequently purchased Series A Preferred Stock shares in April 1994. These two investors received warrants to purchase 50,000 shares of Series A Preferred Stock at either an exercise price of $1.00 per share or at a reduced share quantity for a cashless exercise price. The fair value of these warrants was determined to be immaterial on the date of grant and therefore no charge was recorded. In September 1996, warrants to purchase 50,000 of these shares were exercised and exchanged in a cashless exercise for 47,637 shares.

The following is a summary of the Company's Convertible Preferred Stock activity (dollars in thousands):

	SERIES A PREFERRED STOCK		SERIES B PREFERRED STOCK		SERIES C PREFERRED STOCK	
	SHARES	AMOUNT	SHARES	AMOUNT	SHARES	AMOUNT
Balance at October 31, 1993.....	--	$ --	--	$ --	--	$ --
Issued.....	3,542,520	3,543	--	--	--	--
Costs associated with issuance.....	--	(51)	--	--	--	--
Balance at October 31, 1994.....	3,542,520	3,492	--	--	--	--
Issued.....	--	--	7,354,092	11,031	--	--
Costs associated with issuance.....	--	--	--	(69)	--	--
Balance at October 31, 1995.....	3,542,520	3,492	7,354,092	10,962	--	--
Issued.....	47,637	--	--	--	3,718,899	26,032
Costs associated with issuance.....	--	--	--	--	--	(82)
Balance at October 31, 1996.....	3,590,157	$3,492	7,354,092	$10,962	3,718,899	$25,950

(9) STOCK OPTIONS AND WARRANTS

Stock Warrants

In January 1993, the Company issued a fully paid option to acquire up to five percent of the Company's outstanding shares of Common Stock after exercise. This option was issued in connection with the license of certain technologies described in Note 11. This option was redeemed

(9) STOCK OPTIONS AND WARRANTS -- (CONTINUED)
for 643,090 shares in early January 1996. As the fair value of these warrants was determined to be immaterial at the date of issuance, no charge to research and development expense was recorded.

In connection with the master lease agreement discussed in Note 5, the Company issued in September 1994, for $600, a warrant to the lessor to acquire 600,000 shares of the Company's Common Stock at an exercise price of $0.20 per share. As the fair value of these warrants was determined to be immaterial at the date of issuance, no charge was recorded by the Company.

In connection with the 1994 equity offerings, the Company issued warrants to investment bankers to purchase 1,075,000 shares of Common Stock at an exercise price of $0.02 and 150,000 shares of Series A Preferred Stock at an exercise price of $1.00 per share. No charge was recorded relative to these warrants as their fair value was determined to be immaterial. The warrants for the purchase of 1,075,000 shares of Common Stock were exercised in December 1994 for a $21,500 purchase price. During 1995, the warrants to purchase 150,000 shares of Series A Preferred Stock at $1.00 per share were canceled in exchange for the Company granting options to purchase 300,000 shares of Series B Preferred Stock at $2.00 per share.

During August 1996, in connection with the settlement of litigation involving a dispute over certain rights awarded from the April 1994 equity offerings of Series A Preferred Stock, the Company issued, for $150, a warrant to an investor to acquire 75,000 shares of the Company's Common Stock at an exercise price of $4.00 per share. The Company recorded approximately $156,000 in expense for the fair value of the warrant when granted.

Stock Incentive Plans

The Company has an Amended and Restated 1994 Stock Option Plan (the "1994 Plan"). Under the 1994 Plan, 20,050,000 shares of the Company's authorized but unissued Common Stock are reserved for options issuable to employees. These options are immediately exercisable upon grant, and both the options and the shares issuable upon exercise of the options generally vest to the employee over a four year period. The Company has the right to repurchase any exercised and non-vested shares at the original purchase price from the employees upon termination of employment. In June 1996 the Company approved the 1996 Outside Directors Stock Option Plan (the "1996 Plan"). Under the 1996 Plan, 750,000 shares of the Company's authorized but unissued Common Stock are reserved for options issuable to outside members of the Company's Board of Directors. These options vest to the director over periods from one to three years, depending on the type of option granted, and are exercisable once vested. Under the 1994 Plan and the 1996 Plan, options may be incentive stock options or non-statutory options, and the exercise price for each option shall be established by the Board of Directors provided, however, that the exercise price per share shall not be not less than the fair market value for incentive stock options and not less than

(9) STOCK OPTIONS AND WARRANTS -- (CONTINUED)

85% of fair market value for non-statutory stock options. Following is a summary of the Company's stock option and warrant activity:

	NUMBER OF SHARES (IN THOUSANDS)				
	COMMON STOCK		PREFERRED STOCK SERIES A WARRANTS	PREFERRED STOCK SERIES B WARRANTS	EXERCISE PRICE PER SHARE
	OPTIONS	WARRANTS			
Balance at October 31, 1993	--	386	--	--	$.00- .10
Granted	3,560	1,916	200	--	.00- 1.00
Balance at October 31, 1994	3,560	2,302	200	--	.00- 1.00
Granted	3,856	49	--	300	.00- 2.00
Exercised	(44)	(1,075)	--	--	.02
Canceled	(431)	--	(150)	--	.02- 1.00
Balance at October 31, 1995	6,941	1,276	50	300	.00- 2.00
Granted	5,851	75	--	--	.06-15.94
Exercised	(579)	(676)	(48)	--	.00- 1.52
Canceled	(1,180)	--	(2)	--	.03- 3.69
Balance at October 31, 1996	11,033	675	--	300	$.02-15.94

All of the outstanding warrants above are currently exercisable, except the Common Stock warrant for 75,000 shares granted to an investor in August 1996. This warrant becomes exercisable in August 1997. Approximately 3.3 million of the total outstanding options and warrants were vested at October 31, 1996.

(10) INCOME TAXES

In fiscal 1996, the provision for income taxes consists of the following (in thousands):

Current:	
Federal	$ 3,452
State	632
	4,084
Deferred:	
Federal	(1,690)
State	(144)
	(1,834)
	$ 2,250

In fiscal 1994 and 1995, the tax provision was comprised primarily of a tax benefit of approximately $960,000 and $3.1 million, respectively, which was offset by valuation allowance of the same amount.

In fiscal 1994 and 1995, the tax provision differed from the expected tax benefit, computed by applying the U.S. federal statutory rate of 35% to the loss before income taxes, principally due to the effect of increases in the valuation allowance. In fiscal 1996, the tax provision reconciles to the

(10) INCOME TAXES -- (CONTINUED)

amount computed by multiplying income before income taxes by the U.S. federal statutory rate of 35% as follows:

Provision at statutory rate	35.0%
Reversal of valuation allowance	(24.3)
State taxes, net of federal benefit	2.9
Current tax credits	(1.1)
Other	0.8
	13.3%

The components of deferred tax assets were as follows (in thousands):

	OCTOBER 31, 1995	OCTOBER 31, 1996
Reserve for excess and obsolete inventories	$ --	$ 736
Accrued warranty and other contractual obligations	--	602
Start-up costs deferred for tax purposes	496	379
Other accrued expenses not deducted for tax	--	114
Accrual to cash basis adjustments	689	--
Net operating loss carryforward	2,814	--
Other	51	3
Gross deferred tax assets	4,050	1,834
Valuation allowance	(4,050)	--
Net deferred tax asset	$ --	$ 1,834

The increase in the valuation allowance during fiscal 1995 was primarily attributable to the increase in net operating losses. The reversal of the valuation allowance during the third quarter of fiscal 1996 was attributable to the receipt of product acceptance by the Company from its initial customer and the start of profitable operations during that period. In assessing the realizability of deferred tax assets, management considers whether it is "more likely than not" (as defined under SFAS No. 109) that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. Management considers projected future taxable income and tax planning strategies in making this assessment. Based upon their evaluation of the evidence relating to net deferred tax assets at October 31, 1995, management determined that realization was not "more likely than not" and, accordingly, established a valuation allowance of $4.1 million.

(11) LICENSE AGREEMENT

The Company has an exclusive agreement to license certain technologies which requires a 7.5% royalty on sales of products using the licensed technologies or certain minimum annual requirements. To date, the Company has incurred only the minimum annual royalty fees of $50,000 and $100,000 for the years ended October 31, 1995 and 1996, respectively. The Company may terminate the agreement upon notice to the licensor and would be liable for any payments accrued or owed prior to such termination.

(12) EMPLOYEE BENEFIT PLANS

In January 1995, the Company adopted a 401(k) defined contribution profit sharing plan. The plan covers all full-time employees who are at least 21 years of age, have completed three months of service and are not covered by a collective bargaining agreement where retirement benefits are subject to good faith bargaining. Participants may contribute up to 15% of pretax compensation, subject to certain limitations. The Company may make discretionary annual profit sharing contributions of up to the lesser of $30,000 or 25% of each participant's compensation. The Company has made no profit sharing contributions to date.

(13) COMMITMENTS AND CONTINGENCIES

Operating Lease Commitments

The Company has certain minimum obligations under noncancelable operating leases expiring on various dates through 2006 for equipment and facilities. Future annual minimum rental commitments under noncancelable operating leases at October 31, 1996 are as follows (in thousands):

Fiscal Year Ending	
1997	$ 1,487
1998	1,816
1999	1,807
2000	1,796
2001	1,796
Thereafter	7,245
	$ 15,947

Rental expense for fiscal 1994, 1995 and 1996 was approximately $42,000, $111,000 and $602,000, respectively.

Litigation

In November 1996, a stockholder and entities controlled by that stockholder (the "plaintiffs") who provided initial equity capital during the formation of the Company and participated in the Series C Preferred Stock financing, filed suit against the Company and certain directors of the Company (the "defendants"). This suit alleges that the plaintiffs were entitled by the terms of an agreement with the Company to purchase approximately 230,000 shares of additional Series C Preferred Stock, at $7.00 per share, at the time of the closing of the Series C Preferred Stock financing, but were denied that opportunity by the defendants. The plaintiffs seek to recover unspecified actual and punitive damages. The Company believes that the plaintiffs' claims are without merit and intends to defend itself vigorously. However, due to the very early stage of this matter, it is not possible to determine what impact, if any, the outcome of this litigation might have on the financial condition, results of operations or cash flows of the Company.

The Company has agreed to indemnify its customer for liability incurred in connection with the infringement of a third-party's intellectual property rights. Although the Company has not received notice from its customer advising the Company of any alleged infringement of a third-party's intellectual property rights, there can be no assurance that such indemnification of alleged liability will not be required from the Company in the future.

Substantial inventories of intellectual property are held by a few industry participants and major universities and research laboratories. The Company has on a few occasions hired personnel from

(13) COMMITMENTS AND CONTINGENCIES -- (CONTINUED)

such parties. The Company has in the past received letters from legal counsel to one such party, asserting that the hiring of their personnel involves a compromise of that party's intellectual properties. The Company disagrees with such assertions and, if any formal claim were to be filed, the Company would vigorously defend itself. Such litigation could be very expensive to defend, regardless of the merits of any possible claim.

(14) SUBSEQUENT EVENTS

On November 22, 1996, the Company's Board of Directors approved the following effective on December 9, 1996: (i) a five-for-one stock split of the Company's Common Stock; (ii) an increase in the number of Common Stock authorized from 112,500,000 to 180,000,000; (iii) an increase in the number of shares of Common Stock issuable upon conversion of the Convertible Preferred Stock from one-for-one to five-for-one, and (iv) the authorization of 20,000,000 shares of undesignated Preferred Stock. All references to the number of shares authorized, issued and outstanding, the Preferred Stock to Common Stock conversion factor and per share information for all periods presented have been adjusted to give effect to the aforementioned stock split and share authorizations.

On December 10, 1996, the Company's Board of Directors authorized management of the Company to file a registration statement with the Securities and Exchange Commission for the initial public offering of its common stock. The Company plans to issue 5,000,000 shares at an estimated initial public offering price of between $17 and $19 per share.

UNDERWRITING

Subject to the terms and conditions of the Underwriting Agreement, the Company has agreed to sell to each of the U.S. Underwriters named below, and each of such U.S. Underwriters, for whom Goldman, Sachs & Co., Alex. Brown & Sons Incorporated, Wessels, Arnold & Henderson, L.L.C. and William K. Woodruff & Company are acting as representatives, has severally agreed to purchase from the Company, the respective number of shares of Common Stock set forth opposite its name below:

UNDERWRITER	NUMBER OF SHARES OF COMMON STOCK
Goldman, Sachs & Co.	
Alex. Brown & Sons Incorporated	
Wessels, Arnold & Henderson, L.L.C.	
William K. Woodruff & Company	
Total	4,000,000

Under the terms and conditions of the Underwriting Agreement, the U.S. Underwriters are committed to take and pay for all of the shares offered hereby, if any are taken.

The U.S. Underwriters propose to offer the shares of Common Stock in part directly to the public at the initial public offering price set forth on the cover page of this Prospectus and in part to certain securities dealers at such price less a concession of $ per share. The U.S. Underwriters may allow, and such dealers may reallow, a concession not in excess of $ per share to certain brokers and dealers. After the shares of Common Stock are released for sale to the public, the offering price and other selling terms may from time to time be varied by the representatives.

The Company has entered into an underwriting agreement (the "International Underwriting Agreement") with the underwriters of the international offering (the "International Underwriters") providing for the concurrent offer and sale of 1,000,000 shares of Common Stock in an international offering outside the United States. The offering price and aggregate underwriting discounts and commissions per share for the two offerings are identical. The closing of the offering made hereby is a condition to the closing of the international offering, and vice versa. The representatives of the International Underwriters are Goldman Sachs International, Alex. Brown & Sons Incorporated, Wessels, Arnold & Henderson, L.L.C. and William K. Woodruff & Company.

Pursuant to an Agreement between the U.S. and International Underwriting Syndicates (the "Agreement Between") relating to the two offerings, each of the U.S. Underwriters named herein has agreed that, as a part of the distribution of the shares offered hereby and subject to certain exceptions, it will offer, sell or deliver the shares of Common Stock, directly or indirectly, only in the United States of America (including the States and the District of Columbia), its territories, its possessions and other areas subject to its jurisdiction (the "United States") and to U.S. persons, which term shall mean, for purposes of this paragraph: (a) any individual who is a resident of the United States or (b) any corporation, partnership or other entity organized in or under the laws of the United States or any political subdivision thereof and whose office most directly involved with the purchase is located in the United States. Each of the International Underwriters has agreed pursuant to the Agreement Between that, as part of the distribution of the shares offered as a part of the international offering, and subject to certain exceptions, it will (i) not, directly or indirectly, offer, sell or deliver shares of Common Stock (a) in the United States or to any U.S. persons or (b) to any person whom it believes intends to reoffer, resell or deliver the shares in the United States or to any

U.S. persons, and (ii) cause any dealer to whom it may sell such shares at any concession to agree to observe a similar restriction.

Pursuant to the Agreement Between, sales may be made between the U.S. Underwriters and the International Underwriters of such number of shares of Common Stock as may be mutually agreed. The price of any shares so sold shall be the initial public offering price, less an amount not greater than the selling concession.

The Company has granted the U.S. Underwriters an option exercisable for 30 days after the date of this Prospectus to purchase up to an aggregate of 600,000 additional shares of Common Stock solely to cover over-allotments, if any. If the U.S. Underwriters exercise their over-allotment option, the U.S. Underwriters have severally agreed, subject to certain conditions, to purchase approximately the same percentage thereof that the number of shares to be purchased by each of them, as shown in the foregoing table, bears to the 4,000,000 shares of Common Stock offered. The Company has granted the International Underwriters a similar option to purchase up to an aggregate of 150,000 additional shares of Common Stock.

The Company, optionholders, warrantholders and certain stockholders of the Company have agreed that, during the period beginning from the date of this Prospectus and continuing to and including the date 180 days after the date of the Prospectus, they will not offer, sell, contract to sell or otherwise dispose of any securities of the Company (other than pursuant to employee stock option plans existing, or on the conversion or exchange of convertible or exchangeable securities outstanding, on the date of this Prospectus) which are substantially similar to the shares of the Common Stock or which are convertible into or exchangeable for securities which are substantially similar to the shares of Common Stock without the prior written consent of the Representatives, except for the shares of Common Stock offered in connection with the concurrent U.S. and international offerings.

The representatives of the Underwriters have informed the Company that they do not expect sales to accounts over which the Underwriters exercise discretionary authority to exceed five percent of the total number of shares of Common Stock offered by them.

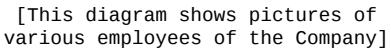
Prior to the Offerings, there has been no public market for the shares. The initial public offering price will be negotiated between the Company and the representatives of the U.S. Underwriters and the International Underwriters. Among the factors to be considered in determining the initial public offering price of the Common Stock, in addition to prevailing market conditions, will be the Company's historical performance, estimates of the business potential and earnings prospects of the Company, an assessment of the Company's management and the consideration of the above factors in relation to market valuation of companies in related businesses.

Under the terms of a settlement agreement with the Company entered into in August 1996, the Company has (i) agreed to retain Woodruff as one of the representatives of the United States Underwriters and the International Underwriters, (ii) granted Woodruff warrants to purchase 75,000 shares at a purchase price of $4.00 per share and (iii) made a cash payment to Woodruff of $87,500. See "Certain Transactions -- Litigation Settlement".

Application will be made for quotation of the Common Stock on the Nasdaq National Market under the symbol "CIEN".

The Company has agreed to indemnify the Underwriters against certain liabilities, including liabilities under the Securities Act.

This Prospectus may be used by underwriters and dealers in connection with offers and sales of the Common Stock, including shares initially sold in the international offering, to persons located in the United States.


[This diagram shows pictures of
various employees of the Company]

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NO PERSON HAS BEEN AUTHORIZED TO GIVE ANY INFORMATION OR TO MAKE ANY REPRESENTATIONS OTHER THAN THOSE CONTAINED IN THIS PROSPECTUS, AND, IF GIVEN OR MADE, SUCH INFORMATION OR REPRESENTATIONS MUST NOT BE RELIED UPON AS HAVING BEEN AUTHORIZED. THIS PROSPECTUS DOES NOT CONSTITUTE AN OFFER TO SELL OR THE SOLICITATION OF AN OFFER TO BUY ANY SECURITIES OTHER THAN THE SECURITIES TO WHICH IT RELATES OR AN OFFER TO SELL OR THE SOLICITATION OF AN OFFER TO BUY SUCH SECURITIES IN ANY CIRCUMSTANCES IN WHICH SUCH OFFER OR SOLICITATION IS UNLAWFUL. NEITHER THE DELIVERY OF THIS PROSPECTUS NOR ANY SALE MADE HEREUNDER SHALL, UNDER ANY CIRCUMSTANCES, CREATE ANY IMPLICATION THAT THERE HAS BEEN NO CHANGE IN THE AFFAIRS OF THE COMPANY SINCE THE DATE HEREOF OR THAT THE INFORMATION CONTAINED HEREIN IS CORRECT AS OF ANY TIME SUBSEQUENT TO ITS DATE.

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THROUGH AND INCLUDING , 1997 (THE 25TH DAY AFTER THE DATE OF THIS PROSPECTUS), ALL DEALERS EFFECTING TRANSACTIONS IN THE COMMON STOCK, WHETHER OR NOT PARTICIPATING IN THIS DISTRIBUTION, MAY BE REQUIRED TO DELIVER A PROSPECTUS. THIS IS IN addition TO THE OBLIGATION OF DEALERS TO DELIVER A PROSPECTUS WHEN ACTING AS UNDERWRITERS AND WITH RESPECT TO THEIR UNSOLD ALLOTMENTS OR SUBSCRIPTIONS.

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5,000,000 SHARES

CIENA CORPORATION
COMMON STOCK
(PAR VALUE $.01 PER SHARE)

[LOGO]

GOLDMAN, SACHS & CO.

ALEX. BROWN & SONS
INCORPORATED

WESSELS, ARNOLD & HENDERSON

WILLIAM K. WOODRUFF & COMPANY
REPRESENTATIVES OF THE UNDERWRITERS

- ---
- ---

PART II
INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 13. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION

The following table sets forth all fees and expenses, other than the underwriting discounts and commissions, payable by the Registrant in connection with the sale of the Common Stock being registered. All amounts shown are estimates except for the registration fee and the NASD filing fee.

SEC registration fee	$ 33,107
NASD filing fee	11,425
Nasdaq National Market listing fee	30,000
Blue sky qualification fees and expenses	10,000
Printing and engraving expenses	190,000
Legal fees and expenses	500,000
Accounting fees and expenses	300,000
Transfer agent and registrar fees	25,000
Miscellaneous	468
Total	$ 1,100,000

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* To be supplied by amendment.

ITEM 14. INDEMNIFICATION OF OFFICERS AND DIRECTORS

Section 145 of the Delaware General Corporation Law permits indemnification of officers, directors and other corporate agents under certain circumstances and subject to certain limitations. The Registrant's Third Amended and Restated Certificate of Incorporation and bylaws provide that the Registrant shall indemnify its directors, officers, employees and agents to the full extent permitted by Delaware General Corporation Law, including in circumstances in which indemnification is otherwise discretionary under Delaware law. In addition, the Registrant has entered into separate indemnification agreements with its directors, officers and certain employees which require the Registrant, among other things, to indemnify them against certain liabilities which may arise by reason of their status or service (other than liabilities arising from willful misconduct of a culpable nature) and to maintain directors' and officers' liability insurance, if available on reasonable terms. The Registrant intends to obtain directors' and officers' liability insurance with up to $10 million coverage per occurrence.

These indemnification provisions and the indemnification agreement to be entered into between the Registrant and its officers and directors may be sufficiently broad to permit indemnification of the Registrant's officers and directors for liabilities (including reimbursement of expenses incurred) arising under the Securities Act.

The Underwriting Agreements filed as Exhibits 1.1 and 1.2 to this Registration Statement provide for indemnification by the Underwriters of the Registrant and its officers and directors for certain liabilities arising under the Securities Act, or otherwise.

ITEM 15. RECENT SALES OF UNREGISTERED SECURITIES

Since December 1993, the Registrant has sold and issued the following unregistered securities (stated after giving effect to a 1,333.33-for-1 stock split in April 1994 and a five-for-one stock split effective on December 9, 1996).

(1) In April 1994, the Registrant sold 3,332,520 shares of Series A Preferred Stock for an aggregate price of $3,332,520.

(2) In April 1994, the Registrant sold 3,500,000 shares of Common Stock for an aggregate price of $70,000.

(3) In August 1994, the Registrant sold 210,000 shares of Series A Preferred Stock for an aggregate price of $210,000.

(4) In October 1994, the Registrant sold 250,000 shares of Common Stock for an aggregate price of $5,000.

(5) In December 1994, the Registrant sold 1,075,000 shares of Common Stock upon exercise of a warrant for an aggregate price of $21,500.

(6) In December 1994, the Registrant sold 7,354,092 shares of Series B Preferred Stock for an aggregate price of $11,031,138.

(7) In December 1995, the Registrant sold 3,718,899 shares of Series C Preferred Stock for an aggregate price of $26,032,293.

(8) In December 1995, the Registrant sold 33,335 shares of Common Stock upon exercise of a warrant for an aggregate price of $3,300.

(9) In January 1996, the Registrant sold 643,090 shares of Common Stock upon exercise of a warrant granted in consideration for the license of certain technologies.

(10) In September 1996, the Registrant sold 23,789 shares of Series A Preferred Stock upon a cashless exercise of a warrant.

(11) In September 1996, the Registrant sold 23,848 shares of Series A Preferred Stock upon a cashless exercise of a warrant.

(12) From December 1, 1993 through October 31, 1996, the Registrant has sold an aggregate of 623,495 shares for an aggregate consideration of $82,268 upon exercise of stock options granted pursuant to the Registrant's Amended and Restated 1994 Stock Option Plan.

The issuances described above were deemed to be exempt from registration under the Securities Act in reliance on Section 4(2) of the Securities Act as transactions by an issuer not involving a public offering. In addition, certain issuances described in Paragraph 13 were deemed exempt from registration under the Securities Act in reliance on Rule 701 promulgated thereunder as transactions pursuant to compensatory benefit plans and contracts relating to compensation. The recipients of securities in each such transaction represented their intention to acquire the securities for investment only and not with a view to or for sale in connection with any distribution thereof and appropriate legends were affixed to the share certificates and other instruments issued in such transactions. All recipients either received adequate information about the Registrant or had access, through employment or other relationships, to such information. Effective upon the completion of the Offerings being registered hereby, all of the issued and outstanding shares of the Company's Convertible Preferred Stock will automatically convert into 73,315,740 shares of the Company's Common Stock. The Registrant will rely upon the exemption from registration contained in Section 3(a)(9) of the Securities Act.

ITEM 16. EXHIBITS

(a) Exhibits.

EXHIBIT NUMBER	DESCRIPTION
1.1	Form of U.S. Underwriting Agreement
1.2	Form of International Underwriting Agreement
3.1	Certificate of Amendment to Third Restated Certificate of Incorporation
3.2	Third Restated Certificate of Incorporation

EXHIBIT NUMBER	DESCRIPTION
3.3	Amended and Restated Bylaws
4.1*	Specimen Stock Certificate
5.1*	Opinion of Hogan & Hartson L.L.P.
10.1	Form of Indemnification Agreement for Directors and Officers
10.2	Amended and Restated 1994 Stock Option Plan
10.3	Form of Employee Stock Option Agreements
10.4	1996 Outside Directors Stock Option Plan
10.5	Forms of 1996 Outside Directors Stock Option Agreement
10.6	Series C Preferred Stock Purchase Agreement dated December 20, 1995
10.7	Lease Agreement dated October 5, 1995 between the Company and CS Corridor-32 Limited Partnership
10.8+	Purchase Agreement Between Sprint/United Management Company and the Company dated December 14, 1995
10.9+	Basic Purchase Agreement between WorldCom Network Services, Inc. and the Company dated September 19, 1996
10.10	Settlement Agreement and Mutual Release, between the Company and William K. Woodruff & Company, dated August 26, 1996
10.11	Warrant, dated August 21, 1996, granted by the Company to William K. Woodruff & Company
10.12	Employment Agreement dated April 9, 1994 between the Company and David Huber
10.13	Employment Agreement dated April 9, 1994 between the Company and Patrick Nettles
10.14	Lease Agreement dated November 1, 1996 by and between the Company and Aetna Life Insurance Company
10.15	Revolving Note and Business Loan Agreement dated November 25, 1996 between the Company and Mercantile-Safe Deposit & Trust Company
23.1*	Consent of Hogan & Hartson L.L.P. (included in Exhibit 5.1)
23.2	Consent of Independent Accountants
27.1	Financial Data Schedule

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* To be filed by amendment.

+ Confidential treatment has been requested with respect to certain portions of these exhibits in reliance on Rule 406 under the Securities Act of 1933, as amended.

(b) Financial Statement Schedules

Schedules have been omitted because the information required to be set forth therein is not applicable or is shown in the financial statements or notes thereto.

ITEM 17. UNDERTAKINGS

The undersigned Registrant hereby undertakes to provide to the Underwriters at the closing specified in the Underwriting Agreements certificates in such denominations and registered in such names as required by the Underwriters to permit prompt delivery to each purchaser.

Insofar as indemnification by the Registrant for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the provisions referenced in Item 14 of this Registration Statement or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act, and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer, or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered hereunder, the Registrant will,

unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

The undersigned Registrant hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act, the information omitted from the form of Prospectus filed as part of this Registration Statement in reliance upon Rule 430A and contained in a form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this Registration Statement as of the time it was declared effective; and

(2) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of Prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at the time shall be deemed to be the initial bona fide offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Savage, County of Howard, State of Maryland, on the 12th day of December, 1996.

CIENA CORPORATION

By: /s/ Patrick H. Nettles

Patrick H. Nettles
President, Chief Executive Officer
and Director
(Principal Executive Officer)

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENT, that each person whose signature appears below constitutes and appoints Patrick H. Nettles, Joseph R. Chinnici and G. Eric Georgatos, and each of them, his or her true and lawful attorney-in-fact and agents, with full power of substitution and resubstitution, from such person and in each person's name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to the Registration Statement, any Registration Statement relating to this Registration Statement under Rule 462 and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, full power and authority to do and perform each and every act and thing requisite and necessary to be done as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act, this Registration Statement has been signed by the following persons in the capacities and on the date indicated.

SIGNATURES	TITLE	DATE
/s/ Patrick H. Nettles Patrick H. Nettles	President, Chief Executive Officer and Director (Principal Executive Officer)	December 12, 1996
/s/ Joseph R. Chinnici Joseph R. Chinnici	Vice President, Finance and Chief Financial Officer (Principal Financial Officer)	December 12, 1996
/s/ Andrew C. Petrik Andrew C. Petrik	Controller and Treasurer (Principal Accounting Officer)	December 12, 1996
/s/ Jon W. Bayless Jon W. Bayless	Director	December 12, 1996
/s/ Harvey B. Cash Harvey B. Cash	Director	December 12, 1996

SIGNATURES	TITLE	DATE
/s/ Clifford W. Higgerson Clifford W. Higgerson	Director	December 12, 1996
/s/ Billy B. Oliver Billy B. Oliver	Director	December 12, 1996
/s/ Michael J. Zak Michael J. Zak	Director	December 12, 1996
/s/ David R. Huber, Ph.D. David R. Huber, Ph.D.	Director	December 12, 1996

EXHIBIT NUMBER	DESCRIPTION
1.1	Form of U.S. Underwriting Agreement
1.2	Form of International Underwriting Agreement
3.1	Certificate of Amendment to Third Restated Certificate of Incorporation
3.2	Third Restated Certificate of Incorporation
3.3	Amended and Restated Bylaws
4.1*	Specimen Stock Certificate
5.1*	Opinion of Hogan & Hartson L.L.P.
10.1	Form of Indemnification Agreement for Directors and Officers
10.2	Amended and Restated 1994 Stock Option Plan
10.3	Forms of Employee Stock Option Agreements
10.4	1996 Outside Directors Stock Option Plan
10.5	Forms of 1996 Outside Directors Stock Option Agreement
10.6	Series C Preferred Stock Purchase Agreement dated December 20, 1995
10.7	Lease Agreement dated October 5, 1995 between the Company and CS Corridor-32 Limited Partnership
10.8+	Purchase Agreement Between Sprint/United Management Company and the Company dated December 14, 1995
10.9+	Basic Purchase Agreement between WorldCom Network Services, Inc. and the Company dated September 19, 1996
10.10	Settlement Agreement and Mutual Release, between the Company and William K. Woodruff & Company, dated August 26, 1996
10.11	Warrant, dated August 21, 1996, granted by the Company to William K. Woodruff & Company
10.12	Employment Agreement dated April 9, 1994 between the Company and David Huber
10.13	Employment Agreement dated April 9, 1994 between the Company and Patrick Nettles
10.14	Lease Agreement dated November 1, 1996 by and between the Company and Aetna Life Insurance Company
10.15	Revolving Note and Business Loan Agreement dated November 25, 1996 between the Company and Mercantile-Safe Deposit & Trust Company
23.1*	Consent of Hogan & Hartson L.L.P. (included in Exhibit 5.1)
23.2	Consent of Independent Accountants
27.1	Financial Data Schedule

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* To be filed by amendment.

\+ Confidential treatment has been requested with respect to certain portions of these exhibits in reliance on Rule 406 under the Securities Act of 1933, as amended.

CIENA CORPORATION

COMMON STOCK, PAR VALUE $.01 PER SHARE

UNDERWRITING AGREEMENT
(U.S. VERSION)

_____, 1997

Goldman, Sachs & Co.,
Alex. Brown & Sons Incorporated,
Wessels, Arnold & Henderson, L.L.C.,
William K. Woodruff & Company,
As representatives of the several
Underwriters named in Schedule I hereto,
c/o Goldman, Sachs & Co.,
85 Broad Street,
New York, New York 10004

Ladies and Gentlemen:

CIENA Corporation, a Delaware corporation (the "Company"), proposes, subject to the terms and conditions stated herein, to issue and sell to the Underwriters named in Schedule I hereto (the "Underwriters") an aggregate of 4,000,000 shares (the "Firm Shares") and, at the election of the Underwriters, up to 600,000 additional shares (the "Optional Shares") of Common Stock, par value $.01 per share ("Stock"), of the Company (the Firm Shares and the Optional Shares that the Underwriters elect to purchase pursuant to Section 2 hereof being collectively called the "Shares").

It is understood and agreed to by all parties that the Company is concurrently entering into an agreement (the "International Underwriting Agreement") providing for the sale by the Company of up to a total of 1,150,000 shares of Stock (the "International Shares"), including the over-allotment option thereunder, through arrangements with certain underwriters outside the United States (the "International Underwriters"), for whom Goldman Sachs International, Alex. Brown & Sons Incorporated, Wessels, Arnold & Henderson, L.L.C. and William K. Woodruff & Company are acting as lead managers. Anything herein or therein to the contrary notwithstanding, the respective closings

under this Agreement and the International Agreement are hereby expressly made conditional on one another. The Underwriters hereunder and the International Underwriters are simultaneously entering into an Agreement between U.S. and International Underwriting Syndicates (the "Agreement between Syndicates") which provides, among other things, for the transfer of shares of Stock between the two syndicates. Two forms of prospectus are to be used in connection with the offering and sale of shares of Stock contemplated by the foregoing, one relating to the Shares hereunder and the other relating to the International Shares. The latter form of prospectus will be identical to the former except for certain substitute pages. Except as used in Sections 2, 3, 4, 9 and 11 herein, and except as the context may otherwise require, references hereinafter to the Shares shall include all the shares of Stock which may be sold pursuant to either this Agreement or the International Underwriting Agreement, and references herein to any prospectus whether in preliminary or final form, and whether as amended or supplemented, shall include both the U.S. and the international versions thereof.

1. The Company represents and warrants to, and agrees with, each of the Underwriters that:

(a) A registration statement on Form S-1 (File No. 333-_____) (the "Initial Registration Statement") in respect of the Shares has been filed with the Securities and Exchange Commission (the "Commission"); the Initial Registration Statement and any post-effective amendment thereto, each in the form heretofore delivered to you, and, excluding exhibits thereto, to you for each of the other Underwriters, have been declared effective by the Commission in such form; other than a registration statement, if any, increasing the size of the offering (a "Rule 462(b) Registration Statement"), filed pursuant to Rule 462(b) under the Securities Act of 1933, as amended (the "Act"), which will become effective upon filing, no other document with respect to the Initial Registration Statement has heretofore been filed with the Commission; and no stop order suspending the effectiveness of the Initial Registration Statement, any post-effective amendment thereto or the Rule 462(b) Registration Statement, if any, has been issued and no proceeding for that purpose has been initiated or threatened by the Commission (any preliminary prospectus included in the Initial Registration Statement or filed with the Commission pursuant to Rule 424(a) of the rules and regulations of the Commission under the Act, is hereinafter called a "Preliminary Prospectus"; the various parts of the Initial Registration Statement and the Rule 462(b) Registration Statement, if any, including all exhibits thereto and including the information contained in the form of final prospectus filed with the Commission pursuant to Rule 424(b) under the Act in accordance with Section 5(a) hereof and deemed by virtue of Rule 430A under the Act to be part of the Initial Registration Statement at the time it was declared effective, each as amended at the time such part of the registration statement became effective or such part of the Rule 462(b) Registration Statement, if any, became or hereafter becomes effective, are hereinafter collectively called the "Registration Statement"; and such final prospectus, in the form first filed pursuant to Rule 424(b) under the Act, is hereinafter called the "Prospectus").

(b) No order preventing or suspending the use of any Preliminary Prospectus has been issued by the Commission, and each Preliminary Prospectus, at the time of filing thereof, conformed in all material respects to the requirements of the Act and the rules and regulations of the Commission thereunder, and did not contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; provided, however, that this representation and warranty shall not apply to any statements or omissions made in reliance upon and in conformity with information furnished in writing to the Company by an Underwriter through Goldman, Sachs

& Co. expressly for use therein;

(c) The Registration Statement conforms, and the Prospectus and any further amendments or supplements to the Registration Statement or the Prospectus will conform, in all material respects to the requirements of the Act and the rules and regulations of the Commission thereunder and do not and will not, as of the applicable effective date as to the Registration Statement and any amendment thereto and as of the applicable filing date as to the Prospectus and any amendment or supplement thereto, contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading; provided, however, that this representation and warranty shall not apply to any statements or omissions made in reliance upon and in conformity with information furnished in writing to the Company by an Underwriter through Goldman, Sachs & Co. expressly for use therein;

(d) The Company has not sustained since the date of the latest audited financial statements included in the Prospectus any material loss or interference with its business from fire, explosion, flood or other calamity, whether or not covered by insurance, or from any labor dispute or court or governmental action, order or decree, otherwise than as set forth or contemplated in the Prospectus; and, since the respective dates as of which information is given in the Registration Statement and the Prospectus, there has not been any change in the capital stock or long-term debt of the Company or any material adverse change, or any development reasonably likely to result in a prospective material adverse change, in or affecting the general affairs, management, financial position, stockholders' equity or results of operations of the Company, otherwise than as set forth or contemplated in the Prospectus;

(e) The Company does not own any real property and has good and marketable title to all personal property owned by it, in each case free and clear of all liens, encumbrances and defects except such as are described in the Prospectus or such as do not materially affect the value of such property and do not interfere with the use made and proposed to be made of such property by the Company; and any real property and buildings held under lease by the Company are held by it under valid, subsisting and enforceable leases with such exceptions as are not material and do not interfere with the use made and proposed to be made of such property and buildings by the Company;

(f) The Company has been duly incorporated and is validly existing as a corporation in good standing under the laws of the State of Delaware, with power and authority (corporate and other) to own its properties and conduct its business as described in the Prospectus, and has been duly qualified as a foreign corporation for the transaction of business and is in good standing under the laws of each other jurisdiction in which it owns or leases properties or conducts any business so as to require such qualification, or is subject to no material liability or disability by reason of the failure to be so qualified in any such jurisdiction;

(g) The Company has an authorized capitalization as set forth in the

Prospectus, and all of the issued shares of capital stock of the Company have been duly and validly authorized and issued, are fully paid and non-assessable, conform to the description of the Stock contained in the Prospectus and were not issued in violation of or subject to any preemptive rights or other rights to subscribe for or purchase any securities; except as disclosed in or contemplated by the Prospectus and the financial statements of the Company, and the related notes thereto, included in the Prospectus, the Company does not have any outstanding options to purchase, or any preemptive rights or other rights to subscribe for or to purchase, any securities or obligations convertible into, or any contracts or commitments to issue or sell, shares of its capital stock or any such options, rights, convertible securities or obligations; and the description of the Company's stock option, stock bonus and other stock plans or arrangements, and the options or other rights granted and exercised thereunder, set forth in the Prospectus accurately and fairly presents the information required to be shown with respect to such plans, arrangements, options and rights.

(h) The Shares to be issued and sold by the Company to the Underwriters hereunder and under the International Underwriting Agreement have been duly and validly authorized and, when issued and delivered against payment therefor as provided herein and in the International Underwriting Agreement, will be duly and validly issued and fully paid and non-assessable and will conform to the description of the Stock contained in the Prospectus; no preemptive rights or other rights to subscribe for or purchase exist with respect to the issuance and sale of the Shares by the Company pursuant to this Agreement and the International Underwriting Agreement; and no stockholder of the Company has any right which has not been waived to require the Company to register the sale of any shares owned by such stockholder under the Act in the public offering contemplated by this Agreement and the International Underwriting Agreement.

(i) The issue and sale of the Shares by the Company hereunder and under the International Underwriting Agreement and the compliance by the Company with all of the provisions of this Agreement and the International Underwriting Agreement and the consummation of the transactions herein and therein contemplated will not conflict with or result in a breach or violation of any of the terms or provisions of, or constitute a default under, any indenture, mortgage, deed of trust, loan agreement or other agreement or instrument to which the Company is a party or by which the Company is bound or to which any of the property or assets of the Company is subject, nor will such action result in any violation of the provisions of the Certificate of Incorporation or By-laws of the Company or any statute or any order, rule or regulation of any court or governmental agency or body having jurisdiction over the Company or any of its properties; and no consent, approval, authorization, order, registration or qualification of or with any such court or governmental agency or body is required for the issue and sale of the Shares or the consummation by the Company of the transactions contemplated by this Agreement and the International Underwriting Agreement, except the registration under the Act of the Shares and such consents, approvals, authorizations, registrations or qualifications as may be required under state or foreign securities or Blue Sky laws in connection with the purchase and distribution of the Shares by the Underwriters and the International Underwriters;

(j) The Company is not in violation of its Certificate of Incorporation or By-laws or in default in any material respect in the performance or observance of any obligation, agreement, covenant or condition contained in any indenture, mortgage, deed of trust, loan agreement, lease or other agreement or instrument to which it is a party or by which it or any of its properties may be bound;

(k) The statements set forth in the Prospectus under the caption "Description of Capital Stock", insofar as they purport to constitute a summary of the terms of the Stock are accurate and complete in all material respects;

(l) Other than as set forth or contemplated in the Prospectus, there are no legal or governmental proceedings pending to which the Company a party or of which any property of the Company is the subject which, if determined adversely to the Company, would individually or in the aggregate have a material adverse effect on the current or future consolidated financial position, stockholders' equity or results of operations of the Company; and, other than as set forth or contemplated in the Prospectus, to the best of the Company's knowledge, no such proceedings are threatened or contemplated by governmental authorities or threatened by others;

(m) The Company is not and, after giving effect to the offering and sale of the Shares, will not be an "investment company" or an entity "controlled" by an "investment company", as such terms are defined in the Investment Company Act of 1940, as amended (the "Investment Company Act");

(n) Price Waterhouse LLP, who have certified certain financial statements of the Company, are independent public accountants as required by the Act and the rules and regulations of the Commission thereunder;

(o) The Company has no subsidiaries and does not own or control, directly or indirectly, shares of capital stock of any other corporation or any interest in any partnership, joint venture, or other non-corporate business entity or enterprise;

(p) Other than as set forth or contemplated in the Prospectus, the Company has sufficient interests or rights in all patents, patent licenses, trademarks, servicemarks, trade names, copyrights, trade secrets, information, proprietary rights and processes ("Intellectual Property") necessary for its business as now conducted and, to the Company's knowledge, necessary in connection with the products and services under development and described in the Prospectus, without any conflict with or infringement of the interests or rights of others; except as disclosed in the Prospectus, the Company is not aware of material outstanding options, licenses or agreements of any kind relating to the Intellectual Property, and, except as disclosed in the Prospectus, the Company is not a party to or bound by any options licenses or agreements with respect to the Intellectual Property of any other person or entity; none of the technology employed by the Company has been obtained or is being used by the Company in violation of any contractual fiduciary obligation binding on the Company or any of its executive officers or, to the Company's knowledge, any of its employees or otherwise in violation of the rights of any person; except as disclosed in the Prospectus, neither of the Company nor any of its employees have received any written or, to the Company's knowledge, oral communications alleging that the Company has violated, infringed or conflicted with (and knows of no such violation, infringement or conflict) or, by conducting its business as proposed, would violate, infringe or conflict with (and knows of no such violation, infringement or conflict) any of the Intellectual Property of any other person or

entity; neither the execution nor delivery of this Agreement, nor the operation of the Company's business by the employees of the Company, nor the conduct of the Company's business as proposed, will result in a breach or violation of the terms, conditions or provisions of, or constitute a default under, any material contract, covenant or instrument known to the Company under which any of such employees is now obligated; and the Company has taken and will maintain reasonable measures to prevent the unauthorized dissemination or publication of its confidential information and, to the extent contractually required to do so, the confidential information of third parties in its possession;

(q) The Company maintains insurance of the types and in the amounts generally deemed adequate for its business, including, but not limited to, insurance covering real and personal property owned or leased by the Company against theft, damage, destruction, acts of vandalism and all other risks customarily insured against, all of which insurance is in full force and effect;

(r) There are no contracts, other documents or other agreements required to be described in the Registration Statement or to be filed as exhibits to the Registration Statement by the Act or by the rules and regulations thereunder which have not been described or filed as required; the contracts so described in the Prospectus are in full force and effect on the date hereof; and neither the Company nor, to the best of the Company's knowledge, any other party is in breach of or default in any material respect under any of such contracts;

(s) The Company has not been advised, and has no reason to believe, that it is not conducting business in compliance with all applicable laws, rules and regulations of the jurisdictions in which it is conducting business, including, without limitation, all applicable local, state and federal environmental laws and regulations; except where failure to be so in compliance would not materially adversely affect the condition (financial or otherwise), business, results of operations or prospects of the Company; and

(t) The Company has obtained from the persons and entities listed on _____ hereto the binding agreement of each such person and entity that during the period beginning from the date hereof and continuing to and including the date 180 days after the date of the Prospectus, not to offer, sell, contract to sell or otherwise dispose of any securities of the Company that are substantially similar to the Shares, including but not limited to any securities that are convertible into or exchangeable for, or that represent the right to receive, Stock or any such substantially similar securities (other than pursuant to employee or director stock option plans existing on, or upon the conversion, exercise or exchange of convertible, exercisable or exchangeable securities outstanding as of, the date of this Agreement), without the Company's prior written consent, which consent in no instance has been given or agreed to be given and which consent in any instance will be given or agreed to be given without your prior written consent.

2. Subject to the terms and conditions herein set forth, (a) the Company agrees to issue and sell to each of the Underwriters, and each of the Underwriters agrees, severally and not jointly, to purchase from the Company, at a purchase price per share of $_____ the number of Firm Shares set forth opposite the name of such Underwriter in Schedule I hereto and (b) in the event and to the extent that the Underwriters shall exercise the election to purchase Optional Shares as provided below, the Company agrees to issue and sell to each of the Underwriters, and each of the Underwriters agrees, severally and not jointly, to purchase from the Company, at the purchase price per share set forth in clause (a) of this Section 2, that portion of the number of Optional Shares as to

which such election shall have been exercised (to be adjusted by you so as to eliminate fractional shares) determined by multiplying such number of Optional Shares by a fraction, the numerator of which is the maximum number of Optional Shares which such Underwriter is entitled to purchase as set forth opposite the name of such Underwriter in Schedule I hereto and the denominator of which is the maximum number of Optional Shares that all of the Underwriters are entitled to purchase hereunder.

The Company hereby grants to the Underwriters the right to purchase at their election up to 600,000 Optional Shares, at the purchase price per share set forth in the paragraph above, for the sole purpose of covering over-allotments in the sale of the Firm Shares. Any such election to purchase Optional Shares may be exercised only by written notice from you to the Company, given within a period of 30 calendar days after the date of this Agreement, setting forth the aggregate number of Optional Shares to be purchased and the date on which such Optional Shares are to be delivered, as determined by you but in no event earlier than the First Time of Delivery (as defined in Section 4 hereof) or, unless you and the Company otherwise agree in writing, earlier than two or later than ten business days after the date of such notice.

3. Upon the authorization by you of the release of the Firm Shares, the several Underwriters propose to offer the Firm Shares for sale upon the terms and conditions set forth in the Prospectus.

4. (a) The Shares to be purchased by each Underwriter hereunder, in definitive form, and in such authorized denominations and registered in such names as Goldman, Sachs & Co. may request upon at least forty-eight hours' prior notice to the Company, shall be delivered by or on behalf of the Company to Goldman, Sachs & Co., for the account of such Underwriter, against payment by or on behalf of such Underwriter of the purchase price therefor by certified or official bank check or checks, payable to the order of the Company in Federal (same day) funds. The Company will cause the certificates representing the Shares to be made available for checking and packaging at least twenty-four hours prior to the Time of Delivery (as defined below) with respect thereto at the office of Goldman, Sachs & Co., 85 Broad Street, New York, New York 10004 (the "Designated Office"). The time and date of such delivery and payment shall be, with respect to the Firm Shares, 9:30 a.m., New York City time, on ....., 1997 or such other time and date as Goldman, Sachs & Co. and the Company may agree upon in writing, and, with respect to the Optional Shares, 9:30 a.m., New York time, on the date specified by Goldman, Sachs & Co. in the written notice given by Goldman, Sachs & Co. of the Underwriters' election to purchase such Optional Shares, or such other time and date as Goldman, Sachs & Co. and the Company may agree upon in writing. Such time and date for delivery of the Firm Shares is herein called the "First Time of Delivery", such time and date for delivery of the Optional Shares, if not the First Time of Delivery, is herein called the "Second Time of Delivery", and each such time and date for delivery is herein called a "Time of Delivery".

(b) The documents to be delivered at each Time of Delivery by or on behalf of the parties hereto pursuant to Section 7 hereof, including the cross receipt for the Shares and any additional documents requested by the Underwriters pursuant to Section 7(k)

hereof, will be delivered at the offices of Hale and Dorr, The Willard Building, 1455 Pennsylvania Avenue, N.W., Washington, D.C. 20004 (the "Closing Location"), and the Shares will be delivered at the Designated Office, all at such Time of Delivery. A meeting will be held at the Closing Location at 4:00 p.m., New York City time, on the New York Business Day next preceding such Time of Delivery, at which meeting the final drafts of the documents to be delivered pursuant to the preceding sentence will be available for review by the parties hereto. For the purposes of this Section 4, "New York Business Day" shall mean each Monday, Tuesday, Wednesday, Thursday and Friday which is not a day on which banking institutions in New York are generally authorized or obligated by law or executive order to close.

5. The Company agrees with each of the Underwriters:

(a) To prepare the Prospectus in a form approved by you and to file such Prospectus pursuant to Rule 424(b) under the Act not later than the Commission's close of business on the second business day following the execution and delivery of this Agreement, or, if applicable, such earlier time as may be required by Rule 430A(a)(3) under the Act; to make no further amendment or any supplement to the Registration Statement or Prospectus which shall be disapproved by you promptly after reasonable notice thereof; to advise you, promptly after it receives notice thereof, of the time when any amendment to the Registration Statement has been filed or becomes effective or any supplement to the Prospectus or any amended Prospectus has been filed and to furnish you with copies thereof; to advise you, promptly after it receives notice thereof, of the issuance by the Commission of any stop order or of any order preventing or suspending the use of any Preliminary Prospectus or prospectus, of the suspension of the qualification of the Shares for offering or sale in any jurisdiction, of the initiation or threatening of any proceeding for any such purpose, or of any request by the Commission for the amending or supplementing of the Registration Statement or Prospectus or for additional information; and, in the event of the issuance of any stop order or of any order preventing or suspending the use of any Preliminary Prospectus or prospectus or suspending any such qualification, promptly to use its best efforts to obtain the withdrawal of such order;

(b) Promptly from time to time to take such action as you may reasonably request to qualify the Shares for offering and sale under the securities laws of such jurisdictions as you may request and to comply with such laws so as to permit the continuance of sales and dealings therein in such jurisdictions for as long as may be necessary to complete the distribution of the Shares, provided that in connection therewith the Company shall not be required to qualify as a foreign corporation or to file a general consent to service of process in any jurisdiction;

(c) Prior to 10:00 a.m., New York time, on the New York Business Day next succeeding the date of this Agreement and from time to time, to furnish the Underwriters with copies of the Prospectus in New York City in such quantities as you may from time to time reasonably request, and, if the delivery of a prospectus is required at any time prior to the expiration of nine months after the time of issue of the Prospectus in connection with the offering or sale of the Shares and if at such time any event shall have occurred as a result of which the Prospectus as then amended or supplemented would include an untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made when such Prospectus is delivered, not misleading, or, if for any other reason it shall be necessary during such period to amend or supplement the Prospectus in order to comply

with the Act, to notify you and upon your request to prepare and furnish without charge to each Underwriter and to any dealer in securities as many copies as you may from time to time reasonably request of an amended Prospectus or a supplement to the Prospectus which will correct such statement or omission or effect such compliance, and in case any Underwriter is required to deliver a prospectus in connection with sales of any of the Shares at any time nine months or more after the time of issue of the Prospectus, upon your request but at the expense of such Underwriter, to prepare and deliver to such Underwriter as many copies as you may request of an amended or supplemented Prospectus complying with Section 10(a)(3) of the Act;

(d) If the Company elects to rely upon Rule 462(b), the Company shall file a Rule 462(b) Registration Statement with the Commission in compliance with Rule 462(b) by 10:00 p.m., Washington D.C. time, on the date of this Agreement, and the Company shall at the time of filing of either pay to the Commission the filing fee for the Rule 462(b) Registration Statement or give irrevocable instructions for the payment of such fee pursuant to Rule 111(b) under the Act;

(e) To make generally available to its securityholders as soon as practicable, but in any event not later than eighteen months after the effective date of the Registration Statement (as defined in Rule 158(c) under the Act), an earning statement of the Company and its subsidiaries (which need not be audited) complying with Section 11(a) of the Act and the rules and regulations thereunder (including, at the option of the Company, Rule 158);

(f) During the period beginning from the date hereof and continuing to and including the date 180 days after the date of the Prospectus, not to offer, sell, contract to sell or otherwise dispose of, except as provided hereunder and under the International Underwriting Agreement, any securities of the Company that are substantially similar to the Shares, including but not limited to any securities that are convertible into or exchangeable for, or that represent the right to receive, Stock or any such substantially similar securities (other than pursuant to employee or director stock option plans existing on, or upon the conversion, exercise or exchange of convertible, exercisable or exchangeable securities outstanding as of, the date of this Agreement), without your prior written consent;

(g) To furnish to its stockholders as soon as practicable after the end of each fiscal year an annual report (including a balance sheet and statements of income, stockholders' equity and cash flows of the Company and its consolidated subsidiaries certified by independent public accountants) and, as soon as practicable after the end of each of the first three quarters of each fiscal year (beginning with the fiscal quarter ending after the effective date of the Registration Statement), consolidated summary financial information of the Company and its subsidiaries for such quarter in reasonable detail;

(h) During a period of five years from the effective date of the Registration Statement, to furnish to you copies of all reports or other communications (financial or other) furnished to stockholders, and to deliver to you (i) as soon as they are available,

copies of any reports and financial statements furnished to or filed with the Commission or any national securities exchange on which any class of securities of the Company is listed; and (ii) such additional information concerning the business and financial condition of the Company as you may from time to time reasonably request (such financial statements to be on a consolidated basis to the extent the accounts of the Company and its subsidiaries are consolidated in reports furnished to its stockholders generally or to the Commission);

(i) To use the net proceeds received by it from the sale of the Shares pursuant to this Agreement and the International Underwriting Agreement in the manner specified in the Prospectus under the caption "Use of Proceeds";

(j) To use its best efforts to list for quotation the Shares on the Nasdaq National Market ("NASDAQ"); and

(k) During the period beginning from the date hereof and continuing to and including the date 180 days after the date of the Prospectus, not to allow or agree to allow any person or entity referred to in clause (t) of Section 1 to offer, sell, contract to sell or otherwise dispose of any securities of the Company that are substantially similar to the Shares, including but not limited to any securities that are convertible into or exchangeable for, or that represent the right to receive, Stock or any such substantially similar securities (other than pursuant to employee or director stock option plans existing on, or upon the conversion, exercise or exchange of convertible, exercisable or exchangeable securities outstanding as of, the date of this Agreement), without your prior written consent.

6. The Company covenants and agrees with the several Underwriters that the Company will pay or cause to be paid the following: (i) the fees, disbursements and expenses of the Company's counsel and accountants in connection with the registration of the Shares under the Act and all other expenses in connection with the preparation, printing and filing of the Registration Statement, any Preliminary Prospectus and the Prospectus and amendments and supplements thereto and the mailing and delivering of copies thereof to the Underwriters and dealers; (ii) the cost of printing or producing any Agreement among Underwriters, this Agreement, the International Underwriting Agreement, the Agreement between Syndicates, the Selling Agreement, closing documents (including compilations thereof) and any other documents in connection with the offering, purchase, sale and delivery of the Shares; (iii) all expenses in connection with the qualification of the Shares for offering and sale under state securities laws as provided in Section 5(b) hereof, including the fees and disbursements of counsel for the Underwriters in connection with such qualification and in connection with the Blue Sky survey; (iv) all fees and expenses in connection with listing the Shares on NASDAQ; (v) the filing fees incident to, and the fees and disbursements of Hale and Dorr, as counsel for the Underwriters in connection with, securing any required review by the National Association of Securities Dealers, Inc. of the terms of the sale of the Shares; (vi) the cost of preparing stock certificates; (vii) the cost and charges of any transfer agent or registrar; and (viii) all other costs and expenses incident to the performance of its obligations hereunder which are not otherwise specifically provided for in this Section. It is understood, however, that, except as provided in this Section, and Sections 8 and 11 hereof, the Underwriters will pay all of their own costs and expenses, including the fees of their counsel, stock transfer taxes on resale of any of the Shares by them, and any advertising expenses connected with any offers they may make.

7. The obligations of the Underwriters hereunder, as to the Shares to be delivered at each Time of Delivery, shall be subject, in their discretion, to the condition that all representations and warranties and other statements of the Company herein are, at and as of such Time of Delivery, true and correct, the condition that the Company shall have performed all of its obligations hereunder

theretofore to be performed, and the following additional conditions:

(a) The Prospectus shall have been filed with the Commission pursuant to Rule 424(b) within the applicable time period prescribed for such filing by the rules and regulations under the Act and in accordance with Section 5(a) hereof; no stop order suspending the effectiveness of the Registration Statement or any part thereof shall have been issued and no proceeding for that purpose shall have been initiated or threatened by the Commission; and all requests for additional information on the part of the Commission shall have been complied with to your reasonable satisfaction; if the Company has elected to rely upon Rule 462(b), the Rule 462(b) Registration Statement shall have become effective by 10:00 p.m., Washington, D.C. time, on the date of this Agreement;

(b) Hale and Dorr, counsel for the Underwriters, shall have furnished to you such opinion or opinions (a draft of such opinion is attached as Annex II(a) hereto), dated such Time of Delivery, with respect to the matters covered in paragraphs (i), (ii), (vi), (viii) and (xii) of subsection (c) below as well as such other related matters as you may reasonably request, and such counsel shall have received such papers and information as they may reasonably request to enable them to pass upon such matters;

(c) Hogan & Hartson L.L.P, counsel for the Company, shall have furnished to you their written opinion (a draft of such opinion is attached as Annex II(b) hereto), dated such Time of Delivery, in form and substance satisfactory to you, to the effect that:

(i) The Company was incorporated and is validly existing as a corporation in good standing under the laws of the State of Delaware as of the date specified in such opinion, with corporate power and corporate authority to own its properties and conduct its business as described in the Prospectus;

(ii) The Company has authorized capital stock as set forth in the Prospectus, and all of the issued shares of capital stock of the Company (including the Shares being delivered at such Time of Delivery) have been duly and validly authorized, and are validly issued, fully paid and nonassessable; and the Shares in all material respects conform to the description of the Stock contained in the Prospectus;

(iii) The Company has been duly qualified as a foreign corporation for the transaction of business and is in good standing under the laws of the State of Maryland;

(iv) Nothing has come to the attention of such counsel that causes it to believe real property and buildings held under lease by the Company are not held by it under valid leases with such exceptions as are not material and do not interfere with the use made and proposed to be made of such property and buildings by the Company;

(v) This Agreement and the International Underwriting Agreement have been duly authorized, executed and delivered by the Company;

(vi) The issue and sale of the Shares being delivered at such Time of Delivery by the Company and the compliance by the Company with all of the provisions of this Agreement and the International Underwriting Agreement as of such Time of Delivery and the consummation as of such Time of Delivery of the transactions herein and therein contemplated do not conflict with or result in a breach or violation of any of the terms or provisions of, or constitute a default under, any agreement or instrument filed as an exhibit to the Registration Statement, nor will such action result in any violation of the provisions of the Certificate of Incorporation or By-laws of the Company or any statute, order, rule or regulation known to such counsel of any court or governmental agency or body having jurisdiction over the Company or any of its properties;

(vii) No consent, approval, authorization, order, registration or qualification of or with any such court or governmental agency or body having jurisdiction over the Company or any of its properties is required for the issue and sale of the Shares or the consummation by the Company of the transactions contemplated by this Agreement and the International Underwriting Agreement as of the Time of Delivery, except the registration under the Act of the Shares, and such consents, approvals, authorizations, registrations or qualifications as may be required under state or foreign securities or Blue Sky laws in connection with the purchase and distribution of the Shares by the Underwriters and the International Underwriters;

(viii) The statements set forth in the Prospectus under the caption "Description of Capital Stock", insofar as they purport to constitute a summary of the terms of the Stock, under the caption "Certain U.S. Tax Considerations Applicable to Non-U.S. Holders of the Common Stock", insofar as they purport to describe the provisions of the laws referred to therein, are accurate in all material respects;

(ix) The Company is not an "investment company" as such term is defined in the Investment Company Act;

(x) To the best of such counsel's knowledge, the Company has not issued any outstanding securities convertible into or exchangeable for, or outstanding options, warrants or other rights to purchase or to subscribe for any shares or other securities of the Company, except as described in the Prospectus;

(xi) No holder of outstanding shares of capital stock of the Company has (i) any statutory preemptive right under the Delaware General Corporation Law or, (ii) to such counsel's knowledge and except as has been waived, any contractual right to subscribe for any shares of capital stock of the Company (including the Shares being delivered at such Time of Delivery) (except that no opinion need be expressed with respect to the specific matters that are the subject of the legal proceedings disclosed in the Prospectus under the caption "Business--Legal Proceedings") or to have any common stock or other securities of the Company included in the Registration Statement or the right, as a result of the filing of the Registration Statement, to require registration of any shares of Common Stock or other securities of the Company; and

(xii) The Registration Statement and the Prospectus and any further amendments and supplements thereto made by the Company prior to such Time of Delivery (other than the financial statements and notes thereto, financial schedules and other financial data included therein, as to which such counsel need express no opinion) comply as to form in all material respects with the requirements of the Act and the rules and

regulations thereunder.

In addition to the matters set forth above, such letter shall also contain statements of such counsel to the effect that (i) to such counsel's knowledge and other than as set forth in the Prospectus, there are no legal or governmental proceedings pending to which the Company is a party or of which any property of the Company is the subject which, if determined adversely to the Company could reasonably be expected individually or in the aggregate to have a material adverse effect on the financial condition or results of operations of the Company, and, to such counsel's knowledge, no such proceedings are threatened by governmental authorities or threatened by others; (ii) while such counsel are not passing upon and do not assume responsibility for, the accuracy, completeness or fairness of the Registration Statement or the Prospectus, except for those statements referred to in the opinion in subsection (viii) of this Section 7(c), or any further amendment or supplement thereto, based upon the procedures referred to in such letter no facts have come to the attention of such counsel which lead them to believe that, as of its effective date, the Registration Statement or any further amendment thereto made by the Company prior to such Time of Delivery (other than the financial statements and notes thereto, financial schedules and other financial data included therein, as to which such counsel need express no opinion) contained an untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary to make the statements therein not misleading or that, as of its date, the Prospectus or any further amendment or supplement thereto made by the Company prior to such Time of Delivery (other than the financial statements and notes thereto, financial schedules and other financial data included therein, as to which such counsel need express no opinion) contained an untrue statement of a material fact or omitted to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading or that, as of such Time of Delivery, the Prospectus or any further amendment or supplement thereto made by the Company prior to such Time of Delivery (other than the financial statements and notes thereto, schedules and other financial data included therein, as to which such counsel need express no opinion) contains an untrue statement of a material fact or omits to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading; and (iii) they do not know of any amendment to the Registration Statement required to be filed or of any contracts or other documents of a character required to be filed as an exhibit to the Registration Statement or required to be described in the Registration Statement or the Prospectus which are not filed or described as required.

In rendering such opinion, such counsel may state that they express no opinion as to the laws of any jurisdiction other than the Federal laws of the United States, the laws of the State of Maryland, the contract law of the State of New York and the General Corporation Law of the State of Delaware.

(d) Gray Cary Ware & Friedenrich, special patent counsel for the Company, shall have furnished its written opinion to the Company, dated on or before such Time of Delivery,

with respect to certain patent law matters.

(e) The Vice President and General Counsel of the Company shall have furnished to you his written opinion (a draft of such opinion is attached as Annex II(c) hereto), dated such Time of Delivery, in form and substance satisfactory to you, to the effect that:

(i) The Company is not in violation of its Certificate of Incorporation or, in any material respect, its By-Laws; and

(ii) To such counsel's knowledge and other than as described in the Prospectus, there are no legal or governmental proceedings pending to which the Company is a party or of which any property of the Company is the subject; and, to such counsel's knowledge, no such proceedings are threatened by governmental authorities or by others.

(f) On the date of the Prospectus at a time prior to the execution of this Agreement, at 9:30 a.m., New York City time, on the effective date of any post-effective amendment to the Registration Statement filed subsequent to the date of this Agreement and also at each Time of Delivery, Price Waterhouse LLP shall have furnished to you a letter or letters, dated the respective dates of delivery thereof, in form and substance satisfactory to you, to the effect set forth in Annex I hereto (the executed copy of the letter delivered prior to the execution of this Agreement is attached as Annex I(a) hereto and a draft of the form of letter to be delivered on the effective date of any post-effective amendment to the Registration Statement and as of each Time of Delivery is attached as Annex I(b) hereto;

(g) (i) The Company shall not have sustained since the date of the latest audited financial statements included in the Prospectus any loss or interference with its business from fire, explosion, flood or other calamity, whether or not covered by insurance, or from any labor dispute or court or governmental action, order or decree, otherwise than as set forth or contemplated in the Prospectus, and (ii) since the respective dates as of which information is given in the Prospectus there shall not have been any change in the capital stock or long-term debt of the Company or any change, or any development reasonably likely to result in a prospective change, in or affecting the general affairs, management, financial position, stockholders' equity or results of operations of the Company, otherwise than as set forth or contemplated in the Prospectus, the effect of which, in any such case described in Clause (i) or (ii), is in the judgment of the Representatives so material and adverse as to make it impracticable or inadvisable to proceed with the public offering or the delivery of the Shares being delivered at such Time of Delivery on the terms and in the manner contemplated in the Prospectus;

(h) On or after the date hereof there shall not have occurred any of the following: (i) a suspension or material limitation in trading in securities generally on the New York Stock Exchange or on NASDAQ; (ii) a suspension or material limitation in trading in the Company's securities on NASDAQ; (iii) a general moratorium on commercial banking activities declared by either Federal, New York State or Maryland State authorities; or (iv) the outbreak or escalation of hostilities involving the United States or the declaration by the United States of a national emergency or war, if the effect of any such event specified in this Clause (iv) in the judgment of the Representatives makes it impracticable or inadvisable

to proceed with the public offering or the delivery of the Shares being delivered at such Time of Delivery on the terms and in the manner contemplated in the Prospectus;

(i) The Shares to be sold at such Time of Delivery shall have been duly approved for quotation on NASDAQ;

(j) The Company has obtained and delivered to the Underwriters executed copies of an agreement from _____, substantially to the effect set forth in Subsection 5(f) hereof in form and substance satisfactory to you;

(k) The Company shall have complied with the provisions of Section 5(c) hereof with respect to furnishing of Prospectuses on the New York Business Day next succeeding the date of this Agreement; and

(l) The Company shall have furnished or caused to be furnished to you at such Time of Delivery certificates of officers of the Company satisfactory to you as to the accuracy of the representations and warranties of the Company herein at and as of such Time of Delivery, as to the performance by the Company of all of its obligations hereunder to be performed at or prior to such Time of Delivery, as to the matters set forth in subsections (a) and (g) of this Section and as to such other matters as you may reasonably request.

8. (a) The Company will indemnify and hold harmless each Underwriter against any losses, claims, damages or liabilities, joint or several, to which such Underwriter may become subject, under the Act or otherwise, insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon an untrue statement or alleged untrue statement of a material fact contained in any Preliminary Prospectus, the Registration Statement or the Prospectus, or any amendment or supplement thereto, or arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, and will reimburse each Underwriter for any legal or other expenses reasonably incurred by such Underwriter in connection with investigating or defending any such action or claim as such expenses are incurred; provided, however, that the Company shall not be liable in any such case to the extent that any such loss, claim, damage or liability arises out of or is based upon an untrue statement or alleged untrue statement or omission or alleged omission made in any Preliminary Prospectus, the Registration Statement or the Prospectus or any such amendment or supplement in reliance upon and in conformity with written information furnished to the Company by any Underwriter through Goldman, Sachs & Co. expressly for use therein.

(b) Each Underwriter will indemnify and hold harmless the Company against any losses, claims, damages or liabilities to which the Company may become subject, under the Act or otherwise, insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon an untrue statement or alleged untrue statement of a material fact contained in any Preliminary Prospectus, the Registration Statement or the

Prospectus, or any amendment or supplement thereto, or arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, in each case to the extent, but only to the extent, that such untrue statement or alleged untrue statement or omission or alleged omission was made in any Preliminary Prospectus, the Registration Statement or the Prospectus or any such amendment or supplement in reliance upon and in conformity with written information furnished to the Company by such Underwriter through Goldman, Sachs & Co. expressly for use therein; and will reimburse the Company for any legal or other expenses reasonably incurred by the Company in connection with investigating or defending any such action or claim as such expenses are incurred.

(c) Promptly after receipt by an indemnified party under subsection (a) or (b) above of notice of the commencement of any action, such indemnified party shall, if a claim in respect thereof is to be made against the indemnifying party under such subsection, notify the indemnifying party in writing of the commencement thereof; but the omission so to notify the indemnifying party shall not relieve it from any liability which it may have to any indemnified party otherwise than under such subsection. In case any such action shall be brought against any indemnified party and it shall notify the indemnifying party of the commencement thereof, the indemnifying party shall be entitled to participate therein and, to the extent that it shall wish, jointly with any other indemnifying party similarly notified, to assume the defense thereof, with counsel satisfactory to such indemnified party (who shall not, except with the consent of the indemnified party, be counsel to the indemnifying party), and, after notice from the indemnifying party to such indemnified party of its election so to assume the defense thereof, the indemnifying party shall not be liable to such indemnified party under such subsection for any legal expenses of other counsel or any other expenses, in each case subsequently incurred by such indemnified party, in connection with the defense thereof other than reasonable costs of investigation. No indemnifying party shall, without the written consent of the indemnified party, effect the settlement or compromise of, or consent to the entry of any judgment with respect to, any pending or threatened action or claim in respect of which indemnification or contribution may be sought hereunder (whether or not the indemnified party is an actual or potential party to such action or claim) unless such settlement, compromise or judgment (i) includes an unconditional release of the indemnified party from all liability arising out of such action or claim and (ii) does not include a statement as to or an admission of fault, culpability or a failure to act, by or on behalf of any indemnified party.

(d) If the indemnification provided for in this Section 8 is unavailable to or insufficient to hold harmless an indemnified party under subsection (a) or (b) above in respect of any losses, claims, damages or liabilities (or actions in respect thereof) referred to therein, then each indemnifying party shall contribute to the amount paid or payable by such indemnified party as a result of such losses, claims, damages or liabilities (or actions in respect thereof) in such proportion as is appropriate to reflect the relative benefits received by

the Company on the one hand and the Underwriters on the other from the offering of the Shares. If, however, the allocation provided by the immediately preceding sentence is not permitted by applicable law or if the indemnified party failed to give the notice required under subsection (c) above, then each indemnifying party shall contribute to such amount paid or payable by such indemnified party in such proportion as is appropriate to reflect not only such relative benefits but also the relative fault of the Company on the one hand and the Underwriters on the other in connection with the statements or omissions which resulted in such losses, claims, damages or liabilities (or actions in respect thereof), as well as any other relevant equitable considerations. The relative benefits received by the Company on the one hand and the Underwriters on the other shall be deemed to be in the same proportion as the total net proceeds from the offering of the Shares purchased under this Agreement (before deducting expenses) received by the Company bear to the total underwriting discounts and commissions received by the Underwriters with respect to the Shares purchased under this Agreement, in each case as set forth in the table on the cover page of the Prospectus. The relative fault shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the Company on the one hand or the Underwriters on the other and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission. The Company and the Underwriters agree that it would not be just and equitable if contributions pursuant to this subsection (d) were determined by pro rata allocation (even if the Underwriters were treated as one entity for such purpose) or by any other method of allocation which does not take account of the equitable considerations referred to above in this subsection (d). The amount paid or payable by an indemnified party as a result of the losses, claims, damages or liabilities (or actions in respect thereof) referred to above in this subsection (d) shall be deemed to include any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending any such action or claim. Notwithstanding the provisions of this subsection (d), no Underwriter shall be required to contribute any amount in excess of the amount by which the total price at which the Shares underwritten by it and distributed to the public were offered to the public exceeds the amount of any damages which such Underwriter has otherwise been required to pay by reason of such untrue or alleged untrue statement or omission or alleged omission. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. The Underwriters' obligations in this subsection (d) to contribute are several in proportion to their respective underwriting obligations and not joint.

(e) The obligations of the Company under this Section 8 shall be in addition to any liability which the Company may otherwise have and shall extend, upon the same terms and conditions, to each person, if any, who controls any Underwriter within the meaning of the Act; and the obligations of the Underwriters under this Section 8 shall be in addition to any liability which the respective Underwriters may otherwise have and shall extend, upon the same terms and conditions, to each officer and director of the Company and to each person, if any, who controls the Company within the meaning of the Act.

9. (a) If any Underwriter shall default in its obligation to purchase the Shares which it has agreed to purchase hereunder at a Time of Delivery, you may in your discretion arrange for you or another party or other parties to purchase such Shares on the terms contained herein. If within thirty-six hours after such default by any Underwriter you do not arrange for the purchase of such Shares, then the Company shall be entitled to a further period of thirty-six hours within which to procure another party or other parties satisfactory to you to purchase such Shares on such terms. In the event that, within the respective prescribed periods, you notify the Company that you have so arranged for the purchase of such Shares, or the Company notifies you that it has so arranged for the purchase of such

Shares, you or the Company shall have the right to postpone such Time of Delivery for a period of not more than seven days, in order to effect whatever changes may thereby be made necessary in the Registration Statement or the Prospectus, or in any other documents or arrangements, and the Company agrees to file promptly any amendments to the Registration Statement or the Prospectus which in your opinion may thereby be made necessary. The term "Underwriter" as used in this Agreement shall include any person substituted under this Section with like effect as if such person had originally been a party to this Agreement with respect to such Shares.

(b) If, after giving effect to any arrangements for the purchase of the Shares of a defaulting Underwriter or Underwriters by you and the Company as provided in subsection (a) above, the aggregate number of such Shares which remains unpurchased does not exceed one-eleventh of the aggregate number of all the Shares to be purchased at such Time of Delivery, then the Company shall have the right to require each non-defaulting Underwriter to purchase the number of Shares which such Underwriter agreed to purchase hereunder at such Time of Delivery and, in addition, to require each non-defaulting Underwriter to purchase its pro rata share (based on the number of Shares which such Underwriter agreed to purchase hereunder) of the Shares of such defaulting Underwriter or Underwriters for which such arrangements have not been made; but nothing herein shall relieve a defaulting Underwriter from liability for its default.

(c) If, after giving effect to any arrangements for the purchase of the Shares of a defaulting Underwriter or Underwriters by you and the Company as provided in subsection (a) above, the aggregate number of such Shares which remains unpurchased exceeds one-eleventh of the aggregate number of all the Shares to be purchased at such Time of Delivery, or if the Company shall not exercise the right described in subsection (b) above to require non-defaulting Underwriters to purchase Shares of a defaulting Underwriter or Underwriters, then this Agreement (or, with respect to the Second Time of Delivery, the obligations of the Underwriters to purchase and of the Company to sell the Optional Shares) shall thereupon terminate, without liability on the part of any non-defaulting Underwriter or the Company, except for the expenses to be borne by the Company and the Underwriters as provided in Section 6 hereof and the indemnity and contribution agreements in Section 8 hereof; but nothing herein shall relieve a defaulting Underwriter from liability for its default.

10. The respective indemnities, agreements, representations, warranties and other statements of the Company and the several Underwriters, as set forth in this Agreement or made by or on behalf of them, respectively, pursuant to this Agreement, shall remain in full force and effect, regardless of any investigation (or any statement as to the results thereof) made by or on behalf of any Underwriter or any controlling person of any Underwriter, or the Company, or any officer or director or controlling person of the Company, and shall survive delivery of and payment for the Shares.

11. If this Agreement shall be terminated pursuant to Section 9 hereof, the Company shall not then be under any liability to any Underwriter except as provided in Sections 6 and 8 hereof; but, if for any other reason, any Shares are not delivered by or on behalf of the Company as provided herein, the Company will reimburse the Underwriters through you for all out-of-pocket expenses approved in writing by you, including fees and disbursements of counsel, reasonably incurred by the Underwriters in making preparations for the purchase, sale and delivery of the Shares not so delivered, but the Company shall then be under no further liability to any Underwriter in respect of the Shares not so delivered except as provided in Sections 6 and 8 hereof.

12. In all dealings hereunder, you shall act on behalf of each of the Underwriters, and the

parties hereto shall be entitled to act and rely upon any statement, request, notice or agreement on behalf of any Underwriter made or given by you jointly or by Goldman, Sachs & Co. on behalf of you as the representatives.

All statements, requests, notices and agreements hereunder shall be in writing, and if to the Underwriters shall be delivered or sent by mail, telex or facsimile transmission to you as the representatives in care of Goldman, Sachs & Co., 85 Broad Street, New York, New York 10004, Attention: Registration Department; and if to the Company shall be delivered or sent by mail, telex or facsimile transmission to the address of the Company set forth in the Registration Statement, Attention: Secretary; provided, however, that any notice to an Underwriter pursuant to Section 8(c) hereof shall be delivered or sent by mail, telex or facsimile transmission to such Underwriter at its address set forth in its Underwriters' Questionnaire, or telex constituting such Questionnaire, which address will be supplied to the Company by you upon request. Any such statements, requests, notices or agreements shall take effect at the time of receipt thereof.

13. This Agreement shall be binding upon, and inure solely to the benefit of, the Underwriters, the Company and, to the extent provided in Sections 8 and 10 hereof, the officers and directors of the Company and each person who controls the Company or any Underwriter, and their respective heirs, executors, administrators, successors and assigns, and no other person shall acquire or have any right under or by virtue of this Agreement. No purchaser of any of the Shares from any Underwriter shall be deemed a successor or assign by reason merely of such purchase.

14. Time shall be of the essence of this Agreement. As used herein, the term "business day" shall mean any day when the Commission's office in Washington, D.C., is open for business.

15. THIS AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK.

16. This Agreement may be executed by any one or more of the parties hereto in any number of counterparts, each of which shall be deemed to be an original, but all such counterparts shall together constitute one and the same instrument.

If the foregoing is in accordance with your understanding, please sign and return to us one for the Company and for each of the Representatives plus one for each counsel counterparts hereof, and upon the acceptance hereof by you, on behalf of each of the Underwriters, this letter and such acceptance hereof shall constitute a binding agreement between each of the Underwriters and the Company. It is understood that your acceptance of this letter on behalf of each of the Underwriters is pursuant to the authority set forth in a form of Agreement among Underwriters (U.S. Version), the form of which shall be submitted to the Company for examination upon request, but without warranty on your part as to the authority of the signers thereof.

Very truly yours,

CIENA Corporation

By:

Patrick H. Nettles
President

Accepted as of the date hereof:

Goldman, Sachs & Co.
Alex. Brown & Sons Incorporated
Wessels, Arnold & Henderson, L.L.C.
William K. Woodruff & Company

By:

(Goldman, Sachs & Co.)

On behalf of each of the Underwriters

SCHEDULE I

UNDERWRITER	TOTAL NUMBER OF FIRM SHARES TO BE PURCHASED	NUMBER OF OPTIONAL SHARES TO BE PURCHASED IF MAXIMUM OPTION EXERCISED
Goldman, Sachs & Co.		
Alex. Brown & Sons Incorporated		
Wessels, Arnold & Henderson, L.L.C.		
William K. Woodruff & Company		
Total		

ANNEX I

DESCRIPTION OF COMFORT LETTER

Pursuant to Section 7(e) of the Underwriting Agreement, the accountants shall furnish letters to the Underwriters to the effect that:

(i) They are independent certified public accountants with respect to the Company within the meaning of the Act and the applicable published rules and regulations thereunder;

(ii) In their opinion, the financial statements and any supplementary financial information and schedules (and, if applicable, financial forecasts and/or pro forma financial information) examined by them and included in the Prospectus or the Registration Statement comply as to form in all material respects with the applicable accounting requirements of the Act and the related published rules and regulations thereunder; and, if applicable, they have made a review in accordance with standards established by the American Institute of Certified Public Accountants of the unaudited consolidated interim financial statements, selected financial data, pro forma financial information, financial forecasts and/or condensed financial statements derived from audited financial statements of the Company for the periods specified in such letter, as indicated in their reports thereon, copies of which have been furnished separately to the representatives of the Underwriters (the "Representatives") and are attached hereto;

(iii) They have made a review in accordance with standards established by the American Institute of Certified Public Accountants of the unaudited condensed consolidated statements of income, consolidated balance sheets and consolidated statements of cash flows included in the Prospectus as indicated in their reports thereon copies of which are attached hereto and on the basis of specified procedures including inquiries of officials of the Company who have responsibility for financial and accounting matters regarding whether the unaudited condensed consolidated financial statements referred to in paragraph (vi)(A)(i) below comply as to form in all material respects with the applicable accounting requirements of the Act and the related published rules and regulations, nothing came to their attention that caused them to believe that the unaudited condensed consolidated financial statements do not comply as to form in all material respects with the applicable accounting requirements of the Act and the related published rules and regulations;

(iv) The unaudited selected financial information with respect to the consolidated results of operations and financial position of the Company for the five most recent fiscal years included in the Prospectus agrees with the corresponding amounts (after restatements where applicable) in the audited consolidated financial statements for such five fiscal years;

(v) They have compared the information in the Prospectus under selected captions with the disclosure requirements of Regulation S-K and on the basis of limited procedures specified in such letter nothing came to their attention as a result of the foregoing procedures that caused them to believe that this information does not conform in all material respects with the disclosure requirements of Items 301, 302, 402 and 503(d), respectively, of Regulation S-K;

(vi) On the basis of limited procedures, not constituting an examination in accordance with generally accepted auditing standards, consisting of a reading of the unaudited financial statements and other information referred to below, a reading of the latest available interim financial statements of the Company, inspection of the minute books of the Company and its subsidiaries since the date of the latest audited financial statements included in the Prospectus, inquiries of officials of the Company responsible for financial and accounting matters and such other inquiries and procedures as may be specified in such letter, nothing came to their attention that caused them to believe that:

(A) (i) the unaudited consolidated statements of income, consolidated balance sheets and consolidated statements of cash flows included in the Prospectus do not comply as to form in all material respects with the applicable accounting requirements of the Act and the related published rules and regulations, or (ii) any material modifications should be made to the unaudited condensed consolidated statements of income, consolidated balance sheets and consolidated statements of cash flows included in the Prospectus for them to be in conformity with generally accepted accounting principles;

(B) any other unaudited income statement data and balance sheet items included in the Prospectus do not agree with the corresponding items in the unaudited consolidated financial statements from which such data and items were derived, and any such unaudited data and items were not determined on a basis substantially consistent with the basis for the corresponding amounts in the audited consolidated financial statements included in the Prospectus;

(C) the unaudited financial statements which were not included in the Prospectus but from which were derived any unaudited condensed financial statements referred to in Clause (A) and any unaudited income statement data and balance sheet items included in the Prospectus and referred to in Clause (B) were not determined on a basis substantially consistent with the basis for the audited consolidated financial statements included in the Prospectus;

(D) any unaudited pro forma consolidated condensed financial statements included in the Prospectus do not comply as to form in all material respects with the applicable accounting requirements of the Act and the published rules and regulations thereunder or the pro forma adjustments have not been properly applied to the historical amounts in the compilation of those statements;

(E) as of a specified date not more than five days prior to the date of such letter, there have been any changes in the consolidated capital stock (other than issuances of capital stock upon exercise of options and stock appreciation rights, upon earn-outs of performance shares and upon conversions of convertible securities, in each case which were outstanding on the date of the latest financial statements included in the Prospectus) or any increase in the consolidated long-term debt of the Company, or any decreases in consolidated net current assets or stockholders' equity or other items specified by the Representatives, or any increases in any items specified by the Representatives, in each case as compared with amounts shown in the latest balance sheet included in the Prospectus, except in each case for changes, increases or decreases which the Prospectus discloses have occurred or may occur or which are described in such letter; and

(F) for the period from the date of the latest financial statements included in the Prospectus to the specified date referred to in Clause (E) there were any decreases in

consolidated net revenues or operating profit or the total or per share amounts of consolidated net income or other items specified by the Representatives, or any increases in any items specified by the Representatives, in each case as compared with the comparable period of the preceding year and with any other period of corresponding length specified by the Representatives, except in each case for decreases or increases which the Prospectus discloses have occurred or may occur or which are described in such letter; and

(vii) In addition to the examination referred to in their report(s) included in the Prospectus and the limited procedures, inspection of minute books, inquiries and other procedures referred to in paragraphs (iii) and (vi) above, they have carried out certain specified procedures, not constituting an examination in accordance with generally accepted auditing standards, with respect to certain amounts, percentages and financial information specified by the Representatives, which are derived from the general accounting records of the Company, which appear in the Prospectus, or in Part II of, or in exhibits and schedules to, the Registration Statement specified by the Representatives, and have compared certain of such amounts, percentages and financial information with the accounting records of the Company and have found them to be in agreement.

ANNEX I(a)

COMFORT LETTER DELIVERED PRIOR TO EXECUTION OF THIS AGREEMENT

ANNEX I(b)

UPDATED COMFORT LETTER

ANNEX II(a)

OPINION OF UNDERWRITERS COUNSEL

ANNEX II(b)

OPINION OF COMPANY COUNSEL

ANNEX II(c)

OPINION OF GENERAL COUNSEL

EXHIBIT 1.2

CIENA CORPORATION

COMMON STOCK, PAR VALUE $.01 PER SHARE

UNDERWRITING AGREEMENT
(INTERNATIONAL VERSION)

, 1997

Goldman Sachs International,
Alex. Brown & Sons Incorporated,
Wessels, Arnold & Henderson, L.L.C.,
William K. Woodruff & Company,
As representatives of the several Underwriters
named in Schedule I hereto,
c/o Goldman Sachs International,
Peterborough Court,
133 Fleet Street,
London EC4A 2BB, England.

Ladies and Gentlemen:

CIENA Corporation, a Delaware corporation (the "Company"), proposes, subject to the terms and conditions stated herein, to issue and sell to the Underwriters named in Schedule I hereto (the "Underwriters") an aggregate of 1,000,000 shares (the "Firm Shares") and, at the election of the Underwriters, up to 150,000 additional shares (the "Optional Shares") of Common Stock, par value $.01 per share (the "Stock"), of the Company (the Firm Shares and the Optional Shares which the Underwriters elect to purchase pursuant to Section 2 hereof being collectively called the "Shares").

It is understood and agreed to by all parties that the Company is concurrently entering into an agreement, a copy of which is attached hereto (the "U.S. Underwriting Agreement"), providing for the offering by the Company of up to a total of 4,600,000 shares of Stock (the "U.S. Shares") including the over-allotment option thereunder through arrangements with certain underwriters in the United States (the "U.S. Underwriters"), for whom Goldman, Sachs & Co., Alex. Brown & Sons Incorporated, Wessels, Arnold & Henderson, L.L.C. and William K. Woodruff & Company are acting as representatives. Anything herein and therein to the contrary notwithstanding, the respective closings under this Agreement and the U.S. Underwriting Agreement are hereby expressly made conditional on one another. The Underwriters hereunder and the U.S. Underwriters are simultaneously entering into an Agreement between U.S. and International Underwriting Syndicates (the "Agreement between Syndicates") which provides, among other things, for the transfer of shares of Stock between the two syndicates and for consultation by the Lead Managers hereunder with Goldman, Sachs & Co. prior to exercising the rights of the Underwriters under Section 7 hereof. Two forms of prospectus are to be used in connection with the offering and sale of shares of Stock contemplated by the foregoing, one relating to the Shares hereunder and the other relating to the U.S. Shares. The latter form of prospectus will be identical to the former except for certain substitute

pages. Except as used in Sections 2, 3, 4, 9 and 11 herein, and except as the context may otherwise require, references hereinafter to the Shares shall include all of the shares of Stock which may be sold pursuant to either this Agreement or the U.S. Underwriting Agreement, and references herein to any prospectus whether in preliminary or final form, and whether as amended or supplemented, shall include both of the U.S. and the international versions thereof.

In addition, this Agreement incorporates by reference certain provisions from the U.S. Underwriting Agreement (including the related definitions of terms, which are also used elsewhere herein) and, for purposes of applying the same, references (whether in these precise words or their equivalent) in the incorporated provisions to the "Underwriters" shall be to the Underwriters hereunder, to the "Shares" shall be to the Shares hereunder as just defined, to "this Agreement" (meaning therein the U.S. Underwriting Agreement) shall be to this Agreement (except where this Agreement is already referred to or as the context may otherwise require) and to the representatives of the Underwriters or to Goldman, Sachs & Co. shall be to the addressees of this Agreement and to Goldman Sachs International ("GSI"), and, in general, all such provisions and defined terms shall be applied mutatis mutandis as if the incorporated provisions were set forth in full herein having regard to their context in this Agreement as opposed to the U.S. Underwriting Agreement.

1. The Company hereby makes with the Underwriters the same representations, warranties and agreements as are set forth in Section 1 of the U.S. Underwriting Agreement, which Section is incorporated herein by this reference.

2. Subject to the terms and conditions herein set forth, (a) the Company agrees to issue and sell to each of the Underwriters, and each of the Underwriters agrees, severally and not jointly, to purchase from the Company, at a purchase price per share of $_____, the number of Firm Shares set forth opposite the name of such Underwriter in Schedule I hereto and (b) in the event and to the extent that the Underwriters shall exercise the election to purchase Optional Shares as provided below, the Company agrees to issue and sell to each of the Underwriters, and each of the Underwriters agrees, severally and not jointly, to purchase from the Company, at the purchase price per share set forth in clause (a) of this Section 2, that portion of the number of Optional Shares as to which such election shall have been exercised (to be adjusted by you so as to eliminate fractional shares) determined by multiplying such number of Optional Shares by a fraction the numerator of which is the maximum number of Optional Shares which such Underwriter is entitled to purchase as set forth opposite the name of such Underwriter in Schedule I hereto and the denominator of which is the maximum number of Optional Shares that all of the Underwriters are entitled to purchase hereunder.

The Company hereby grants to the Underwriters the right to purchase at their election up to 150,000 Optional Shares, at the purchase price per share set forth in the paragraph above, for the sole purpose of covering over-allotments in the sale of the Firm Shares. Any such election to purchase Optional Shares may be exercised only by written notice from you to the Company, given within a period of 30 calendar days after the date of this Agreement, setting forth the aggregate number of Optional Shares to be purchased and the date on which such Optional Shares are to be delivered, as determined by you but in no event earlier than the First Time of Delivery (as defined in Section 4 hereof) or, unless you and the Company otherwise agree in writing, earlier than two or later than ten business days after the date of such notice.

3. Upon the authorization by GSI of the release of the Firm Shares, the several Underwriters propose to offer the Firm Shares for sale upon the terms and conditions set forth in the Prospectus and in the forms of Agreement among Underwriters (International Version) and Selling Agreements, which have been previously submitted to the Company by you. Each Underwriter hereby

makes to and with the Company the representations and agreements of such Underwriter as a member of the selling group contained in Sections 3(d) and 3(e) of the form of Selling Agreements.

4. (a) The Shares to be purchased by each Underwriter hereunder, in definitive form, and in such authorized denominations and registered in such names as GSI may request upon at least forty-eight hours' prior notice to the Company shall be delivered by or on behalf of the Company to GSI, for the account of such Underwriter, against payment by or on behalf of such Underwriter of the purchase price therefor by certified or official bank check or checks, payable to the order of the Company in Federal (same day) funds. The Company will cause the certificates representing the Shares to be made available for checking and packaging at least twenty-four hours prior to the Time of Delivery (as defined below) with respect thereto at the office of GSI, 85 Broad Street, New York, New York 10004 (the "Designated Office"). The time and date of such delivery and payment shall be, with respect to the Firm Shares, 9:30 a.m., New York City time, on _____, 1997 or such other time and date as GSI and the Company may agree upon in writing, and, with respect to the Optional Shares, 9:30 a.m., New York City time, on the date specified by GSI in the written notice given by GSI of the Underwriters' election to purchase such Optional Shares, or such other time and date as GSI and the Company may agree upon in writing. Such time and date for delivery of the Firm Shares is herein called the "First Time of Delivery", such time and date for delivery of the Optional Shares, if not the First Time of Delivery, is herein called the "Second Time of Delivery", and each such time and date for delivery is herein called a "Time of Delivery".

(b) The documents to be delivered at each Time of Delivery by or on behalf of the parties hereto pursuant to Section 7 of the U.S. Underwriting Agreement, including the cross receipt for the Shares and any additional documents requested by the Underwriters pursuant to Section 7(k) of the U.S. Underwriting Agreement hereof, will be delivered at the offices of Hale and Dorr, The Willard Building, 1455 Pennsylvania Avenue, N.W., Washington, D.C. 20004 (the "Closing Location"), and the Shares will be delivered at the Designated Office, all at such Time of Delivery. A meeting will be held at the Closing Location at 4:00 p.m., New York City time, on the New York Business Day next preceding such Time of Delivery, at which meeting the final drafts of the documents to be delivered pursuant to the preceding sentence will be available for review by the parties hereto. For the purposes of this Section 4, "New York Business Day" shall mean each Monday, Tuesday, Wednesday, Thursday and Friday which is not a day on which banking institutions in New York are generally authorized or obligated by law or executive order to close.

5. The Company hereby makes to the Underwriters the same agreements as are set forth in Section 5 of the U.S. Underwriting Agreement, which Section is incorporated herein by this reference.

6. The Company and the Underwriters hereby agree with respect to certain expenses on the same terms as are set forth in Section 6 of the U.S. Underwriting Agreement, which Section is incorporated herein by this reference.

7. Subject to the provisions of the Agreement between Syndicates, the obligations of the Underwriters hereunder shall be subject, in their discretion, at each Time of Delivery, to the condition that all representations and warranties and other statements of the Company herein are, at and as of such Time of Delivery, true and correct, the condition that the Company shall have performed all of its obligations hereunder theretofore to be performed, and additional conditions identical to those set forth in Section 7 of the U.S. Underwriting Agreement, which Section is incorporated herein by this reference.

8. (a) The Company will indemnify and hold harmless each Underwriter against any losses, claims, damages or liabilities, joint or several, to which such Underwriter may become subject, under the Act or otherwise, insofar as such losses, claims, damages or liabilities (or actions in respect

thereof) arise out of or are based upon an untrue statement or alleged untrue statement of a material fact contained in any Preliminary Prospectus, the Registration Statement or the Prospectus, or any amendment or supplement thereto, or arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, and will reimburse each Underwriter for any legal or other expenses reasonably incurred by such Underwriter in connection with investigating or defending any such action or claim as such expenses are incurred; provided, however, that the Company shall not be liable in any such case to the extent that any such loss, claim, damage or liability arises out of or is based upon an untrue statement or alleged untrue statement or omission or alleged omission made in any Preliminary Prospectus, the Registration Statement or the Prospectus or any such amendment or supplement in reliance upon and in conformity with written information furnished to the Company by any Underwriter through GSI expressly for use therein.

(b) Each Underwriter will indemnify and hold harmless the Company against any losses, claims, damages or liabilities to which the Company may become subject, under the Act or otherwise, insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon an untrue statement or alleged untrue statement of a material fact contained in any Preliminary Prospectus, the Registration Statement or the Prospectus, or any amendment or supplement thereto, or arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, in each case to the extent, but only to the extent, that such untrue statement or alleged untrue statement or omission or alleged omission was made in any Preliminary Prospectus, the Registration Statement or Prospectus or any such amendment or supplement in reliance upon and in conformity with written information furnished to the Company by such Underwriter through GSI expressly for use therein; and will reimburse the Company for any legal or other expenses reasonably incurred by the Company in connection with investigating or defending any such action or claim as such expenses are incurred.

(c) Promptly after receipt by an indemnified party under subsection (a) or (b) above of notice of the commencement of any action, such indemnified party shall, if a claim in respect thereof is to be made against the indemnifying party under such subsection, notify the indemnifying party in writing of the commencement thereof; but the omission so to notify the indemnifying party shall not relieve it from any liability which it may have to any indemnified party otherwise than under such subsection. In case any such action shall be brought against any indemnified party and it shall notify the indemnifying party of the commencement thereof, the indemnifying party shall be entitled to participate therein and, to the extent that it shall wish, jointly with any other indemnifying party similarly notified, to assume the defense thereof, with counsel satisfactory to such indemnified party (who shall not, except with the consent of the indemnified party, be counsel to the indemnifying party), and, after notice from the indemnifying party to such indemnified party of its election so to assume the defense thereof, the indemnifying party shall not be liable to such indemnified party under such subsection for any legal expenses of other counsel or any other expenses, in each case subsequently incurred by such indemnified party, in connection with the defense thereof other than reasonable costs of investigation. No indemnifying party shall, without the written consent of the indemnified party, effect the settlement or compromise of, or consent to the entry of any judgment with respect to, any pending or threatened action or claim in respect of which indemnification or contribution may be sought hereunder (whether or not the indemnified party is an actual or potential party to such action or claim) unless such settlement, compromise or judgment (i) includes an unconditional release of the indemnified party from all liability arising out of such action or claim and (ii) does not include a statement as to or an admission of fault, culpability or a failure to act, by or on behalf of any indemnified party.

(d) If the indemnification provided for in this Section 8 is unavailable to or insufficient to hold harmless an indemnified party under subsection (a) or (b) above in respect of any losses, claims,

damages or liabilities (or actions in respect thereof) referred to therein, then each indemnifying party shall contribute to the amount paid or payable by such indemnified party as a result of such losses, claims, damages or liabilities (or actions in respect thereof) in such proportion as is appropriate to reflect the relative benefits received by the Company on the one hand and the Underwriters on the other from the offering of the Shares. If, however, the allocation provided by the immediately preceding sentence is not permitted by applicable law or if the indemnified party failed to give the notice required under subsection (c) above, then each indemnifying party shall contribute to such amount paid or payable by such indemnified party in such proportion as is appropriate to reflect not only such relative benefits but also the relative fault of the Company on the one hand and the Underwriters on the other in connection with the statements or omissions which resulted in such losses, claims, damages or liabilities (or actions in respect thereof), as well as any other relevant equitable considerations. The relative benefits received by the Company on the one hand and the Underwriters on the other shall be deemed to be in the same proportion as the total net proceeds from the offering of the Shares purchased under this Agreement (before deducting expenses) received by the Company bear to the total underwriting discounts and commissions received by the Underwriters with respect to the Shares purchased under this Agreement, in each case as set forth in the table on the cover page of the Prospectus relating to such Shares. The relative fault shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the Company on the one hand or the Underwriters on the other and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission. The Company and the Underwriters agree that it would not be just and equitable if contributions pursuant to this subsection (d) were determined by pro rata allocation (even if the Underwriters were treated as one entity for such purpose) or by any other method of allocation which does not take account of the equitable considerations referred to above in this subsection (d). The amount paid or payable by an indemnified party as a result of the losses, claims, damages or liabilities (or actions in respect thereof) referred to above in this subsection (d) shall be deemed to include any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending any such action or claim. Notwithstanding the provisions of this subsection (d), no Underwriter shall be required to contribute any amount in excess of the amount by which the total price at which the Shares underwritten by it and distributed to the public were offered to the public exceeds the amount of any damages which such Underwriter has otherwise been required to pay by reason of such untrue or alleged untrue statement or omission or alleged omission. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. The Underwriters' obligations in this subsection (d) to contribute are several in proportion to their respective underwriting obligations and not joint.

(e) The obligations of the Company under this Section 8 shall be in addition to any liability which the Company may otherwise have and shall extend, upon the same terms and conditions, to each person, if any, who controls any Underwriter within the meaning of the Act; and the obligations of the Underwriters under this Section 8 shall be in addition to any liability which the respective Underwriters may otherwise have and shall extend, upon the same terms and conditions, to each officer and director of the Company and to each person, if any, who controls the Company within the meaning of the Act.

9. (a) If any Underwriter shall default in its obligation to purchase the Shares which it has agreed to purchase hereunder at a Time of Delivery, you may in your discretion arrange for you or another party or other parties to purchase such Shares on the terms contained herein. If within thirty-six hours after such default by any Underwriter you do not arrange for the purchase of such Shares, then the Company shall be entitled to a further period of thirty-six hours within which to procure another party or other parties satisfactory to you to purchase such Shares on such terms. In the event that, within the respective prescribed periods, you notify the Company that you have so arranged for the purchase of such

Shares, or the Company notifies you that it has so arranged for the purchase of such Shares, you or the Company shall have the right to postpone such Time of Delivery for a period of not more than seven days, in order to effect whatever changes may thereby be made necessary in the Registration Statement or the Prospectus, or in any other documents or arrangements, and the Company agrees to file promptly any amendments to the Registration Statement or the Prospectus which in your opinion may thereby be made necessary. The term "Underwriter" as used in this Agreement shall include any person substituted under this Section with like effect as if such person had originally been a party to this Agreement with respect to such Shares.

(b) If, after giving effect to any arrangements for the purchase of the Shares of a defaulting Underwriter or Underwriters by you and the Company as provided in subsection (a) above, the aggregate number of such Shares which remains unpurchased does not exceed one-eleventh of the aggregate number of all the Shares to be purchased at such Time of Delivery, then the Company shall have the right to require each non-defaulting Underwriter to purchase the number of shares which such Underwriter agreed to purchase hereunder at such Time of Delivery and, in addition, to require each non-defaulting Underwriter to purchase its pro rata share (based on the number of Shares which such Underwriter agreed to purchase hereunder) of the Shares of such defaulting Underwriter or Underwriters for which such arrangements have not been made; but nothing herein shall relieve a defaulting Underwriter from liability for its default.

(c) If, after giving effect to any arrangements for the purchase of the Shares of a defaulting Underwriter or Underwriters by you and the Company as provided in subsection (a) above, the aggregate number of such Shares which remains unpurchased exceeds one-eleventh of the aggregate number of all the Shares to be purchased at such Time of Delivery, or if the Company shall not exercise the right described in subsection (b) above to require non-defaulting Underwriters to purchase Shares of a defaulting Underwriter or Underwriters, then this Agreement (or, with respect to the Second Time of Delivery, the obligation of the Underwriters to purchase and of the Company to sell the Optional Shares) shall thereupon terminate, without liability on the part of any non-defaulting Underwriter or the Company, except for the expenses to be borne by the Company and the Underwriters as provided in Section 6 hereof and the indemnity and contribution agreements in Section 8 hereof; but nothing herein shall relieve a defaulting Underwriter from liability for its default.

10. The respective indemnities, agreements, representations, warranties and other statements of the Company and the several Underwriters, as set forth in this Agreement or made by or on behalf of them, respectively, pursuant to this Agreement, shall remain in full force and effect, regardless of any investigation (or any statement as to the results thereof) made by or on behalf of any Underwriter or any controlling person of any Underwriter, or the Company, or any officer or director or controlling person of the Company, and shall survive delivery of and payment for the Shares.

11. If this Agreement shall be terminated pursuant to Section 9 hereof, the Company shall not then be under any liability to any Underwriter except as provided in Section 6 and Section 8 hereof, but, if for any other reason any Shares are not delivered by or on behalf of the Company as provided herein, the Company will reimburse the Underwriters through GSI for all out-of-pocket expenses approved in writing by GSI, including fees and disbursements of counsel, reasonably incurred by the Underwriters in making preparations for the purchase, sale and delivery of the Shares not so delivered, but the Company shall then be under no further liability to any Underwriter in respect of the Shares not so delivered except as provided in Sections 6 and 8 hereof.

12. In all dealings hereunder, you shall act on behalf of each of the Underwriters, and the parties hereto shall be entitled to act and rely upon any statement, request, notice or agreement on behalf

of any Underwriter made or given by you jointly or by GSI on behalf of you as the representatives of the Underwriters.

All statements, requests, notices and agreements hereunder shall be in writing, and if to the Underwriters shall be delivered or sent by mail, telex or facsimile transmission to the Underwriters in care of GSI, Peterborough Court, 133 Fleet Street, London EC4A 2BB, England, Attention: Equity Capital Markets, Telex No. 94012165, facsimile transmission No. (071) 774-1550; and if to the Company shall be delivered or sent by registered mail, telex or facsimile transmission to the address of the Company set forth in the Registration Statement, Attention: Secretary; provided, however, that any notice to an Underwriter pursuant to Section 8(c) hereof shall be delivered or sent by mail, telex or facsimile transmission to such Underwriter at its address set forth in its Underwriters' Questionnaire, or telex constituting such Questionnaire, which address will be supplied to the Company by GSI upon request. Any such statements, requests, notices or agreements shall take effect upon receipt thereof.

13. This Agreement shall be binding upon, and inure solely to the benefit of, the Underwriters, the Company and, to the extent provided in Sections 8 and 10 hereof, the officers and directors of the Company and each person who controls the Company or any Underwriter, and their respective heirs, executors, administrators, successors and assigns, and no other person shall acquire or have any right under or by virtue of this Agreement. No purchaser of any of the Shares from any Underwriter shall be deemed a successor or assign by reason merely of such purchase.

14. Time shall be of the essence of this Agreement.

15. THIS AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK, UNITED STATES OF AMERICA.

16. This Agreement may be executed by any one or more of the parties hereto in any number of counterparts, each of which shall be deemed to be an original, but all such counterparts shall together constitute one and the same instrument.

If the foregoing is in accordance with your understanding, please sign and return to us one for the Company and one for each of the Co-Lead Managers or Lead Managing Underwriters plus one for each counsel counterparts hereof, and upon the acceptance hereof by you, on behalf of each of the Underwriters, this letter and such acceptance hereof shall constitute a binding agreement among each of the Underwriters and the Company. It is understood that your acceptance of this letter on behalf of each of the Underwriters is pursuant to the authority set forth in a form of Agreement among Underwriters (International Version), the form of which shall be furnished to the Company for examination upon request, but without warranty on your part as to the authority of the signers thereof.

Very truly yours,

CIENA Corporation

By:

Patrick H. Nettles
President

Accepted as of the date hereof:

Goldman Sachs International
Alex. Brown & Sons Incorporated
Wessels, Arnold & Henderson, L.L.C.
William K. Woodruff & Company

By: Goldman Sachs International

By:

(Attorney-in-fact)

On behalf of each of the Underwriters

SCHEDULE I

UNDERWRITER	TOTAL NUMBER OF FIRM SHARES TO BE PURCHASED	NUMBER OF OPTIONAL SHARES TO BE PURCHASED IF MAXIMUM OPTION EXERCISED
Goldman Sachs International		
Alex. Brown & Sons Incorporated		
Wessels, Arnold & Henderson, L.L.C.		
William K. Woodruff & Company		
Total		

EXHIBIT 3.1

CERTIFICATE OF
AMENDMENT TO THIRD RESTATED CERTIFICATE OF INCORPORATION
OF
CIENA CORPORATION

It is hereby certified that:

l. The present name of the corporation is CIENA CORPORATION (the "Corporation"). The Corporation was originally incorporated under the name "Hyrdralite Incorporated", and the date of filing of the original Certificate of Incorporation of the Corporation with the Secretary of State of the State of Delaware is November 2, 1992. A Restated Certificate of Incorporation was filed thereafter on April 8, 1994 (the "First Restated Certificate"); a Second Restated Certificate of Incorporation was filed thereafter on December 20, 1994 (the "Second Restated Certificate"); and a Third Restated Certificate of Incorporation was filed thereafter on December 20, 1995 (the "Third Restated Certificate").

2. The Third Restated Certificate is hereby amended to (i) increase the authorized capital stock of the Corporation and effect a split up outstanding shares of Common Stock, (ii) establish a classified Board of Directors effective with the Corporation becoming a public company, with three classes serving staggered three year terms, and each class consisting of two or more directors, (iii) eliminate stockholder action by written consent, and (iv) specify the terms under which a special meeting of stockholders may be called.

3. This amendment has been duly adopted by the stockholders of the Corporation in accordance with the provisions of Sections 228 and 242 of the General Corporation Law of the State of Delaware.

The first paragraph of Article FOURTH is hereby replaced in its entirety with the following:

The Corporation shall have the authority to issue two (2) classes of shares to be designated respectively "Preferred Stock" and "Common Stock". The total number of shares of stock that the Corporation shall have the authority to issue is Two Hundred Million (200,000,000) shares of capital stock, par value $0.01 per share. The total number of shares of Preferred Stock that the Corporation shall have authority to issue is Twenty Million (20,000,000), par value $0.01 per share. The total number of shares of Common Stock which the Corporation shall have the authority to issue is One Hundred Eighty Million (180,000,000), par value $0.01 per share. Effective with the filing of this Amendment, each issued share of Common Stock of the Corporation, $0.01 par value, shall be changed and reclassified into five shares of Common Stock, $0.01 par value.

Articles SIXTH and SEVENTH of the Third Restated Certificate are hereby replaced in their entirety with the following:

SIXTH: The following provisions are inserted for purposes of the management of the business and conduct of the affairs of the Corporation and for creating, defining, limiting and regulating the powers of the Corporation and its directors and stockholders:

(a)(l) The number of directors shall initially be set at seven (7) and, thereafter, shall be fixed from time to time exclusively by the Board of Directors pursuant to a resolution adopted by a majority of the total number of authorized directors (whether or not there exist any vacancies in previously authorized directorships at the time any such resolution is presented to the Board for adoption). Prior to the effectiveness of the first registration statement filed by the Company under the Securities Act of 1933, as amended, the directors shall be elected at each annual meeting with a term to expire at the next annual meeting of stockholders. Upon the effectiveness of the first registration statement filed under the Securities Act of 1933, as amended (the "IPO Date"), the directors shall be divided into three classes consisting of two or more directors each with the term of office of the first class (Class I) to expire at the first annual meeting of stockholders following the IPO Date; the term of office of the second class (Class II) to expire at the second annual meeting following the IPO Date; the term of office of the third class (Class III) to expire at the third annual meeting following the IPO Date; and thereafter for each such term to expire at each third succeeding annual meeting of stockholders after such election. The initial allocation of existing directors among the classes shall be made by

determination of the Board of Directors. Subject to the rights of the holders of any series of Preferred Stock then outstanding, a vacancy resulting from the removal of a director by the stockholders as provided in Article SIXTH, Section C below may be filled at a special meeting of the stockholders held for that purpose. All directors shall hold office until the expiration of the term for which elected, and until their respective successors are elected, except in the case of the death, resignation, or removal of any director.

(2) Subject to the rights of the holders of any series of Preferred Stock then outstanding, newly created directorships resulting from any increase in the authorized number of directors or any vacancies in the Board of Directors resulting from death, resignation or other cause (other than removal from office by a vote of the stockholders) may be filled only by a majority vote of the directors then in office, though less than a quorum, and directors so chosen shall hold office for a term expiring at the next annual meeting of stockholders at which the term of office of the class to which they have been elected expires, and until their respective successors are elected, except in the case of the death, resignation or removal of any director. No decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director.

(3) Subject to the rights of the holders of any series of Preferred Stock then outstanding, any directors, or the entire Board of Directors, may be removed from office at any time, with or without cause, but only by the affirmative vote of the holders of at least a majority of the voting power of all of the then outstanding shares of capital stock of the Corporation entitled to vote generally in the election of directors, voting together as a single class. Vacancies in the Board of Directors resulting from such removal may be filled by a majority of the directors then in office, though less than a quorum, or by the stockholders as provided in Article SIXTH, Section (a)(1) above. Directors so chosen shall hold office for a term expiring at the next annual meeting of stockholders at which the term of office of the class to which they have been elected expires, and until their respective successors are elected, except in the case of the death, resignation or removal of any director.

(b) The election of directors may be conducted in any manner approved by the stockholders at the time when the election is held and need not be by ballot.

(c) All corporate powers and authority of the Corporation (except as at the time otherwise provided by law, by this Certificate of Incorporation, as restated from time to time, or by the bylaws) shall be vested in and exercised by the Board of Directors.

(d) From and after the IPO Date, any action required or permitted to be taken by the stockholders of the Corporation must be effected at a duly called

annual or special meeting of stockholders of the Corporation and may not be effected by any consent in writing by such stockholders.

(e) Special meetings of stockholders of the Corporation may be called only (1) by the Board of Directors pursuant to a resolution adopted by a majority of the total number of authorized directors (whether or not there exist any vacancies in previously authorized directorships at the time any such resolution is presented to the Board for adoption) or (2) by the holders of not less than ten percent (10%) of all of the shares entitled to cast votes at the meeting.

(f) The Board of Directors is expressly empowered to adopt, amend or repeal bylaws of the Corporation. Any adoption, amendment or repeal of bylaws of the Corporation by the Board of Directors shall require the approval of a majority of the total number of authorized directors (whether or not there exist any vacancies in previously authorized directorships at the time any resolution providing for adoption, amendment or repeal is presented to the Board). The stockholders shall also have power to adopt, amend or repeal the bylaws of the Corporation. Any adoption, amendment or repeal of bylaws of the Corporation by the stockholders shall require, in addition to any vote of the holders of any class or series of stock of the Corporation required by law or by this Certificate of Incorporation, the affirmative vote of the holders of at least sixty-six and two-thirds percent (66-2/3%) of the voting power of all of the then outstanding shares of the capital stock of the Corporation entitled to vote generally in the election of directors, voting together as a single class.

SEVENTH: The Corporation reserves the right to amend or repeal any provision contained in this Certificate of Incorporation in the manner prescribed by the laws of the State of Delaware and all rights conferred upon stockholders are granted subject to this reservation; provided, however, that, notwithstanding any other provision of law which might otherwise permit a lesser vote or no vote, but in addition to any vote required by law or by this Certificate of Incorporation, the affirmative vote of the holders of at least 66-2/3% of the voting power of all of the then outstanding shares of the capital stock of the Corporation entitled to vote generally in the election of directors, voting together as a single class, shall be required to amend or repeal Articles SIXTH, SEVENTH, EIGHTH and NINTH.

IN WITNESS WHEREOF, the undersigned do execute this Certificate and affirm and acknowledge, under penalties of perjury, that this Certificate and the signatures thereon are their act and deed and that the facts stated herein are true, this 6 day of ,1996.

/s/ PATRICK H. NETTLES

Patrick H. Nettles,
President

Attest:

/s/ ERIC GEORGATOS
- ---
Eric Georgatos
Secretary

EXHIBIT 3.2

THIRD RESTATED CERTIFICATE OF INCORPORATION

OF

CIENA CORPORATION

It is hereby certified that:

1. The present name of the corporation is CIENA CORPORATION ("the corporation"). The Corporation was originally incorporated under the name "Hydralite Incorporated" , and the date of filing of the original Certificate of Incorporation of the Corporation with the Secretary of the State of Delaware is November 2, 1992. A restated Certificate of Incorporation was filed thereafter on April 8, 1994 (the First Restated Certificate of Incorporation") , and a Second Restated Certificate of Incorporation was filed thereafter on December 20, 1994 (the Second Restated Certificate of Incorporation").

2. The Certificate of Incorporation of the Corporation is hereby amended by (I) creating a new series of Preferred Stock, to be designated as "Convertible Preferred Stock, Series C" (ii) changing the terms of the Preferred Stock to reflect the creation of the new series; and (iii) making certain other changes and modifications to the Certificate of Incorporation.

3. The provisions of the Certificate of Incorporation of the Corporation, as herein amended, are hereby restated and integrated into the single instrument that is herein set forth , and that is entitled "Third Reinstated Certificate of Incorporation of CIENA CORPORATION" without any further amendments other than the amendments herein certified and without any discrepancy between the provisions of the Certificate of Incorporation as heretofore amended and supplemented, and the provisions of the said single instrument hereinafter set forth.

4. The amendments and the reinstatement of the Third Restated Certificate of Incorporation herein certified have been duly adopted by the stockholders of the Corporation in accordance with the provisions of sections 228, 242 and 245 of the General Corporation Law of the State of Delaware.

FIRST: The name of the Corporation is CIENA Corporation ("The Corporation").

SECOND: The address of the Corporation's registered office in the State of Delaware is 1209 Orange Street, in the city of Wilmington, County of New Castle. The name of its registered agent at such address is The Corporation Trust Company.

THIRD: The nature of the business or purposes to be conducted or promoted is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law.

FOURTH: The Corporation shall have the authority to issue two (2) classes of shares to be designated respectively, "Preferred Stock" and "Common Stock". The total number of shares of stock that the Corporation shall have the authority to issue is Thirty -Eight Million Seven Hundred Forty Thousand (38,750,000) shares of capital stock, par value $.01 per share. The total number of shares of Common Stock which the Corporation shall have the authority to issue is Twenty-Two million Five Hundred Thousand (22,500,000), par value $.01 per share.

The Preferred Stock authorized by this Certificate of Incorporation may be issued from time to time in one or more series. The Board of Directors is hereby authorized, within the limitations and restrictions stated in this Third Restated Certificate of Incorporation , to fix or alter the dividend rights, dividend rate, conversion rights, voting rights, rights and terms of redemption including sinking fund provisions, the redemption price or prices, the liquidation preferences and other preferences, powers, rights, qualifications, limitations and restrictions of any wholly unissued class or series of Preferred Stock (not including any Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock, as defined in Article Fifth Below) and the number of shares constituting any such series and the designation thereof, or any of them.

The Board of Directors is further authorized to increase or decrease the number of shares of any series of Preferred Stock, the number of which was fixed by it, subsequent to the issue of shares of that series, but not below the number of shares of such series then outstanding, subject to the limitations and restrictions stated in the resolutions of the Board of Directors originally fixing the number of shares of such series. In case the number of shares of any series shall be so decreased, the shares constituting such decrease shall resume the status which they had prior to the adoption of the resolution originally fixing the number of shares of such series.

FIFTH: Four Million Five Hundred Thousand (4,500,000) shares of the Preferred Stock are hereby constituted as Convertible Preferred Stock, Series A ("Series A Preferred Stock"). Eight Million (8,000,000) shares of the Preferred Stock are hereby constituted as Convertible Preferred Stock , Series B ("Series B Preferred Stock"). Three Million Seven Hundred Fifty Thousand (3,750,000) shares of the Preferred Stock are hereby constituted as convertible Preferred Stock Series C (" Series C Preferred Stock"). The Series A Preferred Stock, the Series B Preferred Stock and the Series C Preferred Stock

are collectively referred to hereinafter as the Convertible Preferred Stock. The relative preferences, powers, rights, qualifications, limitations and restrictions in respect of the Series A Preferred Stock, the Series B Preferred Stock, and the Series C Preferred Stock and the Common Stock are as follows:

Voting Rights:

(I) Each holder of shares of Convertible Preferred Stock shall be entitled to vote on all matters and, except as otherwise expressly provided herein, shall be entitled to the number of votes equal to the largest whole number of shares of Common Stock into which such shares of Convertible Preferred Stock could be converted, pursuant to the provisions of paragraph (d) hereof, on the record date for the determination of the stockholders entitled to vote on such matters or, if no such record date is established, in accordance with Delaware law.

(ii) Each holder of shares of Common Stock shall be entitled to one vote for each share of Convertible Preferred Stock held and no holder of Convertible Preferred Stock shall be entitled to cumulate its votes by giving one candidate more than one vote per share. These special and exclusive voting rights of the holders of Convertible Preferred Stock contained in this subparagraph (iii) may be exercised either at a special meeting of the holders of Convertible Preferred Stock called as provided below, or at any annual or special meeting of the stockholders of the Corporation, or by written consent of such holders in lieu of a meeting. The directors to be elected pursuant to this subparagraph (iii) shall serve for a term extending from the date of their election and qualification and until the time of the next succeeding annual meeting of stockholders and until their successors have been duly elected and qualified.

If at any time any directorship to be filled by the holders of the Convertible Preferred Stock pursuant to this subparagraph (iii) becomes vacant, the secretary of the Corporation shall, upon the written request of the holders of record of shares representing at least 25% of the voting power of Convertible Preferred Stock then outstanding, call a special meeting of the holders of the Convertible Preferred Stock for the purpose of electing a director to fill such vacancy. Such meeting shall be held at the earliest practicable date at such place as is specified in the By-Laws of the Corporation. If such meeting shall not be called by the Secretary of the Corporation within ten days after personal service of said written request upon him or her, then the holders of record shares representing at least 25% of the voting power of the Convertible Preferred Stock then outstanding may designate in writing one of their number to call such meeting at the expense of the Corporation, and such meeting may be called by such persons so designated upon the notice required for annual meetings of stockholders and shall be held at such specified place. Any holder of Convertible Preferred stock so designated shall have access to the stock books of the Corporation for the purpose of calling a meeting of the stockholders pursuant to these provisions.

At any meeting held for the purpose of electing directors at which the holders of the Convertible Preferred stock shall have the special and exclusive rights to elect directors as provided in the subparagraph (iii), the presence, in person or by proxy, of the holders of record of shares representing a majority of the voting power of the Convertible Preferred Stock then outstanding shall be required to constitute a quorum of the Convertible Preferred Stock for such election. In the absence of such a quorum, the holders of record of shares representing a majority of the voting power of the Convertible preferred Stock present, in person or by proxy, shall have the power to adjourn the meeting for the election of directors through no notice other than announcement at the meeting.

A vacancy in any directorship to be elected by the holders of the Convertible Preferred Stock pursuant to this subparagraph (iii), may be filled only by (a) vote of the holders of a majority in holding power of the Convertible Preferred Stock, acting separately as one class, or (b) written consent in lieu of a meeting the holders of a majority in voting power of the Convertible Preferred Stock, acting separately as one class.

Any director elected pursuant to this subparagraph (iii) may be removed after the aforesaid term of office, either with or without cause, by, and only by, the affirmative vote of the holders of the Convertible Preferred stock given either at a special meeting of such stockholders duly called for that purpose or pursuant to a written consent of such stockholders.

(b) Dividend Rights. (I) Each issued and outstanding share of Convertible Preferred Stock shall entitle the holder of record thereof to receive, when, as and if declared by the Board of Directors, out of any funds legally available therefor, dividends in cash at the annual rate per share of (A) Six Cents ($0.06) for Series A Preferred Stock, (B) Twelve and Seventy Five One Hundredths Cents ($0.1275) for Series B Preferred Stock and (C) Fifty-Six Cents ($0.56) for Series C Preferred Stock (or such greater amount per share as such Convertible Preferred stock would be entitled to receive if such Convertible Preferred Stock were converted to Common Stock), as adjusted for stock splits, stock dividends, recapitalizations, reclassifications and similar events (together herein referred to as "Recapitalization Events"), payable as the Board of Directors may from time to time determine. Dividends and distribution (other than those paid solely in Common Stock or Preferred stock other than Convertible Preferred Stock respectively) may be paid, or declared and set aside for payment, upon shares of Common stock or Preferred Stock other than Convertible Preferred Stock in any calendar year only if dividends shall have been paid, or declared and set aside for payment, on account of all shares of Convertible Preferred Stock then issued and outstanding, at the aforesaid rate for the calendar year. Except as herein set forth, the Board of Directors of the Corporation is under no obligation to pay dividends and the dividend preferences granted herein to shares of Convertible Preferred Stock shall apply only at such time as the Board of Directors may in its discretion decide to pay or declare and set aside for payment of any dividends on any shares of capital stock of the Corporation.

(ii) Until December 1, 2001, the right to dividend upon the issued and outstanding shares of Convertible preferred Stock shall be non-cumulative and shall not be deemed to accrue, whether dividends are earned or whether there be funds legally available therefor, unless and until said dividends shall have been declared by the Board of Directors. If until December 1, 2001, the Corporation pays dividends upon the Convertible Preferred stock that are less than the dividend preference on the Convertible Preferred Stock pursuant to the subsection (b) (I) hereof, dividends shall be distributed ratably among the holders of Convertible Preferred stock based upon the amounts of their respective dividend preferences.

(iii) From and after December 1, 2001, the right to dividends among the issued and outstanding shares of Convertible Preferred Stock shall be cumulative so that such rights shall be deemed to accrue, on a quarterly basis, from and after December 1, 2001, whether earned, or whether there be funds legally available therefor, or whether said dividends shall have been declared . If such dividends in respect of any period beginning December 1, 2001, shall not have been declared and either paid or a sum sufficient for the payment thereof set aside in full, the deficiency shall first be fully paid on the Convertible Preferred Stock, before any dividend or other distribution (other than those payable solely in Common Stock or Preferred Stock other than Convertible Preferred Stock, respectively) may be paid or declared on shares of Common Stock or Preferred Stock other than Convertible Preferred Stock. Any accrued and unpaid dividends on the Convertible Preferred stock shall in any event be paid upon conversion of the Convertible Preferred stock, in cash or in Common stock at its then fair market value, as determined in good faith by the Board of Directors of the Corporation. If at any time from and after December 1, 2001, the Corporation pays dividends upon the Convertible Preferred Stock that are less than the total dividends then accrued but unpaid for the Convertible Preferred stock, such dividends shall be distributed ratably among the holders of Convertible Preferred Stock based upon the aggregate accrued but unpaid dividends on the shares of Convertible Preferred Stock held by each such holder. Any accumulation of dividends on the shares of Convertible Preferred stock shall not bear interest.

(iv) The restrictions on dividends and distributions with respect to shares of Common Stock and of Preferred stock other than Convertible Preferred Stock set forth in this paragraph (b) are in addition to, and not in derogation of, the other restrictions on such dividends and distributions set forth herein.

(c) Liquidation Rights. (I) In the event of a voluntary or involuntary liquidation, dissolution, or winding up of the Corporation (a "Liquidation"), the holders of record of share of the Series C Preferred Stock shall be entitled to receive, prior and in preference to any distribution of any assets of the Corporation to the holders of Common Stock or any Preferred Stock other than Series C Preferred stock by reason of their ownership thereof, out of the assets of the Corporation legally available therefor, Seven Dollars ($7.00) per share of Series C Preferred Stock ("The Original Series C Issue Price"), as adjusted for recapitalization events pursuant to subsections (d) (iv) (B) (F), as appropriate, plus a further amount per share equal to dividends, if any, (A) then declared

and unpaid on account of shares of Series C Preferred Stock and (B) whether or not declared, then accrued in accordance with the provisions of subparagraph (b) (iii) hereof, before any payment shall be made or any assets distributed to the holders of Common or any Preferred stock other than Series C Preferred Stock. If upon any liquidation, the assets available for distribution among the holders of the Series C Preferred Stock shall be insufficient to permit payment to such holders of the full preferential amounts aforesaid, then such assets shall be distributed ratably among the holders of Series C Preferred Stock.

(ii) After payment to the holders of record of the shares of Series C Preferred Stock of the full amounts set forth in the preceding subparagraph (I), the holders of record of shares of Series B Preferred Stock shall be entitled to receive, prior and in preference to any distribution of any assets of the Corporation to the holders of Common Stock or any Preferred Stock other than series C Preferred Stock by reason of their ownership thereof, out of the assets of the Corporation legally available therefor, One Dollar and Fifty Cents ($1.50) per share of series B Preferred Stock ("The Original Series B Issue Price") , as adjusted for recapitalization Events pursuant to subsections (d) (iv) (E) (F), as appropriate, plus a further amount per share equal to dividends, if any, (A) then declared and unpaid on account of shares of Series B Preferred Stock and (B) whether or not declared, then accrued in accordance with the provisions of subparagraph (b) (iii) hereof, before any payment shall be made or any assets distributed to the holders of shares of Common Stock or any Preferred Stock other than Series C Preferred Stock. If, upon any liquidation after payment shall have been made to all holders of record of Series C Preferred Stock of the full amounts to which such holders shall be entitled pursuant to subparagraph (c) (I) hereof, the assets available for distribution among the holders of the series B Preferred stock shall be insufficient to permit payment to such holders of the full amounts aforesaid, then such assets shall bee distributed ratably among the holders of Series B Preferred stock.

(iii) After payment to the holders of record of the shares of Series C Preferred Stock and Series B Preferred Stock of the full amounts set forth in the preceding subparagraphs (I) and (ii), respectively, the holders of record of shares of Series A Preferred Stock shall be entitled to receive, prior and in preference to any distribution of any assets of the Corporation to the holders of Common Stock or any Preferred Stock other than series C Preferred Stock by reason of their ownership thereof, out of the assets of the Corporation legally available therefor, One Dollar ($1.00) per share of series A Preferred Stock ("The Original Series A Issue Price") , as adjusted for recapitalization Events pursuant to subsections (d) (iv) (B) (F), as appropriate, plus a further amount per share equal to dividends, if any, (A) then declared and unpaid on account of shares of Series A Preferred Stock and (B) whether or not declared, then accrued in accordance with the provisions of subparagraph (b) (iii) hereof, before any payment shall be made or any assets distributed to the holders of shares of Common Stock or any Preferred Stock other than Series C Preferred Stock and Series B Preferred Stock. If, upon any liquidation after payment shall have been made to all holders of record of Series C Preferred Stock and Series b Preferred Stock of the full amounts to which such holders shall be entitled pursuant to

subparagraph (c) (i) and (c) (ii) hereof, the assets available for distribution among the holders of the series B Preferred stock shall be insufficient to permit payment to such holders of the full amounts aforesaid, then such assets shall bee distributed ratably among the holders of Series A Preferred stock.

(iv) After payment to the holders of record of the shares of the Convertible Preferred stock of the amounts set forth in the preceding subparagraphs (I), (ii) and (iii), the remaining assets of the Corporation available for distribution shall be distributed in like amounts per share to the holders of record of the Corporation's stock, each share of Preferred Stock being treated as the number of shares of Common Stock (giving effect to fractional shares) into which it could then be converted for such purpose; provided, however,

(A) That if the assets and the funds thus distributed would be sufficient to permit the payment to the holders of Series C Preferred Stock of an amount in excess of Seven Dollars ($7.00) per share of Series C Preferred Stock (as adjusted for Recapitalization Events), plus (2) whether or not declared dividends then accrued in accordance with subparagraph (b) (iii) hereof, then the holders of Series C Preferred Stock shall be entitled to the full amounts otherwise payable to them pursuant to the preceding provisions, but shall not be entitled to share in the remaining assets and funds of the Corporation in excess of Fourteen dollars ($14.00) per share of series C Preferred stock (as adjusted for Recapitalization Events) plus (2) whether or not declared dividends then accrued in accordance with subparagraph (b) (iii) hereof;

(B) that if the assets and the funds thus distributed would be sufficient to permit the payment to the holders of Series B Preferred stock of an amount in excess of One Dollar and Fifty Cents ($1.50) per share of Series B Preferred Stock (as adjusted for Recapitalization Events) plus (2) whether or not declared, dividends then accrued in accordance with subparagraph (b) (iii) hereof, then the holders of series B Preferred Stock shall be entitled to the full amounts otherwise payable to them pursuant to the preceding provisions, but shall not be entitled to share in the remaining assets and funds of the Corporation in excess of (1) Three Dollars ($3.00) per share of Series B Preferred Stock (as adjusted for Recapitalization Events) plus (2) whether or not declared, dividends then accrued in accordance with subparagraph (b) (iii) hereof, and

(C) that if the assets and the funds thus distributed would be sufficient to permit the payment to the holders of Series A Preferred stock of an amount in excess of One Dollar ($1.00) per share of Series A Preferred Stock (as adjusted for Recapitalization Events) plus (2) whether or not declared, dividends then accrued in accordance with subparagraph (b) (iii) hereof, then the holders of series A Preferred Stock shall be entitled to the full amounts otherwise payable to them pursuant to the preceding provisions, but shall not be entitled to share in the remaining assets and funds of the Corporation in excess of (1) Two and Fifty Cents ($2.50) per share of Series A Preferred Stock (as adjusted for Recapitalization Events) plus (2) whether or not declared, dividends then accrued in accordance with subparagraph (b) (iii) hereof.

(iv) Any acquisition of the Corporation by means of merger or other form of corporate reorganization in which the shareholders of the Corporation immediately before the closing of such transaction do not, by virtue of shares issued in the transaction, own a majority of the outstanding shares of the surviving corporation, or a sale of all or substantially all of the assets of the Corporation, shall each be deemed a Liquidation within the meaning of this paragraph (c) and shall entitle the holders of the Corporation's stock to receive at the closing in cash, securities or other property as determined in good faith by the Board of Directors, amounts as specified in subparagraphs (c) (I) - (c) (iii) above.

(d) Conversion Rights. The holders of the Convertible Preferred Stock shall have conversion rights ("The Conversion Rights") as follows:

(I) Right to Convert. Each holder of record of shares of Convertible Preferred stock may, at any time, upon surrender to the Corporation of the Certificates therefor at the principal office of the Corporation or at such other place as the Corporation shall designate, convert all or any part of such holder's shares of Convertible Preferred Stock into such number of fully paid and non-assessable shares of Common Stock of the Corporation (as such Common Stock shall then be constituted) equal to the product of (A) the number of shares of Convertible Preferred Stock which such holder shall then surrender to the Corporation, multiplied by (B) the number determined by dividing (1) One Dollar ($1.00) for Series A Preferred Stock, One Dollar and Fifty Cents ($1.50) for Series B Preferred Stock and Seven Dollars ($7.00) for Series C Preferred Stock by (2) the Conversion Price (as hereinafter defined) per share for the respective series of Convertible Preferred Stock in effect at the time of conversion. Promptly following surrender of such certificates, the holder shall be entitled to receive certificates evidencing the number of shares of Common Stock into which such shares of Convertible Preferred Stock are converted.

(ii) Automatic Conversion.

(A) All outstanding shares of Convertible Preferred Stock shall be deemed automatically converted into such number of shares of Common Stock as are determined in accordance with subparagraph (d) (I) hereof upon (1) the consummation of a firm commitment underwritten public offering of the securities of the Corporation pursuant to a registration statement filed with the Securities and Exchange Commission pursuant to the Securities Act of 1933, as amended, where the aggregate proceeds to the Corporation resulting from the sale of such securities (before deduction of underwriting discounts and expenses of sale) is not less than $15,000,000 and the per share sales price of such securities before such deductions is not less than Twelve Dollars ($12.00), as adjusted for Recapitalization Events, or (2) the affirmative vote of the holders of record of (a) sixty-seven percent(67%) in interest of the outstanding shares of Convertible Preferred Stock, voting together as one class to that effect, and (b) eighty-five percent (85% in interest of the

outstanding shares of Series C Preferred Stock voting separately as a class (either such event being hereinafter referred to as an "Automatic Conversion Event").

(B) In addition to the Automatic Conversion Event set forth in subsection (9A) above, if any holder of Convertible Preferred stock or holder of a warrant, option or other right to acquire Convertible Preferred Stock (either such holder being hereinafter referred to as a "Holder") (by itself or together with affiliated persons or entities which affiliation shall include (1) any venture fund related to a Holder by virtue of having at least two (2) common individuals who are officers, employees, directors, or partners of the entities that are general partners or managers of such venture funds or (2) any partner of such venture fund; any such person or entity, hereinafter an 'Affiliate") fails to [participate in any particular financing by the Corporation consisting of a bridge loan for a term not in excess of one year or the offering of Convertible Securities (as herein defined) (an "Additional Offering"), by acquiring in such Additional Offering such portion of the principal amount of the financing or such number of shares as shall equal the product of the principal amount of the bridge loan or the number of shares actually offered in the Additional Offering to all Holders, multiplied by a fraction: (x) the numerator of which is the number of shares of Convertible Preferred Stock of each series held by such Holder (by itself or together with any Affiliate), which number shall include the number of shares of Convertible Preferred Stock issuable to such holder upon exercise of any warrants held by such holder that are exercisable for shares of Convertible Preferred Stock ("Warrant Shares") , at the time of such Additional Offering, and (y) the denominator of which is the total number of shares of the Convertible Preferred Stock of each series then outstanding, including all Warrant Shares, in each case determined on the basis of the number of shares of Common Stock into which such shares of Convertible Preferred Stock would be convertible at the Conversion Price for such shares of Convertible Preferred stock that would be in effect immediately after the transaction (the "Converted Shares"), assuming all Holders purchased their respective pro rata shares in such transaction or participated in the bridge loan financing ("the Pro Rata Share"), then to the extent of the percentage of the Pro Rata Share not so acquired by the Holder (or by an Affiliate of such Holder) ("Refused Percentage) the number of outstanding shares of such Holder's Convertible Preferred Stock including for this purpose all warrant Shares) determined by multiplying the Refused Percentage by all outstanding shares of such Holder's Convertible Preferred Stock (including for this purpose all warrant Shares) ("Converted Percentage") shall be automatically converted into such number of fully paid and non-assessable shares of Common Stock of the Corporation (as such Common Stock shall then be constituted) equal to the product of (x) the Converted Shares multiplied by (y) the number determined by dividing (1) One dollar ($1.00) for Series A Preferred Stock, One Dollar and Fifty Cents ($1.50) for Series B Preferred stock and Seven Dollars ($7.00) for Series C Preferred stock by (2) the Initial Conversion Price (as defined) (subject to adjustments as provided in subsections (d) (iv) (B) - (F), but without giving any effect to adjustments pursuant to subsection (d) (iv) (A) per share for the Convertible Preferred Stock (such event being hereinafter referred to as an "Additional Automatic Conversion Event"); provided, however, that the number of shares to be offered in the Additional Offering to all Holders shall be determined in good faith by the

Board of Directors and, if the Additional Offering consists of bridge notes convertible into securities or Convertible Securities at an Effective Price greater than $1.00 per share for Series A Preferred Stock, $1.50 per share for Series B Preferred Stock, or $7.00 per share for Series C Preferred Stock (as adjusted for Recapitalization Events), the Additional Offering shall be required, in the reasonable business judgment of the Board of Directors, as a condition to the Corporation's ability to secure financing from one or more third parties. Notwithstanding the foregoing, the term "Additional Automatic Conversion Event" shall not include any "Deferred Closing" under Section 2.3 of that certain Preferred stock Purchase Agreement relating to the Series B Preferred Stock dated as of December 22, 1994 or any failure to participate in a financing when pursuant to a written request by the Company, the holder of shares of Convertible Preferred Stock agrees in writing to waive such holder's right of first refusal with respect to such financing.

(C) On or after the date of occurrence of an Automatic Conversion Event or an Additional Automatic Conversion Event, and in any event within 10 days after receipt of notice, by mail, postage prepaid from the Corporation of the occurrence of such Event, each holder of record of shares of Convertible Preferred Stock Subject to such event shall surrender such Holder's certificates evidencing such holder's shares of Convertible Preferred Stock at the principal office of the Corporation at such other place as the Corporation shall designate, and shall thereupon be entitled to receive certificate evidencing the number of shares of Common Stock into which such shares of Convertible Preferred Stock are converted. On the date of the occurrence of an Automatic Conversion Event or an Additional Automatic Conversion Event, each Holder of record of shares of Convertible Preferred Stock subject to such event shall be deemed to be the holder of record of the Common Stock issuable upon such conversion, notwithstanding that the certificate representing such shares of convertible Preferred Stock shall not have been surrendered at the office of the Corporation, that notice from the Corporation shall not have been received by any holder of record of shares of Convertible Preferred Stock, or that the certificate evidencing such shares of common stock shall not then be actually delivered to such holder.

(iii) For purposes of this Certificate of Incorporation:

"Additional Shares of Common Stock" shall mean all shares of Common Stock issued (or, pursuant to this paragraph (d), deemed to be issued) by the Corporation; other than shares of Common Stock issued or issuable:

(AA) upon conversion of shares of Preferred Stock;

(BB) to officers, directors or employees of, or consultants to, the Corporation pursuant to a stock grant or sale or option plan or other employee stock incentive program approved by the Board of Directors, provided that such shares shall not exceed 2,110,000 in the aggregate without the approval of members constituting at least 81% of the Board of

Directors of the Corporation (or at least 81% of the compensation Committee of the Board of Directors, if such Committee has been constituted);

(CC) in connection with an acquisition or joint venture by the Corporation, or to consultants, lenders or equipment lessors of the Corporation, in each case as approved by the Board of Directors, or

(DD) as a dividend or distribution on Preferred Stock.

"Conversion Price" shall mean, with respect to each series of Convertible Preferred Stock, the price at which the shares of the Common Stock shall be deliverable upon conversion of shares of such series of Convertible Preferred Stock as adjusted from time to time as herein provided. The initial Conversion Price per share for shares of Series A Preferred Stock shall be the Original Series A Issue Price. The Initial Conversion Price per share for shares of Series B Preferred Stock shall be the Original Series B Issue Price. The initial Conversion Price per share for shares of Series C Preferred Stock shall be the Original Series C Issue Price. The Conversion Price shall be subject to adjustment as herein provided.

"Convertible Securities" shall mean any evidences of indebtedness, shares or securities, in each case convertible into, or exchangeable for Additional Shares of Common Stock.

"Effective Price" of Additional Shares of Common Stock shall mean the quotient determined by dividing the total number of additional Shares of Common Stock issued or sold, or deemed to have been issued or sold by the Corporation under the subparagraph (d) (iv) (A), into the aggregate consideration received or deemed to have been received by the Corporation for such issue under subparagraph (d) (iv) (A)."

"Issuance Date" shall mean the actual initial date of issuance of shares of each series of Convertible Preferred Stock."

"Options" shall mean rights, options or warrants to subscribe for, purchase or otherwise acquire Additional Shares of Common Stock or Convertible Securities."

"Original Issue Price" shall mean, with respect to any share of Convertible Preferred Stock, the price at which such share shall have been issued on the Issuance Date.

(iv) Adjustments to Conversion Price for Diluting Issues.

(A) Sale of Shares below Conversion Price.

(1) If at any time or from time to time after the Issuance Date, the Corporation issues or sells, or is deemed by the express provisions of this subparagraph (d) (iv) (A) to have issued or sold, Additional Shares of Common Stock, for an Effective Price less than the

Initial Conversion Price (as adjusted for Recapitalization events) of any series of Preferred Stock, then and in each such case the then existing Conversion Price for such series of Convertible Preferred Stock shall be reduced, as of the opening of business on the date of such issue or sale, to the effective price of such issuance or sale.

(2) For the purpose of making any adjustment required under thus subparagraph (d) (iv) (A), the consideration received by the Corporation for any issue or sale of securities shall (a) to the extent it consists of cash be computed at the gross amount of cash received by the Corporation before deduction of any expenses payable by the Corporation and any underwriting or similar commissions, compensation or concessions paid or allowed by the Corporation in connection with such issue or sale, (b) to the extent it consists of property other than cash, be computed at the fair market value of that property as determined in good faith by the Board of Directors and (c) if Additional Shares of Common Stock, Convertible Securities or rights or options to purchase either additional shares of Common Stock or Convertible Securities are issued or sold together with other stock or securities or other assets of the Corporation for a consideration which covers both, be computed (as provided in clauses (a) and (b) above) as the portion of the consideration so received that may be reasonably determined in good faith by the Board of directors to be allocable to such Additional Shares of Common Stock, Convertible Securities or rights or options.

(3) For the purpose of the adjustment required under the subparagraph (d) (iv) (A), if at any time or from time to time after the Issuance Date for any series of Convertible Preferred stock, the Corporation issues or sells any Options or Convertible Securities, or increases the number of shares of Common Stock for which any option may be exercised or into which any Convertible Securities may convert (other than options or rights exercisable for or convertible into shares of common stock referred to in clause (BB) of the definition of Additional Shares of Common Stock), then in each case the Corporation shall be deemed to have issued at the time of the issuance of such Options or Convertible Securities, or at the time of the increase in the number of shares of Common Stock for which such Options or Convertible Securities may be exercised, the maximum number of additional shares of common Stock (as set forth in the instruments relating thereto, giving effect to any provision contained therein for a subsequent upward adjustment of such number) issuable upon exercise or conversion thereof and to have received as consideration for the issuance of such shares an amount equal to the total amount of the consideration, if any, received by the Corporation for the issuance of such Options or Convertible securities, or for the increase in the number of shares of Common Stock for which such Options or Common Stock may be exercised plus, in the case off such Options, the minimum amounts of consideration, if any (as set forth in the instruments relating thereto, giving effect to any provision contained therein for a subsequent downward adjustment of such consideration), payable to the Corporation upon the exercise of such Options and , in the case of Convertible Securities, the minimum amounts of consideration, if any, payable to the Corporation (other than by cancellation of liabilities or obligations evidenced by such Convertible securities which were deemed to have been received by the Corporation on issuance of such convertible Securities. No

further adjustment of the Conversion Price, adjusted upon the issuance of such Options or Convertible securities, shall be made as a result of the actual issuance of Additional Shares of common stock on the exercise of any such Options or the conversion of any such Convertible securities; provided, however, that if any such Options or the conversion privilege represented by any such Convertible Securities shall expire without having been exercised, or are exercised for a lesser number of Additional Shares of Common Stock or with a greater consideration paid to the Corporation than was previously deemed to be issued or received by the Corporation, the Conversion Price adjusted upon the issuance of such options or Convertible Securities (or an increase in the number of shares of Common Stock for which they may be exercised) shall be readjusted to the Conversion Price which would have been in effect had an adjustment been made on the basis that the only Additional Shares of Common Stock so issued were the Additional Shares o common Stock, if any, actually issued or sold on the exercise of such Options or rights of conversion of such convertible Securities, and such Additional Shares of Common Stock, if any, were issued or sold for the consideration actually received by the Corporation upon such exercise, plus consideration, if any, actually received by the Corporation for the granting of all such Options, whether or not exercised, plus the consideration received for issuing or selling the Convertible Securities actually converted plus the consideration, if any, actually received by the Corporation (other than by cancellation of liabilities or obligations evidenced by such Convertible Securities which were deemed to have been received by the Corporation on issuance of such Convertible Securities) on the conversion of such Convertible Securities; and provided further, however, that if any such Options or Convertible securities by their terms provide, with the passage of time or otherwise, for any increase or decrease in the consideration payable to the Corporation, or decrease or increase in the number of shares of Common Stock or Convertible Securities issuable, upon the exercise, conversion, or exchange thereof, the Conversion Price for each series of Convertible Preferred Stock computed upon the original issue thereof (or upon the occurrence of a record date with respect thereto), and any subsequent adjustments based thereon, shall, upon any such increase or decrease becoming effective, be recomputed to reflect such increase or decrease insofar as it affects such Options or the rights of conversion or exchange under such Convertible securities (provided, however, that no such adjustment of the Conversion price for a series of Convertible Preferred Stock shall affect Common Stock previously issued upon conversion of such series of Convertible Preferred Stock).

(4) In each case of an adjustment or readjustment of the Conversion Price or the number of shares of Common Stock or other securities issuable upon conversion expense, shall cause the chief financial officer of the Corporation to compute such adjustment or readjustment in accordance with the provisions hereof and prepare a certificate showing such adjustment or readjustment , and shall mail such certificate, by first class mail, postage prepaid, to each registered holder of Convertible Preferred Stock at the holder's address as shown in the Corporation's books. The certificate shall et forth such adjustment or readjustment, showing in detail the facts upon which such adjustment or readjustment is based, including a statement of (a) the consideration received or deemed to be received by the Corporation for any Additional Shares of Common Stock issued or

sold or deemed to have been issued or sold, (b) the Conversion Price for each series of Convertible Preferred Stock at the time in effect, (c) the number of Additional Shares of Common Stock and (d) the type and amount, if any, of other property which at the time would be received upon conversion of such Convertible Preferred Stock.

(5) Except as expressly provided herein, no adjustment in the Conversion Price of any share of Convertible Preferred Stock shall be made in respect of the issue of additional Shares of Common Stock unless the consideration per share for such Additional Shares of Common Stock issued or deemed to be issued by t he Corporation is less than the Conversion Price in effect on the date of, and immediately prior to, such issue, for such share of Convertible Preferred stock.

(b) Adjustment for Stock Splits and Combinations.
If the Corporation at any time or from time to time after the Issuance Date effects a subdivision of the outstanding Common Stock, the Conversion Price for each series of convertible preferred Stock then in effect immediately before that subdivision shall be proportionately decreased, and conversely, if the Corporation at any time or from time to time after the Issuance Date combines the outstanding shares of Common Stock, the Conversion Price for each series of Convertible Preferred Stock then in effect immediately before the combination shall be proportionately increased. Any adjustment under this subparagraph (d) (iv) (B) shall become effective at the close of business on the date of the subdivision or combination becomes effective.

(C) Adjustment for Certain Dividends and Distributions.
In the event the Corporation at any time, or form time to time after the Issuance Date makes, or fixes a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable in Additional Shares of Common Stock or in any right to acquire Common Stock for no consideration, then and in each such event the Conversion Price for each series of Convertible Preferred Stock then in effect shall be decreased as of the time of such issuance or, in the event such a record date is fixed, as of the close of business on such record date, by multiplying the Conversion Price for the series of Convertible Preferred Stock then in effect by a fraction (a) the numerator of which is the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date, and (b) the denominator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date plus the number of shares of Common Stock issuable in payment of such dividend or distribution; provided however, that if such record date is fixed and such dividend is not fully paid or if such distribution is not made on the date so fixed, the Conversion Price for each such series of Convertible Preferred Stock shall be recomputed accordingly as of the close of business on such record date and thereafter the Conversion Price for each series of Convertible Preferred Stock shall be adjusted pursuant to this subparagraph (d) (iv) (C) as of the time of actual payment of such dividends or distributions.

(D) Adjustment for other Dividends and Distributions.
In the event that the Corporation at ant time or form time to time after the Issuance Date makes, or fixes a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable in securities to the Corporation other than shares of Common Stock, then in each such event provision shall be made so that the holder of Convertible Preferred Stock shall receive upon conversion thereof, in addition to the number of shares of Common Stock receivable thereupon, the amount of securities of the Corporation which they would have received had their Convertible Preferred stock been converted into Common Stock on the date of such event and had they thereafter, during the period from the date of such event and including the date of conversion retained such securities receivable by them as aforesaid during such period, subject to all other adjustments called for during such period under this paragraph (d) with respect to the rights of the holders of the Convertible Preferred Stock.

(E) Adjustment for Reclassification, Exchange and Substitution.
If the Common Stock Issuable upon the conversion of Convertible Preferred Stock is changed into the same or a different number of share of any other class or classes of stock, whether by recapitalization, reclassificatioon or otherwise (other than a subdivision or combination of shares, or stock dividend or a recapitalization, reclassification or otherwise, (otheer than a subdivision or combination of shares, or stock dividend or a recapitalization provided for elsewhere in this paragraph (d)), then and in any such event each holder of Convertible Preferred Stock shall have the rioght thereafter to convert such stock into the kind and amount of stock and other securities and property receivable upon such recapitalization, reclassification or other change, by holders of the number of shares of Common Stock into which such shares of Convertible oreferred stock would have been converted immeediately prior to such recapitalization, reclassification or change, all subject to further adjustment as provided herein.

(F) Reorganizations.
If at any time or form time to time there is a capital reorganization of the Common Stock (other than a recapitalization, subdivision, combination, reclassification or exchange of shares provided for elsewhere in this paragraph (d)), then, aas a part of such reorganization, provision shall be made so that the holders of Convertible Preferred Stock shall thereafter be entitled to receive upon conversion of Preferred Stock, the number of shares of stock or otheeer securities or property of the Corporation to which a holder of Common Stock deliverable upon conversion would have been entitled on such capital roerganization. In any such case, appropriate adjustment shall be made in the application of the provisions of this paragraph (d) with respect to the right s of the holders of the Convertible Preferred Stock after the reorganization to the end that the provision of this paragraph (d) (including adjustment of the Conversion Price for each series of Convertible Preferred stock then in effect and number osf shares purchaaseable upon conversion of Convertible preferred Stock) shall be applicable after that event and be as nearly equivalent to the provisions hereof as may be practicable.

(v) No impairment.

The Corporation will not, by amendment of this Certificate of Incorporation or through any reorganization, transfer of assets, consolidation, mergewr, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of hte terms to be observed or performed hereunder by the Corporation but will at all times in good faith assist in the carrying out of all the provisions of this paragraph (d) and in the taking of all such action as may be necessary or appropriate in order to protect the Conversion Rights of the holders of Convertible Preferred Stock against dilution or other impairment. The Corporation shall at all times reserve and keep available out of its authorized but unissued Common Stock the full number of shares of Common Stock deliverable upon the conversion of all the theen outstanding shares of Convertible Preferred stock and shall take all such action and obtain all such permits or orders as may be necessary to enable the Corporation lawfully to issue such Common Stock upon the conversion of Convertible Preferred stock.

(vi) Notices of Record Date.
In the event of any taking by the Corporation of a record of the holders of any class of securities for the purpose of determi ning the holders thereof who are entitled to receive any dividend (other than a cash dividend which is the same as cash dividends paid in previous quarters) or other distribution, the Corporation shall mail to each holder of Convertible Preferred Stock at least twenty (20) days prior to the date specified therein, a notice specifying the date on which any such record is to be takes for the purpose of such dividend or distribution.

(e) Redemption.
The Convertible Preferred Stock shall, at the election of the holders of Convertible Preferred Stock, voting together as one class, be redeeemed by the Corporation in two equal installments in accordance with the following provisions:

(I) Election to Redeem. The Corporation shall redeem the Convertible Preferred Stock at the times, and pursuant to the terms, set forth below, if the Corporation receives written certification (the "Redemption Certificae") that holders of no less than seventy-two percent (72%) of the then outstanding shares of Convertible Preferred Stock (the "Electing Holders"), voting together as one class, have elected in favor of redemption (the "Redemption Election"). The Redemption Certificate shall be signed by the Electing Holders and shall be deliverd to the Corporation at its principal office.

(ii) Redemption Price. The onvertible Preferred stock shall be redeemed by the Corporation paying in cash, out of funds legally available therefor, an amount eqiual to (A) the greater of (1) One Dollar ($1.00) per share for Series A Preferred Stock, One Dollar and Fifty Cents ($1.50) per share for Series B Preferred Stock or Seven Dollars ($7.00) per share for Series C Preferred Stock (adjusted for any recapitalization events with respect to such shares) and (2) for each series of Convertible Preferred Stock, the fair market value per share as of a date within forty-five (45) days after receipt by the Corporation of the Redemption Certificate, determined as sset forth below, plus (B) a further amount per share equal to dividends, if any, (1) then declared and unpaid on

account of the respective series of Convertible Preferred stock and (2) whether or not declared, then accrued on the respective series of Convertible Preferred stock in accordance with the provisions of subparagraph (b) (iii) hereof to and including the date fixed for redemption(the "Redemption Price"). The Redemption Price for each series of Convertible Preferred Stock shall be applicable both to elective and mandatory redemptions pursuant to the provisions of this section. The fair market value of the Convertible Preferred Stock shall be determined as follows: The Board of Directors shall determine the fair market value of each share of each series of convertible Preferred Stock; provided, however, that (A) if the board of Directors determines that the fair market value of each share of (1) series A Preferred stock is greater than One Dollar ($1.00), (2) Series B Preferred Stock is greater than One Dollar and Fifty Cents ($1.50) or (3) Series C Preferred Stock is greater than Seven Dollars ($7.00) (adjusted for any recapitalization eveents with respect to such shares) , the Corporation shall promptly give the stockholders notice thereof and the holders of a majority of the Corporation's then outstanding Common Stock shall have the right to contest any of these determinations, or both if applicable, by giving notice thereof to the Corporation within fifteen (15) days of the receipt of the Corporation's notice, and in such event the fair market value of the respective series of Convertible Preferred Stock shall be determined by an independent appraiser paid by the Corporation and mutually acceptable to the Corporation, the holders of a majority of the Common Stock and the holders of a majority of the then outstandingConvertible Preferred stock of the respective sseries to which such appraisal relates, or (B) if the holders of a majority of the then outstanding shares of such series of Convertible Preferred stock contests the determination of the Board of Directors, then the fair market value of such series of Convertible Preferred Stock shall be determined by an independent appraiser mutually acceptable to a majority of disinterested directors and holders of a majority of the then outstanding shares of such series of Convertible Preferred Stock. In the event that the holders of a majority of the shares of a series of Convertible Preferred Stock contest the board of directors fair market value determination, the cost of appraisal shall be borne as follows:

(A) if the fair market value determined by the independent appraiser is less or equal to ninety percent (90%) of the fair market value as determined by the Board of Directors, then the cost of appraisal shall be borne by the holders of the respective sseries of Convertible Preferred Stock pro rata based on the number of shares held;

(B) if the fair market value determined by the appraiser is equal to or greater than one hundred and ten percent (110%) of the fair market value as determined by the Board of Directors, the cost of appraisal shall be borne by the Corporation; and

(C) if the fair market value as determined by the independent appraiser is between ninety and one-hundred and ten percent (90 - 110%) of the fair market value as determined by the Board ofDirectors, then the cost of appraisal shall be borne 50% by the Corporation and 50% by the holders of the respective series of Convertible Preferred Stock, with each holder paying a pro rata portion of such cost based on the number of shares held.

(iii) Mandatory Redemption; Two Installments.
The Redemption Election constitutes an election in favor of a mandatory redemption of all shares of Convertible Preferred Stock. Each of Series A, Series B and Series C Preferred Stock shall be redeemed in two equal installments, with the Corporation redeeming 50% of each holder's shares of each such series of Convertible Preferred Stock in the first installment and the remaining shares of each such series of Convertible Preferred stock in the second installment. Subject to the Corporation having funds legally available, the closing of the first installment with respect to each of Series A, Series B and Series C shall occur on or about the seventh anniversary of the initial issuance of the respective series of Convertible Preferred stock (with respect to each series, the "Firest Redemption date") and the closing of the second installment shall take place on or about the eighth anniversary of the initial issuance of the respective series of Convertible Preferred Stock (with respect to each series, the "Second Redemption Date"). If the Corporation shall not have sufficient funds legally available for redeeming Convertible Preferred Stock at the First Redemption Date or the Second Redemption Date of any series, respectively, the Corporation sghall redeem a pro rata portion of each holder's shares of such series of Convertible Preferred Stock out of the funds legally available therefor and shall redeem the remaining shares to have been redeemed in such installment as soon as practicable after the Corporation has funds legally available therefor. If after either the First Redemtion Date or the Second Redemption Date of any series of Convertible Preferred Stock, any shares of such series of Convertible Preferred Stock are outstanding that the Corporation was required to redeem on such Redemption Date (the "Delayed Redemption Shares"), the Corporation shall not pat dividends or other distributions or make any other payments on Common Stock or any Preferred Stock other than the series of Convertible Preferred Stock of which the delayed redemption shares are a pert until the Delayed Redemption Shares have been redeemed for the Redemption Price.

(iv) Redemption Notice.
If the Redemption Election has been received, the Corporation shall mail, postage prepaid, not less than thirty (30) days nor more than sixty (60) days prior to the First and Second Redemption Dates, written notice thereof (the "Redemption Notice") , to each holder of record of the Convertible Preferred Stock, at its post office address last shown on the records of the Corporation.Each such Redemption Notice shall state:

(A) The number of shares of Convertible Preferred Stock held by the holder that th e Corporation shall redeem on the Redemption Date specified in the Redemption Notice;

(B) The Redemption Date and Redemption Price;

(C) The date upon which the holder's conversion rights (as set forth in paragraph (d) above) as to such shares terminate, which termination shall be five days before the Redemption Date; and

(D) That the holder is to surrender to the Corporation, in the manner and at the place designated, its certificate or certificates representing the shares of Convertible Preferred Stock to be redeemed.

(v) Surrender of Certificates; Payment.
On or before each Redemption Date, each holder of shares of Convertible Preferred Stock to be redeemed on such Redemption Date, unless such holder has exercised its right to convert the shares aas provided in paragraph (d) hereeof, shall surrender the certificate or certificates representing such shares to the Corporation, in the manner and at hre place designated in the Redemption Notice, and thereupon the Redemption Price for such shares shall be payable to the order of the person whose name appears on such certificate or certificates as the owner thereof, and each surrendered certificate shall be cancelled and retired. In the event that fewer than all the shares represented by such certificate are redeemed, a new certificate representing them shall be issued forthwith.

(vi) Rights Subsequent to Redemption.
If the Redemption Notice shall have been duly given, and if on each Redemption Date the Redemption Price thereafter is either paid or made available for payment throughthe deposit arrangement specified in subparagraph (vii) below, then notwithstanding the certificates evidencing any of the shares of Convertible Preferred Stock so called for redemption shall not have been surrendered, the dividends with respect to such shares shall cease to accrue after the Redemption Date and all rights with respect to such shares shall forthwith terminate after the Redemption Date, except only the right of the holders to receive the redemption Price without interest upon their surrender of their certificate or certificates therefor.

(vii) Deposit of Funds.
On or prior to each Redemption Date, the Corporation shall deposit as a trust company, having a capital and surplus of at least $100,000,000, a sum equal to the aggregate Redemption Price of all shares of Preferred stock called for redemption on such Redemption Date and not yet redeemed or converted, with irrevocable instructions and authority to the bank or trust company to pay, on and after each such Redemption Date, the Redemption Price to the respective holders upon the surrender of their share certificates. From and after the date of such deposit (but not prior to each Redemption Date), the shares so called for redemption on such Redemption Date shall be redeemed. The deposit shall constitute full payment of the shares of their holders, and from and after each Redemption Date the shares redeemed on such Redemption Date shall be deemed to be no longer outstanding, and the holders thereof shall cease to be stockholders with respect to such shares and shall have no rights with respect thereto except the rights to receive, from the bank or trust company, payment of the Redemption Price of the shares, without interest, upon surrender of their certificates therefor. Any funds so deposited and unclaimed at the end of one year from the Second Redemption Date shall be released or repaid to the Corporation, after which the holders of shares called for redemption shall be entitled to receive payment of the Redemption Price only from the Corporation.

(f) Protective Provisions. So long as any shares of any series of Convertible Preferred Stock are outstanding and subject to any additional voting rights required by applicable law, the Corporation shall not, without the affirmative vote of the holders of record of sixty-seven percent (67%) of the outstanding shares of each of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock, each series voting separately as a class:

(i) Amend, repeal or modify any provision of, or add any provision to, the Corporation's Certificate of Incorporation or By-Laws if such action would alter or change the rights, preferences, privileges or powers of, or the restrictions provided for the benefit of, such series of Convertible Preferred Stock so as to affect such series of Convertible Preferred Stock adversely;

(ii) Authorize, create or issue any additional shares of such series of Convertible Preferred Stock, or authorize or create shares of any class or series of stock having any preference or priority as to dividends, redemption or assets superior to or on a parity with any such preference or priority of such series Convertible Preferred Stock, or authorize, create or issue shares of any class or series or any bonds, debentures, notes or other obligations convertible into or exchangeable for, or having optional rights to purchase, any shares of the Corporation having any such preference or priority;

(iii) Reclassify the shares of Common Stock or any Preferred Stock other than the Convertible Preferred Stock as to dividends, redemption or assets into shares of such series of Convertible Preferred Stock or into shares having any preference or priority as to dividends or assets

superior to or on a parity with that of such series of Convertible Preferred Stock;

(iv) Set aside or apply any monies for the purchase, redemption, retirement, or other acquisition or liquidation of the shares of Common Stock or any Preferred Stock other than the Convertible Preferred Stock; or

(v) Increase the number of members of the Board of Directors without a proportional increase in the number of members to be elected exclusively by the Convertible Preferred Stock as provided in subparagraph (a) (iii) (any fraction rounded up to increase the number of members elected exclusively by the Convertible Preferred Stock).

SIXTH: The following provisions are inserted for purposes of the management of the business and conduct of the affairs of the Corporation and for creating, defining, limiting and regulating the powers of the Corporation and its directors and stockholders:

(a) The number of directors of the Corporation shall be fixed and may be altered from time to time in the manner provided in the By-Laws, and vacancies in the Board of Directors and newly created directorships resulting from any increase in the authorized number of directors may be filled, and directors may be removed, as provided in the By-Laws and this Third Restated Certificate of Incorporation.

(b) The election of directors may be conducted in any manner approved by the stockholders at the time when the election is held and need not be by ballot.

(c) All corporate power and authority of the Corporation (except as at the time otherwise provided by law, by this Third Restated Certificate of Incorporation or by the By-Laws) shall be vested in and exercised by the Board of Directors.

(d) The Board of Directors shall have the power without the assent or vote of the stockholders to adopt, amend, alter or repeal the By-Laws unless the By-Laws or this Third Restated Certification of Incorporation otherwise provide.

SEVENTH: The Corporation reserves the right to amend or repeal any provision contained in this Certificate of Incorporation in the manner now or hereafter prescribed by the laws of the State of Delaware, and all rights herein

conferred upon stockholders or directors are granted subject to this reservation.

EIGHTH: To the fullest extent permitted by the Delaware General Corporation Law, no director of the Corporation shall have personal liability to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, provided that nothing in this article shall eliminate or limit the liability of a director (i) for any breach of the director's duty of loyalty to the Corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the Delaware General Corporation Law, or (iv) for any transaction from which the director derived an improper personal benefit. In the event the Delaware General Corporation Law is amended after the date hereof so as to authorize corporate action further eliminating or limiting the liability of directors of the Corporation, the liability of the directors shall thereupon be eliminated or limited to the maximum extent permitted by the Delaware General Corporation Law, as so amended from time to time.

NINTH: The Corporation shall indemnify any person:

(a) who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the Corporation) by reason of the fact that such person is or was a director, officer, employee or agent of the Corporation, or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorney's fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding if such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the Corporation, and with respect to any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful. The termination of any action, suit or proceeding by judgment, order, settlement, conviction, or upon a plea of nolo contendere or its equivalent, shall not, of itself, create a presumption that the person did not act in good faith and in a manner which such person reasonably believed to be in or not opposed to the best interests of the Corporation or, with respect to any criminal action or proceeding, that the person had reasonable cause to believe such person's action was unlawful, or

(b) who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the Corporation to procure a judgment in its favor by reason of the fact that such person is or was a director, officer, employee or agent of the Corporation, or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust, or other enterprise against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection with the defense or settlement of such action or suit if such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the Corporation, except that no indemnification shall be made in respect of any claim, issue or matters as to which such person shall have been adjudged to be liable to the Corporation unless and only to the extent that the Court of Chancery or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

To the extent that a director, officer, employee or agent of the Corporation has been successful on the merits or otherwise in defense of any action, suit or proceeding referred to in paragraph (a) and (b), or in defense of any claim, issue or matter therein, such person shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection therewith. The rights conferred on any director of the Corporation under this Article Ninth shall inure to the benefit of any entity that is affiliated with such director and that is a stockholder of the Corporation.

Any indemnification under paragraph (a) and (b) (unless ordered by a court) shall be made by the Corporation only as authorized in the specified case upon a determination that indemnification of the director, officer, employee or agent is proper in the circumstances because such person has met the applicable standard of conduct set forth in paragraph (a) and (b). Such determination shall be made (1) by the board of directors of a majority vote of the quorum consisting of directors who were not parties to such action, suit or proceeding, or (2) if such quorum is not obtainable, or, even if obtainable a quorum of disinterested directors so directs, by independent legal counsel in a written opinion, or (3) by the stockholders.

Expenses incurred by an officer or director in defending a civil or criminal action, suit or proceeding may be paid by the Corporation in advance of the final

disposition of such action, suit or proceeding upon receipt of an undertaking by or on behalf of such director or officer to repay such amount if it shall ultimately be determined that such person is not entitled to be indemnified by the Corporation as authorized in this Article Ninth. Such expenses incurred by other employees and agents may be so paid upon such terms and conditions, if any, as the board of directors deems appropriate.

The indemnification and advancement of expenses provided by or granted pursuant to this Article Ninth shall not be deemed exclusive of any other rights to which one seeking indemnification or advancement of expenses may be entitled under any by-law, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in his or her official capacity and as to action in another capacity while holding such office.

The Corporation may purchase and maintain, insurance on behalf of any person who is or was a director, officer, employee or agent of the Corporation, or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against him or her and incurred by him or her in such capacity or arising our of his or her status as such, whether or not the Corporation would have the power to indemnify such person against such liability under the provisions of this Article Ninth.

For purposes of this Article Ninth, references to "the Corporation" shall include, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have the power and authority to indemnify its directors, officers, and employees or agents, so that any person who is or was a director, officer, employee or agent of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, shall stand in the same position under this Article Ninth with respect to the resulting or surviving corporation as he or she would have with respect to such constituent corporation if its separate existence had continued.

For purpose of the Article Ninth, references to "other enterprises" shall include employee benefit plans; references to "fines" shall include any excise taxes assessed on a person with respect to an employee benefit plan; and references to "serving at the request of the Corporation" shall include any service as a director,

officer, employee or agent of the Corporation that imposes duties on, or involves services by, such director, officer, employee or agent with respect to an employee benefit plan, its participants, or beneficiaries; and a person who acted in good faith and in a manner such person reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in a manner "not opposed to the best interests of the Corporation" as referred to in this Article Ninth.

The indemnification and advancement of expenses provided by, or granted pursuant to, this Article Ninth shall continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of the heirs, executors and administrators of such a person.

IN WITNESS WHEREOF, the undersigned do execute this Certificate and affirm and acknowledge, under penalties of perjury, that this Certificate are their act and deed and that the facts stated herein are true, this 20th day of December, 1995.

/s/ PATRICK H. NETTLES

Patrick H. Nettles
President

Attest:

/s/ PHILLIP L. SPECTOR
- ---
Phillip L. Spector
Secretary

EXHIBIT 3.3

AMENDED AND RESTATED BY-LAWS

OF

HYDRALITE INCORPORATED

ARTICLE I

STOCKHOLDERS

SECTION 1. Annual Meeting. The annual meeting of the stockholders of the Corporation shall be held on such date, at such time and at such place within or without the State of Delaware as may be designated by the Board of Directors, for the purpose of electing Directors and for the transaction of such other business as may be properly brought before the meeting.

SECTION 2. Special Meetings. Except as otherwise provided in the Certificate of Incorporation, a special meeting of the stockholders of the Corporation may be called at any time by the Board of Directors or the President and shall be called by the President or the Secretary at the request in writing of stockholders holding together at least twenty-five percent of the number of shares of stock outstanding and entitled to vote at such meeting. Any special meeting of the stockholders shall be held on such date, at such time and at such place within or without the State of Delaware as the Board of Directors or the officer calling the meeting may designate. At a special meeting of the stockholders, no business shall be transacted and no corporate action shall be taken other than that stated in the notice of the meeting unless all of the stockholders are present in person or by proxy, in which case any and all business may be transacted at the meeting even though the meeting is held without notice.

SECTION 3. Notice of Meetings. Except as otherwise provided in these

By-Laws or by law, a written notice of each meeting of the stockholders shall be given not less than ten (10) nor more than sixty (60) days before the date of the meeting to each stockholder of the Corporation entitled to vote at such meeting at his address as it appears on the records of the Corporation. The notice shall state the place, date and hour of the meeting and, in the case of a special meeting, the purpose or purposes for which the meeting is called.

SECTION 4. Quorum. At any meeting of the stockholders, the holders of a majority in number of the total outstanding shares of stock of the Corporation entitled to vote at such meeting, present in person or represented by proxy, shall constitute a quorum of the stockholders for all purposes, unless the representation of a larger number of shares shall be required by law, by the Certificate of Incorporation or by these By-Laws, in which case the representation of the number of shares so required shall constitute a quorum; provided that at any meeting of the stockholders at which the holders of any class of stock of the Corporation shall be entitled to vote separately as a class, the holders of a majority in number of the total outstanding shares of such class, present in person or represented by proxy, shall constitute a quorum for purposes of such class vote unless the representation of a larger number of shares of such class shall be required by law, by the Certificate of Incorporation or by these By-Laws.

SECTION 5. Adjourned Meetings. Whether or not a quorum shall be present in person or represented at any meeting of the stockholders, the holders of a majority in number of the shares of stock of the Corporation present in person or represented by proxy and entitled to vote at such meeting may adjourn from time to time; provided, however, that if the holders of any class of stock of the Corporation are entitled to vote separately as a class

upon any matter at such meeting, any adjournment of the meeting in respect of action by such class upon such matter shall be determined by the holders of a majority of the shares of such class present in person or represented by proxy and entitled to vote at such meeting. When a meeting is adjourned to another time or place, notice need not be given of the adjourned meeting if the time and place thereof are announced at the meeting at which the adjournment is taken. At the adjourned meeting the stockholders, or the holders of any class of stock entitled to vote separately as a class, as the case may be, may transact any business which might have been transacted by them at the original meeting. If the adjournment is for more than thirty days, or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the adjourned meeting.

SECTION 6. Organization. The President or, in his absence, a Vice President shall call all meetings of the stockholders to order, and shall act as Chairman of such meetings. In the absence of the President and all of the Vice Presidents, the holders of a majority in number of the shares of stock of the Corporation present in person or represented by proxy and entitled to vote at such meeting shall elect a Chairman.

The Secretary of the Corporation shall act as Secretary of all meetings of the stockholders; but in the absence of the Secretary, the Chairman may appoint any person to act as Secretary of the meeting. It shall be the duty of the Secretary to prepare and make, at least ten days before every meeting of stockholders, a complete list of stockholders entitled to vote at such meeting, arranged in alphabetical order and showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open,

either at a place within the city where the meeting is to be held, which place shall be specified in the notice of the meeting or, if not so specified, at the place where the meeting is to be held, for the ten days next preceding the meeting, to the examination of any stockholder, for any purpose germane to the meeting, during ordinary business hours, and shall be produced and kept at the time and place of the meeting during the whole time thereof and subject to the inspection of any stockholder who may be present.

SECTION 7. Voting. Except as otherwise provided in the Certificate of Incorporation or by law, each stockholder shall be entitled to one vote for each share of the capital stock of the Corporation registered in the name of such stockholder upon the books of the Corporation. Each stockholder entitled to vote at a meeting of stockholders or to express consent or dissent to corporate action in writing without a meeting may authorize another person or persons to act for him by proxy, but no such proxy shall be voted or acted upon after three years from its date, unless the proxy provides for a longer period. When directed by the presiding officer or upon the demand of any stockholder, the vote upon any matter before a meeting of stockholders shall be by ballot. Except as otherwise provided by law or by the Certificate of Incorporation, Directors shall be elected by a plurality of the votes cast at a meeting of stockholders by the stockholders entitled to vote in the election and, whenever any corporate action other than the election of Directors is to be taken, it shall be authorized by a majority of the votes cast at a meeting of stockholders by the stockholders entitled to vote thereon.

Shares of the capital stock of the Corporation belonging to the Corporation or to another corporation, if a majority of the shares entitled to vote in the election of directors of

such other corporation is held, directly or indirectly, by the Corporation, shall neither be entitled to vote nor be counted for quorum purposes.

SECTION 8. Inspectors. When required by law or directed by the presiding officer, but not otherwise, the polls shall be opened and closed, the proxies and ballots shall be received and taken in charge, and all questions touching the qualification of voters, the validity of proxies and the acceptance or rejection of votes shall be decided at any meeting of the stockholders by one or more Inspectors who may be appointed by the Board of Directors before the meeting, or if not so appointed, shall be appointed by the presiding officer at the meeting. If any person so appointed fails to appear or act, the vacancy may be filled by appointment in like manner.

SECTION 9. Consent of Stockholders in Lieu of Meeting. To the fullest extent permitted by law, any action required to be taken or which may be taken at any annual or special meeting of the stockholders of the Corporation, may be taken without a meeting, without prior notice and without a vote, if a consent in writing, setting forth the action so taken, shall be signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote thereon were present and voted. Prompt notice of the taking of any such corporate action without a meeting by less than unanimous written consent shall be given to those stockholders who have not so consented in writing.

ARTICLE II

BOARD OF DIRECTORS

SECTION 1. Number and Term of Office. The business and affairs of the Corporation shall be managed by or under the direction of a Board of not less than five nor more than seven Directors, who need not be stockholders of the Corporation. The Directors shall, except as hereinafter otherwise provided for filling vacancies, be elected at the annual meeting of stockholders, and shall hold office until their respective successors are elected and qualified or until their earlier resignation or removal. The initial number of Directors constituting the Board shall be five. The number of Directors may be altered from time to time by amendment of these By-Laws or by resolution of the Board of Directors, subject to the provisions of the Corporation's Certificate of Incorporation.

SECTION 2. Removal, Vacancies and Additional Directors. The stockholders may, at any special meeting the notice of which shall state that it is called for that purpose, remove, with or without cause, any Director and fill the vacancy; provided that whenever any Director shall have been elected by the holders of any class of stock of the Corporation voting separately as a class under the provisions of the Certificate of Incorporation, such Director may be removed and the vacancy filled only by the holders of that class of stock voting separately as a class. Vacancies caused by any such removal and not filled by the stockholders at the meeting at which such removal shall have been made, or any vacancy caused by the death or resignation of any Director or for any other reason, and any newly created directorship resulting from any increase in the authorized number of Directors, may be filled by the affirmative vote of a majority of the Directors then in office, although less than a

quorum, and any Director so elected to fill any such vacancy or newly created directorship shall hold office until his successor is elected and qualified or until his earlier resignation or removal.

When one or more Directors shall resign effective at a future date, a majority of the Directors then in office, including those who have so resigned, shall have power to fill such vacancy or vacancies, the vote thereon to take effect when such resignation or resignations shall become effective, and each Director so chosen shall hold office as herein provided in connection with the filling of other vacancies.

SECTION 3. Place of Meeting. The Board of Directors may hold its meetings in such place or places in the State of Delaware or outside the State of Delaware as the Board from time to time shall determine.

SECTION 4. Regular Meetings. Regular meetings of the Board of Directors shall be held monthly at the offices of the Corporation, or at such other place as the Board may determine. No notice shall be required for any regular meeting of the Board of Directors; but a copy of every resolution fixing or changing the time or place of regular meetings shall be mailed to every Director at least five days before the first meeting held in pursuance thereof.

SECTION 5. Special Meetings. Special meetings of the Board of Directors shall be held whenever called by direction of the President, or by any two of the Directors then in office.

Notice of the day, hour and place of holding of each special meeting shall be given by mailing the same at least two days before the meeting or by causing the same to be transmitted by telegraph, cable or wireless at least one day before the meeting to each

Director. Unless otherwise indicated in the notice thereof, any and all business other than an amendment of these By-Laws may be transacted at any special meeting, and an amendment of these By-Laws may be acted upon if the notice of the meeting shall have stated that the amendment of these By-Laws is one of the purposes of the meeting. At any meeting at which every Director shall be present, even though without any notice, any business may be transacted, including the amendment of these By-Laws.

SECTION 6. Quorum. Subject to the provisions of Section 2 of this Article II, a majority of the members of the Board of Directors in office (but in no case less than one-third of the total number of Directors) shall constitute a quorum for the transaction of business and the vote of the majority of the Directors present at any meeting of the Board of Directors at which a quorum is present shall be the act of the Board of Directors. If at any meeting of the Board there is less than a quorum present, a majority of those present may adjourn the meeting from time to time.

SECTION 7. Organization. A Chairman shall be elected from the Directors present to preside at all meetings of the Board of Directors. The Secretary of the Corporation shall act as Secretary of all meetings of the Directors; but in the absence of the Secretary, the Chairman may appoint any person to act as Secretary of the meeting.

SECTION 8. Committees. The Board of Directors may, by resolution passed by a majority of the whole Board, designate one or more committees, each committee to consist of one or more of the Directors of the Corporation. The Board may designate one or more Directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a

member of a committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not he or they constitute a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in the place of any such absent or disqualified member. Any such committee, to the extent provided by resolution passed by a majority of the whole Board, shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and the affairs of the Corporation, and may authorize the seal of the Corporation to be affixed to all papers which may require it; but no such committee shall have the power or authority in reference to amending the Certificate of Incorporation, adopting an agreement of merger or consolidation, recommending to the stockholders the sale, lease or exchange of all or substantially all of the Corporation's property and assets, recommending to the stockholders a dissolution of the Corporation or a revocation of a dissolution, or amending these By-Laws; and unless such resolution, these By-Laws, or the Certificate of Incorporation expressly so provide, no such committee shall have the power or authority to declare a dividend or to authorize the issuance of stock.

SECTION 9. Conference Telephone Meetings. Unless otherwise restricted by the Certificate of Incorporation or by these By-Laws, the members of the Board of Directors or any committee designated by the Board, may participate in a meeting of the Board or such committee, as the case may be, by means of conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other, and such participation shall constitute presence in person at such meeting.

SECTION 10. Consent of Directors or Committee in Lieu of Meeting. Unless

otherwise restricted by the Certificate of Incorporation or by these By-Laws, any action required or permitted to be taken at any meeting of the Board of Directors, or of any committee thereof, may be taken without a meeting if all members of the Board or committee, as the case may be, consent thereto in writing and the writing or writings are filed with the minutes of proceedings of the Board or committee, as the case may be.

SECTION 11. Compensation. The amount, if any, that each Director shall be entitled to receive as compensation for his services as such shall be fixed from time to time by resolution of the Board of Directors; provided that only independent directors may receive compensation for services as a director of the Corporation. Directors shall not be entitled to receive reimbursement from the Corporation for expenses in connection with their attendance at any meeting of the Board of Directors.

ARTICLE III

OFFICERS

SECTION 1. Officers. The officers of the Corporation shall be a President, one or more Vice Presidents, a Secretary and a Treasurer, and such additional officers, if any, as shall be elected by the Board of Directors pursuant to the provisions of Section 6 of this Article III. The President, one or more Vice Presidents, the Secretary and the Treasurer shall be elected by the Board of Directors at its first meeting after each annual meeting of the stockholders. The failure to hold such election shall not of itself terminate the term of office of any officer. All officers shall hold office at the pleasure of the Board of Directors. Any officer may resign at any time upon written notice to the Corporation. Officers may, but need not, be Directors. Any number of offices may be held by the same person.

All officers, agents and employees shall be subject to removal, with or without cause, at any time by the Board of Directors. The removal of an officer without cause shall be without prejudice to his contract rights, if any. The election or appointment of an officer shall not of itself create contract rights. All agents and employees other than officers elected by the Board of Directors shall also be subject to removal, with or without cause, at any time by the officers appointing them.

Any vacancy caused by the death of any officer, his resignation, his removal, or otherwise, may be filled by the Board of Directors, and any officer so elected shall hold office at the pleasure of the Board of Directors.

In addition to the powers and duties of the officers of the Corporation as set forth in these By-Laws, the officers shall have such authority and shall perform such duties as from time to time may be determined by the Board of Directors.

SECTION 2. Powers and Duties of the President. Unless otherwise determined by the Board of Directors, the President shall be the chief executive officer of the Corporation and, subject to the control of the Board of Directors, shall have general charge and control of all its business and affairs and shall perform all duties incident to the office of President. He shall preside at all meetings of the stockholders and at all meetings of the Board of Directors and shall have such other powers and perform such other duties as may from time to time be assigned to him by these By-Laws or by the Board of Directors.

SECTION 3. Powers and Duties of the Vice Presidents. Each Vice President shall perform all duties incident to the office of Vice President and shall have such other powers and perform such other duties as may from time to time be assigned to him by these

By-Laws or by the Board of Directors or the President.

SECTION 4. Powers and Duties of the Secretary. The Secretary shall keep the minutes of all meetings of the Board of Directors and the minutes of all meetings of the stockholders in books provided for that purpose; he shall attend to the giving or serving of all notices of the Corporation; he shall have custody of the corporate seal of the Corporation and shall affix the same to such documents and other papers as the Board of Directors or the President shall authorize and direct; he shall have charge of the stock certificate books, transfer books and stock ledgers and such other books and papers as the Board of Directors or the President shall direct, all of which shall at all reasonable times be open to the examination of any Director, upon application, at the office of the Corporation during business hours; and he shall perform all duties incident to the office of Secretary and shall also have such other powers and shall perform such other duties as may from time to time be assigned to him by these By-Laws or the Board of Directors or the President.

SECTION 5. Powers and Duties of the Treasurer. The Treasurer shall have custody of, and when proper shall pay out, disburse or otherwise dispose of, all funds and securities of the Corporation which may have come into his hands; he may endorse on behalf of the Corporation for collection checks, notes and other obligations and shall deposit the same to the credit of the Corporation in such bank or banks or depositary or depositaries as the Board of Directors may designate; he shall sign all receipts and vouchers for payments made to the Corporation; he shall enter or cause to be entered regularly in the books of the Corporation kept for the purpose full and accurate accounts of all moneys received or paid or otherwise disposed of by him and whenever required by the Board of Directors or the

President shall render statements of such accounts; he shall, at all reasonable times, exhibit his books and accounts to any Director of the Corporation upon application at the office of the Corporation during business hours; and he shall perform all duties incident to the office of Treasurer and shall also have such other powers and shall perform such other duties as may from time to time be assigned to him by these By-Laws or by the Board of Directors or the President.

SECTION 6. Additional Officers. The Board of Directors may from time to time elect such other officers (who may but need not be Directors), including a Controller, Chief Financial Officer, a Chief Technical Officer and one or more Assistant Treasurers, Assistant Secretaries and Assistant Controllers, as the Board may deem advisable, and such officers shall have such authority and shall perform such duties as may from time to time be assigned to them by the Board of Directors or the President.

The Board of Directors may from time to time by resolution delegate to any Assistant Treasurer or Assistant Treasurers any of the powers or duties herein assigned to the Treasurer; and may similarly delegate to any Assistant Secretary or Assistant Secretaries any of the powers or duties herein assigned to the Secretary.

SECTION 7. Giving of Bond by Officers. All officers of the Corporation, if required to do so by the Board of Directors, shall furnish bonds to the Corporation for the faithful performance of their duties, in such penalties and with such conditions and security as the Board shall require.

SECTION 8. Voting Upon Stocks. Unless otherwise ordered by the Board of Directors, the President or any Vice President shall have full power and authority on behalf of

the Corporation to attend and to act and to vote, or in the name of the Corporation to execute proxies to vote, at any meetings of stockholders of any corporation in which the Corporation may hold stock, and at any such meetings shall possess and may exercise, in person or by proxy, any and all rights, powers and privileges incident to the ownership of such stock. The Board of Directors may from time to time, by resolution, confer like powers upon any other person or persons.

SECTION 9. Compensation of Officers. The officers of the Corporation shall be entitled to receive such compensation for their services as shall from time to time be determined by the Board of Directors (or the Compensation Committee of the Board, if one exists).

ARTICLE IV

STOCK-SEAL-FISCAL YEAR

SECTION 1. Certificates For Shares of Stock. The certificates for shares of stock of the Corporation shall be in such form, not inconsistent with the Certificate of Incorporation, as shall be approved by the Board of Directors. All certificates shall be signed by the President or a Vice President and by the Secretary or an Assistant Secretary or the Treasurer or an Assistant Treasurer, and shall not be valid unless so signed.

In case any officer or officers who shall have signed any such certificate or certificates shall cease to be such officer or officers of the Corporation, whether because of death, resignation or otherwise, before such certificate or certificates shall have been delivered by the Corporation, such certificate or certificates may nevertheless be issued and delivered as though the person or persons who signed such certificate or certificates had not ceased to be

such officer or officers of the Corporation.

All certificates for shares of stock shall be consecutively numbered as the same are issued. The name of the person owning the shares represented thereby with the number of such shares and the date of issue thereof shall be entered on the books of the Corporation.

Except as hereinafter provided, all certificates surrendered to the Corporation for transfer shall be cancelled, and no new certificates shall be issued until former certificates for the same number of shares have been surrendered and cancelled.

SECTION 2. Lost, Stolen or Destroyed Certificates. Whenever a person owning a certificate for shares of stock of the Corporation alleges that it has been lost, stolen or destroyed, he shall file in the office of the Corporation an affidavit setting forth, to the best of his knowledge and belief, the time, place and circumstances of the loss, theft or destruction, and, if required by the Board of Directors, a bond of indemnity or other indemnification sufficient in the opinion of the Board of Directors to indemnify the Corporation and its agents against any claim that may be made against it or them on account of the alleged loss, theft or destruction of any such certificate or the issuance of a new certificate in replacement therefor. Thereupon the Corporation may cause to be issued to such person a new certificate in replacement for the certificate alleged to have been lost, stolen or destroyed. Upon the stub of every new certificate so issued shall be noted the fact of such issue and the number, date and the name of the registered owner of the lost, stolen or destroyed certificate in lieu of which the new certificate is issued.

SECTION 3. Transfer of Shares. Shares of stock of the Corporation shall be transferred on the books of the Corporation by the holder thereof, in person or by his attorney

duly authorized in writing, upon surrender and cancellation of certificates for the number of shares of stock to be transferred, except as provided in the preceding section.

SECTION 4. Regulations. The Board of Directors shall have power and authority to make such rules and regulations as it may deem expedient concerning the issue, transfer and registration of certificates for shares of stock of the Corporation.

SECTION 5. Record Date. In order that the Corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, or to express consent to corporate action in writing without a meeting or entitled to receive payment of any dividend or other distribution or allotment of any rights, or entitled to exercise any rights in respect of any change, conversion or exchange of stock or for the purpose of any other lawful action, as the case may be, the Board of Directors may fix, in advance, a record date, which shall not be more than sixty (60) nor less than ten (10) days before the date of such meeting, nor more than sixty (60) days prior to any other action.

If no record date is fixed, the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or, if notice is waived, at the close of business on the day next preceding the day on which the meeting is held; the record date for determining stockholders entitled to express consent to corporate action in writing without a meeting, when no prior action by the Board of Directors is necessary, shall be the day on which the first written consent is expressed; and the record date for determining stockholders for any other purpose shall be at the close of business on the day on which the Board of Directors adopts the resolution relating thereto. A determination of stockholders of record

entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the Board of Directors may fix a new record date for the adjourned meeting.

SECTION 6. Dividends. Subject to the provisions of the Certificate of Incorporation, the Board of Directors shall have power to declare and pay dividends upon shares of stock of the Corporation, but only out of funds available for the payment of dividends as provided by law.

Subject to the provisions of the Certificate of Incorporation, any dividends declared upon the stock of the Corporation shall be payable on such date or dates as the Board of Directors shall determine. If the date fixed for the payment of any dividend shall in any year fall upon a legal holiday, then the dividend payable on such date shall be paid on the next day not a legal holiday.

SECTION 7. Corporate Seal. The Board of Directors shall provide a suitable seal, containing the name of the Corporation, which seal shall be kept in the custody of the Secretary. A duplicate of the seal may be kept and be used by any officer of the Corporation designated by the Board or the President.

SECTION 8. Fiscal Year. The fiscal year of the Corporation shall be such fiscal year as the Board of Directors from time to time by resolution shall determine.

ARTICLE V

MISCELLANEOUS PROVISIONS

SECTION 1. Checks, Notes, etc. All checks, drafts, bills of exchange, acceptances, notes or other obligations or orders for the payment of money shall be signed and, if so required by the Board of Directors, countersigned by such officers of the Corporation and/or other persons as shall from time to time be designated by the Board of Directors or pursuant to authority delegated by the Board.

Checks, drafts, bills of exchange, acceptances, notes, obligations and orders for the payment of money made payable to the Corporation may be endorsed for deposit to the credit of the Corporation with a duly authorized depositary by the Treasurer and/or such other officers or persons as shall from time to time be designated by the Treasurer.

SECTION 2. Loans. No loans and no renewals of any loans shall be contracted on behalf of the Corporation except as authorized by the Board of Directors. When authorized so to do, any officer or agent of the Corporation may effect loans and advances for the Corporation from any bank, trust company or other institution or from any firm, corporation or individual, and for such loans and advances may make, execute and deliver promissory notes, bonds or other evidences of indebtedness of the Corporation. When authorized so to do, any officer or agent of the Corporation may pledge, hypothecate or transfer, as security for the payment of any and all loans, advances, indebtedness and liabilities of the Corporation, any and all stocks, securities and other personal property at any time held by the Corporation, and to that end may endorse, assign and deliver the same. Such authority may be general or confined to specific instances.

SECTION 3. Waivers of Notice. Whenever any notice whatever is required to be given by law, by the Certificate of Incorporation or by these By-Laws to any person or persons, a waiver thereof in writing, signed by the person or persons entitled to the notice, whether before or after the time stated therein, shall be deemed equivalent thereto. The attendance of any person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business on the ground that the meeting is not lawfully called or convened.

SECTION 4. Offices Outside of Delaware. Except as otherwise required by the laws of the State of Delaware, the Corporation may have an office or offices and keep its books, documents and papers outside of the State of Delaware at such place or places as from time to time may be determined by the Board of Directors or the President.

SECTION 5. Indemnification of Directors, Officers and Employees. The Corporation shall, to the fullest extent permitted by applicable law from time to time in effect, indemnify any and all persons who may serve or who have served at any time as Directors or officers of the Corporation, or who at the request of the Corporation may serve or at any time have served as Directors or officers of another corporation (including subsidiaries of the Corporation) or of any partnership, joint venture, trust or other enterprise, from and against any and all of the expenses, liabilities or other matters referred to in or covered by said law. Such indemnification shall continue as to a person who has ceased to be a Director or officer and shall inure to the benefit of the heirs, executors and administrators of such a person. The Corporation may also indemnify any and all other persons whom it shall have power to

indemnify under any applicable law from time to time in effect to the extent authorized by the Board of Directors and permitted by such law. The indemnification provided by this Article shall not be deemed exclusive of any other rights to which any person may be entitled under any provision of the Certificate of Incorporation, other By-law, agreement, vote of stockholders or disinterested Directors, or otherwise, both as to action in his official capacity and as to action in another capacity while holding such office.

For purposes of this Section 5, the term "Corporation" shall include constituent corporations referred to in Subsection (h) of the Section 145 of the General Corporation Law (or any similar provision of applicable law at the time in effect).

SECTION 6. Voting as Stockholder. Unless otherwise determined by resolution of the Board of Directors, the President or any Vice President shall have full power and authority on behalf of the Corporation to attend any meeting of stockholders of any corporation in which the Corporation may hold stock, and to act, vote (or execute proxies to vote) and exercise in person or by proxy all other rights, powers and privileges incident to the ownership of such stock. Such officers acting on behalf of the Corporation shall have full power and authority to execute any instrument expressing consent to or dissent from any action of any such corporation without a meeting. The Board of Directors may by resolution from time to time confer such power and authority upon any other person or persons.

SECTION 7. Construction. In the event of any conflict between the provisions of these By-laws as in effect from time to time and the provisions of the Certificate of Incorporation of the Corporation as in effect from time to time, the provisions of such Certificate of Incorporation shall be controlling.

ARTICLE VI

AMENDMENTS

These By-Laws and any amendment thereof may be altered, amended or repealed, or new By-Laws may be adopted, by the Board of Directors at any regular or special meeting by the affirmative vote of a majority of all of the members of the Board, provided in the case of any special meeting at which all of the members of the Board are not present, that the notice of such meeting shall have stated that the amendment of these By-Laws was one of the purposes of the meeting; but these By-Laws and any amendment thereof, including the By-Laws adopted by the Board of Directors, may be altered, amended or repealed and other By-Laws may be adopted by the holders of a majority of the total outstanding stock of the Corporation entitled to vote at any annual meeting or at any special meeting, provided, in the case of any special meeting, that notice of such proposed alteration, amendment, repeal or adoption is included in the notice of the meeting.

EXHIBIT 10.1

INDEMNIFICATION AGREEMENT

AGREEMENT, made this th day of , 19 , between CIENA Corporation, a Delaware corporation (the "Company"), and (the "Indemnitee"), with respect to the following facts:

A. Fulfilling the potential of the Company requires the attraction and retention of qualified and capable directors, officers, employees, agents and fiduciaries; and

B. The Restated Certificate of Incorporation of the Company (the "Restated Certificate of Incorporation") requires the Company to indemnify and advance expenses to its directors and officers to the fullest extent authorized by law and allows the Company to indemnify employees and agents to the fullest extent authorized by law; and

C. Historically, basic protection against undue risk of personal liability of directors and officers has been provided through insurance coverage providing reasonable protection at reasonable cost; and

D. The Company's current stage of development is such that it is presently uncertain whether, and to what extent, directors' and officers' liability insurance is or will continue to be available to the Company at a reasonable cost for the protection of Indemnitee; and

E. It is the policy of the Company to indemnify its directors and officers so as to provide them with the maximum possible protection permitted by law; and

F. In recognition of Indemnitee's need for protection against personal liability in order to induce Indemnitee to serve or continue to serve the Company in an effective manner, and, in the case of directors and officers, to supplement or replace directors' and officers' liability insurance coverage, if any, obtained by the Company, and in part to provide Indemnitee with specific contractual assurance that the protection promised by the Restated Certificate of Incorporation will be available to Indemnitee (regardless of, among other things, any amendment to or revocation of the Restated Certificate of Incorporation or any change in the composition of the Company's Board of Directors or any acquisition transaction relating to the Company), the Company, with the prior approval of the Company's stockholders, wishes to provide the Indemnitee with the benefits contemplated by this Agreement; and

G. As a result of the provision of such benefits Indemnitee has agreed to serve or to continue to serve the Company;

NOW, THEREFORE, the parties hereto do hereby agree as follows:

1. Definitions. The following terms, as used herein, shall have the following respective meanings:

a. An Affiliate: of a specified Person is a Person who directly, or indirectly through one or more intermediaries, controls or is controlled by, or is under common control with, the Person specified. The term Associate used to indicate a relationship with any Person shall mean (i) any corporation or organization (other than the Company or a Subsidiary) of which such Person is an officer or partner or is, directly, or indirectly, the Beneficial Owner of ten (10) percent or more of any

class of Equity Securities, (ii) any trust or other estate in which such Person has a substantial beneficial interest or as to which such Person serves as trustee or in a similar fiduciary capacity (other than an Employee Plan Trustee), (iii) any Relative of such Person, or (iv) any officer or director of any corporation controlling or controlled by such Person.

b. Beneficial Ownership: shall be determined, and a Person shall be the Beneficial Owner of all securities which such Person is deemed to own beneficially, pursuant to Rule13d-3 of the General Rules and Regulations under the Securities Exchange Act of 1934, as amended (or any successor rule or statutory provision), or, if said Rule13d-3 shall be rescinded and there shall be no successor rule or statutory provision thereto, pursuant to said Rule 13d-3 as in effect on April 26, 1996; provided, however, that a Person shall, in any event, also be deemed to be the Beneficial Owner of any Voting Shares: (A) of which such Person or any of its Affiliates or Associates is, directly or indirectly, the Beneficial Owner, or (B) of which such Person or any of its Affiliates or Associates has (i) the right to acquire (whether such right is exercisable immediately or only after the passage of time), pursuant to any agreement, arrangement or understanding or upon the exercise of conversion rights, exchange rights, warrants, or options, or otherwise, or (ii) sole or shared voting or investment power with respect thereto pursuant to any agreement, arrangement, understanding, relationship or otherwise (but shall not be deemed to be the Beneficial Owner of any Voting Shares solely by reason of a revocable proxy granted for a particular meeting of stockholders, pursuant to a public solicitation of proxies for such meeting, with respect to shares of which neither such Person nor any such Affiliate or Associate is otherwise deemed the Beneficial Owner), or (C) of which any other Person is, directly or indirectly, the Beneficial Owner if such first mentioned Person or any of its Affiliates or Associates acts with such other Person as a partnership, syndicate or other group pursuant to any agreement, arrangement or understanding for the purpose of acquiring, holding, voting or disposing of any shares of capital stock of the Company; and provided further, however, that (i) no director or officer of the Company, nor any Associate or Affiliate of any such director or officer, shall, solely by reason of any or all of such directors and officers acting in their capacities as such, be deemed for any purposes hereof, to be the Beneficial Owner of any Voting Shares of which any other such director or officer (or any Associate or Affiliate thereof) is the Beneficial Owner and (ii) no trustee of an employee stock ownership or similar plan of the Company or any Subsidiary ("Employee Plan Trustee") or any Associate or Affiliate of any such Trustee, shall, solely by reason of being an Employee Plan Trustee or Associate or Affiliate of an Employee Plan Trustee, be deemed for any purposes hereof to be the Beneficial Owner of any Voting Shares held by or under any such plan.

c. A Change in Control: shall be deemed to have occurred if (A) any Person (other than (i) the Company or any Subsidiary, (ii) any pension, profit sharing, employee stock ownership or other employee benefit plan of the Company or any Subsidiary or any trustee of or fiduciary with respect to any such plan when acting in such capacity, or (iii) any Person who is as of April 26, 1996 the Beneficial Owner of 20% or more of the total voting power of the Voting Shares) is or becomes, after the date of this Agreement, the Beneficial Owner of 20% or more of the total voting power of the Voting Shares, (B) during any period of two consecutive years, individuals who at the beginning of such period constitute the Board of Directors of the Company and any new director whose election or appointment by the Board of Directors or nomination or recommendation for election by the Company's stockholders was approved by a vote of at least two-thirds (2/3) of the directors then still in office who either were directors at the beginning of the period or whose election or nomination for election was previously so approved, cease for any reason to constitute a majority thereof, (C) the stockholders of the Company approve a merger or consolidation of the Company with any other corporation, other than a merger or consolidation which would result in the Voting Shares of the Company outstanding immediately prior thereto continuing to represent (either by remaining

outstanding or by being converted into Voting Shares of the surviving entity) at least 80% of the total voting power represented by the Voting Shares of the Company or such surviving entity outstanding, or the stockholders of the Company approve a plan of complete liquidation of the Company or an agreement for the sale or disposition by the Company of all or substantially all of the Company's assets, or (D) a change in control of a nature that would be required to be reported in response to Item5(f) of Schedule 14A of Regulation 14 promulgated under the Securities Act of 1934, as amended, as in effect on April 26, 1996.

d. Claim: means any threatened, pending or completed action, suit, arbitration or proceeding, or any inquiry or investigation, whether brought by or in the right of the Company or otherwise, that Indemnitee in good faith believes might lead to the institution of any such action, suit, arbitration or proceeding, whether civil, criminal, administrative, investigative or other, or any appeal therefrom.

e. Equity Security: shall have the meaning given to such term under Rule 3a11-1 of the General Rules and Regulations under the Securities Exchange Act of 1934, as in effect on April 26, 1996.

f. D&O Insurance: means any valid directors' and officers' liability insurance policy maintained by the Company for the benefit of the Indemnitee, if any.

g. Determination: means a determination, and "Determined" means a matter which has been determined based on the facts known at the time, by: (i) a majority vote of a quorum of disinterested directors, or (ii) if such a quorum is not obtainable, or even if obtainable, if a quorum of disinterested directors so directs, by independent legal counsel in a written opinion, or, in the event there has been a Change in Control, by the Special Independent Counsel (in a written opinion) selected by Indemnitee as set forth in Section 6, or (iii) a majority of the disinterested stockholders of the Company, or (iv) a final adjudication by a court of competent jurisdiction.

h. Excluded Claim: means any payment for Losses or Expenses in connection with any Claim: (i) based upon or attributable to Indemnitee gaining in fact any personal profit or personal advantage to which Indemnitee is not entitled; or (ii) for the return by Indemnitee of any remuneration paid to Indemnitee without the previous approval of the stockholders of the Company which is illegal; or (iii) for an accounting of profits in fact made from the purchase or sale by Indemnitee of securities of the Company within the meaning of Section16 of the Securities Exchange Act of 1934, as amended, or similar provisions of any state law; or (iv) resulting from Indemnitee's knowingly fraudulent, dishonest or willful misconduct; or (v) the payment of which by the Company under this Agreement is not permitted by applicable law.

i. Expenses: means any reasonable expenses incurred by Indemnitee as a result of a Claim or Claims made against Indemnitee for Indemnifiable Events including, without limitation, attorneys' fees and all other costs, expenses and obligations paid or incurred in connection with investigating, defending, being a witness in or participating in (including on appeal), or preparing to defend, be a witness in or participate in any Claim relating to any Indemnifiable Event.

j. Fines: means any fine, penalty or, with respect to an employee benefit plan, any excise tax or penalty assessed with respect thereto.

k. Indemnifiable Event: means any event or occurrence, occurring prior to or after the date of this Agreement, related to the fact that Indemnitee is or was a director, officer, employee, trustee, agent or fiduciary of the Company, or is or was serving at the request of the Company as a director, officer, employee, trustee, agent or fiduciary of another corporation, partnership, joint venture, employee benefit plan, trust or other enterprise, or by reason of anything done or not done by Indemnitee, including, but not limited to, any breach of duty, neglect, error, misstatement, misleading statement, omission, or other act done or wrongfully attempted by Indemnitee, or any of the foregoing alleged by any claimant, in any such capacity.

l. Losses: means any amounts or sums which Indemnitee is legally obligated to pay as a result of a Claim or Claims made against Indemnitee for Indemnifiable Events including, without limitation, damages, judgments and sums or amounts paid in settlement of a Claim or Claims, and Fines.

m. Person: means any individual, partnership, corporation, business trust, joint stock company, trust, unincorporated association, joint venture, governmental authority or other entity of whatever nature.

n. Potential Change in Control: shall be deemed to have occurred if (A) the Company enters into an agreement, the consummation of which would result in the occurrence of a Change in Control; (B) any Person (including the Company) publicly announces an intention to take or to consider taking actions which if consummated would constitute a Change in Control; (C) any Person (other than (i) the Company or any Subsidiary, (ii) any pension, profit sharing, employee stock ownership or other employee benefit plan of the Company or any Subsidiary or any trustee of or fiduciary with respect to any such plan when acting in such capacity, or (iii) any Person who is as of April 26, 1996 the Beneficial Owner of 20% or more of the total voting power of the Voting Shares), who is or becomes the Beneficial Owner of 9.5% or more of the total voting power of the Voting Shares, increases his Beneficial Ownership of such voting power by 5% or more over the percentage so owned by such Person on the date hereof; or (D) the Board of Directors adopts a resolution to the effect that, for purposes of this Agreement, a Potential Change in Control has occurred.

o. Relative: means a Person's spouse, parents, children, siblings, mothers- and father-in-law, sons-and daughters-in-law, and brothers- and sisters-in-law.

p. Reviewing Party: means any appropriate person or body consisting of a member or members of the Company's Board of Directors or any other person or body appointed by the Board (including the Special Independent Counsel referred to in Section 6) who is not a party to the particular Claim for which Indemnitee is seeking indemnification.

q. Subsidiary: means any corporation of which a majority of any class of Equity Security is owned, directly or indirectly, by the Company.

r. Trust: means the trust established pursuant to Section 7 hereof.

s. Voting Shares: means any issued and outstanding shares of capital stock of the Company entitled to vote generally in the election of directors.

2. Basic Indemnification Agreement. In consideration of, and as an inducement to, the Indemnitee rendering valuable services to the Company, the Company agrees that in

the event Indemnitee is or becomes a party to or witness or other participant in, or is threatened to be made a party to or witness or other participant in, a Claim by reason of (or arising in part out of) an Indemnifiable Event, the Company will indemnify Indemnitee to the fullest extent authorized by law, against any and all Expenses and Losses (including all interest, assessments and other charges paid or payable in connection with or in respect of such Expenses and Losses) of such Claim, whether or not such Claim proceeds to judgment or is settled or otherwise is brought to a final disposition, subject in each case, to the further provisions of this Agreement.

3. Limitations on Indemnification. Notwithstanding the provisions of Section 2, Indemnitee shall not be indemnified and held harmless from any Losses or Expenses (a) which have been Determined, as provided herein, to constitute an Excluded Claim; (b) to the extent Indemnitee is indemnified by the Company and has actually received payment pursuant to the Restated Certificate of Incorporation, D&O Insurance, or otherwise; or (c) other than pursuant to the last sentence of Section 4(d) or Section 14, in connection with any Claim initiated by Indemnitee, unless the Company has joined in or the Board of Directors has authorized such Claim.

4. Indemnification Procedures.

a. Promptly after receipt by Indemnitee of notice of any Claim, Indemnitee shall, if indemnification with respect thereto may be sought from the Company under this Agreement, notify the Company of the commencement thereof and Indemnitee agrees further not to make any admission or effect any settlement with respect to such Claim without the consent of the Company, except any Claim with respect to which the Indemnitee has undertaken the defense in accordance with the second to last sentence of Section 4(d).

b. If, at the time of the receipt of such notice, the Company has D&O Insurance in effect, the Company shall give prompt notice of the commencement of Claim to the insurers in accordance with the procedures set forth in the respective policies. The Company shall thereafter take all necessary or desirable action to cause such insurers to pay, on behalf of Indemnitee, all Losses and Expenses payable as a result of such Claim.

c. To the extent the Company does not, at the time of the Claim have applicable D&O Insurance, or if a Determination is made that any Expenses arising out of such Claim will not be payable under the D&O Insurance then in effect, the Company shall be obligated to pay the Expenses of any Claim in advance of the final disposition thereof and the Company, if appropriate, shall be entitled to assume the defense of such Claim, with counsel satisfactory to Indemnitee, upon the delivery to Indemnitee of written notice of its election so to do. After delivery of such notice, the Company will not be liable to Indemnitee under this Agreement for any legal or other Expenses subsequently incurred by the Indemnitee in connection with such defense other than reasonable Expenses of investigation; provided that Indemnitee shall have the right to employ its counsel in such Claim but the fees and expenses of such counsel incurred after delivery of notice from the Company of its assumption of such defense shall be at the Indemnitee's expense; provided further that if: (i) the employment of counsel by Indemnitee has been previously authorized by the Company; (ii) Indemnitee shall have reasonably concluded that there may be a conflict of interest between the Company and Indemnitee in the conduct of any such defense; or (iii) the Company shall not, in fact, have employed counsel to assume the defense of such action, the reasonable fees and expenses of counsel shall be at the expense of the Company.

d. All payments on account of the Company's indemnification obligations under this Agreement shall be made within sixty (60) days of Indemnitee's written request therefor unless a Determination is made that the Claims giving rise to Indemnitee's request are Excluded Claims or otherwise not payable under this Agreement, provided that all payments on account of the Company's obligation to pay Expenses under Section 4(c) of this Agreement prior to the final disposition of any Claim shall be made within 20 days of Indemnitee's written request therefor and such obligation shall not be subject to any such Determination but shall be subject to Section 4(e) of this Agreement. In the event the Company takes the position that the Indemnitee is not entitled to indemnification in connection with the proposed settlement of any Claim, the Indemnitee shall have the right at its own expense to undertake defense of any such Claim, insofar as such proceeding involves Claims against the Indemnitee, by written notice given to the Company within 10 days after the Company has notified the Indemnitee in writing of its contention that the Indemnitee is not entitled to indemnification. If it is subsequently determined in connection with such proceeding that the Indemnifiable Events are not Excluded Claims and that the Indemnitee, therefore, is entitled to be indemnified under the provisions of Section 2 hereof, the Company shall promptly indemnify the Indemnitee.

e. Indemnitee hereby expressly undertakes and agrees to reimburse the Company for all Losses and Expenses paid by the Company in connection with any Claim against Indemnitee in the event and only to the extent that a Determination shall have been made by a court of competent jurisdiction in a decision from which there is no further right to appeal that Indemnitee is not entitled to be indemnified by the Company for such Losses and Expenses because the Claim is an Excluded Claim or because Indemnitee is otherwise not entitled to payment under this Agreement.

5. Settlement. The Company shall have no obligation to indemnify Indemnitee under this Agreement for any amounts paid in settlement of any Claim effected without the Company's prior written consent. The Company shall not settle any Claim in which it takes the position that Indemnitee is not entitled to indemnification in connection with such settlement without the consent of the Indemnitee, nor shall the Company settle any Claim in any manner which would impose any Fine or any obligation on Indemnitee, without Indemnitee's written consent. Neither the Company nor Indemnitee shall unreasonably withhold their consent to any proposed settlement.

6. Change in Control; Extraordinary Transactions. The Company and Indemnitee agree that if there is a Change in Control of the Company (other than a Change in Control which has been approved by a majority of the Company's Board of Directors who were directors immediately prior to such Change in Control) then all Determinations thereafter with respect to the rights of Indemnitee to be paid Losses and Expenses under this Agreement shall be made only by a special independent counsel (the "Special Independent Counsel") selected by Indemnitee and approved by the Company (which approval shall not be unreasonably withheld) or by a court of competent jurisdiction. The Company shall pay the reasonable fees of such Special Independent Counsel and shall indemnify such Special Independent Counsel against any and all reasonable expenses (including reasonable attorneys' fees), claims, liabilities and damages arising out of or relating to this Agreement or its engagement pursuant hereto.

The Company covenants and agrees that, in the event of a Change in Control of the sort set forth in clause (b) of Section 1(c), the Company will use its best efforts (a) to have the obligations of the Company under this Agreement including, but not limited to those under Section 7, expressly assumed by the surviving, purchasing or succeeding entity, or (b) otherwise to adequately provide for

the satisfaction of the Company's obligations under this Agreement, in a manner reasonably acceptable to the Indemnitee.

7. Establishment of Trust. In the event of a Potential Change in Control, the Company shall, upon written request by Indemnitee, create a trust (the "Trust") for the benefit of the Indemnitee and from time to time upon written request of Indemnitee shall fund the Trust in an amount sufficient to satisfy any and all Losses and Expenses which are actually paid or which Indemnitee reasonably determines from time to time may be payable by the Company under this Agreement. The amount or amounts to be deposited in the Trust pursuant to the foregoing funding obligation shall be determined by the Reviewing Party, in any case in which the Special Independent Counsel is involved. The terms of the Trust shall provide that upon a Change in Control: (i) the Trust shall not be revoked or the principal thereof invaded without the written consent of the Indemnitee; (ii) the trustee of the Trust shall advance, within twenty days of a request by the Indemnitee, any and all Expenses to the Indemnitee (and the Indemnitee hereby agrees to reimburse the Trust under the circumstances under which the Indemnitee would be required to reimburse the Company under Section 4(e) of this Agreement); (iii) the Company shall continue to fund the Trust from time to time in accordance with the funding obligations set forth above; (iv) the trustee of the Trust shall promptly pay to the Indemnitee all Losses and Expenses for which the Indemnitee shall be entitled to indemnification pursuant to this Agreement; and (v) all unexpended funds in the Trust shall revert to the Company upon a final determination by a court of competent jurisdiction in a final decision from which there is no further right of appeal that the Indemnitee has been fully indemnified under the terms of this Agreement. The Trustee of the Trust shall be chosen by the Indemnitee.

8. No Presumption. For purposes of this Agreement, the termination of any Claim by judgment, order, settlement (whether with or without court approval) or conviction, or upon a plea of nolo contendere, or its equivalent, shall not, of itself, create a presumption that Indemnitee did not meet any particular standard of conduct or have any particular belief or that a court has determined that indemnification is not permitted by applicable law.

9. Non-exclusivity, Etc. The rights of the Indemnitee hereunder shall be in addition to any other rights Indemnitee may have under the Restated Certificate of Incorporation, the Company's By-laws, the Delaware General Corporation Law, any vote of stockholders or disinterested directors or otherwise, both as to action in the Indemnitee's official capacity and as to action in any other capacity by holding such office, and shall continue after the Indemnitee ceases to serve the Company as a director, officer, employee, agent or fiduciary, for so long as the Indemnitee shall be subject to any Claim by reason of (or arising in part out of) an Indemnifiable Event. To the extent that a change in the Delaware General Corporation Law (whether by statute or judicial decision) permits greater indemnification by agreement than would be afforded currently under the Restated Certificate of Incorporation and this Agreement, it is the intent of the parties hereto that Indemnitee shall enjoy by this Agreement the greater benefits so afforded by such change.

10. Liability Insurance. To the extent the Company maintains an insurance policy or policies providing directors' and officers' liability insurance, Indemnitee, if an officer or director of the Company, shall be covered by such policy or policies, in accordance with its or their terms, to the maximum extent of the coverage available for any director or officer of the Company.

11. Subrogation. In the event of payment under this Agreement, the Company shall be subrogated to the extent of such payment to all of the rights of recovery of Indemnitee, who shall execute all papers required and shall do everything that may be necessary to secure such rights,

including the execution of such documents necessary to enable the Company effectively to bring suit to enforce such rights.

12. Partial Indemnity, Etc. If Indemnitee is entitled under any provision of this Agreement to indemnification by the Company for some or a portion of the Expenses and Losses of a Claim but not, however, for all of the total amount thereof, the Company shall nevertheless indemnify Indemnitee for the portion thereof to which Indemnitee is entitled. Moreover, notwithstanding any other provision of this Agreement, to the extent that Indemnitee has been successful on the merits or otherwise in defense of any or all Claims relating in whole or in part to any Indemnifiable Event or in defense of any issue or matter therein, including dismissal without prejudice, Indemnitee shall be indemnified against all Expenses incurred in connection therewith. In connection with any Determination as to whether Indemnitee is entitled to be indemnified hereunder the burden of proof shall be on the Company to establish that Indemnitee is not so entitled.

13. Liability of Company. The Indemnitee agrees that neither the stockholders nor the directors nor any officer, employee, representative or agent of the Company shall be personally liable for the satisfaction of the Company's obligations under this Agreement and the Indemnitee shall look solely to the assets of the Company for satisfaction of any claims hereunder.

14. Enforcement.

Indemnitee's right to indemnification and other rights under this Agreement shall be specifically enforceable by Indemnitee only in the state or Federal courts of the States of Delaware or Maryland and shall be enforceable notwithstanding any adverse Determination by the Company's Board of Directors, independent legal counsel, the Special Independent Counsel or the Company's stockholders and no such Determination shall create a presumption that Indemnitee is not entitled to be indemnified hereunder. In any such action the Company shall have the burden of proving that indemnification is not required under this Agreement.

In the event that any action is instituted by Indemnitee under this Agreement, or to enforce or interpret any of the terms of this Agreement, Indemnitee shall be entitled to be paid all court costs and reasonable expenses, including reasonable counsel fees, incurred by Indemnitee with respect to such action, unless the court determines that each of the material assertions made by Indemnitee as a basis for such action were not made in good faith or were frivolous.

15. Severability. In the event that any provision of this Agreement is determined by a court to require the Company to do or to fail to do an act which is in violation of applicable law, such provision (including any provision within a single section, paragraph or sentence) shall be limited or modified in its application to the minimum extent necessary to avoid a violation of law, and, as so limited or modified, such provision and the balance of this Agreement shall be enforceable in accordance with their terms to the fullest extent permitted by law.

16. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware applicable to agreements made and to be performed entirely within such State.

17. Consent to Jurisdiction. The Company and the Indemnitee each hereby irrevocably consent to the jurisdiction of the courts of the States of Delaware and Maryland for all purposes in connection with any action or proceeding which arises out of or relates to this Agreement

and agree that any action instituted under this Agreement shall be brought only in the state and Federal courts of the States of Delaware and Maryland.

18. Notices. All notices, or other communications required or permitted hereunder shall be sufficiently given for all purposes if in writing and personally delivered, telegraphed, telexed, sent by facsimile transmission or sent by registered or certified mail, return receipt requested, with postage prepaid addressed as follows, or to such other address as the parties shall have given notice of pursuant hereto:

If to the Company, to:

CIENA Corporation
8530 Corridor Road
Savage, Maryland 20763
Attention: Vice President and
General Counsel

If to the Indemnitee, to:

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19. Counterparts. This Agreement may be signed in counterparts, each of which shall be an original and all of which, when taken together, shall constitute one and the same instrument.

20. Successors and Assigns. This Agreement shall be (i) binding upon all successors and assigns of the Company, including any direct or indirect successor by purchase, merger, consolidation or otherwise to all or substantially all of the business and/or assets of the Company, and (ii) shall be binding upon and inure to the benefit of any successors and assigns, heirs, and personal or legal representatives of Indemnitee.

21. Amendment; Waiver. No amendment, modification, termination or cancellation of this Agreement shall be effective unless made in a writing signed by each of the parties hereto. No waiver of any of the provisions of this Agreement shall be deemed or shall constitute a waiver of any other provision hereof (whether or not similar) nor shall such waiver constitute a continuing waiver.

IN WITNESS WHEREOF, the Company and Indemnitee have executed this Agreement as of the day and year first above written.

ATTEST: CIENA Corporation

[Corporate Seal]

By: ---------- By: ----------
Title: Title:

WITNESS:

- ---------- ----------
Indemnitee

EXHIBIT 10.2

CIENA CORPORATION

AMENDED AND RESTATED 1994 STOCK OPTION PLAN

1. Establishment and Purpose.

(a) Establishment. The CIENA CORPORATION Amended and Restated 1994 Employee Stock Option Plan was adopted effective August _, 1994 (the "PLAN") .

(b) Purpose. The purpose of the Plan is to attract, retain and reward persons providing services to Ciena Corporation. a Delaware corporation, and any successor corporation thereto (collectively referred to as the "Company"). and any present or future parent and/or subsidiary corporations of such corporation (all of which along with the Company being individually referred to as a "PARTICIPATING COMPANY" and collectively referred to as THE "PARTICIPATING COMPANY GROUP"). and to motivate such persons to contribute to the growth and profits of the Participating Company Group in the future. For purposes of the Plan, a parent corporation and a subsidiary corporation shall be as defined in Sections 424(e) and 424(f) of the Internal Revenue Code of 1986. as amended (the "Code").

2. Administration.

(a) Administration bv Board and/or Committee. The Plan shall be administered by the Board of Directors of the Company (the "BOARD") and/or by a duly appointed committee of the Board having sucl1 powers as shall be specified by the Board. Any subsequent references herein to the Board shall also mean the committee if such committee has been appointed and, unless the powers of the committee have been specifically limited, the committee shall have all of the powers of the Board granted herein. including. without limitation. the power to tenninate or amend the Plan at any time. subject to the temas of the Plan and any applicable limitations imposed by law. All questions of interpretation of the Plan or of any options granted under the Plan (an "Option") shall be detennined by the Board, and such determinations shall be final and binding UpOl1 all persons having an interest in the Plan and/or any Option.

(b) Options Authorized. Options may be either incentive stock options as defined in Section 422 of the Code ("INCENTIVE STOCK OPTIONS") or non-statutory stock options.

(c) Authority of Officers. Any officer of a Participating Company shall have the authority to act on behalf of the Company with respect to any matter. right. obligation, or election which is the responsibility of or which is allocated to the Company herein, provided the officer has apparent authority with respect to such matter,right, obligation, or election.

(d) Disinterested Administration. With respect to the participation in the Plan of officers or directors of the Company subject to Section 16 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), the Plan shall be administered by the Board in compliance with the "disinterested administration" requirement of Rule 16b-3. as promulgated under the Exchange Act and amended from time to time or any successor rule or regulation ("Rule 16b-3").

3. Eligibility

(a) Eligible Persons. Options may be granted only to employees (including officers) and directors of the Participating Company Group or to individuals who are rendering services as consultants, advisors, or other independent contractors to the Participating Company Group. The Board shall, in its sole discretion, determine which persons shall be granted Options (an "Optionee"). Eligible persons may be granted more than one (l) Option.

(b) Directors Serving on Committee. If a committee of the Board has been established to administer the Plan in compliance with the "disinterested administration" requirement of Rule 16b-3, no member of such committee, while a member, shall be eligible to be granted an Option.

(c) Restrictions on Option Grants. A director of a Participating Company may only be granted a nonstatutory stock option unless the director is also an employee of the Participating Company Group. An individual who is rendering services as a consultant, advisor, or other independent contractor may only be granted a non-statutory stock option.

4. Shares Subject to Option.

Options shall be for the purchase of shares of the authorized but unissued common stock or treasury shares of common stock of the Company (the "Stock"), subject to adjustment as provided in paragraph 10 below. The maximum number of shares of Stock which may be issued under the Plan shall be Eight Hundred Sixty Thousand (860,000) shares. In the event that any outstanding Option for any reason expires or is terminated or canceled and/or shares of Stock subject to repurchase are repurchased by the Company, the shares allocable to the unexercised portion of such Option. Or such repurchased shares, may again be subject to an Option grant. Notwithstanding the foregoing any such shares shall be made subject to a new Option only if the grant of such new Option and the issuance of such shares pursuant to such new Option would not cause the Plan or any Option granted under the Plan to contravene Rule 16b-3.

5. Time for Granting Options.

All Options shall be granted, if at all, within ten (10) years from the earlier of the date the Plan is adopted by the Board or the date the Plan approved by the stockholders of the Company.

6. Terms Conditions and Form of Options.

Subject to the provisions of the Plan, the Board shall determine for each Option (which need not be identical) the number of shares of Stock for which the Option shall be granted, the exercise price of the Option, the timing and terms of exercisability and vesting of the Option, the time of expiration of the Option, the effect of the Optionee's termination of employment or service, whether the Option is to be treated as an Incentive Stock Option or as a non-statutory stock option, the method for satisfaction of any tax withholding obligation arising in connection with Option, including by the withholding or delivery of shares of stock, and all other terms and conditions of the Option not inconsistent with the Plan. Options granted pursuant to the Plan shall be evidenced by written agreements specifying the number of shares of Stock covered thereby, in such form as the Board shall from time to time establish, which agreements may incorporate all or any of the terms of the Plan by reference and shall comply with and be subject to the following terms and conditions:

(a) Exercise Price. The exercise price for each Option shall be established in the sole discretion of the Board; provided, however, that (i) the exercise price per share for an Incentive Stock Option shall be not less than the fair market value, as determined by the Board, of a share of

Stock on the date of the granting of the Option; (ii) the exercise price per share for a non-statutory stock option shall not be less than eighty-five percent (85%) of the fair market value, as determined by the Board, of a share of Stock on the date of the granting of the Option; and (iii) no Incentive Stock Option granted to an Optionee who at the time the Option is granted owns stock possessing more than ten percent (10%) of the total combined voting power of all classes of stock of a Participating Company within the meaning of Section 422(b)(6) of the Code (a "Ten Percent Owner Optionee") shall have an exercise price per share less than one hundred ten percent (110%) of the fair market value, as determined by the Board, of a share of Stock on the date of the granting of the Option. Notwithstanding the foregoing, an Option (whether an Incentive Stock Option or a non-statutory stock option) may be granted with an exercise price lower than the minimum exercise price set forth above if such Option is granted pursuant to an assumption or substitution for another option in a manner qualifying with the provisions of Section 424(a) of the Code.

(b) Exercise Period of Options. The Board shall have the power to set, including by amendment of an Option, the time or times within which each Option shall be exercisable or the event or events upon the occurrence of which all or a portion of each Option shall be exercisable and the term of each Option; provided, however, that (i) no Option shall be exercisable after the expiration of ten (10) years after the date such Option is granted, and (ii) no Incentive Stock Option granted to a Ten Percent Owner Optionee shall be exercisable after the expiration of five (5) years after the date such Option is granted.

(c) Payment of Exercise Price.

(i) Forms of Payment Authorized. Payment of the exercise price for the number of shares of Stock being purchased pursuant to any Option shall be made (1) in cash, by check, or cash equivalent, (2) by tender to the Company of shares of the Company's stock owned by the Optionee having a fair market value, as determined by the Board (but without regard to any restrictions on transferability applicable to such stock by reason of federal or state securities laws or agreements with an underwriter for the Company), not less than the exercise price, (3) by the Optionee's recourse promissory note in a form approved by the Company, (4) by the assignment of the proceeds of a sale of some or all of the shares being acquired upon the exercise of the Option (including, without limitation, through an exercise complying with the provisions of Regulation T as promulgated from time to time by the Board of Governors of the Federal Reserve System), or (5) by any combination thereof. The Board may at any time or from time to time grant Options which do not permit all of the foregoing forms of consideration to be used in payment of the exercise price and/or which otherwise restrict one or more forms of consideration.

(ii) Tender of Company Stock. Notwithstanding the foregoing, an Option may not be exercised by tender to the Company of shares of the Company's stock to the extent such tender of stock would constitute a violation of the provisions of any law, regulation and/or agreement restricting the redemption of the Company's stock or, if in the opinion of Company counsel, might impair the ability of purchasers of stock from the Company from taking full advantage of the provisions of Section 1202 of the Code relating to capital gains treatment of stock issued by the Company. Unless otherwise provided by the Board, an Option may not be exercised by tender to the Company of shares of the Company's stock unless such shares of the Company's stock either have been owned by the Optionee for more than six (6) months or were not acquired, directly or indirectly, from the Company.

(iii) Promissorv Notes. No promissory note shall be permitted if an exercise using a promissory note would be a violation of any law. Any permitted promissory note shall be due and payable not more than four (4) years after the Option is exercised, and interest shall be payable at least annually and be at least equal to the minimum interest rate necessary to avoid imputed interest pursuant to all applicable sections of the Code. The Board shall have the authority to permit or require the Optionee to secure any promissory note used to exercise an Option with the shares of Stock acquired on exercise of the Option and/or with other collateral acceptable to the Company. Unless otherwise provided by the Board, in the event the Company at any time is subject to the regulations promulgated by the Board of Governors of the Federal Reserve System or any other governmental entity affecting the extension of credit in connection with the Company's securities, any promissory note shall comply with such applicable regulations, and the Optionee shall pay the unpaid principal and accrued interest, if any, to the extent necessary to comply with such applicable regulations.

(iv) Assignment of Proceeds of Sale. The Company reserves, at any and all times, the right, in the Company's sole and absolute discretion, to establish. decline to approve and/or terminate any program and/or procedures for the exercise of Options by means of an assignment of the proceeds of a sale of some or all of the shares of Stock to be acquired upon such exercise.

7. Standard Forms of Stock Option Agreement.

(a) Incentive Stock Options. Unless otherwise provided for by the Board at the time an Option is granted, an Option designated as an "Incentive Stock Option" shall comply with and be subject to the terms and conditions set forth in the form of incentive stock option agreement attached hereto as Exhibit A and incorporated herein by reference.

(b) Non-statutory Stock Options. Unless otherwise provided for by the Board at the time an Option is granted, an Option designated as a "Non-statutory Stock Option" shall comply with and be subject to the terms and conditions set forth in the forms of non-statutory stock option agreement attached hereto as Exhibit B and incorporated herein by reference.

(c) Standard Term for Options. Unless otherwise provided for by the Board in the grant of an Option, any Option granted hereunder shall be exercisable for a term of [ten (10)] years.

8. Authority to Vary Terms.

The Board shall have the authority from time to time to vary the terms of either of the standard forms of Stock Option Agreement described in paragraph 7 above either in connection with the grant or amendment of an individual Option or in connection with the authorization of a new standard form or forrns: provided, however, that the terms and conditions of such revised or amended standard form or forms of stock option agreement shall be in accordance with the terms of the Plan. Such authority shall include, but not by way of limitation, the authority to grant Options which are not immediately exercisable.

9. Fair Market Value Limitation.

To the extent that the aggregate fair market value (determined at the time the Option is granted) of stock with respect to which Incentive Stock Options are exercisable by an Optionee for the first time during any calendar year (under all stock option plans of the Company, including the Plan) exceeds One Hundred Thousand Dollars ($100,000), such Options shall be treated as non-statutory stock options. This paragraph shall be applied by taking Incentive Stock Options into account in the order in which they were granted.

10. Effect of Change in Stock Subject to Plan.

Appropriate adjustments shall be made in the number and class of shares of Stock subject to the Plan and to any outstanding Options and in the exercise price of any outstanding Options in the event of a stock dividend, stock split, reverse stock split, recapitalization, combination, reclassificationt or like change in the capital structure of the Company.

In the event a majority of the shares which are of the same class as the shares that are subject to outstanding Options are exchanged for, converted into, or otherwise become (whether or not pursuant to a Transfer of Control (as defined below)) shares of another corporation (the "New Shares"), the Company may unilaterally amend the outstanding Options to provide that such Options are exercisable for New Shares In the event of any such amendment, the number of shares and the exercise price of the outstanding Options shall be adjusted in a fair and equitable manner.

11. Transfer of Control.

A "TRANSFER OF CONTROL" shall be deemed to have occurred in the event any of the following occurs with respect to the Company.

(a) the direct or indirect sale or exchange by the stockholders of the Company of all or substantially all of the stock of the Company where the stockholders of the Company before such sale or exchange do not retain, directly or indirectly, at least a majority of the beneficial interest in the voting stock of the Acquiring Corporation as defined below after such sale or exchange;

(b) a merger or consolidation where the stockholders of the Company before such merger or consolidation do not retain, directly or indirectly, at least a majority of the beneficial interest in the voting stock of the Acquiring Corporation as defined below after such merger or consolidation;

(c) the sale, exchange, or transfer of all or substantially all of the assets of the Company (other than a sale, exchange, or transfer to one (1) or more subsidiary corporations (as defined in paragraph 1 above) of the Company); or

(d) a liquidation or dissolution of the Company.

Thirty (30) days prior the proposed effective date of any Transfer of Control. each Optionee under a stock option agreement outstanding for 335 days or more shall be credited, as of the proposed effective date of the Transfer of Control, and if still employed by the Company on that date, with 100% of such shares, for purposes of determining the percentage of shares which shall be immediately exercisable and/or fully vested under each such stock option agreement. Other options, except as set forth below, shall not be affected.

Furthermore, in the event of a Transfer of Control, the surviving, continuing successor, or purchasing corporation or parent corporation thereof, as the case may be (the "Acquiring Corporation"), shall either assume the Company's rights and obligations under outstanding stock option agreements or substitute options for the Acquiring Corporation's stock for such outstanding Options. In the event the Acquiring Corporation elects not to assume or substitute for such outstanding Options in connection with the Transfer of Control. any unexercisable and/or unvested shares subject to such outstanding stock option agreements shall be immediately exercisable and fully vested as of the date thirty (30) days prior to the proposed effective date of the Transfer of

Control. The exercise and/or vesting of any Option that was permissible solely by reason of this paragraph 11 shall be conditioned upon the consummation of the Transfer of Control. Any Options which are neither assumed or substituted for by the Acquiring Corporation in connection with the Transfer of Control nor exercised as of the date of the Transfer of Control shall terminate and cease to be outstanding effective as of the date of the Transfer of Control.

12. Provision of Information. Each Optionee shall be given access to information concerning the Company equivalent to that information generally made available to the Company's common stockholders generally.

13. Options Non-Transferable. During the lifetime of the Optionee, the Option shall be exercisable only by the Optionee. No Option shall be assignable or transferable by the Optionee, except by will or by the laws of descent and distribution.

14. Termination or Amendment of Plan or Options. The Board, including any duly appointed committee of the Board, may terminate or amend the Plan or any Option at any time; provided, however, that without the approval of the Company's stockholders, there shall be (a) no increase in the total number of shares of Stock covered by the Plan (except by operation of the provisions of paragraph 10 above), (b) no change in the class eligible to receive Incentive Stock Options and (c) no expansion in the class eligible to receive non-statutory stock options. In addition to the foregoing, the approval of the Company's stockholders shall be sought for any amendment to the Plan for which the Board deems stockholder approval necessary in order to comply with Rule 16b-3. In any event, no amendment may adversely affect any then outstanding Option or any unexercised portion thereof, without the consent of the Optionee, unless such amendment is required to enable an Option designated as an Incentive Stock Option to qualify as an Incentive Stock Option.

IN WITNESS WHEREOF, the undersigned Assistant Secretary of the Company certifies that the foregoing Ciena Corporation Amended and Restated 1994 Stock Option Plan was duly adopted by the Board of Directors of the Company on the ___ day of August, 1994.

/s/ DAVID R. HOBER

Secretary

EXHIBIT A

STANDARD FORM OF
CIENA CORPORATION
IMMEDIATELY EXERCISABLE
INCENTIVE STOCK OPTION AGREEMENT

EXHIBIT 10.3

THE SECURITY REPRESENTED BY THIS CERTIFICATE HAS BEEN ACQUIRED FOR INVESTMENT AND NOT WITH A VIEW TO, OR IN CONNECTION WITH, THE SALE OR DISTRIBUTION THEREOF. NO SUCH SALE OR DISPOSITION MAY BE EFFECTED WITHOUT AN EFFECTIVE REGISTRATION STATEMENT RELATED THERETO OR AN OPINION OF COUNSEL SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED UNDER THE SECURITIES ACT OF 1933.

CIENA CORPORATION

INCENTIVE STOCK OPTION AGREEMENT

THIS INCENTIVE STOCK OPTION AGREEMENT (the "OPTION AGREEMENT") is made and entered into as of {date}, by and between Ciena Corporation, a Delaware corporation (the "COMPANY"), and {employee} (the "OPTIONEE").

The Company granted to the Optionee an option to purchase certain shares of common stock of the Company, in the manner and subject to the provisions of this Option Agreement (the "OPTION"). If the Optionee (and the Optionee's spouse, if married) does not execute and return the Option Agreement to the Company within sixty (60) days of the date first written above, the Option shall terminate and be without further force and effect.

1. Definitions:

(a) "DATE OF OPTION GRANT" shall mean the date set forth on Exhibit A annexed hereto and made a part hereof.

(b) "NUMBER OF OPTION SHARES" shall mean the number of shares of common stock of the Company set forth on Exhibit A as adjusted from time to time pursuant to paragraph 9 below.

(c) "EXERCISE PRICE" shall mean the price per share set forth on Exhibit A as adjusted from time to time pursuant to paragraph 9 below.

(d) "INITIAL EXERCISE DATE" shall be the Initial Vesting Date.

(e) "INITIAL VESTING DATE" shall be the last day of the calendar month in which occurs the date one (1) year after the date set forth on Exhibit A.

(f) Determination of "VESTED PERCENTAGE":

	Vested Percentage
Prior to Initial Vesting Date	0%
On Initial Vesting Date, provided the Optionee is continuously employed by a Participating Company from the Date of Option Grant until the Initial Vesting Date	25%
Plus	
For each full month of the Optionee's continuous employment by a Participating Company from the Initial Vesting Date	2.084%
In no event shall the Vested Percentage exceed 100%	

(g) "OPTION TERM DATE" shall mean the date ten (10) years after the Date of Option Grant.

(h) "CODE" shall mean the Internal Revenue Code of 1986, as amended.

(i) "COMPANY" shall mean Ciena Corporation, a Delaware corporation, and any successor corporation thereto.

(j) "PARTICIPATING COMPANY" shall mean (i) the Company and (ii) any present or future parent and/or subsidiary corporation of the Company while such corporation is a parent or subsidiary of the Company. For purposes of this Option Agreement, a parent corporation and a subsidiary corporation shall be as defined in sections 424(e) and 424(f) of the Code.

(k) "PARTICIPATING COMPANY GROUP" shall mean at any point in time all corporations collectively which are then a Participating Company.

(l) "PLAN" shall mean the Ciena Corporation 1994 Stock Option Plan.

(m) On any given date, the number of "VESTED SHARES" shall be equal to the Number of Option Shares multiplied by the Vested Percentage determined as of such date pursuant to paragraph 1(f) above and rounded down to the nearest whole share. On

such date, the number of UNVESTED SHARES shall be equal to the Number of Option Shares reduced by the number of Vested Shares determined as of such date.

2. Status of the Option. This Option is intended to be an incentive stock option as described in section 422 of the Code, but the Company does not represent or warrant that this Option qualifies as such. The Optionee should consult with the Optionee's own tax advisors regarding the tax effects of this Option and the requirements necessary to obtain favorable income tax treatment under section 422 of the Code, including, but not limited to, holding period requirements.

3. Administration. All questions of interpretation concerning this Option Agreement shall be determined by the Board of Directors of the Company (the "BOARD") and/or by a duly appointed committee of the Board having such powers as shall be specified by the Board. Any subsequent references herein to the Board shall also mean the committee if such committee has been appointed and, unless the powers of the committee have been specifically limited, the committee shall have all of the powers of the Board granted in the Plan, including, without limitation, the power to terminate or amend the Plan at any time, subject to the terms of the Plan and any applicable limitations imposed by law. All determinations by the Board shall be final and binding upon all persons having an interest in the Option. Any officer of a Participating Company shall have the authority to act on behalf of the Company with respect to any matter, right, obligation, or election which is the responsibility of or which is allocated to the Company herein, provided the officer has apparent authority with respect to such matter, right, obligation, or election.

4. Exercise of the Option.

(a) Right to Exercise. The Option shall be first exercisable on and after the Initial Vesting Date, and then only to the extent vested. Notwithstanding the foregoing, except as provided in paragraph 16, the aggregate fair market value of the stock with respect to which the Optionee may exercise the Option for the first time during any calendar year, together with any other incentive stock options which are exercisable for the first time during any such year, as determined in accordance with section 422(d) of the Code, shall not exceed One Hundred Thousand Dollars ($100,000). Such limitation on exercise described in section 422(d) of the Code shall be referred to in this Option Agreement as the "$100,000 EXERCISE LIMITATION". Furthermore, notwithstanding the foregoing, the Option may be exercised only in multiples of one hundred (100) shares unless all shares subject to the Option are being exercised; provided, however, that the foregoing restriction shall not apply so as to prevent an exercise (i) following the Optionee's termination of employment as set forth in paragraph 7 below or (ii) during the thirty (30) day periods immediately preceding and following an Ownership Change as defined in paragraph 8 below. In addition to the foregoing, in the event that the adoption of the Plan or any amendment of the Plan is subject to the approval of the Company's stockholders in order for the Option to comply with the requirements of Rule 16b-3, promulgated under the Securities Exchange Act of 1934, as amended (the "EXCHANGE ACT"), the Option shall not be exercisable prior to such stockholder

approval if the Optionee is subject to Section 16(b) of the Exchange Act, unless the Board, in its sole discretion, approves the exercise of the Option prior to such stockholder approval.

(b) Method of Exercise. Exercise of the Option must be by written notice to the Company which must state the election to exercise the Option, the number of shares for which the Option is being exercised and such other representations and agreements as to the Optionee's investment intent with respect to such shares as may be required pursuant to the provisions of this Option Agreement. The written notice must be signed by the Optionee and must be delivered in person, by certified or registered mail, return receipt requested, or by facsimile transmission, to the Chief Financial Officer of the Company, or other authorized representative of the Participating Company Group, prior to the termination of the Option as set forth in paragraph 6 below, accompanied by (i) full payment of the exercise price for the number of shares being purchased and (ii) an executed copy, if required herein, of the then current forms of escrow and security agreements referenced below.

(c) Payment of Exercise Price.

(i) Forms of Payment Authorized. Payment of the exercise price for the number of shares for which the Option is being exercised shall be made

(A) in cash, by check, or cash equivalent;

(B) by tender to the Company of shares of the Company's common stock owned by the Optionee having a fair market value, as determined by the Board, not less than the exercise price, which either have been owned by the Optionee for more than six (6) months or were not acquired, directly or indirectly, from the Company;

(C) if expressly authorized by the Company at the time of Option exercise, in its sole discretion, by the Optionee's recourse promissory note in a form approved by the Company;

(D) by Immediate Sales Proceeds, as defined below;

(E) by any combination of the foregoing.

(ii) Tender of Company Stock. Notwithstanding the foregoing, the Option may not be exercised by tender to the Company of shares of the Company's common stock to the extent such tender of stock would constitute a violation of the provisions of any law, regulation and/or agreement restricting the redemption of the Company's common stock or, if in the opinion of Company counsel, might impair the ability of purchasers of stock from the Company from taking full advantage of the provisions of Section 1202 of the Code relating to capital gains treatment of stock issued by the Company. Unless otherwise provided by the Board, an Option may not be exercised by tender to the Company of shares of the Company's common stock unless such shares of the Company's

stock either have been owned by the Optionee for more than six (6) months or were not acquired, directly or indirectly, from the Company.

(iii) Promissory Note. Unless otherwise specified by the Board at the time the Option is granted, a promissory note permitted in accordance with clause (c)(i)(C) above shall not exceed the amount permitted by law to be paid by a promissory note and shall be a full recourse note in a form satisfactory to the Company, with principal payable four (4) years after the date the Option is exercised. Interest on the principal balance of the promissory note shall be payable in annual installments at the minimum interest rate necessary to avoid imputed interest pursuant to all applicable sections of the Code. Such recourse promissory note shall be secured by the shares of stock acquired pursuant to the then current form of security agreement as approved by the Company. In the event the Company at any time is subject to the regulations promulgated by the Board of Governors of the Federal Reserve System or any other governmental entity affecting the extension of credit in connection with the Company's securities, any promissory note shall comply with such applicable regulations, and the Optionee shall pay the unpaid principal and accrued interest, if any, to the extent necessary to comply with such applicable regulations. Except as the Company in its sole discretion shall determine, the Optionee shall pay the unpaid principal balance of the promissory note and any accrued interest thereon upon termination of the Optionee's employment with the Participating Company Group for any reason, with or without cause.

(iv) Immediate Sales Proceeds. "IMMEDIATE SALES PROCEEDS" shall mean the assignment in form acceptable to the Company of the proceeds of a sale of some or all of the shares acquired upon the exercise of the Option pursuant to a program and/or procedure approved by the Company (including, without limitation, through an exercise complying with the provisions of Regulation T as promulgated from time to time by the Board of Governors of the Federal Reserve System). The Company reserves, at any and all times, the right, in the Company's sole and absolute discretion, to decline to approve any such program and/or procedure.

(d) Tax Withholding. At the time the Option is exercised, in whole or in part, or at any time thereafter as requested by the Company, the Optionee hereby authorizes payroll withholding and otherwise agrees to make adequate provision for foreign, federal and state tax withholding obligations of the Company, if any, which arise in connection with the Option, including, without limitation, obligations arising upon (i) the exercise, in whole or in part, of the Option, (ii) the transfer, in whole or in part, of any shares acquired on exercise of the Option, or (iii) the operation of any law or regulation providing for the imputation of interest, or (iv) the lapsing of any restriction with respect to any shares acquired on exercise of the Option. The Optionee is cautioned that the Option is not exercisable unless the Company's withholding obligations are satisfied. Accordingly, the Optionee may not be able to exercise the Option when desired even though the Option is vested and the Company shall have no obligation to issue a certificate for such shares.

(e) Certificate Registration. Except in the event the exercise price is paid by Immediate Sales Proceeds, the certificate or certificates for the shares as to which the Option is exercised shall be registered in the name of the Optionee, or, if applicable, the heirs of the Optionee.

(f) Restrictions of Grant of the Option and Issuance of Shares. The grant of the Option and the issuance of the shares upon exercise of the Option shall be subject to compliance with all applicable requirements of federal, state or foreign law with respect to such securities. The Option may not be exercised if the issuance of shares upon such exercise would constitute a violation of any applicable federal, state, or foreign securities laws or other law or regulations. In addition, the Option may not be exercised unless (i) a registration statement under the Securities Act of 1933, as amended (the "SECURITIES ACT"), shall at the time of exercise of the Option be in effect with respect to the shares issuable upon exercise of the Option or (ii) in the opinion of legal counsel to the Company, the shares issuable upon exercise of the Option may be issued in accordance with the terms of an applicable exemption from the registration requirements of the Securities Act. THE OPTIONEE IS CAUTIONED THAT THE OPTION MAY NOT BE EXERCISABLE UNLESS THE FOREGOING CONDITIONS ARE SATISFIED. ACCORDINGLY, THE OPTIONEE MAY NOT BE ABLE TO EXERCISE THE OPTION WHEN DESIRED EVEN THOUGH THE OPTION IS VESTED. Questions concerning this restriction should be directed to the Chief Financial Officer of the Company. As a condition to the exercise of the Option, the Company may require the Optionee to satisfy any qualifications that may be necessary or appropriate, to evidence compliance with any applicable law or regulation and to make any representation or warranty with respect thereto as may be requested by the Company.

(g) Fractional Shares. The Company shall not be required to issue fractional shares upon the exercise of the Option.

5. Non-Transferability of the Option; Non-Alienation of Benefits. The Option may be exercised during the lifetime of the Optionee only by the Optionee and may not be assigned or transferred in any manner except by will or by the laws of descent and distribution. Following the death of the Optionee, the Option, to the extent unexercised and vested to the Optionee on the date of death, may be exercised by the Optionee's legal representative or by any person empowered to do so under the deceased Optionee's will or under the then applicable laws of descent and distribution.

Except with the prior written consent of the Company, subject to the foregoing, or as otherwise provided herein, no right or benefit under this Option Agreement shall be subject to anticipation, alienation, sale, assignment, pledge, encumbrance or charge, and any attempt to anticipate, alienate, sell, assign, pledge, encumber or charge the same without such consent, if applicable, shall be void. Except with such consent, no right or benefit under this Option Agreement shall in any manner be liable for or subject to the debts, contacts, liabilities or torts of the person entitled to such benefit. Except to the extent previously approved by the Company in writing, or as otherwise provided herein, if the Optionee should become bankrupt or attempt to anticipate, alienate, sell, assign, pledge, encumber or charge any right or benefit

hereunder, then such right or benefit shall cease and terminate, and in such event, the Company may hold or apply the same or any part thereof for the benefit of the Optionee, the Optionee's spouse, children or other dependents, or any of them, in such manner and in such proportion as the Company may in its sole determination deem proper.

6. Termination of the Option. The Option shall terminate and may no longer be exercised on the first to occur of (a) the Option Term Date as defined above, (b) the last date for exercising the Option following termination of employment as described in paragraph 7 below, or (c) a Transfer of Control to the extent provided in paragraph 8 below.

7. Termination of Employment.

(a) Termination Other Than by Death or Disability. Except as otherwise provided below, if the Optionee ceases to be an employee of the Participating Company Group for any reason, except death or disability within the meaning of section 422(c) of the Code, the Option, to the extent unexercised and exercisable by the Optionee on the date on which the Optionee ceased to be an employee, may be exercised by the Optionee within thirty (30) days after the date on which the Optionee's employment terminated, but in any event no later than the Option Term Date.

(b) Termination by Death or Disability. Except as otherwise provided below, if the Optionee's employment with the Company is terminated because of the death or disability of the Optionee within the meaning of section 422(c) of the Code, the Option, to the extent unexercised and exercisable by the Optionee on the date on which the Optionee ceased to be an employee, may be exercised by the Optionee (or the Optionee's legal representative) at any time prior to the expiration of twelve (12) months from the date on which the Optionee's employment terminated, but in any event no later than the Option Term Date. The Optionee's employment shall be deemed to have terminated on account of death if the Optionee dies within three (3) months after the Optionee's termination of employment.

(c) Limitations on Exercise After Termination. Notwithstanding the provisions of paragraphs 7(a) and (b), the Option may not be exercised after the Optionee's termination of employment if the shares to be acquired on exercise of the Option would be Unvested Shares as that term is defined in paragraph 11 below. Except as provided in this paragraph 7, the Option shall terminate and may not be exercised after the Optionee ceases to be an employee of the Participating Company Group. Furthermore, the Board may at any time after the Optionee's termination of employment cancel the Option with respect to all or a portion of the shares otherwise remaining exercisable under the Option, if the Company finds or has found that the Optionee:

(i) Engaged in willful, deliberate or gross misconduct toward the Company;

(ii) Has violated the terms of any confidentiality agreement or obligation between the Optionee and the Company; or

(iii) Has accepted employment with an entity which the Company determines is in a business that could result in compromising any confidentiality agreement or obligation between the Optionee and the Company.

(d) Employee and Termination of Employment Defined. For purposes of this paragraph 7, the term "employee" shall mean any person, including officers and directors, employed by a Participating Company or performing services for a Participating Company as a director, consultant, advisor or other independent contractor. For purposes of this paragraph 7, the Optionee's employment shall be deemed to have terminated if the Optionee ceases to be employed by a Participating Company (whether upon an actual termination of employment or upon the Optionee's employer ceasing to be a Participating Company). The Optionee's employment shall not be deemed to have terminated merely because of a change in the capacity in which the Optionee serves as an employee, provided that there is no interruption or termination of the Optionee's service as an employee. (THE OPTIONEE IS CAUTIONED THAT IF THE OPTION IS EXERCISED MORE THAN THREE (3) MONTHS AFTER THE DATE ON WHICH THE OPTIONEE'S EMPLOYMENT (OTHER THAN AS A DIRECTOR, CONSULTANT, ADVISOR OR OTHER INDEPENDENT CONTRACTOR) TERMINATED, THE OPTION MAY CEASE TO BE AN INCENTIVE STOCK OPTION. THE OPTIONEE SHOULD CONSULT WITH THE OPTIONEE'S OWN TAX ADVISORS AS TO THE TAX CONSEQUENCES OF ANY SUCH DELAYED EXERCISE.)

(e) Extension if Exercise Prevented by Law. Notwithstanding the foregoing, if the exercise of the Option within the applicable time periods set forth above is prevented by the provisions of paragraph 4(f) above, the Option shall remain exercisable until three (3) months after the date the Optionee is notified by the Company that the Option is exercisable, but in any event no later than the Option Term Date. The Company makes no representation as to the tax consequences of any such delayed exercise. The Optionee should consult with the Optionee's own tax advisors as to the tax consequences to the Optionee of any such delayed exercise.

(f) Extension if Optionee Subject to Section 16(b). Notwithstanding the foregoing, if the exercise of the Option within the applicable time periods set forth above would subject the Optionee to suit under Section 16(b) of the Exchange Act, the Option shall remain exercisable until the earliest to occur of (i) the tenth (10th) day following the date on which the Optionee would no longer be subject to such suit, (ii) the one hundred and ninetieth (190th) day after the Optionee's termination of employment, or (iii) the Option Term Date. The Company makes no representation as to the tax consequences of any such delayed exercise. The Optionee should consult with the Optionee's own tax advisors as to the tax consequences to the Optionee of any such delayed exercise.

(g) Leave of Absence. For purposes hereof, the Optionee's employment with the Participating Company Group shall not be deemed to terminate if the Optionee takes any military leave, sick leave, or other bona fide leave of absence approved by

the Company of ninety (90) days or less. In the event of a leave in excess of ninety (90) days, the Optionee's employment shall be deemed to terminate on the ninety-first (91st) day of the leave unless the Optionee's right to re employment with the Participating Company Group remains guaranteed by statute or contract. Notwithstanding the foregoing, unless otherwise designated by the Company (or required by law) a leave of absence shall not be treated as employment for purposes of determining the Optionee's Vested Percentage.

8. A "Transfer of Control"

(a) A "TRANSFER OF CONTROL" shall be deemed to have occurred in the event any of the events described in Paragraph 11 of the Plan occurs with respect to the Company.

(b) In the event of Transfer of Control, the surviving, continuing, successor, or purchasing corporation or parent corporation thereof, as the case may be (the "ACQUIRING CORPORATION"), shall either assume the Company's rights and obligations under this Option Agreement or substitute an option for the Acquiring Corporation's stock for the Option. In the event the Acquiring Corporation elects not to assume the Company's rights and obligations under this Option Agreement or substitute an option for the Acquiring Corporation's stock for the Option, all shares subject to this Option Agreement shall become Vested Shares (as defined in paragraph 11(b) below) effective as of the date thirty (30) days prior to the Proposed Effective Date.

(c) The exercise and/or vesting of any shares that was permissible solely by reason of this paragraph 8 shall be conditioned upon the consummation of the Transfer of Control. The Option shall terminate and cease to be outstanding effective upon the Transfer of Control to the extent that the Option is neither assumed or substituted for by the Acquiring Corporation in connection with the Transfer of Control nor exercised as of the date of the Transfer of Control.

9. Effect of Change in Stock Subject to the Option. Appropriate adjustments shall be made in the number, exercise price and class of shares of stock subject to the Option in the event of a stock dividend, stock split, reverse stock split, recapitalization, combination, reclassification, or like change in the capital structure of the Company. In the event a majority of the shares which are of the same class as the shares that are subject to the Option are exchanged for, converted into, or otherwise become (whether or not pursuant to an Ownership Change) shares of another corporation (the "NEW SHARES"), the Company may unilaterally amend the Option to provide that the Option is exercisable for New Shares. In the event of any such amendment, the number of shares and the exercise price shall be adjusted in a fair and equitable manner.

10. Rights as a Stockholder or Employee. The Optionee shall have no rights as a stockholder with respect to any shares covered by the Option until the date of the issuance of a certificate or certificates for the shares for which the Option has been exercised. No adjustment shall be made for dividends or distributions or other rights for which the record

date is prior to the date such certificate or certificates are issued, except as provided in paragraph 9 above. Nothing in the Option shall confer upon the Optionee any right to continue in the employ of a Participating Company or interfere in any way with any right of the Participating Company Group to terminate the Optionee's employment at any time.

11. Right of First Refusal.

(a) Right of First Refusal. Except as provided in paragraph 11(g) below, in the event the Optionee proposes to sell, pledge, or otherwise transfer any Vested Shares (the "TRANSFER SHARES") to any person or entity, including, without limitation, any stockholder of the Participating Company Group, the Company shall have the right to repurchase the Transfer Shares under the terms and subject to the conditions set forth in this paragraph 12 (the "RIGHT OF FIRST REFUSAL").

(b) Notice of Proposed Transfer. Prior to any proposed transfer of the Transfer Shares, the Optionee shall give a written notice (the "TRANSFER NOTICE") to the Company describing fully the proposed transfer, including the number of Transfer Shares, the name and address of the proposed transferee (the "PROPOSED TRANSFEREE") and, if the transfer is voluntary, the proposed transfer price and containing such information necessary to show the bona fide nature of the proposed transfer. In the event of a bona fide gift or involuntary transfer, the proposed transfer price shall be deemed to be the fair market value of the Transfer Shares as determined by the Company in good faith. In the event the Optionee proposes to transfer any Transfer Shares to more than one (1) Proposed Transferee, the Optionee shall provide a separate Transfer Notice for the proposed transfer to each Proposed Transferee. The Transfer Notice shall be signed by both the Optionee and the Proposed Transferee and must constitute a binding commitment of the Optionee and the Proposed Transferee for the transfer of the Transfer Shares to the Proposed Transferee subject only to the Right of First Refusal.

(c) Bona Fide Transfer. In the event that the Company shall determine that the information provided by the Optionee in the Transfer Notice is insufficient to establish the bona fide nature of a proposed voluntary transfer, the Company shall give the Optionee written notice of the Optionee's failure to comply with the procedure described in this paragraph 12 and the Optionee shall have no right to transfer the Transfer Shares without first complying with the procedure described in this paragraph 12. The Optionee shall not be permitted to transfer the Transfer Shares if the proposed transfer is not bona fide.

(d) Exercise of Right of First Refusal. In the event the proposed transfer is deemed to be bona fide, the Company shall have the right to purchase all, but not less than all, of the Transfer Shares (except as the Company and the Optionee otherwise agree) at the purchase price and on the terms set forth in the Transfer Notice by delivery to the Optionee of a notice of exercise of the Right of First Refusal within thirty (30) days after the date the Transfer Notice is delivered to the Company. The Company's exercise or failure to exercise the Right of First Refusal with respect to any proposed transfer described in a Transfer Notice shall not affect the Company's right to exercise the Right of First Refusal with respect to any proposed transfer described in any other Transfer Notice, whether or not

such other Transfer Notice is issued by the Optionee or issued by a person other than the Optionee with respect to a proposed transfer to the same Proposed Transferee. If the Company exercises the Right of First Refusal, the Company and the Optionee shall thereupon consummate the sale of the Transfer Shares to the Company on the terms set forth in the Transfer Notice within sixty (60) days after the date the Transfer Notice is delivered to the Company (unless a longer period is offered by the Proposed Transferee); provided, however, that in the event the Transfer Notice provides for the payment for the Transfer Shares by the present value cash equivalent of the consideration described in the Transfer Notice as reasonably determined by the Company. For purposes of the foregoing, cancellation of any indebtedness of the Optionee to any Participating Company shall be treated as payment to the Optionee in cash to the extent of the unpaid principal and any accrued interest canceled.

(e) Failure to Exercise Right of First Refusal. If the Company fails to exercise the Right of First Refusal in full within the period specified in paragraph 11(d) above, the Optionee may conclude a transfer to the Proposed Transferee of the Transfer Shares on the terms and conditions described in the Transfer Notice, provided such transfer occurs not later than ninety (90) days following delivery to the Company of the Transfer Notice. The Company shall have the right to demand further assurances from the Optionee and the Proposed Transferee (in a form satisfactory to the Company) that the transfer of the Transfer Shares was actually carried out on the terms and conditions described in the Transfer Notice. No Transfer Shares shall be transferred on the books of the Company until the Company has received such assurances, if so demanded, and has approved the proposed transfer as bona fide. Any proposed transfer on terms and conditions different from those described in the Transfer Notice, as well as any subsequent proposed transfer by the Optionee, shall again be subject to the Right of First Refusal and shall require compliance by the Optionee with the procedure described in this paragraph 11.

(f) Transferees of Transfer Shares. All transferees of the Transfer Shares or any interest therein, other than the Company, shall be required as a condition of such transfer to agree in writing (in a form satisfactory to the Company) that such transferee shall receive and hold such Transfer Shares or interests subject to the provisions of this paragraph 11 providing for the Right of First Refusal with respect to any subsequent transfer. Any sale or transfer of any shares acquired upon exercise of the Option shall be void unless the provisions of this paragraph 11 are met.

(g) Transfers Not Subject to Right of First Refusal. Notwithstanding the foregoing, the Right of First Refusal shall not apply to any transfer or exchange of the shares acquired pursuant to the exercise of the Option if such transfer or exchange is in connection with an Ownership Change. If the consideration received pursuant to such transfer or exchange consists of stock of a Participating Company, such consideration shall remain subject to the Right of First Refusal unless the provisions of paragraph 11(i) below result in a termination of the Right of First Refusal. Furthermore, notwithstanding the foregoing, the Right of First Refusal shall not apply to a transfer of Transfer Shares to the Optionee's ancestors, descendants, or spouse or to a trustee solely for the benefit of the Optionee or Optionee's ancestors, descendants, or spouse, or to a charitable institution;

provided, however, that such transferee shall agree in writing (in a form satisfactory to the Company) to take the stock subject to all the terms and conditions of this paragraph 12 providing for a Right of First Refusal with respect to any subsequent transfer.

(h) Assignment of Right of First Refusal. The Company shall have the right to assign the Right of First Refusal at any time, whether or not the Optionee has attempted a transfer, to one (1) or more persons as may be selected by the Company.

(i) Early Termination of Right of First Refusal. The other provisions of this paragraph 11 notwithstanding, the Right of First Refusal shall terminate, and be of no further force and effect, upon (i) the occurrence of a Transfer of Control, unless the surviving, continuing, successor, or purchasing corporation or parent corporation thereof, as the case may be, assumes the Company's rights and obligations under the Plan, or (ii) the existence of a public market for the class of shares subject to the Right of First Refusal. A "public market" shall be deemed to exist if (x) such stock is listed on a national securities exchange (as that term is used in the Exchange Act) or (y) such is traded on the over-the-counter market and prices therefor are published daily on business days in a recognized financial journal.

12. Escrow.

(a) Establishment of Escrow. To ensure that shares subject to the Right of First Refusal and/or security for any promissory note will be available for purchase, the Company may require the Optionee to deposit the certificate or certificates evidencing the shares which the Optionee purchases upon exercise of the Option with the Company or other escrow agent designated by the Company under the terms and conditions of escrow and security agreements approved by the Company. If the Company does not require such deposit as a condition of exercise of the Option, or if the Company releases the certificate or certificates from escrow prior to the lapsing of all such restrictions and/or security interest, the Company reserves the right at any time to require the Optionee to so deposit the certificates in escrow. The Company shall bear the expenses of the escrow.

(b) Delivery of Shares to Optionee. As soon as practicable after the expiration of the Right of First Refusal, and after full repayment on any promissory note secured by the shares in escrow, the escrow agent shall deliver to the Optionee the shares no longer subject to such restrictions and no longer security for any promissory note.

(c) Notices and Payments. In the event the shares held in escrow are subject to the Company's exercise of the Right of First Refusal, the notices required to be given to the Optionee shall be given to the escrow agent any payment required to be given to the Optionee shall be given to the escrow agent. Within thirty (30) days after payment by the Company, the escrow agent shall deliver the shares which the Company has purchased to the Company and shall deliver the payment received from the Company to the Optionee.

13. Stock Dividends Subject to Option Agreement. If, from time to time, there is any stock dividend, stock split, or other change in the character or amount of any of the outstanding stock of the corporation the stock of which is subject to the provisions of this Option Agreement, then in such event any and all new, substituted or additional securities to which the Optionee is entitled by reason of the Optionee's ownership of the shares acquired upon exercise of the Option shall be immediately subject to the Right of First Refusal, and/or any security interest held by the Company with the same force and effect as the shares subject to the Right of First Refusal, and such security interest immediately before such event.

14. Notice of Sales Upon Disqualifying Disposition. The Optionee shall dispose of the shares acquired pursuant to the Option only in accordance with the provisions of this Option Agreement. In addition, the Optionee shall promptly notify the Chief Financial Officer of the Company if the Optionee disposes of any of the shares acquired pursuant to the Option within one (1) year from the date the Optionee exercises all or part of the Option or within two (2) years of the date of grant of the Option. Until such time as the Optionee disposes of such shares in a manner consistent with the provisions of this Option Agreement, the Optionee shall hold all shares acquired pursuant to the Option in the Optionee's name (and not in the name of any nominee) for the one-year period immediately after exercise of the Option and the two-year period immediately after grant of the Option. At any time during the one-year or two-year periods set forth above, the Company may place a legend or legends on any certificate or certificates representing shares acquired pursuant to the Option requesting the transfer agent for the Company's stock to notify the Company of any such transfers. The obligation of the Optionee to notify the Company of any such transfer shall continue notwithstanding that a legend has been placed on the certificate or certificates pursuant to the preceding sentence.

15. Legends. The Company may at any time place legends referencing the Right of First Refusal set forth in paragraph 11 above, and any applicable federal, state or foreign securities law restrictions on all certificates representing shares of stock subject to the provisions of this Option Agreement. The Optionee shall, at the request of the Company, promptly present to the Company any and all certificates representing shares acquired pursuant to the Option in the possession of the Optionee in order to carry out the provisions of this paragraph. Unless otherwise specified by the Company, legends placed on such certificates may include, but shall not be limited to, the following:

(a) "THE SECURITIES EVIDENCED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, AND MAY NOT BE SOLD, TRANSFERRED, ASSIGNED OR HYPOTHECATED UNLESS THERE IS AN EFFECTIVE REGISTRATION STATEMENT UNDER SUCH ACT COVERING SUCH SECURITIES, THE SALE IS MADE IN ACCORDANCE WITH RULE 144 OR RULE 701 UNDER THE ACT, OR THE COMPANY RECEIVES AN OPINION OF COUNSEL FOR THE HOLDER OF THESE SECURITIES REASONABLY SATISFACTORY TO THE COMPANY, STATING THAT SUCH SALE, TRANSFER, ASSIGNMENT OR HYPOTHECATION IS EXEMPT FROM

THE REGISTRATION AND PROSPECTUS DELIVERY REQUIREMENTS OF SUCH ACT."

(b) "THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO A RIGHT OF FIRST REFUSAL OPTION IN FAVOR OF THE CORPORATION OR ITS ASSIGNEE SET FORTH IN AN AGREEMENT BETWEEN THE CORPORATION AND THE REGISTERED HOLDER OR SUCH HOLDER'S PREDECESSOR IN INTEREST, A COPY OF WHICH IS ON FILE AT THE PRINCIPAL OFFICE OF THIS CORPORATION."

(c) "THE SHARES EVIDENCED BY THIS CERTIFICATE WERE ISSUED BY THE CORPORATION TO THE REGISTERED HOLDER UPON EXERCISE OF AN INCENTIVE STOCK OPTION AS DEFINED IN SECTION 422 OF THE INTERNAL REVENUE CODE OF 1986, AS AMENDED ("ISO"). IN ORDER TO OBTAIN THE PREFERENTIAL TAX TREATMENT AFFORDED TO ISOs, THE SHARES SHOULD NOT BE TRANSFERRED PRIOR TO TWO YEARS AFTER GRANT OF THE ISO AND ONE YEAR AFTER EXERCISE OF THE ISO. SHOULD THE REGISTERED HOLDER ELECT TO TRANSFER ANY OF THE SHARES PRIOR THERETO AND FOREGO ISO TAX TREATMENT, THE TRANSFER AGENT FOR THE SHARES SHALL NOTIFY THE CORPORATION IMMEDIATELY. THE REGISTERED HOLDER SHALL HOLD ALL SHARES PURCHASED UNDER THE INCENTIVE STOCK OPTION IN THE REGISTERED HOLDER'S NAME (AND NOT IN THE NAME OF ANY NOMINEE) PRIOR TO THIS DATE OR UNTIL TRANSFERRED AS DESCRIBED ABOVE."

16. Initial Public Offering. The Optionee hereby agrees that in the event of an initial public offering of stock made by the Company pursuant to an effective registration statement filed under the Securities Act, the Optionee shall not offer, sell, contract to sell, pledge, hypothecate, grant any option to purchase or make any short sale of, or otherwise dispose of any shares of stock of the Company or any rights to acquire stock of the Company for such period of time from and after the effective date of such registration statement as may be established by the underwriter for such initial public offering; provided, however, that such period of time shall not exceed two hundred seventy (270) days from the effective date of the registration statement to be filed in connection with such initial public offering. The foregoing limitation shall not apply to shares registered in the initial public offering under the Securities Act. The Optionee shall be subject to this paragraph provided and only if the officers and directors of the Company are also subject to similar arrangements.

17. Binding Effect. This Option Agreement shall inure to the benefit of and be binding upon the parties hereto and their respective heirs, executors, administrators, successors and assigns.

18. Termination or Amendment. The Board, including any duly appointed committee of the Board, may terminate or amend the Plan and /or the Option at any time; provided, however, that no such termination or amendment may adversely affect the Option or

any unexercised portion hereof without the consent of the Optionee unless such amendment is required to enable the Option to qualify as an Incentive Stock Option.

19. Integrated Agreement. This Option Agreement constitutes the entire understanding and agreement of the Optionee and the Participating Company Group with respect to the subject matter contained herein, and there are no agreement, understandings, restrictions, representations, or warranties among the Optionee and the Company other than those as set forth or provided for herein. To the extent contemplated herein, the provisions of this Option Agreement shall survive any exercise of the Option and shall remain in full force and effect.

20. Applicable Law. This Option Agreement shall be governed by the laws of the State of Delaware as such laws are applied to agreements between Delaware residents entered into and to be performed entirely within the State of Delaware.

CIENA CORPORATION

By:

Title: Vice President, Finance
Chief Financial Officer

The Optionee represents that the Optionee is familiar with the terms and provisions of this Option Agreement, including the Right of First Refusal set forth in paragraph 11 and hereby accepts the Option subject to all of the terms and provisions thereof. The Optionee hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Board upon any questions arising under this Option Agreement. The undersigned acknowledges receipt of a copy of the Plan.

OPTIONEE

Date: ---------- ----------

The undersigned, being the spouse of the above-named Optionee, does hereby acknowledge that the undersigned has read and is familiar with the provisions of the above Option Agreement, and the undersigned hereby agrees thereto and joins therein to the extent, if any, that the agreement and joiner of the undersigned may be necessary.

OPTIONEE

Date: ---------- ----------

EXHIBIT A
TO
STOCK OPTION AGREEMENT

(a) "Date of Option Grant" shall mean {grant date}.

(b) "Number of Option Shares" shall mean {shares} shares of common stock of the Company.

(c) "Exercise Price" shall mean {price} per share.

(d) "Initial Vesting Date" shall be the last day of the calendar month in which occurs the date one (1) year after the following date: {vesting_date}.

THE SECURITY REPRESENTED BY THIS CERTIFICATE HAS BEEN ACQUIRED FOR INVESTMENT AND NOT WITH A VIEW TO, OR IN CONNECTION WITH, THE SALE OR DISTRIBUTION THEREOF. NO SUCH SALE OR DISPOSITION MAY BE EFFECTED WITHOUT AN EFFECTIVE REGISTRATION STATEMENT RELATED THERETO OR AN OPINION OF COUNSEL SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED UNDER THE SECURITIES ACT OF 1933.

CIENA CORPORATION

IMMEDIATELY EXERCISABLE

NON-STATUTORY STOCK OPTION AGREEMENT

THIS IMMEDIATELY EXERCISABLE NON-STATUTORY STOCK OPTION AGREEMENT (the "Option Agreement") is made and entered into as of _____, 199___, by and between CIENA Corporation, a Delaware corporation (the "Company"), and _____ (the "Optionee").

The Company granted to the Optionee an option to purchase certain shares of common stock of the Company, in the manner and subject to the provisions of this Option Agreement (the "Option"). If the Optionee (and the Optionee's spouse, if married) does not execute and return this Option Agreement to the Company within sixty (60) days of the date first written above, the Option shall terminate and be without further force and effect.

1. Definitions:

(a) "DATE OF OPTION GRANT" shall mean the date set forth on Exhibit A annexed hereto and made a part hereof.

(b) "NUMBER OF OPTION SHARES" shall mean the number of shares of common stock of the Company set forth on Exhibit A as adjusted from time to time pursuant to paragraph 9 below.

(c) "EXERCISE PRICE" shall mean the price per share set forth on Exhibit A as adjusted from time to time pursuant to paragraph 9 below.

(d) "INITIAL EXERCISE DATE" shall be the Date of Option Grant.

(e) "INITIAL VESTING DATE" shall be the last day of the calendar month in which occurs the date one (1) year after (check one):

____ the Date of Option Grant.

____ _____ (specify other date).

(f) Determination of "VESTED PERCENTAGE":

	Vested Ratio
Prior to Initial Vesting Date	0
On Initial Vesting Date, provided the Optionee is continuously employed by a Participating Company from the Date of Option Grant until the Initial Vesting Date	25%
Plus	
For each full month of the Optionee's continuous employment by a Participating Company from the Initial Vesting Date	2.084%
In no event shall the Vested Percentage exceed 100%.	

(g) "OPTION TERM DATE" shall mean the date ten (10) years after the Date of Option Grant.

(h) "CODE" shall mean the Internal Revenue Code of 1986, as amended.

(i) "COMPANY" shall mean CIENA Corporation, a Delaware corporation, or any successor corporation thereto.

(j) "PARTICIPATING COMPANY" shall mean (i) the Company and (ii) any present or future parent and/or subsidiary corporation of the Company while such corporation is a parent or subsidiary of the Company. For purposes of this Option Agreement, a parent corporation and a subsidiary corporation shall be as defined in sections 424(e) and 424(f) of the Code.

(k) "PARTICIPATING COMPANY GROUP" shall mean at any point in time all corporations collectively which are then a Participating Company.

(l) "PLAN" shall mean the CIENA Corporation 1994 Stock Option Plan.

2. Status of the Option. This Option is intended to be a non-statutory stock option and shall not be treated as an incentive stock option as described in section 422 of the Code.

3. Administration. All questions of interpretation concerning this Option Agreement shall be determined by the Board of Directors of the Company (the "Board") and/or by a duly appointed committee of the Board having such powers as shall be specified by the Board. Any subsequent references herein to the Board shall also mean the committee if such committee has been appointed and, unless the powers of the committee have been specifically limited, the committee shall have all of the powers of the Board granted in the Plan, including, without limitation, the power to terminate or amend the Plan at any time, subject to the terms of the Plan and any applicable limitations imposed by law. All determinations by the Board shall be final and binding upon all persons having an interest in the Option. Any officer of a Participating Company shall have the authority to act on behalf of the Company with respect to any matter, right, obligation, or election which is the responsibility of or which is allocated to the Company herein, provided the officer has apparent authority with respect to such matter, right, obligation, or election.

4. Exercise of the Option.

(a) Right to Exercise. The Option shall be immediately exercisable in its entirety on and after the Initial Exercise Date subject to the Optionee's agreement that any shares purchased upon exercise are subject to the Company's repurchase rights set forth in paragraph 11 and paragraph 12 below. Notwithstanding the foregoing, the Option may be exercised only in multiples of one hundred (100) shares unless all shares subject to the Option are being exercised; provided, however, that the foregoing restriction shall not apply so as to prevent an exercise (i) following the Optionee's termination of employment as set forth in paragraph 7 below or (ii) during the thirty (30) day periods immediately preceding and following an Ownership Change as defined in paragraph 8 below. In addition to the foregoing, in the event that the adoption of the Plan or any amendment of the Plan is subject to the approval of the Company's stockholders in order for the Option to comply with the requirements of Rule 16b-3, promulgated under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), the Option shall not be exercisable prior to such stockholder approval if the Optionee is subject to Section 16(b) of the Exchange Act, unless the Board, in its sole discretion, approves the exercise of the Option prior to such stockholder approval.

(b) Method of Exercise. Exercise of the Option must be by written notice to the Company which must state the election to exercise the Option, the number of shares for which the Option is being exercised and such other representations and agreements as to the Optionee's investment intent with respect to such shares as may be required pursuant to the provisions of this Option Agreement. The written notice must be signed by the Optionee and must be delivered in person, by certified or registered mail, return receipt requested, or by confirmed facsimile transmission, to the Chief Financial Officer of the Company, or other authorized representative of the Participating Company Group, prior to the termination of the Option as set forth in paragraph 6 below, accompanied by (i) full payment of the exercise price

for the number of shares being purchased and (ii) an executed copy, if required herein, of the then current forms of escrow and security agreements referenced below.

(c) Payment of Exercise Price.

(i) Forms of Payment Authorized. Payment of the exercise price for the number of shares for which the Option is being exercised shall be made

(A) in cash, by check, or cash equivalent;

(B) by tender to the Company of shares of the Company's common stock owned by the Optionee having a fair market value, as determined by the Board, not less than the exercise price, which either have been owned by the Optionee for more than six (6) months or were not acquired, directly or indirectly, from the Company;

(C) if expressly authorized by the Company at the time of Option exercise, in its sole discretion, by the Optionee's recourse promissory note in a form approved by the Company;

(D) by Immediate Sales Proceeds, as defined below;

(E) by any combination of the foregoing.

(ii) Tender of Company Stock. Notwithstanding the foregoing, the Option may not be exercised by tender to the Company of shares of the Company's common stock to the extent such tender of stock would constitute a violation of the provisions of any law, regulation and/or agreement restricting the redemption of the Company's common stock.

(iii) Promissory Note. Unless otherwise specified by the Board at the time the Option is granted, a promissory note permitted in accordance with clause (c)(i)(C) above shall not exceed the amount permitted by law to be paid by a promissory note and shall be a full recourse note in a form satisfactory to the Company, with principal payable four (4) years after the date the Option is exercised. Interest on the principal balance of the promissory note shall be payable in annual installments at the minimum interest rate necessary to avoid imputed interest pursuant to all applicable sections of the Code. Such recourse promissory note shall be secured by the shares of stock acquired pursuant to the then current form of security agreement as approved by the Company. In the event the Company at any time is subject to the regulations promulgated by the Board of Governors of the Federal Reserve System or any other governmental entity affecting the extension of credit in connection with the Company's securities, any promissory note shall comply with such applicable regulations, and the Optionee shall pay the unpaid principal and accrued interest, if any, to the extent necessary to comply with such applicable regulations. Except as the Company in its sole discretion shall determine, the Optionee shall pay the unpaid principal balance of the promissory note and any accrued interest thereon upon termination of the Optionee's employment with the Participating Company Group for any reason, with or without cause.

(iv) Immediate Sales Proceeds. "IMMEDIATE SALES PROCEEDS" shall mean the assignment in form acceptable to the Company of the proceeds of a sale of some or all of the shares acquired upon the exercise of the Option pursuant to a program and/or procedure approved by the Company (including, without limitation, through an exercise complying with the provisions of Regulation T as promulgated from time to time by the Board of Governors of the Federal Reserve System). The Company reserves, at any and all times, the right, in the Company's sole and absolute discretion, to decline to approve any such program and/or procedure.

(d) Tax Withholding. At the time the Option is exercised, in whole or in part, or at any time thereafter as requested by the Company, the Optionee hereby authorizes payroll withholding and otherwise agrees to make adequate provision for foreign, federal and state tax withholding obligations of the Company, if any, which arise in connection with the Option, including, without limitation, obligations arising upon (i) the exercise, in whole or in part, of the Option, (ii) the transfer, in whole or in part, of any shares acquired on exercise of the Option, or (iii) the operation of any law or regulation providing for the imputation of interest, or (iv) the lapsing of any restriction with respect to any shares acquired on exercise of the Option. The Optionee is cautioned that the Option is not exercisable unless the Company's withholding obligations are satisfied. Accordingly, the Optionee may not be able to exercise the Option when desired even though the Option is vested and the Company shall have no obligation to issue a certificate for such shares.

(e) Certificate Registration. Except in the event the exercise price is paid by Immediate Sales Proceeds, the certificate or certificates for the shares as to which the Option is exercised shall be registered in the name of the Optionee, or, if applicable, the heirs of the Optionee.

(f) Restrictions on Grant of the Option and Issuance of Shares. The grant of the Option and the issuance of shares upon exercise of the Option shall be subject to compliance with all applicable requirements of federal, state or foreign law with respect to such securities. The Option may not be exercised if the issuance of shares upon such exercise would constitute a violation of any applicable federal, state or foreign securities laws or other law or regulations. In addition, the Option may not be exercised unless (i) a registration statement under the Securities Act of 1933, as amended (the "SECURITIES ACT"), shall at the time of exercise of the Option be in effect with respect to the shares issuable upon exercise of the Option, or (ii) in the opinion of legal counsel to the Company, the shares issuable upon exercise of the Option may be issued in accordance with the terms of an applicable exemption from the registration requirements of the Securities Act. THE OPTIONEE IS CAUTIONED THAT THE OPTION MAY NOT BE EXERCISABLE UNLESS THE FOREGOING CONDITIONS ARE SATISFIED. ACCORDINGLY, THE OPTIONEE MAY NOT BE ABLE TO EXERCISE THE OPTION WHEN DESIRED EVEN THOUGH THE OPTION IS VESTED. Questions concerning this restriction should be directed to the Chief Financial Officer of the Company. As a condition to the exercise of the Option, the Company may require the Optionee to satisfy any qualifications that may be necessary or appropriate, to evidence compliance with any applicable law or regulation, and to make any representation or warranty with respect thereto as may be requested by the Company.

(g) Fractional Shares. The Company shall not be required to issue fractional shares upon the exercise of the Option.

5. Non-Transferability of the Option; Non-Alienation of Benefits. The Option may be exercised during the lifetime of the Optionee only by the Optionee and may not be assigned or transferred in any manner except by will or by the laws of descent and distribution. Following the death of the Optionee, the Option, to the extent unexercised and exercisable by the Optionee on the date of death, may be exercised by the Optionee's legal representative or by any person empowered to do so under the deceased Optionee's will or under the then applicable laws of descent and distribution.

Except with the prior written consent of the Company, subject to the foregoing, or as otherwise provided herein, no right or benefit under this Option Agreement shall be subject to anticipation, alienation, sale, assignment, pledge, encumbrance or charge, and any attempt to anticipate, alienate, sell, assign, pledge, encumber or charge the same without such consent, if applicable, shall be void. Except with such consent, no right or benefit under this Option Agreement shall in any manner be liable for or subject to the debts, contracts, liabilities or torts of the person entitled to such benefit. Except to the extent previously approved by the Company in writing, or as otherwise provided herein, if the Optionee should become bankrupt or attempt to anticipate, alienate, sell, assign, pledge, encumber or charge any right or benefit hereunder, then such right or benefit shall cease and terminate, and in such event, the Company may hold or apply the same or any part thereof for the benefit of the Optionee, the Optionee's spouse, children or other dependents, or any of them, in such manner and in such proportion as the Company may in its sole determination deem proper.

6. Termination of the Option. The Option shall terminate and may no longer be exercised on the first to occur of (a) the Option Term Date as defined above, (b) the last date for exercising the Option following termination of employment as described in paragraph 7 below, or (c) a Transfer of Control to the extent provided in paragraph 8 below.

7. Termination of Employment.

(a) Termination Other Than by Death or Disability. Except as otherwise provided below, if the Optionee ceases to be an employee of the Participating Company Group for any reason, except death or disability within the meaning of section 422(c) of the Code, the Option, to the extent unexercised and exercisable by the Optionee on the date on which the Optionee ceased to be an employee, may be exercised by the Optionee within thirty (30) days after the date on which the Optionee's employment terminated, but in any event no later than the Option Term date.

(b) Termination by Death or Disability. Except as otherwise provided below, if the Optionee's employment with the Company is terminated because of the death or disability of the Optionee within the meaning of section 422(c) of the Code, the Option, to the extent unexercised and exercisable by the Optionee on the date on which the Optionee ceased to be an employee, may be exercised by the Optionee (or the Optionee's legal representative) at any time

prior to the expiration of twelve (12) months from the date on which the Optionee's employment terminated, but in any event no later than the Option Term Date. The Optionee's employment shall be deemed to have terminated on account of death if the Optionee dies within three (3) months after the Optionee's termination of employment.

(c) Limitations on Exercise After Termination. Notwithstanding the provisions of paragraphs 7(a) and (b), the Option may not be exercised after the Optionee's termination of employment if the shares to be acquired on exercise of the Option would be Unvested Shares as that term is defined in paragraph 11 below. Except as provided in this paragraph 7, the Option shall terminate and may not be exercised after the Optionee ceases to be an employee of the Participating Company Group. Furthermore, the Board may at any time after the Optionee's termination of employment cancel the Option with respect to all or a portion of the shares otherwise remaining exercisable under the Option, if the Company finds or has found that the Optionee:

(i) Engaged in willful, deliberate or gross misconduct toward the Company;

(ii) Has violated the terms of any confidentiality agreement or obligation between the Optionee and the Company; or

(iii) Has accepted employment with an entity which the Company determines is in a business that could result in compromising any confidentiality agreement or obligation between the Optionee and the Company.

(d) Employee and Termination of Employment Defined. For purposes of this paragraph 7, the term "EMPLOYEE" shall mean any person, including officers and directors, employed by a Participating Company or performing services for a Participating Company as a director, consultant, advisor or other independent contractor. For purposes of this paragraph 7, the Optionee's employment shall be deemed to have terminated if the Optionee ceases to be employed by a Participating Company (whether upon an actual termination of employment or upon the Optionee's employer ceasing to be a Participating Company). The Optionee's employment shall not be deemed to have terminated merely because of a change in the capacity in which the Optionee serves as an employee, provided that there is no interruption or termination of the Optionee's service as an employee.

(e) Extension if Exercise Prevented by Law. Notwithstanding the foregoing, if the exercise of the Option within the applicable time periods set forth above is prevented by the provisions of paragraph 4(f) above, the Option shall remain exercisable until three (3) months after the date the Optionee is notified by the Company that the Option is exercisable, but in any event no later than the Option Term Date.

(f) Extension if Optionee Subject to Section 16(b). Notwithstanding the foregoing, if the exercise of the Option within the applicable time periods set forth above would subject the Optionee to suit under Section 16(b) of the Exchange Act, the Option shall remain exercisable until the earliest to occur of (i) the tenth (10th) day following the date on which the

Optionee would no longer be subject to such suit, (ii) the one hundred and ninetieth (190th) day after the Optionee's termination of employment, or (iii) the Option Term Date.

(g) Leave of Absence. For purposes hereof, the Optionee's employment with the Participating Company Group shall not be deemed to terminate if the Optionee takes any military leave, sick leave, or other bona fide leave of absence approved by the Company of ninety (90) days or less. In the event of a leave in excess of ninety (90) days, the Optionee's employment shall be deemed to terminate on the ninety-first (91st) day of the leave unless the Optionee's right to reemployment with the Participating Company Group remains guaranteed by statute or contract. Notwithstanding the foregoing, unless otherwise designated by the Company (or required by law) a leave of absence shall not be treated as employment for purposes of determining the Optionee's Vested Percentage.

8. A Transfer of Control.

(a) A "TRANSFER OF CONTROL" shall be deemed to have occurred in the event any of the events described in paragraph 11 of the Plan occurs with respect to the Company.

(b) In the event of a Transfer of Control, the surviving, continuing, successor, or purchasing corporation or parent corporation thereof, as the case may be (the "ACQUIRING CORPORATION"), shall either assume the Company's rights and obligations under this Option Agreement or substitute an option for the Acquiring Corporation's stock for the Option. In the event the Acquiring Corporation elects not to assume the Company's rights and obligations under this Option Agreement or substitute an option for the Acquiring Corporation's stock for the Option, all shares subject to this Option Agreement shall become Vested Shares (as defined in paragraph 11(b) below) effective as of the date thirty (30) days prior to the Proposed Effective Date.

(c) The exercise and/or vesting of any shares that was permissible solely by reason of this paragraph 8 shall be conditioned upon the consummation of the Transfer of Control. The Option shall terminate and cease to be outstanding effective upon the Transfer of Control to the extent that the Option is neither assumed or substituted for by the Acquiring Corporation in connection with the Transfer of Control nor exercised as of the date of the Transfer of Control.

9. Effect of Change in Stock Subject to the Option.

Appropriate adjustments shall be made in the number, exercise price, and class of shares of stock subject to the Option in the event of a stock dividend, stock split, reverse stock split, recapitalization, combination, reclassification, or like change in the capital structure of the Company. In the event a majority of the shares which are of the same class as the shares that are subject to the Option are exchanged for, converted into, or otherwise become (whether or not pursuant to an Ownership Change) shares of another corporation (the "NEW SHARES"), the Company may unilaterally amend the Option to provide that the Option is exercisable for New Shares. In the event of any such amendment, the number of shares and the exercise price shall be adjusted in a fair and equitable manner.

10. Rights as a Stockholder or Employee.

The Optionee shall have no rights as a stockholder with respect to any shares covered by the Option until the date of the issuance of a certificate or certificates for the shares for which the Option has been exercised. No adjustment shall be made for dividends or distributions or other rights for which the record date is prior to the date such certificate or certificates are issued, except as provided in paragraph 9 above. Nothing in the Option shall confer upon the Optionee any right to continue in the employ of a Participating Company or interfere in any way with any right of the Participating Company Group to terminate the Optionee's employment at any time.

11. Unvested Share Repurchase Option.

(a) Unvested Share Repurchase Option. In the event the Optionee's employment with the Participating Company Group is terminated for any reason, with or without cause, or if the Optionee or the Optionee's legal representative attempts to sell, exchange, transfer, pledge, or otherwise dispose of (other than pursuant to an Ownership Change) any shares acquired upon exercise of the Option which exceed the Optionee's Vested Shares as defined in paragraph 11(b) below (the "UNVESTED SHARES"), the Company shall have the right to repurchase the Unvested Shares under the terms and subject to the conditions set forth in this paragraph 11 (the "UNVESTED SHARE REPURCHASE OPTION").

(b) Vested Shares and Unvested Shares Defined. On any given date, the number of "VESTED SHARES" shall be equal to the Number of Option Shares multiplied by the Vested Percentage determined as of such date pursuant to paragraph 1(f) above and rounded down to the nearest whole share. On such date, the number of Unvested Shares shall be equal to the Number of Option Shares reduced by the number of Vested Shares determined as of such date.

(c) Exercise of Unvested Share Repurchase Option. The Company may exercise the Unvested Share Repurchase Option by written notice to the Optionee within six (6) months after (i) such termination of employment (or exercise of the Option, if later), or (ii) the Company has received notice of the attempted disposition. If the Company fails to give notice within such six (6) month period, the Unvested Share Repurchase Option shall terminate unless the Company and the Optionee have extended the time for the exercise of the Unvested Share Repurchase Option. The Unvested Share Repurchase Option must be exercised, if at all, for all of the Unvested Shares, except as the Company and the Optionee otherwise agree.

(d) Payment for Shares and Return of Shares. Payment by the Company to the Optionee shall be made in cash within thirty (30) days after the date of the mailing of the written notice of exercise of the Unvested Share Repurchase Option. For purposes of the foregoing, cancellation of any indebtedness of the Optionee to any Participating Company shall be treated as payment to the Optionee in cash to the extent of the unpaid principal and any accrued interest canceled. The purchase price per share being repurchased by the Company shall be an amount equal to the Optionee's original cost per share, as adjusted pursuant to paragraph 9 above (the "REPURCHASE PRICE"). The shares being repurchased shall be delivered to the Company by the Optionee at the same time as the delivery of the Repurchase Price to the Optionee.

(e) Assignment of Unvested Share Repurchase Option. The Company shall have the right to assign the Unvested Share Repurchase Option at any time, whether or not such option is then exercisable, to one (1) or more persons as may be selected by the Company.

(f) Ownership Change. In the event of an Ownership Change, any and all new, substituted or additional securities or other property to which the Optionee is entitled by reason of his or her ownership of Unvested Shares, determined after application of paragraph 8 above, shall be immediately subject to the Unvested Share Repurchase Option and included in the terms "shares" and "Unvested Shares" for all purposes of the Unvested Share Repurchase Option with the same force and effect as the Unvested Shares immediately prior to the Ownership Change. While the aggregate Repurchase Price shall remain the same after such Ownership Change, the Repurchase Price per Unvested Share upon exercise of the Unvested Share Repurchase Option following such Ownership Change shall be appropriately adjusted. For purposes of determining the Vested Percentage following an Ownership Change, credited service shall include (i) all service with any corporation which is a Participating Company at the time the services are rendered, whether or not such corporation is a Participating Company both before and after the event constituting the Ownership Change, and (ii) any additional service credited pursuant to paragraph 8(c).

12. Right of First Refusal.

(a) Right of First Refusal. Except as provided in paragraph 12(g) below, in the event the Optionee proposes to sell, pledge, or otherwise transfer any Vested Shares (the "TRANSFER SHARES") to any person or entity, including, without limitation, any stockholder of the Participating Company Group, the Company shall have the right to repurchase the Transfer Shares under the terms and subject to the conditions set forth in this paragraph 12 (the "RIGHT OF FIRST REFUSAL").

(b) Notice of Proposed Transfer. Prior to any proposed transfer of the Transfer Shares, the Optionee shall give a written notice (the "TRANSFER NOTICE") to the Company describing fully the proposed transfer, including the number of Transfer Shares, the name and address of the proposed transferee (the "PROPOSED TRANSFEREE") and, if the transfer is voluntary, the proposed transfer price and containing such information necessary to show the bona fide nature of the proposed transfer. In the event of a bona fide gift or involuntary transfer, the proposed transfer price shall be deemed to be the fair market value of the Transfer Shares as determined by the Company in good faith. In the event the Optionee proposes to transfer any Transfer Shares to more than one (1) Proposed Transferee, the Optionee shall provide a separate Transfer Notice for the proposed transfer to each Proposed Transferee. The Transfer Notice shall be signed by both the Optionee and the Proposed Transferee and must constitute a binding commitment of the Optionee and the Proposed Transferee for the transfer of the Transfer Shares to the Proposed Transferee subject only to the Right of First Refusal.

(c) Bona Fide Transfer. In the event that the Company shall determine that the information provided by the Optionee in the Transfer Notice is insufficient to establish the bona fide nature of a proposed voluntary transfer, the Company shall give the Optionee written

notice of the Optionee's failure to comply with the procedure described in this paragraph 12 and the Optionee shall have no right to transfer the Transfer Shares without first complying with the procedure described in this paragraph 12. The Optionee shall not be permitted to transfer the Transfer Shares if the proposed transfer is not bona fide.

(d) Exercise of Right of First Refusal. In the event the proposed transfer is deemed to be bona fide, the Company shall have the right to purchase all, but not less than all, of the Transfer Shares (except as the Company and the Optionee otherwise agree) at the purchase price and on the terms set forth in the Transfer Notice by delivery to the Optionee of a notice of exercise of the Right of First Refusal within thirty (30) days after the date the Transfer Notice is delivered to the Company. The Company's exercise or failure to exercise the Right of First Refusal with respect to any proposed transfer described in a Transfer Notice shall not affect the Company's right to exercise the Right of First Refusal with respect to any proposed transfer described in any other Transfer Notice, whether or not such other Transfer Notice is issued by the Optionee or issued by a person other than the Optionee with respect to a proposed transfer to the same Proposed Transferee. If the Company exercises the Right of First Refusal, the Company and the Optionee shall thereupon consummate the sale of the Transfer Shares to the Company on the terms set forth in the Transfer Notice within sixty (60) days after the date the Transfer Notice is delivered to the Company (unless a longer period is offered by the Proposed Transferee); provided, however, that in the event the Transfer Notice provides for the payment for the Transfer Shares other than in cash, the Company shall have the option of paying for the Transfer Shares by the present value cash equivalent of the consideration described in the Transfer Notice as reasonably determined by the Company. For purposes of the foregoing, cancellation of any indebtedness of the Optionee to any Participating Company shall be treated as payment to the Optionee in cash to the extent of the unpaid principal and any accrued interest canceled.

(e) Failure to Exercise Right of First Refusal. If the Company fails to exercise the Right of First Refusal in full within the period specified in paragraph 12(d) above, the Optionee may conclude a transfer to the Proposed Transferee of the Transfer Shares on the terms and conditions described in the Transfer Notice, provided such transfer occurs not later than ninety (90) days following delivery to the Company of the Transfer Notice. The Company shall have the right to demand further assurances from the Optionee and the Proposed Transferee (in a form satisfactory to the Company) that the transfer of the Transfer Shares was actually carried out on the terms and conditions described in the Transfer Notice. No Transfer Shares shall be transferred on the books of the Company until the Company has received such assurances, if so demanded, and has approved the proposed transfer as bona fide. Any proposed transfer on terms and conditions different from those described in the Transfer Notice, as well as any subsequent proposed transfer by the Optionee, shall again be subject to the Right of First Refusal and shall require compliance by the Optionee with the procedure described in this paragraph 12.

(f) Transferees of Transfer Shares. All transferees of the Transfer Shares or any interest therein, other than the Company, shall be required as a condition of such transfer to agree in writing (in a form satisfactory to the Company) that such transferee shall receive and hold such Transfer Shares or interests subject to the provisions of this paragraph 12 providing for the Right of First Refusal with respect to any subsequent transfer. Any sale or transfer of any

shares acquired upon exercise of the Option shall be void unless the provisions of this paragraph 12 are met.

(g) Transfers Not Subject to Right of First Refusal. Notwithstanding the foregoing, the Right of First Refusal shall not apply to any transfer or exchange of the shares acquired pursuant to the exercise of the Option if such transfer or exchange is in connection with an Ownership Change. If the consideration received pursuant to such transfer or exchange consists of stock of a Participating Company, such consideration shall remain subject to the Right of First Refusal unless the provisions of paragraph 12(i) below result in a termination of the Right of First Refusal. Furthermore, notwithstanding the foregoing, the Right of First Refusal shall not apply to a transfer of Transfer Shares to the Optionee's ancestors, descendants, or spouse or to a trustee solely for the benefit of the Optionee or the Optionee's ancestors, descendants, or spouse, or to a charitable institution; provided, however, that such transferee shall agree in writing (in a form satisfactory to the Company) to take the stock subject to all the terms and conditions of this paragraph 12 providing for a Right of First Refusal with respect to any subsequent transfer.

(h) Assignment of Right of First Refusal. The Company shall have the right to assign the Right of First Refusal at any time, whether or not the Optionee has attempted a transfer, to one (1) or more persons as may be selected by the Company.

(i) Early Termination of Right of First Refusal. The other provisions of this paragraph 12 notwithstanding, the Right of First Refusal shall terminate, and be of no further force and effect, upon (i) the occurrence of a Transfer of Control, unless the surviving, continuing, successor, or purchasing corporation or parent corporation thereof, as the case may be, assumes the Company's rights and obligations under the Plan, or (ii) the existence of a public market for the class of shares subject to the Right of First Refusal. A "public market" shall be deemed to exist if (x) such stock is listed on a national securities exchange (as that term is used in the Exchange Act), or (y) such stock is traded on the over-the-counter market and prices therefor are published daily on business days in a recognized financial journal.

13. Escrow.

(a) Establishment of Escrow. To ensure that shares subject to the Unvested Share Repurchase Option, the Right of First Refusal and/or security for any promissory note will be available for repurchase, the Company may require the Optionee to deposit the certificate or certificates evidencing the shares which the Optionee purchases upon exercise of the Option with the Company or other escrow agent designated by the Company under the terms and conditions of escrow and security agreements approved by the Company. If the Company does not require such deposit as a condition of exercise of the Option, or if the Company releases the certificate or certificates from escrow prior to the lapsing of all such restrictions and/or security interest, the Company reserves the right at any time to require the Optionee to so deposit the certificate or certificates in escrow. The Company shall bear the expenses of the escrow.

(b) Delivery of Shares to Optionee. As soon as practicable after the expiration of the Unvested Share Repurchase Option and the Right of First Refusal, and after full repayment

on any promissory note secured by the shares in escrow, the escrow agent shall deliver to the Optionee the shares no longer subject to such restrictions and no longer security for any promissory note.

(c) Notices and Payments. In the event the shares held in escrow are subject to the Company's exercise of the Unvested Share Repurchase Option or the Right of First Refusal, the notices required to be given to the Optionee shall be given to the escrow agent and any payment required to be given to the Optionee shall be given to the escrow agent. Within thirty (30) days after payment by the Company, the escrow agent shall deliver the shares which the Company has purchased to the Company and shall deliver the payment received from the Company to the Optionee.

14. Stock Dividends Subject to Option Agreement.

If, from time to time, there is any stock dividend, stock split, or other change in the character or amount of any of the outstanding stock of the corporation the stock of which is subject to the provisions of this Option Agreement, then in such event any and all new, substituted or additional securities to which the Optionee is entitled by reason of the Optionee's ownership of the shares acquired upon exercise of the Option shall be immediately subject to the Unvested Share Repurchase Option, the Right of First Refusal, and/or any security interest held by the Company with the same force and effect as the shares subject to the Unvested Share Repurchase Option, the Right of First Refusal, and such security interest immediately before such event.

15. Legends.

The Company may at any time place legends referencing the Unvested Share Repurchase Option set forth in paragraph 11 above, the Right of First Refusal set forth in paragraph 12 above, and any applicable federal, state or foreign securities law restrictions on all certificates representing shares of stock subject to the provisions of this Option Agreement. The Optionee shall, at the request of the Company, promptly present to the Company any and all certificates representing shares acquired pursuant to the Option in the possession of the Optionee in order to carry out the provisions of this paragraph. Unless otherwise specified by the Company, legends placed on such certificates may include, but shall not be limited to, the following:

(a) "THE SECURITIES EVIDENCED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, AND MAY NOT BE SOLD, TRANSFERRED, ASSIGNED OR HYPOTHECATED UNLESS THERE IS AN EFFECTIVE REGISTRATION STATEMENT UNDER SUCH ACT COVERING SUCH SECURITIES, THE SALE IS MADE IN ACCORDANCE WITH RULE 144 OR RULE 701 UNDER THE ACT, OR THE COMPANY RECEIVES AN OPINION OF COUNSEL FOR THE HOLDER OF THESE SECURITIES REASONABLY SATISFACTORY TO THE COMPANY, STATING THAT SUCH SALE, TRANSFER, ASSIGNMENT OR HYPOTHECATION IS EXEMPT FROM THE REGISTRATION AND PROSPECTUS DELIVERY REQUIREMENTS OF SUCH ACT."

(b) "THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO AN UNVESTED SHARE REPURCHASE OPTION IN FAVOR OF THE CORPORATION OR ITS ASSIGNEE SET FORTH IN AN AGREEMENT BETWEEN THE

CORPORATION AND THE REGISTERED HOLDER, OR SUCH HOLDER'S PREDECESSOR IN INTEREST, A COPY OF WHICH IS ON FILE AT THE PRINCIPAL OFFICE OF THIS CORPORATION."

(c) "THE SHARES REPRESENTED BY THIS CERTIFICATE ARE

SUBJECT TO A RIGHT OF FIRST REFUSAL OPTION IN FAVOR OF THE CORPORATION OR ITS ASSIGNEE SET FORTH IN AN AGREEMENT BETWEEN THE CORPORATION AND THE REGISTERED HOLDER, OR SUCH HOLDER'S PREDECESSOR IN INTEREST, A COPY OF WHICH IS ON FILE AT THE PRINCIPAL OFFICE OF THIS CORPORATION."

16. Initial Public Offering.

The Optionee hereby agrees that in the event of an initial public offering of stock made by the Company pursuant to an effective registration statement filed under the Securities Act, the Optionee shall not offer, sell, contract to sell, pledge, hypothecate, grant any option to purchase or make any short sale of, or otherwise dispose of any shares of stock of the Company or any rights to acquire stock of the Company for such period of time from and after the effective date of such registration statement as may be established by the underwriter for such initial public offering; provided, however, that such period of time shall not exceed two hundred seventy (270) days from the effective date of the registration statement to be filed in connection with such initial public offering. The foregoing limitation shall not apply to shares registered in the initial public offering under the Securities Act. The Optionee shall be subject to this paragraph provided and only if the officers and directors of the Company are also subject to similar arrangements.

17. Binding Effect.

This Option Agreement shall inure to the benefit of and be binding upon the parties hereto and their respective heirs, executors, administrators, successors and assigns.

18. Termination or Amendment.

The Board, including any duly appointed committee of the Board, may terminate or amend the Plan and/or the Option at any time; provided, however, that no such termination or amendment may adversely affect the Option or any unexercised portion hereof without the consent of the Optionee.

19. Integrated Agreement.

This Option Agreement constitutes the entire understanding and agreement of the Optionee and the Participating Company Group with respect to the subject matter contained herein, and there are no agreements, understandings, restrictions, representations, or warranties among the Optionee and the Company other than those as set forth or provided for herein. To the extent contemplated herein, the provisions of this Option Agreement shall survive any exercise of the Option and shall remain in full force and effect.

20. Applicable Law.

This Option Agreement shall be governed by the laws of the State of Maryland as such laws are applied to agreements between Maryland residents entered into and to be performed entirely within the State of Maryland.

CIENA CORPORATION

By:

Title: Vice President, Finance
Chief Financial Officer

The Optionee represents that the Optionee is familiar with the terms and provisions of this Option Agreement including the Unvested Share Repurchase Option set forth in paragraph 11 and the Right of First Refusal set forth in paragraph 12 and hereby accepts the Option subject to all of the terms and provisions thereof. The Optionee hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Board upon any questions arising under this Option Agreement. The undersigned acknowledges receipt of a copy of the Plan.

OPTIONEE

Date:

The undersigned, being the spouse of the above-named Optionee, does hereby acknowledge that the undersigned has read and is familiar with the provisions of the above Option Agreement, and the undersigned hereby agrees thereto and joins therein to the extent, if any, that the agreement and joinder of the undersigned may be necessary.

OPTIONEE

Date:

EXHIBIT A
TO
STOCK OPTION AGREEMENT

(a) "Date of Option Grant" shall mean {grant_date}.

(b) "Number of Option Shares" shall mean {shares} shares of common stock of the Company.

(c) "Exercise Price" shall mean {price} per share.

(d) "Initial Vesting Date" shall be the last day of the calendar month in which occurs the date one (1) year after the following date: {vesting_date}.

CIENA CORPORATION

1996 OUTSIDE DIRECTORS STOCK OPTION PLAN

1. ESTABLISHMENT, PURPOSE AND TERM OF PLAN.

1.1 ESTABLISHMENT. The Ciena Corporation 1996 Outside Directors Stock Option Plan (the "Plan") is hereby established effective as of June 21, 1996 (the "Effective Date").

1.2 PURPOSE. The purpose of the Plan is to advance the interests of the Participating Company Group and its stockholders by providing an incentive to attract and retain highly qualified persons to serve as Outside Directors of the Company and by creating additional incentive for Outside Directors to promote the growth and profitability of the Participating Company Group.

1.3 TERM OF PLAN. The Plan shall continue in effect until the earlier of its termination by the Board or the date on which all of the shares of Stock available for issuance under the Plan have been issued and all restrictions on such shares under the terms of the Plan and the agreements evidencing Options granted under the Plan have lapsed.

2. DEFINITIONS AND CONSTRUCTION.

2.1 DEFINITIONS. Whenever used herein, the following terms shall have their respective meanings set forth below:

(a) "BOARD" means the Board of Directors of the Company. If one or more Committees have been appointed by the Board to administer the Plan, "Board" also means such Committee(s).

(b) "CODE" means the Internal Revenue Code of 1986, as amended, and any applicable regulations promulgated thereunder.

(c) "COMMITTEE" means a committee of the Board duly appointed to administer the Plan and having such powers as shall be specified by the Board. Unless the powers of the Committee have been specifically limited, the Committee shall have all of the powers of the Board granted herein, including, without limitation, the power to amend or terminate the Plan at any time, subject to the terms of the Plan and any applicable limitations imposed by law.

(d) "COMPANY" means Ciena Corporation, a Delaware corporation, or any successor corporation thereto.

(e) "CONSULTANT" means any person, including an advisor, engaged by a Participating Company to render services other than as an Employee or a Director.

(f) "DIRECTOR" means a member of the Board or the board of directors of any other Participating Company.

(g) "EMPLOYEE" means any person treated as an employee (including an officer or a Director who is also treated as an employee) in the records of a Participating Company; provided, however, that neither service as a Director nor payment of a director's fee shall be sufficient to constitute employment for purposes of the Plan.

(h) "EXCHANGE ACT" means the Securities Exchange Act of 1934, as amended.

(i) "FAIR MARKET VALUE" means, as of any date, if there is then a public market for the Stock, the closing price of the Stock (or the mean of the closing bid and asked prices of the Stock if the Stock is so reported instead) as reported on the National Association of Securities Dealers Automated Quotation ("NASDAQ") System, the NASDAQ National Market System or such other national or regional securities exchange or market system constituting the primary market for the Stock. If the relevant date does not fall on a day on which the Stock is trading on NASDAQ, the NASDAQ National Market System or other national or regional securities exchange or market system, the date on which the Fair Market Value shall be established shall be the last day on which the Stock was so traded prior to the relevant date. If there is then no public market for the Stock, the Fair Market Value on any relevant date shall be as determined by the Board without regard to any restriction other than a restriction which, by its terms, will never lapse.

(j) "OPTION" means a right to purchase Stock (subject to adjustment as provided in Section 4.2) pursuant to the terms and conditions of the Plan.

(k) "OPTIONEE" means a person who has been granted one or more Options.

(l) "OPTION AGREEMENT" means a written agreement between the Company and an Optionee setting forth the terms, conditions and restrictions of the Option granted to the Optionee.

(m) "OUTSIDE DIRECTOR" means a Director of the Company who is not an Employee.

(n) "PARENT CORPORATION" means any present or future "parent corporation" of the Company, as defined in Section 424(e) of the Code.

(o) "PARTICIPATING COMPANY" means the Company or any Parent Corporation or Subsidiary Corporation.

(p) "PARTICIPATING COMPANY GROUP" means, at any point in time, all corporations collectively which are then Participating Companies.

(q) "RULE 16B-3" means Rule 16b-3 as promulgated under the Exchange Act, as amended from time to time, or any successor rule or regulation.

(r) "SERVICE" means the Optionee's service with the Participating Company Group, whether in the capacity of an Employee, a Director or a Consultant. The Optionee's Service shall not be deemed to have terminated merely because of a change in the capacity in which the Optionee renders Service to the Participating Company Group or a change in the Participating Company for which the Optionee renders such Service, provided that there is no interruption or termination of the Optionee's Service. The Optionee's Service shall be deemed to have terminated either upon an actual termination of Service or upon the corporation for which the Optionee performs Service ceasing to be a Participating Company.

(s) "STOCK" means the common stock, par value $0.01, of the Company, as adjusted from time to time in accordance with Section 4.2.

(t) "SUBSIDIARY CORPORATION" means any present or future "subsidiary corporation" of the Company, as defined in Section 424(f) of the Code.

2.2 CONSTRUCTION. Captions and titles contained herein are for convenience only and shall not affect the meaning or interpretation of any provision of the Plan. Except when otherwise indicated by the context, the singular shall include the plural, the plural shall include the singular, and use of the term "or" shall include the conjunctive as well as the disjunctive.

3. ADMINISTRATION.

3.1 ADMINISTRATION BY THE BOARD. The Plan shall be administered by the Board, including any duly appointed Committee of the Board. All questions of interpretation of the Plan or of any Option shall be determined by the Board, and such determinations shall be final and binding upon all persons having an interest in the Plan or such Option. Any officer of a Participating Company shall have the authority to act on behalf of the Company with respect to any matter, right, obligation, determination or election which is the responsibility of or which is allocated to the Company herein, provided the officer has apparent authority with respect to such matter, right, obligation, determination or election.

3.2 LIMITATIONS ON AUTHORITY OF THE BOARD. Notwithstanding any other provision herein to the contrary, the Board shall have no authority, discretion, or power to select the Outside Directors who will receive Options, to set the exercise price of the Options, to determine the number of shares of Stock to be subject to an Option or the time at which an Option shall be granted, to establish the duration of an Option, or to alter any other terms or conditions specified in the Plan, except in the sense of administering the Plan subject to the provisions of the Plan.

4. SHARES SUBJECT TO PLAN.

4.1 MAXIMUM NUMBER OF SHARES ISSUABLE. Subject to adjustment as provided in Section 4.2, the maximum aggregate number of shares of Stock that may be issued under the Plan shall be ONE HUNDRED FIFTY THOUSAND (150,000) and shall consist of authorized but unissued shares or reacquired shares of Stock or any combination thereof. If an outstanding Option for any reason expires or is terminated or canceled or shares of Stock acquired, subject to repurchase, upon the exercise of an Option are repurchased by the Company, the shares of Stock allocable to the unexercised portion of such Option, or such repurchased shares of Stock, shall again be available for issuance under the Plan.

4.2 ADJUSTMENTS FOR CHANGES IN CAPITAL STRUCTURE. In the event of any stock dividend, stock split, reverse stock split, recapitalization, combination, reclassification or similar change in the capital structure of the Company, appropriate adjustments shall be made in the number and class of shares subject to the Plan, to the "Initial Option" and "Annual Option" (as defined in Section 6.1), and to any outstanding Options, and in the exercise price of any outstanding Options. If a majority of the shares which are of the same class as the shares that are subject to outstanding Options are exchanged for, converted into, or otherwise become (whether or not pursuant to an "Ownership Change Event" as defined in Section 8.1) shares of another corporation (the "New Shares"), the Board may unilaterally amend the outstanding Options to provide that such Options are exercisable for New Shares. In the event of any such amendment,

the number of shares subject to, and the exercise price of, the outstanding Options shall be adjusted in a fair and equitable manner as determined by the Board, in its sole discretion. Notwithstanding the foregoing, any fractional share resulting from an adjustment pursuant to this Section 4.2 shall be rounded down to the nearest whole number, and in no event may the exercise price of any Option be decreased to an amount less than the par value, if any, of the stock subject to the Option.

5. ELIGIBILITY AND TYPE OF OPTIONS.

5.1 PERSONS ELIGIBLE FOR OPTIONS. An Option shall be granted only to a person who, at the time of grant, is an Outside Director.

5.2 OPTIONS AUTHORIZED. Options shall be nonstatutory stock options; that is, options which are not treated as incentive stock options within the meaning of Section 422(b) of the Code.

6. TERMS AND CONDITIONS OF OPTIONS. Options shall be evidenced by Option Agreements specifying the number of shares of Stock covered thereby, in such form as the Board shall from time to time establish. Option Agreements may incorporate all or any of the terms of the Plan by reference and shall comply with and be subject to the following terms and conditions:

6.1 AUTOMATIC GRANT OF OPTIONS. Subject to execution by an Outside Director of the appropriate Option Agreement, Options shall be granted automatically and without further action of the Board, as follows:

(a) INITIAL OPTION. Each person who (i) is elected an Outside Director on the Effective Date, or (ii) first becomes an Outside Director after the Effective Date shall be granted an Option to purchase FIFTEEN THOUSAND (15,000) shares of Stock on the Effective Date or the date he or she first becomes an Outside Director, respectively (an "Initial Option"). Notwithstanding anything herein to the contrary, an Initial Option shall not be granted to a Director of the Company who previously did not qualify as an Outside Director but subsequently becomes an Outside Director as a result of the termination of his or her status as an Employee.

(b) ANNUAL OPTION. Effective after the Company has a class of its securities registered under the Securities Exchange Act of 1934, as amended, each Outside Director (including any Director of the Company who previously did not qualify as an Outside Director but who subsequently becomes an Outside Director) shall be granted, on the date immediately following the date of each annual meeting of the stockholders of the Company (an "Annual Meeting") following which such person remains an Outside Director, an Option to purchase FIVE THOUSAND (5,000) shares of Stock (an "Annual Option"). Notwithstanding the foregoing, the number of shares that

may be purchased under an Annual Option by an Outside Director who has not served continuously as a Director of the Company for at least twelve (12) months as of the date immediately following the date of such Annual Meeting shall be FIVE THOUSAND (5,000) times a fraction, the numerator of which is the number of complete months the Outside Director has continuously served as a Director of the Company as of the date immediately following the Annual Meeting and the denominator of which is twelve (12).

(c) RIGHT TO DECLINE OPTION. Notwithstanding the foregoing, any person may elect not to receive an Option by delivering written notice of such election to the Board no later than the day prior to the date such Option would otherwise be granted. A person so declining an Option shall receive no payment or other consideration in lieu of such declined Option. A person who has declined an Option may revoke such election by delivering written notice of such revocation to the Board no later than the day prior to the date such Option would be granted pursuant to Section 6.1(a) or (b), as the case may be.

6.2 DISCRETION TO VARY OPTION SIZE. Notwithstanding any provision of the Plan to the contrary, the Board may, in its sole discretion, increase or decrease the number of shares of Stock that would otherwise be subject to one or more Initial Options or Annual Options to be granted pursuant to Section 6.1 if, at the time of such exercise of discretion, (a) the "disinterested administration" provisions contained in paragraph (c)(2)(i) of Rule 16b-3 are no longer applicable to any employee benefit plan maintained by a Participating Company and (b) the exercise of such discretion would not otherwise preclude any transaction in an equity security of the Company by an officer or Director of a Participating Company from being exempt from Section 16(b) of the Exchange Act pursuant to Rule 16b-3.

6.3 EXERCISE PRICE. The exercise price per share of Stock subject to an Option shall be the Fair Market Value of a share of Stock on the date the Option is granted.

6.4 EXERCISE PERIOD. Each Option shall terminate and cease to be exercisable on the date ten (10) years after the date of grant of the Option unless earlier terminated pursuant to the terms of the Plan or the Option Agreement.

6.5 RIGHT TO EXERCISE OPTIONS.

(a) INITIAL OPTION. Except as otherwise provided in the Plan or in the Option Agreement, an Initial Option shall (i) first become exercisable on the date which is one (1) year after the date on which the Initial Option was granted (the "Initial Option Vesting Date"); and (ii) be exercisable on and after the Initial Option Vesting Date and prior to the termination thereof in an amount equal to the number of shares of Stock initially subject to the Initial Option multiplied by the Vested Ratio as set forth below, less the number of shares previously acquired upon exercise thereof. The Vested Ratio described in the preceding sentence shall be determined as follows:

	Vested Ratio
Prior to Initial Option Vesting Date	0
On Initial Option Vesting Date, provided the Optionee's Service is continuous from the date of grant of the Initial Option until the Initial Option Vesting Date	1/3
Plus	
For each full year of of the Optionee's continuous Service from the Initial Option Vesting Date until the Vested Ratio equals 1/1, an additional	1/3

(b) ANNUAL OPTION. Each Annual Option grant shall be exercisable in full one year after the date of grant of such Annual Option.

6.6 PAYMENT OF EXERCISE PRICE.

(a) FORMS OF CONSIDERATION AUTHORIZED. Except as otherwise provided below, payment of the exercise price for the number of shares of Stock being purchased pursuant to any Option shall be made (i) in cash, by check, or cash equivalent, (ii) by tender to the Company of shares of Stock owned by the Optionee having a Fair Market Value not less than the exercise price, (iii) by the assignment of the proceeds of a sale or loan with respect to some or all of the shares being acquired upon the exercise of the Option (including, without limitation, through an exercise complying with the provisions of Regulation T as promulgated from time to time by the Board of

Governors of the Federal Reserve System) (a "Cashless Exercise"), or (iv) by any combination thereof.

(b) TENDER OF STOCK. Notwithstanding the foregoing, an Option may not be exercised by tender to the Company of shares of Stock to the extent such tender of Stock would constitute a violation of the provisions of any law, regulation or agreement restricting the redemption of the Company's stock. Unless otherwise provided by the Board, an Option may not be exercised by tender to the Company of shares of Stock unless such shares either have been owned by the Optionee for more than six (6) months or were not acquired, directly or indirectly, from the Company.

(c) CASHLESS EXERCISE. The Company reserves, at any and all times, the right, in the Company's sole and absolute discretion, to establish, decline to approve or terminate any program or procedures for the exercise of Options by means of a Cashless Exercise.

6.7 TAX WITHHOLDING. The Company shall have the right, but not the obligation, to deduct from the shares of Stock issuable upon the exercise of an Option, or to accept from the Optionee the tender of, a number of whole shares of Stock having a Fair Market Value equal to all or any part of the federal, state, local and foreign taxes, if any, required by law to be withheld by the Participating Company Group with respect to such Option or the shares acquired upon exercise thereof. Alternatively or in addition, in its sole discretion, the Company shall have the right to require the Optionee to make adequate provision for any such tax withholding obligations of the Participating Company Group arising in connection with the Option or the shares acquired upon exercise thereof. The Company shall have no obligation to deliver shares of Stock until the Participating Company Group's tax withholding obligations have been satisfied.

7. STANDARD FORM OF OPTION AGREEMENT.

7.1 INITIAL OPTION. Unless otherwise provided for by the Board at the time an Initial Option is granted, each Initial Option shall comply with and be subject to the terms and conditions set forth in the form of Nonstatutory Stock Option Agreement for Outside Directors (Initial Option) adopted by the Board concurrently with its adoption of the Plan and as amended from time to time.

7.2 ANNUAL OPTION. Unless otherwise provided for by the Board at the time an Annual Option is granted, each Annual Option shall comply with and be subject to the terms and conditions set forth in the form of Nonstatutory Stock Option Agreement for Outside Directors (Annual Option) adopted by the Board concurrently with its adoption of the Plan and as amended from time to time.

7.3 AUTHORITY TO VARY TERMS. Subject to the limitations set forth in Section 3.2, the Board shall have the authority from time to time to vary the terms of any of the standard forms of Option Agreement described in this Section 7 either in connection with the grant or amendment of an individual Option or in connection with the authorization of a new standard form or forms; provided, however, that the terms and conditions of any such new, revised or amended standard form or forms of Option Agreement are not inconsistent with the terms of the Plan. Such authority shall include, but not by way of limitation, the authority to grant Options which are immediately exercisable subject to the Company's right to repurchase any unvested shares of Stock acquired by the Optionee upon the exercise of an Option in the event such Optionee's Service is terminated for any reason. In no event, however, shall the Board be permitted to vary the terms of any standard form of Option Agreement if such change would cause the Plan to cease to qualify as a formula plan pursuant to Rule 16b-3 at any such time as any class of equity security of the Company is registered pursuant to Section 12 of the Exchange Act.

8. TRANSFER OF CONTROL. A "TRANSFER OF CONTROL" shall be deemed to have occurred in the event any of the following occurs with respect to the Company.

(a) the direct or indirect sale or exchange by the stockholders of the Company of all or substantially all of the stock of the Company where the stockholders of the Company before such sale or exchange do not retain, directly or indirectly, at least a majority of the beneficial interest in the voting stock of the Acquiring Corporation as defined below after such sale or exchange;

(b) a merger or consolidation where the stockholders of the Company before such merger or consolidation do not retain, directly or indirectly, at least a majority of the beneficial interest in the voting stock of the Acquiring Corporation as defined below after such merger or consolidation;

(c) the sale, exchange, or transfer of all or substantially all of the assets of the Company (other than a sale, exchange, or transfer to one (1) or more subsidiary corporations (as defined in paragraph 1 above) of the Company); or

(d) a liquidation or dissolution of the Company.

Thirty (30) days prior the proposed effective date of any Transfer of Control, each Optionee under a stock option agreement outstanding for 335 days or more shall be credited, as of the proposed effective date of the Transfer of Control, and if still serving as a director of the Company on that date, with 100% of such shares, for purposes of determining the percentage of shares which shall be immediately

exercisable and/or fully vested under each such stock option agreement. Other options, except as set forth below, shall not be affected.

Furthermore, in the event of a Transfer of Control, the surviving, continuing, successor, or purchasing corporation or parent corporation thereof, as the case may be (the "ACQUIRING CORPORATION"), shall either assume the Company's rights and obligations under outstanding stock option agreements or substitute options for the Acquiring Corporation's stock for such outstanding Options. In the event the Acquiring Corporation elects not to assume or substitute for such outstanding Options in connection with the Transfer of Control, any unexercisable and/or unvested shares subject to such outstanding stock option agreements shall be immediately exercisable and fully vested as of the date thirty (30) days prior to the proposed effective date of the Transfer of Control. The exercise and/or vesting of any Option that was permissible solely by reason of this paragraph 8 shall be conditioned upon the consummation of the Transfer of Control. Any Options which are neither assumed or substituted for by the Acquiring Corporation in connection with the Transfer of Control nor exercised as of the date of the Transfer of Control shall terminate and cease to be outstanding effective as of the date of the Transfer of Control.

9. NONTRANSFERABILITY OF OPTIONS. During the lifetime of the Optionee, an Option shall be exercisable only by the Optionee or the Optionee's guardian or legal representative. No Option shall be assignable or transferable by the Optionee, except by will or by the laws of descent and distribution.

10. INDEMNIFICATION. In addition to such other rights of indemnification as they may have as members of the Board or officers or employees of the Participating Company Group, members of the Board and any officers or employees of the Participating Company Group to whom authority to act for the Board is delegated shall be indemnified by the Company against all reasonable expenses, including attorneys' fees, actually and necessarily incurred in connection with the defense of any action, suit or proceeding, or in connection with any appeal therein, to which they or any of them may be a party by reason of any action taken or failure to act under or in connection with the Plan, or any right granted hereunder, and against all amounts paid by them in settlement thereof (provided such settlement is approved by independent legal counsel selected by the Company) or paid by them in satisfaction of a judgment in any such action, suit or proceeding, except in relation to matters as to which it shall be adjudged in such action, suit or proceeding that such person is liable for gross negligence, bad faith or intentional misconduct in duties; provided, however, that within sixty (60) days after the institution of such action, suit or proceeding, such person shall offer to the Company, in writing, the opportunity at its own expense to handle and defend the same.

11. TERMINATION OR AMENDMENT OF PLAN. The Board may terminate or amend the Plan at any time. However, subject to changes in the law or other legal requirements that would permit otherwise, without the approval of the Company's stockholders, there shall be (a) no increase in the total number of shares of Stock that may be issued under the Plan (except by operation of the provisions of Section 4.2), and (b) no expansion in the class of persons eligible to receive Options. Furthermore, to the extent required by Rule 16b-3, provisions of the Plan addressing eligibility to participate in the Plan and the amount, price and timing of Options shall not be amended more than once every six (6) months, other than to comport with changes in the Code, the Employee Retirement Income Security Act of 1974, as amended, or the rules thereunder. In any event, no termination or amendment of the Plan may adversely affect any then outstanding Option, or any unexercised portion thereof, without the consent of the Optionee, unless such termination or amendment is necessary to comply with any applicable law or government regulation.

IN WITNESS WHEREOF, the undersigned Secretary of the Company certifies that the foregoing Ciena Corporation 1996 Outside Directors Stock Option Plan was duly adopted by the Board on June 21, 1996.

Secretary

/s/ G. ERIC GEORGATOS

STANDARD FORM OF

CIENA CORPORATION

NONSTATUTORY STOCK OPTION AGREEMENT

FOR OUTSIDE DIRECTORS

(INITIAL OPTION)

STANDARD FORM OF

CIENA CORPORATION

NONSTATUTORY STOCK OPTION AGREEMENT

FOR OUTSIDE DIRECTORS

(INITIAL OPTION)

THIS NONSTATUTORY STOCK OPTION AGREEMENT FOR OUTSIDE DIRECTORS (INITIAL OPTIONS) (the "Option Agreement") is made and entered into as of _____, 199_, by and between Ciena Corporation and _____ (the "Optionee")

The Company has granted to the Optionee an option to purchase certain shares of Stock, upon the terms and conditions set forth in this Option Agreement (the "Option").

A. DEFINITIONS AND CONSTRUCTION.

1. DEFINITIONS. Whenever used herein, the following terms shall have their respective meanings set forth below:

a. "DATE OF OPTION GRANT" means _____ ,199_.

b. "NUMBER OF OPTION SHARES" means _____ (____) shares of Stock (the number of shared set forth in Section 6.1(a) of the Plan), as adjusted from time to time pursuant to Section I.

c. "EXERCISE PRICE" means $_____ per share of Stock, as adjusted from time to time pursuant to Section I.

d. "INITIAL EXERCISE DATE" means the Initial Vesting Date.

e. "INITIAL VESTING DATE" means the date occurring one (1) year after the Date of Option Grant.

f. "VESTED RATIO" means, on any relevant date, the ratio determined as follows:

	Vested Ratio
Prior to Initial Vesting Date	0
On Initial Vesting Date, provided the Optionee's Service is continuous from the Date of Option Grant until the Initial Vesting Date	1/3
Plus	
For each full year of the Optionee's continuous Service from the Initial Vesting Date until the Vested Ratio equals 1/1, an additional	1/3

g. "OPTION EXPIRATION DATE" means the date ten (10) years after the Date of Option Grant

h. "BOARD" means the Board of Directors of the Company. If one or more Committees have been appointed by the Board to administer the Plan, "Board" shall also mean such Committee(s).

i. "CODE" means the Internal Revenue Code of 1986, as amended, and any applicable regulations promulgated thereunder.

j. "COMMITTEE" means a committee of the Board duly appointed to administer the Plan and having such powers as shall be specified by the Board. Unless the powers of the Committee have been specifically limited, the Committee shall have all of the powers of the Board granted in the Plan, including, without limitation, the power to amend or terminate the Plan at any time, subject to the terms of the Plan and any applicable limitations imposed by law.

k. "COMPANY" means Ciena Corporation a Delaware corporation, or any successor corporation thereto.

l. "CONSULTANT" means any person, including an advisor, engaged by a Participating Company to render services other than as an Employee or a Director.

m. "DIRECTOR" means a member of the Board or the board of directors of any other Participating Company.

n. "DISABILITY" means the permanent and total disability of the Optionee within the meaning of Section 22(e)(3) of the Code.

o. "EMPLOYEE" means the person treated as an employee (including an officer or a Director who is also treated as an employee) in the records of a Participating Company; provided, however, that neither service as a Director nor payment of a director's fee shall be sufficient to constitute employment for purposes of the Plan.

p. "EXCHANGE ACT" means the Securities Exchange Act of 1934, as amended.

q. "FAIR MARKET VALUE" means, as of any date, if there is then a public market for the Stock, the closing price of the Stock (or the mean of the closing bid and asked prices of the Stock if the Stock is so reported instead) as reported on the National Association of Securities Dealers Automated Quotation ("NASDAQ") System, the NASDAQ National Market System or such other national or regional securities exchange or market system constituting the primary market for the Stock. If the relevant date does not fall on a day on which the Stock is trading on NASDAQ, the NASDAQ National Market System or other national or regional securities exchange or market system, the date on which the Fair Market Value shall be established shall be the last day on which the Stock was so traded prior to the relevant date. If there is then no public market for the Stock, the Fair Market Value on any relevant date shall be as determined by the Board without regard to any restriction other than a restriction which, by its terms, will never lapse.

r. "PARENT CORPORATION" means any present or future "parent corporation" of the Company, as defined in Section 424(e) of the Code.

s. "PARTICIPATING COMPANY" means the Company or any Parent Corporation or Subsidiary Corporation.

t. "PARTICIPATING COMPANY GROUP" means, at any point in time, all corporations collectively which are then Participating Companies.

u. "PLAN" means the Ciena Corporation 1996 Outside Directors Stock Option Plan.

v. "RULE 16B-3" means Rule 16b-3 as promulgated under the Exchange Act, as amended from time to time, or any successor rule or regulation.

w. "SECURITIES ACT" means the Securities Act of 1933, as amended.

x. "SERVICE" means the Optionee's service with the Participating Company Group, whether in the capacity of an Employee, a Director or a Consultant. The Optionee's Service shall not be deemed to have terminated

merely because of a change in the capacity in which the Optionee renders Service to the Participating Company Group or a change in the Participating Company for which the Optionee renders such Service, provided that there is no interruption or termination of the Optionee's Service. The Optionee's Service shall be deemed to have terminated either upon an actual termination of Service or upon the corporation for which the Optionee performs Service ceasing to be a Participating Company.

y. "STOCK" means the common stock, par value $0.01, of the Company, as adjusted from time to time in accordance with Section I.

z. "SUBSIDIARY CORPORATION" means any present or future "subsidiary corporation" of the Company, as defined in Section 424(f) of the Code.

2. CONSTRUCTION. Captions and titles contained herein are for convenience only and shall not affect the meaning or interpretation of any provision of this Option Agreement. Except when otherwise indicated by the context, the singular shall include the plural, the plural shall include the singular, and the term "or" shall include the conjunctive as well as the disjunctive.

B. TAX STATUS OF THE OPTION. This Option is intended to be a nonstatutory stock option and shall not be treated as an incentive stock option within the meaning of Section 422(b) of the Code.

C. ADMINISTRATION. All questions of interpretation concerning this Option Agreement shall be determined by the Board, including any duly appointed Committee of the Board. All determinations by the Board shall be final and binding upon all persons having an interest in the Option. Any officer of a Participating Company shall have the authority to act on behalf of the Company with respect to any matter, right, obligation, or election which is the responsibility of or which is allocated to the Company herein, provided the officer has apparent authority with respect to such matter, right, obligation, or election.

D. EXERCISE OF THE OPTION.

1. RIGHT TO EXERCISE.

a. Except as otherwise provide herein, the Option, shall be exercisable on and after the Initial Exercise Date and prior to the termination of the Option (as provided in Section F) in an amount not to exceed the Number of Option Shares multiplied by the Vested Ratio less the number of shares previously acquired upon exercise of the Option. In no event shall the Option be exercisable for more shares than the Number of Option Shares.

b. Notwithstanding the foregoing, in the event that the adoption of the Plan or any amendment of the Plan is subject to the approval of the

Company's stockholders in order for the Plan or the grant of the Option to comply with the requirements of Rule 16b-3, the Option shall not be exercisable prior to such stockholder approval.

2. METHOD OF EXERCISE. Exercise of the Option shall be by written notice to the Company which must state the election to exercise the Option, the number of whole shares of Stock for which the Option is being exercised and such other representations and agreements as to the Optionee's investment intent with respect to such shares as may be required pursuant to the provisions of this Option Agreement. The written notice must be signed by the Optionee and must be delivered in person, by certified or registered mail, return receipt requested, by confirmed facsimile transmission, or by such other means as the Company may permit, to the Chief Financial Officer of the Company, or other authorized representative of the Participating Company Group, prior to the termination of the Option as set forth in Section F, accompanied by full payment of the aggregate Exercise Price for the number of shares of Stock being purchased. The Option shall be deemed to be exercised upon receipt by the Company of such written notice and the aggregate Exercise Price.

3. PAYMENT OF EXERCISE PRICE.

a. FORMS OF CONSIDERATION AUTHORIZED. Except as otherwise provided below, payment of the aggregate Exercise Price for the number of shares of Stock for which the Option is being exercised shall be made (i) in cash, by check, or cash equivalent, (ii) by tender to the Company of whole shares of Stock owned by the Optionee having a Fair Market Value not less than the aggregate Exercise Price, (iii) by means of a Cashless Exercise, as defined in Section D.3(c), or (iv) by any combination of the foregoing.

b. TENDER OF STOCK. Notwithstanding for foregoing, he Option may not be exercised by tender to the Company of shares of Stock to the extent such tender of Stock would constitute a violation of the provisions of any law, regulation or agreement restricting the redemption of the Company's stock. The Option may not be exercised by tender to the Company of shares of Stock unless such shares either have been owned by the Optionee for more than six (6) months or were not acquired, directly or indirectly, from the Company.

c. CASHLESS EXERCISE. A "Cashless Exercise" means the assignment in a form acceptable to the Company of the proceeds of a sale or loan with respect to some or all of the shares of Stock acquired upon the exercise of the Option pursuant to a program or procedure approved by the Company (including, without limitation, through an exercise complying with the provisions of Regulation T as promulgated from time to time by the Board of Governors of the Federal Reserve System). The Company reserves, at any and all times, the right, in the

Company's sole and absolute discretion, to decline to approve or terminate any such program or procedure.

4. TAX WITHHOLDING. At the time the Option is exercised, in whole or in part, or at any time thereafter as requested by the Company, the Optionee agrees to make adequate provision for any sums required to satisfy the federal, state, local and foreign tax withholding obligations of the Participating Company Group, if any, which arise in connection with the Option, including, without limitation, obligations arising upon (i) the exercise, in whole or in part, of the Option, (ii) the transfer, in whole or in part, of any shares acquired upon exercise of the Option, or (iii) the lapsing of any restriction with respect to any shares acquired upon exercise of the Option.

5. CERTIFICATE REGISTRATION. Except in the event the Exercise Price is paid by means of a Cashless Exercise, the certificate for the shares as to which the Option is exercised shall be registered in the name of the Optionee, or, if applicable, the heirs of the Optionee.

6. RESTRICTIONS ON GRANT OF THE OPTION AND ISSUANCE OF SHARES. The grant of the Option and the issuance of shares of Stock upon exercise of the Option shall be subject to compliance with all applicable requirements of federal, state or foreign law with respect to compliance with all applicable requirements of federal, state or foreign law with respect to such securities. The Option may not be exercised if the issuance of shares of Stock upon exercise would constitute a violation of any applicable federal, state or foreign securities laws or other law or regulations or the requirements of any stock exchange or market system upon which the Stock may not be listed. In addition, the Option may not be exercised unless (i) a registration statement under the Securities Act shall at the time of exercise of the Option be in effect with respect to the shares issuable upon exercise of the Option or (ii) in the opinion of legal counsel to the Company, the shares issuable upon exercise of the Option may be issued in accordance with the terms of an application exemption from the registration requirements of the Securities Act. THE OPTIONEE IS CAUTIONED THAT THE OPTION MAY NOT BE EXERCISED UNLESS THE FOREGOING CONDITIONS ARE SATISFIED. ACCORDINGLY, THE OPTIONEE MAY NOT BE ABLE TO EXERCISE THE OPTION WHEN DESIRED EVEN THOUGH THE OPTION IS VESTED. The inability of the Company to obtain from any regulatory body having jurisdiction the authority, if any, deemed by the Company's legal counsel to be necessary to the lawful issuance and sale of any shares subject to the Option shall relieve the Company of any liability in respect of the failure to issue or sell such shares as to which such requisite authority shall not have been obtained. As a condition to the exercise of the Option, the Company may require the Optionee to satisfy any qualifications that may be necessary or appropriate, to evidence compliance with any applicable law or regulation and to make any representation or warranty with respect thereto as may be requested by the Company.

7. FRACTIONAL SHARES. The Company shall not be required to issue fractional shares upon the exercise of the Option.

E. NONTRANSFERABILITY OF THE OPTION. The Option may be exercised during the lifetime of the Optionee only by the Optionee or the Optionee's guardian or legal representative and may be not be assigned or transferred in any manner except by will or by the laws of descent and distribution. Following the death of the Optionee, the Option, to the extent provided in Section G, may be exercised by the Optionee's legal representative or by any person empowered to do so under the deceased Optionee's will or under the then applicable laws of descent and distribution.

F. TERMINATION OF THE OPTION. The Option shall terminate and may no longer be exercised on the first to occur of (a) the Option Expiration Date, (b) the last date for exercising the Option following termination of the Optionee's Service as described in Section G, or (c) a Transfer of Control to the extent provided in Section H.

G. EFFECT OF TERMINATION OF SERVICE.

1. OPTION EXERCISABILITY.

a. DISABILITY. If the Optionee's Service with the Participating Company Group is terminated because of the Disability of the Optionee, the Option, to the extent unexercised and exercisable on the date on which the Optionee's Service terminated, may be exercised by the Optionee (or the Optionee's guardian or legal representative) at any time prior to the expiration of twelve (12) months after the date on which the Optionee's Service terminated, but in any event no later than the Option Expiration Date.

b. DEATH. If the Optionee's Service with the Participating company Group is terminated because of the death of the Optionee, the Option, to the extent unexercised and exercisable on the date on which the Optionee's Service terminated, may be exercised by the Optionee's legal representative or other person who acquired to right to exercise the Option by reason of the Optionee's death at any time prior to the expiration of twelve (12) months after the date on which the Optionee's Service terminated, but in any event no later than the Option Expiration Date. The Optionee's Service shall be deemed to have terminated on account of death if the Optionee dies within three (3) months after the Optionee's termination of Service.

c. OTHER TERMINATION OF SERVICE. If the Optionee's Service with the Participating Company Group terminates for any reason, except Disability or death, the Option, to the extent unexercised or exercisable by the Optionee on the date on which the Optionee's Service terminated, may be exercised

by the Optionee within three (3) months after the date on which the Optionee's Service terminated, but in any event no later than the Option Expiration Date.

2. EXTENSION IF EXERCISE PREVENTED BY LAW. Notwithstanding the foregoing, if the exercise of the Option within the applicable time periods set forth in Section G.1 is prevented by the provisions of Section D.6, the Option shall remain exercisable until three (3) months after the date the Optionee is notified by the Company that the Option is exercisable, but in any event no later than the Option Expiration Date.

3. EXTENSION IF OPTIONEE SUBJECT TO SECTION 16(B). Notwithstanding the foregoing, if a sale, within the applicable time periods set forth in Section G.1, of shares acquired upon the exercise of the Option would subject the Optionee to suit under Section 16(b) of the Exchange Act, the Option shall remain exercisable until the earliest to occur of (i) the tenth (10th) day following the date on which a sale of such shares by the Optionee would no longer be subject to such suit, (ii) the one hundred and ninetieth (190th) day after the Optionee's termination of Service, or (iii) the Option Expiration Date.

H. TRANSFER OF CONTROL. A "TRANSFER OF CONTROL" shall be deemed to have occurred in the event any of the foregoing occurs with respect to the Company.

(a) the direct or indirect sale or exchange by the stockholders of the Company of all or substantially all of the stock of the Company where the stockholders of the Company before such sale or exchange do not retain, directly or indirectly, at least a majority of the beneficial interest in the voting stock of the Acquiring Corporation as defined below after such sale or exchange;

(b) a merger or consolidation where the stockholders of the Company before such merger or consolidation do not retain, directly or indirectly, at least a majority of the beneficial interest in the voting stock of the Acquiring Corporation as defined below after such merger or consolidation;

(c) the sale, exchange, or transfer of all or substantially all of the assets of the Company (other than a sale, exchange, or transfer to one (1) or more subsidiary corporations (as defined in paragraph A.1 above) of the Company); or

(d) a liquidation or dissolution of the Company.

Thirty (30) days prior the proposed effective date of any Transfer of Control, each Optionee under a stock option agreement outstanding for 335 days or more shall be credited, as of the proposed effective date of the Transfer of Control, and if still serving as a director of the Company on that date, with 100% of such shares, for purposes of determining the percentage of shares which shall be

immediately exercisable and/or fully vested under each such stock option agreement. Other options, except as set forth below, shall not be affected.

Furthermore, in the event of a Transfer of Control, the surviving, continuing, successor, or purchasing corporation or parent corporation thereof, as the case may be (the "ACQUIRING CORPORATION"), shall either assume the Company's rights and obligations under outstanding stock option agreements or substitute options for the Acquiring Corporation's stock for such outstanding Options. In the event the Acquiring Corporation elects not to assume or substitute for such outstanding Options in connection with the Transfer of Control, any unexercisable and/or unvested shares subject to such outstanding stock option agreements shall be immediately exercisable and fully vested as of the date thirty (30) days prior to the proposed effective date of the Transfer of Control. The exercise and/or vesting of any Option that was permissible solely by reason of this paragraph H shall be conditioned upon the consummation of the Transfer of Control. Any Options which are neither assumed or substituted for by the Acquiring Corporation in connection with the Transfer of Control nor exercised as of the date of the Transfer of Control shall terminate and cease to be outstanding effective as of the date of the Transfer of Control.

I. ADJUSTMENTS FOR CHANGES IN CAPITAL STRUCTURE. In the event of any stock dividend, stock split, reverse stock split, recapitalization, combination, reclassification, or similar change in the capital structure of the Company, appropriate adjustments shall be made in the number, Exercise Price and class of shares of stock subject to the Option. If a majority of the shares which are of the same class as the shares that are subject to the Option are exchanged for, converted into, or otherwise become (whether or not pursuant to an Ownership Change Event) shares of another corporation (the "New Shares"), the Board may unilaterally amend the Option to provide that the Option is exercisable for New Shares. In the event of any such amendment, the Number of Option Shares and the Exercise price shall be adjusted in a fair and equitable manner, as determined by the Board, in its sole discretion. Notwithstanding the foregoing, any fractional share resulting from an adjustment pursuant to this Section I shall be rounded down to the nearest whole number, and in no event may the Exercise Price be decreased to an amount less than the par value, if any, of the stock subject to the Option.

J. RIGHTS AS A STOCKHOLDER. The Optionee shall have no rights as a stockholder with respect to any shares covered by the Option until the date of the issuance of a certificate for the shares for which the Option has been exercised (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company). No adjustment shall be made for dividends, distributions or other rights for which the record date is prior to the date such certificate is issued, except as provided in Section I.

K. LEGENDS. The Company may at any time place legends referencing any applicable federal, state or foreign securities law restrictions on all certificates representing shares of stock subject to the provisions of this Option Agreement. The Optionee shall, at the request of the Company, promptly present to the Company any and all certificates representing shares acquired pursuant to the Option in the possession of the Optionee in order to carry out the provisions of this Section.

L. BINDING EFFECT. Subject to the restrictions on transfer set forth herein, this Option Agreement shall inure to the benefit of and be binding upon the parties hereto and their respective heirs, executors, administrators, successors and assigns.

M. TERMINATION OR AMENDMENT. The Board may terminate or amend the Plan or the Option at any time; provided, however, that no such termination or amendment may adversely affect the Option or any unexercised portion hereof without the consent of the Optionee unless such termination or amendment is necessary to comply with any applicable law or government regulation. No amendment or addition to this Option Agreement shall be effective unless in writing.

N. INTEGRATED AGREEMENT. This Option Agreement constitutes the entire understanding and agreement of the Optionee and the Participating Company Group with respect to the subject matter contained herein, and there are no agreements, understandings, restrictions, representations, or warranties among the Optionee and the Participating Company Group with respect to such subject matter other than those as set forth or provided for herein. To the extent contemplated herein, the provisions of this Option Agreement shall survive any exercise of the Option and shall remain in full force and effect.

O. APPLICABLE LAW. This Option Agreement shall be governed by the laws of the State of Maryland as such laws are applied to agreements between Maryland residents entered into and to be performed entirely within the State of Maryland.

CIENA CORPORATION

By: ----------

Title: ----------

The Optionee represents that the Optionee is familiar with the terms and provisions of this Option Agreement and hereby accepts the Option subject to all of the terms and provisions thereof. The Optionee hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Board upon any questions arising under this Option Agreement.

OPTIONEE

Date: ----------

STANDARD FORM OF

CIENA CORPORATION

NONSTATUTORY STOCK OPTION AGREEMENT

FOR OUTSIDE DIRECTORS

(ANNUAL OPTION)

CIENA CORPORATION

NONSTATUTORY STOCK OPTION AGREEMENT

FOR OUTSIDE DIRECTORS

(ANNUAL OPTION)

THIS NONSTATUTORY STOCK OPTION AGREEMENT FOR OUTSIDE DIRECTORS (INITIAL OPTION) (the "Option Agreement") is made and entered into as of _____, 199__, by and between Ciena Corporation and _____ (the "Optionee").

The Company has granted to the Optionee an option to purchase certain shares of Stock, upon the terms and conditions set forth in this Option Agreement (the "Option").

A. DEFINITIONS AND CONSTRUCTION.

1. DEFINITIONS. Whenever used herein, the following terms shall have their respective meanings set forth below:

a. "DATE OF OPTION GRANT" means _____,199 __.

b. "NUMBER OF OPTION SHARES" means _____ (_____) shares of Stock (the number of shares set forth in Section 6.1(a) of the Plan), as adjusted from time to time pursuant to Section I.

c. "EXERCISE PRICE" means $_____ per share of Stock, as adjusted from time to time pursuant to Section I.

d. "INITIAL EXERCISE DATE" means the Initial Vesting Date.

e. "INITIAL VESTING DATE" means the date occurring one (1) year after the Date of Option Grant.

f. "VESTED RATIO" means, on any relevant date, the ratio determined as follows:

	Vested Ratio
Prior to Initial Vesting Date	0
On Initial Vesting Date, provided the Optionee's Service is continuous from the Date of Option Grant until the Initial Vesting Date	1/3
Plus	
For each full year of the Optionee's continuous Service from the Initial Vesting Date until the Vested Ratio equals 1/1, an additional	1/3

g. "OPTION EXPIRATION DATE" means the date ten (10) years after the Date of Option Grant.

h. "BOARD" means the Board of Directors of the Company. If one or more Committees have been appointed by the Board to administer the Plan, "Board" shall also mean such Committee(s).

i. "CODE" means the Internal Revenue Code of 1986, as amended, and any applicable regulations promulgated thereunder.

j. "COMMITTEE" means a committee of the Board duly appointed to administer the Plan and having such powers as shall be specified by the Board. Unless the powers of the Committee have been specifically limited, the Committee shall have all of the powers of the Board granted in the Plan, including, without limitation, the power to amend or terminate the Plan at any time, subject to the terms of the Plan and any applicable limitations imposed by law.

k. "COMPANY" means Ciena Corporation, a Delaware corporation, or any successor corporation thereto.

l. "CONSULTANT" means any person, including an advisor, engaged by a Participating Company to render services other than as an Employee or a Director.

m. "DIRECTOR" means a member of the Board or of the board of directors of any other Participating Company.

n. "DISABILITY" means the permanent and total disability of the Optionee within the meaning of Section 22(e)(3) of the Code.

o. "EMPLOYEE" means any person treated as an employee (including an officer or a Director who is also treated as an employee) in the records of a Participating Company; provided, however, that neither service as a Director nor payment of a director's fee shall be sufficient to constitute employment for purposes of the Plan.

p. "EXCHANGE ACT" means the Securities Exchange Act of 1934, as amended.

q. "FAIR MARKET VALUE" means, as of any date, if there is then a public market for the Stock, the closing price of the Stock (or the mean of the closing bid and asked prices of the Stock if the Stock is so reported instead) as reported on the National Association of Securities Dealers Automated Quotation ("NASDAQ") System, the NASDAQ National Market System or such other national or regional securities exchange or market system constituting the primary market for the Stock. If the relevant date does not fall on a day on which the Stock is trading on NASDAQ, the NASDAQ National Market System or other national or regional securities exchange or market system, the date on which the Fair Market Value shall be established shall be the last day on which the Stock was so traded prior to the relevant date. If there is then no public market for the Stock, the Fair Market Value on any relevant date shall be as determined by the Board without regard to any restriction other than a restriction which, by its terms, will never lapse.

r. "PARENT CORPORATION" means any present or future "parent corporation" of the Company, as defined in Section 424(e) of the Code.

s. "PARTICIPATING COMPANY" means the Company or any Parent Corporation or Subsidiary Corporation.

t. "PARTICIPATING COMPANY GROUP" means, at any point in time, all corporations collectively which are then Participating Companies.

u. "PLAN" means the Ciena Corporation 1996 Outside Directors Stock Option Plan.

v. "RULE 16b-3" means Rule 16b-3 as promulgated under the Exchange Act, as amended from time to time, or any successor rule or regulation.

w. "SECURITIES ACT" means the Securities Act of 1933, as amended.

x. "SERVICE" means the Optionee's service with the Participating Company Group, whether in the capacity of an Employee, a Director or a Consultant. The Optionee's Service shall not be deemed to have terminated merely because of a change in the capacity in which the Optionee renders Service to

the Participating Company Group or a change in the Participating Company for which the Optionee renders such Service, provided that there is no interruption or termination of the Optionee's Service. The Optionee's Service shall be deemed to have terminated either upon an actual termination of Service or upon the corporation for which the Optionee performs Service ceasing to be a Participating Company.

y. "STOCK" means the common stock, par value $0.01, of the Company, as adjusted from time to time in accordance with Section I.

z. "SUBSIDIARY CORPORATION" means any present or future "subsidiary corporation" of the Company, as defined in Section 424(f) of the Code.

2. CONSTRUCTION. Captions and titles contained herein are for convenience only and shall not affect the meaning or interpretation of any provision of this Option Agreement. Except when otherwise indicated by the context, the singular shall include the plural, the plural shall include the singular, and the term "or" shall include the conjunctive as well as the disjunctive.

B. TAX STATUS OF THE OPTION. This Option is intended to be a nonstatutory stock option and shall not be treated as an incentive stock option within the meaning of Section 422(b) of the Code.

C. ADMINISTRATION. All questions of interpretation concerning this Option Agreement shall be determined by the Board, including any duly appointed Committee of the Board. All determinations by the Board shall be final and binding upon all persons having an interest in the Option. Any officer of a Participating Company shall have the authority to act on behalf of the Company with respect to any matter, right, obligation, or election which is the responsibility of or which is allocated to the Company herein, provided the officer has apparent authority with respect to such matter right obligation or election.

D. EXERCISE OF THE OPTION.

1. RIGHT TO EXERCISE.

a. Except as otherwise provided herein, the Option shall be exercisable on and after the Initial Exercise Date and prior to the termination of the Option (as provided in Section F) in an amount not to exceed the Number of Option Shares multiplied by the Vested Ratio less the number of shares previously acquired upon exercise of the Option. In no event shall the Option be exercisable for more shares than the Number of Option Shares.

b. Notwithstanding the foregoing, in the event that the adoption of the Plan or any amendment of the Plan is subject to the approval of the Company's stockholders in order for the Plan or the grant of the Option to comply

with the requirements of Rule 16b-3, the Option shall not be exercisable prior to such stockholder approval.

2. METHOD OF EXERCISE. Exercise of the Option shall be by written notice to the Company which must state the election to exercise the Option, the number of whole shares of Stock for which the Option is being exercised and such other representations and agreements as to the Optionee's investment intent with respect to such shares as may be required pursuant to the provisions of this Option Agreement. The written notice must be signed by the Optionee and must be delivered in person, by certified or registered mail, return receipt requested, by confirmed facsimile transmission, or by such other means as the Company may permit, to the Chief Financial Officer of the Company, or other authorized representative of the Participating Company Group, prior to the termination of the Option as set forth in Section F, accompanied by full payment of the aggregate Exercise Price for the number of shares of Stock being purchased. The Option shall be deemed to be exercised upon receipt by the Company of such written notice and the aggregate Exercise Price.

3. PAYMENT OF EXERCISE PRICE

a. FORMS OF CONSIDERATION AUTHORIZED. Except as otherwise provided below, payment of the aggregate Exercise Price for the number of shares of Stock for which the Option is being exercised shall be made (i) in cash, by check, or cash equivalent, (ii) by tender to the Company of whole shares of Stock owned by the Optionee having a Fair Market Value not less than the aggregate Exercise Price, (iii) by means of a Cashless Exercise, as defined in Section D.3(c), or (iv) by any combination of the foregoing.

b. TENDER OF STOCK. Notwithstanding the foregoing, the Option may not be exercised by tender to the Company of shares of Stock to the extent such tender of Stock would constitute a violation of the provisions of any law, regulation or agreement restricting the redemption of the Company's stock. The Option may not be exercised by tender to the Company of shares of Stock unless such shares either have been owned by the Optionee for more than six (6) months or were not acquired, directly or indirectly, from the Company.

c. CASHLESS EXERCISE. A "Cashless Exercise" means the assignment in a form acceptable to the Company of the proceeds of a sale or loan with respect to some or all of the shares of Stock acquired upon the exercise of the Option pursuant to a program or procedure approved by the Company (including, without limitation, through an exercise complying with the provisions of Regulation T as promulgated from time to time by the Board of Governors of the Federal Reserve System). The Company reserves, at any and all times, the right, in the Company's sole and absolute discretion, to decline to approve or terminate any such program or procedure.

4. TAX WITHHOLDING. At the time the Option is exercised, in whole or in part, or at any time thereafter as requested by the Company, the

Optionee agrees to make adequate provision for any sums required to satisfy the federal, state, local and foreign tax withholding obligations of the Participating Company Group, if any, which arise in connection with the Option, including , without limitation, obligations arising upon (i) the exercise, in whole or in part, of the Option, (ii) the transfer, in whole or in part, of any shares acquired upon exercise of the Option or (iii) the lapsing of any restriction with respect to any shares acquired upon exercise of the Option.

5. CERTIFICATE REGISTRATION. Except in the event the Exercise Price is paid by means of a Cashless Exercise, the certificate for the shares as to which the Option is exercised shall be registered in the name of the Optionee, or, if applicable, the heirs of the Optionee.

6. RESTRICTIONS ON GRANT OF THE OPTION AND ISSUANCE OF SHARES. The grant of the Option and the issuance of shares of Stock upon exercise of the Option shall be subject to compliance with all applicable requirements of federal, state or foreign law with respect to such securities. The Option may not be exercised if the issuance of shares of Stock upon exercise would constitute a violation of any applicable federal, state or foreign securities laws or other law or regulations or the requirements of any stock exchange or market system upon which the Stock may then be listed. In addition, the Option may not be exercised unless (i) a registration statement under the Securities Act shall at the time of exercise of the Option be in effect with respect to the shares issuable upon exercise of the Option or (ii) in the opinion of legal counsel to the Company, the shares issuable upon exercise of the Option may be issued in accordance with the terms of an applicable exemption from the registration requirements of the Securities Act. THE OPTIONEE IS CAUTIONED THAT THE OPTION MAY NOT BE EXERCISED UNLESS THE FOREGOING CONDITIONS ARE SATISFIED. ACCORDINGLY, THE OPTIONEE MAY NOT BE A ABLE TO EXERCISE THE OPTION WHEN DESIRED EVEN THOUGH THE OPTION IS VESTED. The inability of the Company to obtain from any regulatory body having jurisdiction the authority, if any, deemed by the Company's legal counsel to be necessary to the lawful issuance and sale of any shares subject to the Option shall relieve the Company of any liability in respect of the failure to issue or sell such shares as to which such requisite authority shall not have been obtained. As a condition to the exercise of the Option, the Company may require the Optionee to satisfy any qualifications that may be necessary or appropriate, to evidence compliance with any applicable law or regulation and to make any representation or warranty with respect thereto as may be requested by the Company.

7. FRACTIONAL SHARES. The Company shall not be required to issue fractional shares upon the exercise of the Option.

E. NONTRANSFERABILITY OF THE OPTION. The Option may be exercised during the lifetime of the Optionee only by the Optionee or the Optionee's guardian

or legal representative and may not be assigned or transferred in any manner except by will or by the laws of descent and distribution. Following the death of the Optionee, the Option, to the extent provided in Section G, may be exercised by the Optionee's legal representative or by any person empowered to do so under the deceased Optionee's will or under the then applicable laws of descent and distribution.

F. TERMINATION OF THE OPTION. The Option shall terminate and may no longer be exercised on the first to occur of (a) the Option Expiration Date, (b) the last date for exercising the Option following termination of the Optionee's Service as described in Section G, or (c) a Transfer of Control to the extent provided in Section H.

G. EFFECT OF TERMINATION OF SERVICE.

1. OPTION EXERCISABILITY.

a. DISABILITY. If the Optionee's Service with the Participating Company Group is terminated because of the Disability of the Optionee, the Option, to the extent unexercised and exercisable on the date on which the Optionee's Service terminated, may be exercised by the Optionee (or the Optionee's guardian or legal representative) at any time prior to the expiration of twelve (12) months after the date on which the Optionee's Service terminated, but in any event no later than the Option Expiration Date.

b. DEATH. If the Optionee's Service with the Participating Company Group is terminated because of the death of the Optionee, the Option, to the extent unexercised and exercisable on the date on which the Optionee's Service terminated, may be exercised by the Optionee's legal representative or other person who acquired the right to exercise the Option by reason of the Optionee's death at any time prior to the expiration of twelve (12) months after the date on which the Optionee's Service terminated, but in any event no later than the Option Expiration Date. The Optionee's Service shall be deemed to have terminated on account of death if the Optionee dies within three (3) months after the Optionee's termination of Service.

c. OTHER TERMINATION OF SERVICE. If the Optionee's Service with the Participating Company Group terminates for any reason, except Disability or death, the Option, to the extent unexercised and exercisable by the Optionee on the date on which the Optionee's Service terminated, may be exercised by the Optionee within three (3) months after the date on which the Optionee's Service terminated, but in any event no later than the Option Expiration Date.

2. EXTENSION IF EXERCISE PREVENTED BY LAW. Notwithstanding the foregoing, if the exercise of the Option within the applicable time periods set forth in Section G.1 is prevented by the provisions of Section D.6, the Option shall

remain exercisable until three (3) months after the date the Optionee is notified by the Company that the Option is exercisable, but in any event no later than the Option Expiration Date.

3. EXTENSION IF OPTIONEE SUBJECT TO SECTION 16(B). Notwithstanding the foregoing, if a sale, within the applicable time periods set forth in Section G.1, of shares acquired upon the exercise of the Option would subject the Optionee to suit under Section 16(b) of the Exchange Act, the Option shall remain exercisable until the earliest to occur of (i) the tenth (10th) day following the date on which a sale of such shares by the Optionee would no longer be subject to such suit, (ii) the one hundred and ninetieth (190th) day after the Optionee's termination of Service, or (iii) the Option Expiration Date.

H. TRANSFER OF CONTROL. A "TRANSFER OF CONTROL" shall be deemed to have occurred in the event any of the following occurs with respect to the Company.

(a) the direct or indirect sale or exchange by the stockholders of the Company of all or substantially all of the stock of the company where the stockholders of the Company before such sale or exchange do not retain, directly or indirectly, at least a majority of the beneficial interest in the voting stock of the Acquiring Corporation as defined below after such sale or exchange;

(b) a merger or consolidation where the stockholders of the Company before such merger or consolidation do not retain, directly or indirectly, at least a majority of the beneficial interest in the voting stock of the Acquiring Corporation as defined below after such member or consolidation;

(c) the sale, exchange, or transfer of all or substantially all of the assets of the Company (other than a sale, exchange, or transfer to one (1) or more subsidiary corporations (as defined in paragraph A.1 above) of the Company); or

(d) a liquidation or dissolution of the Company.

Thirty (30) days prior the proposed effective date of any Transfer of Control, each Optionee under a stock option agreement outstanding for 335 days or more shall be credited, as of the proposed effective date of the Transfer of Control, and if still serving as a director of the Company on that date, with 100% of such shares, for purposes of determining the percentage of shares which shall be immediately exercisable and/or fully vested under each such stock option agreement. Other options, except as set forth below, shall not be affected.

Furthermore, in the event of a Transfer of Control, the surviving, continuing, successor, or purchasing corporation or parent corporation thereof, as the case may be (the "ACQUIRING CORPORATION"), shall either assume the Company's rights and obligations under outstanding stock option agreements or

substitute options for the Acquiring Corporation's stock for such outstanding Options. In the event the Acquiring Corporation elects not to assume or substitute for such outstanding Options in connection with the Transfer of Control, any unexercisable and/or unvested shares subject to such outstanding stock option agreements shall be immediately exercisable and fully vested as of the date thirty (30) days prior to the proposed effective date of the Transfer of Control. The exercise and/or vesting or any Option that was permissible solely by reason of this paragraph H shall be conditioned upon the consummation of the Transfer of Control. Any Options which are neither assumed or substituted for by the Acquiring Corporation in connection with the Transfer of Control nor exercised as of the date of the Transfer of Control shall terminate and cease to be outstanding effective as of the date of the Transfer of Control.

I. ADJUSTMENTS FOR CHANGES IN CAPITAL STRUCTURE. In the event of any stock dividend, stock split, reverse stock split, recapitalization, combination, reclassification, or similar change in the capital structure of the Company, appropriate adjustments shall be made in the number, Exercise Price and class of shares of stock subject to the Option. If a majority of the shares which are of the same class as the shares that are subject to the Option are exchanged for, converted into, or otherwise become (whether or not pursuant to an Ownership Change Event) shares of another corporation (the "New Shares"), the Board may unilaterally amend the Option to provide that the Option is exercisable for New Shares. In the event of any such amendment, the Number of Option Shares and the Exercise Price shall be adjusted in a fair and equitable manner, as determined by the Board, in its sole discretion. Notwithstanding the foregoing, any fractional share resulting from an adjustment pursuant to this Section I shall be rounded down to the nearest whole number, and in no event may the Exercise Price be decreased to an amount less than the par value, if any, of the stock subject to the Option.

J. RIGHTS AS A STOCKHOLDER. The Optionee shall have no rights as a stockholder with respect to any shares covered by the Option until the date of the issuance of a certificate for the shares for which the Option has been exercised (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company). No adjustment shall be made for dividends, distributions or other rights for which the record date is prior to the date such certificate is issued, except as provided in Section I.

K. LEGENDS. The Company may at any time place legends referencing any applicable federal, state or foreign securities law restrictions on all certificates representing shares of stock subject to the provisions of this Option Agreement. The Optionee shall, at the request of the Company, promptly present to the Company any and all certificates representing shares acquired pursuant to the Option in the possession of the Optionee in order to carry out the provisions of this Section.

L. BINDING EFFECT. Subject to the restrictions on transfer set forth herein, this Option Agreement shall inure to the benefit of and be binding upon the parties hereto and their respective heirs, executors, administrators, successors and assigns.

M. TERMINATION OR AMENDMENT. The Board may terminate or amend the Plan or the Option at any time; provided, however, that no such termination or amendment may adversely affect the Option or any unexercised portion hereof without the consent of the Optionee unless such termination or amendment is necessary to comply with any applicable law or government regulation. No amendment or addition to this Option Agreement shall be effective unless in writing.

N. INTEGRATED AGREEMENT. This Option Agreement constitutes the entire understanding and agreement of the Optionee and the Participating Company Group with respect to the subject matter contained herein, and there are no agreements, understandings, restrictions, representations, or warranties among the Optionee and the Participating Company Group with respect to such subject matter other than those as set forth or provided for herein. To the extent contemplated herein, the provisions of this Option Agreement shall survive any exercise of the Option and shall remain in full force and effect.

O. APPLICABLE LAW. This Option Agreement shall be governed by the laws of the State of Maryland as such laws are applied to agreements between Maryland residents entered into and to be performed entirely within the State of Maryland.

CIENA CORPORATION

By:

Title:

The Optionee represents that the Optionee is familiar with the terms and provisions of this Option Agreement and hereby accepts the Option subject to all of the terms and provisions thereof. The Optionee hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Board upon any questions arising under this Option Agreement.

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OPTIONEE

Date: ----------

EXHIBIT 10.6

CIENA CORPORATION

PREFERRED STOCK PURCHASE AGREEMENT

DATED AS OF DECEMBER 20, 1995

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D - Form of Opinion of Paul, Weiss, Rifkind, Wharton & Garrison

PREFERRED STOCK PURCHASE AGREEMENT

AGREEMENT, dated as of December 20, 1995, among (a) CIENA Corporation, a Delaware corporation (the "Company"), with an office at 8530 Corridor Road, Savage, Maryland 20763, (b) the parties identified as Purchasers on Schedule 1 hereto (individually, a "Purchaser" and collectively, the "Purchasers"), (c) solely for the purposes of Sections 7 through 10, 13, and 17 through 22, the parties identified as prior investors on Schedule 2.1 hereto (the "Series A Investors"), (d) solely for the purposes of Sections 7 through 10, 13, and 17 through 22, the parties identified as prior investors on Schedule 2.2 hereto (the "Series B Investors," together with the Series A Investors, "Prior Investors" and, together with the Series A Investors and the Purchasers, the "Investors"), and (e) solely for the purposes of Sections 8, 10, and 17 through 22 hereof, David Huber and Patrick Nettles (collectively, the "Key Employees").

W I T N E S S E T H :

WHEREAS, the Purchasers desire to purchase shares of Convertible Preferred Stock, Series C, par value $.01 per share (the "Series C Preferred"), of the Company, having the rights, preferences, privileges and restrictions set forth in the Company's Third Restated Certificate of Incorporation in the form attached hereto as Exhibit A (the "Third Restated Certificate") and incorporated herein by reference, and the Company desires to sell to the Purchasers shares of Series C Preferred;

WHEREAS, the Series A Investors are parties to a Preferred Stock Purchase Agreement, dated as of April 9, 1994, as amended by Amendment No. 1 thereto, dated as of July 28, 1994 (as so amended, the "Series A Agreement"), among the Company, the Series A Investors and, as to certain provisions therein, the Key Employees;

WHEREAS, the Series B Investors are parties to a Preferred Stock Purchase Agreement, dated as of December 22, 1994, as amended by Amendment No. 1 thereto, dated as of January 31, 1995, and by Amendment No. 2 thereto, dated as of June 23, 1995 (as amended, the "Series B Agreement" and, together with the Series A Agreement, the "Prior Agreements"),

among the Company, the Prior Investors and, as to certain provisions therein, the Key Employees;

WHEREAS, the Prior Investors who are parties to this Agreement and the Key Employees desire to amend the Prior Agreements in the manner set forth in this Agreement;

NOW, THEREFORE, the parties agree as follows:

1. PURCHASE AND SALE. Subject to the provisions of this Agreement, on the Closing Date (as hereinafter defined) the Company will sell to the Purchasers, and the Purchasers will purchase from the Company, an aggregate of up to 3,750,000 shares of Series C Preferred (the "Shares"), each Purchaser to purchase the number of Shares set forth in the first column opposite such Purchaser's name on Schedule 1 annexed hereto, at a purchase price of $7.00 per share on the Closing Date as is specified on Schedule 1.

2. CLOSING OF PURCHASE AND SALE.

2.1 CLOSING; CLOSING DATE. The purchase and sale of the Shares pursuant to Section 1 shall take place at a closing (the "Closing") at the offices of Paul, Weiss, Rifkind, Wharton & Garrison, 1615 L Street, N.W., Suite 1300, Washington, D.C. 20036, or at such other place as may be agreed upon by the Company and the Purchasers, at 11:00 a.m. Eastern Standard Time on December 21, 1995, or at such other time as may be agreed upon by the Company and the Purchasers (the "Closing Date").

2.2 TRANSACTIONS AT CLOSING. At the Closing, the Company shall deliver to each Purchaser one or more certificates representing the Shares being purchased hereunder at the Closing, against delivery by the Purchaser of a wire transfer of immediately available funds or a certified check in the amount of the purchase price therefor.

3. REPRESENTATIONS AND WARRANTIES OF THE COMPANY. The Company represents and warrants that:

3.1 ORGANIZATION, STANDING AND QUALIFICATION. The Company is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware and has full corporate power and authority to own, lease and operate its property and assets and to conduct its business as proposed to be conducted by it. The Company has all requisite corporate power and authority to enter into and perform its obligations under this Agreement and to carry out the transactions contemplated by this Agreement. Except as set forth in Schedule 3.1, the Company is duly qualified to do business as a foreign corporation and is in good standing in each jurisdiction in which the nature of its business and its ownership or leasing of property require that the Company become so qualified.

3.2 CAPITALIZATION. The authorized capital stock of the Company, as of the Closing Date, will consist of (a) 16,250,000 shares of preferred stock, of which (i) 3,750,000 shares are designated Series C Preferred, none of which are issued or outstanding as of the date of this Agreement; (ii) 8,000,000 shares are designated Series B Preferred (the "Series B Preferred"), 7,354,092 of which are issued and outstanding as of the date of this Agreement and 300,000 of which are reserved for issuance upon exercise of outstanding warrants; (iii) 4,500,000 shares are designated Series A Preferred (the "Series A Preferred"; together with Series B Preferred and Series C Preferred, the "Preferred Shares"), 3,542,520 of which are issued and outstanding as of the date of this Agreement, and 170,000 of which are reserved for issuance upon exercise of outstanding warrants; and (b) 22,500,000 shares of Common Stock, of which (i) 2,437,083 shares are issued and outstanding as of the date of this Agreement; (ii) up to 3,750,000 shares are reserved for issuance upon conversion of the Series C Preferred; (iii) up to 8,000,000 shares are reserved for issuance upon conversion of the Series B Preferred; (iv) up to 4,500,000 shares are reserved for

issuance upon conversion of the Series A Preferred; (v) up to 470,000 shares are reserved for issuance upon exercise of outstanding warrants to purchase Series B Preferred or Series A Preferred; (vi) 125,636 shares are reserved for issuance upon exercise of an option granted by the Company to GI Corporation; (vii) 2,051,250 shares are reserved for issuance pursuant to employee stock purchase and/or option ownership plans that have been or will be adopted by the Company for key employees; and (viii) 6,667 shares are reserved for issuance upon exercise of an outstanding warrant for Common Stock held by Kim Larsen (all of which in clauses (i) through (viii) are referred to collectively as the "Reserved Shares"). The list set forth in Schedule 3.2 hereto is a complete and correct list of all security holders of the Company, showing their holdings of issued and outstanding Company securities (including options) as of the date of this Agreement. The outstanding shares of Common Stock, Series A Preferred and Series B Preferred are duly authorized and validly issued in accordance with applicable law (including federal and state securities laws), and are fully paid and non-assessable. Except as set forth in this Agreement and the Prior Agreements, holders of shares of the Company's capital stock have no preemptive rights. Except for the transactions contemplated by this Agreement and the Prior Agreements and as set forth on Schedule 3.2 hereto, there are (a) no outstanding warrants, options, convertible securities or rights to subscribe for or purchase any capital stock or other securities from the Company, (b) no voting trusts or voting agreements among, or irrevocable proxies executed by, stockholders of the Company, (c) no existing rights of stockholders to require the Company to register any securities of the Company or to participate with the Company in any registration by the Company of its securities, (d) no agreements among stockholders providing for the purchase or sale of the Company's capital stock and (e) no obligations (contingent or otherwise) of the Company to purchase, redeem or otherwise acquire any shares of its capital stock or any interest therein or to pay any dividend or make any other distribution in respect thereof.

3.3 VALIDITY OF STOCK. The Series C Preferred, when issued, sold, and delivered in accordance with the terms of this Agreement, will be duly and validly issued, fully paid and non-assessable. The shares of Common

Stock issuable upon conversion of the Series C Preferred have been duly authorized and reserved for issuance by all necessary corporate action and when issued and delivered in accordance with the terms of the Third Restated Certificate, will be duly and validly issued, fully paid and non-assessable.

3.4 SUBSIDIARIES. The Company does not own or control, directly or indirectly, any other corporation, partnership, association or business entity. Except as set forth in Schedule 3.4, the Company is not a participant in any joint venture, partnership, or similar arrangement.

3.5 FINANCIAL STATEMENTS. Schedule 3.5 contains the Company's: (i) unaudited balance sheet as of November 30, 1995 (the "Balance Sheet"), (ii) unaudited statements of income (loss) for the eleven-month period then ended (the "Statements of Income"), and (iii) audited financial statements as of and for the year ended December 31, 1994 (the "Audited Financial Statements") (all of which in (i), (ii) and (iii) are collectively referred to as the "Financial Statements"). Except as described in Schedule 3.5, the Financial Statements are true and correct in all material respects, are in accordance with the books and records of the Company and have been prepared in accordance with generally accepted accounting principles ("GAAP") consistently applied, and fairly and accurately present in all material respects the financial position of the Company as of such dates and the results of its operations for the periods then ended, provided that the Financial Statements may not contain all footnotes required by GAAP and the Balance Sheet and Statements of Income are subject to normal year-end audit adjustments. Except as described in Schedule 3.5, the Company has no liabilities, debts or obligations, whether accrued, absolute or contingent totalling in each case in excess of $15,000. Since November 30, 1995, except as contemplated by this Agreement or as set forth on Schedule 3.5, the Company has been operated in the ordinary and usual course of business, and there has not been:

(i) any change in the (x) assets, liabilities, condition (financial or otherwise) or business of the Company from that reflected in the Balance Sheet, other than those incurred in the ordinary and usual course of business, or (y) trend of operating results of the Company from that reflected in the Statements of Income;

(ii) any damage, destruction or loss, whether or not covered by insurance, materially and adversely affecting the assets, properties, condition (financial or otherwise), operating results, prospects or business of the Company (as such business is presently conducted and as it is proposed to be conducted) as set forth in the Ciena Corporation 1996-1998 Business Plan dated October 16, 1995 (the "Operating Plan");

(iii) any waiver by the Company of a valuable right or of a material debt owed to it;

(iv) any satisfaction or discharge of any lien, claim or encumbrance or payment of any obligation by the Company, except in the ordinary course of business and that is not individually or in the aggregate adverse to the assets, properties, condition (financial or otherwise), operating results or business of the Company (as such business is presently conducted and as it is proposed to be conducted);

(v) any change or amendment to a material contract or arrangement by which the Company or any of its assets or properties is bound or subject;

(vi) any material change in any compensation arrangement or agreement with any employee;

(vii) any loans made by the Company to its employees, officers, or directors other than travel advances made in the ordinary course of business;

(viii) any sale, transfer or lease of, except in the ordinary course of business, or mortgage or pledge or imposition of lien on, any of the Company's assets; or

(ix) to the Company's knowledge, any other event or condition of any character that would materially adversely affect the assets, properties, condition (financial or otherwise), operating results, prospects or business of the Company (as such business is presently conducted and as it is proposed to be conducted).

3.6 AUTHORIZATION; APPROVALS. All corporate action on the part of the Company necessary for the authorization, execution, delivery, and performance of all its obligations under this Agreement and for the authorization, issuance, and delivery of the Series C Preferred being sold under this Agreement and of the Common Stock issuable upon conversion of the Preferred Shares has been (or will be) taken prior to the Closing Date. This Agreement, when executed and delivered by or on behalf of the Company, shall constitute the valid and legally binding obligation of the Company, legally enforceable against the Company in accordance with its terms. The Company has obtained or will obtain prior to the Closing Date all necessary consents, authorizations, approvals and orders, and has made all registrations, qualifications, designations, declarations or filings with all federal, state, or other relevant governmental authorities required on the part of the Company in connection with the consummation of the transactions contemplated by this Agreement, except for those federal and/or state securities law filings that are required under applicable law to be filed after the Closing.

3.7 NO CONFLICT WITH OTHER INSTRUMENTS. The execution, delivery and performance of the Agreement and the conduct of the Company's business as described in the Operating Plan will not result in any violation of, be in conflict with, or constitute a default under any terms or provision of (i) the Third Restated Certificate or By-laws; (ii) any judgment, decree or order to which the Company is a party; (iii) any agreement, contract, understanding, indenture or other instrument to which the Company is a party, the effect of which would give rise to a material adverse effect on the Company; or (iv) any statute, rule or governmental regulation applicable to the Company. The Company waives any right under the

Third Restated Certificate to treat any transaction contemplated by this Agreement as an Additional Automatic Conversion Event.

3.8 LABOR AGREEMENTS AND ACTIONS. The Company is not bound by or subject to (and none of its assets or properties is bound by or subject to) any written or oral, express or implied, contract, commitment or arrangement with any labor union, and no labor union has requested or, to the best knowledge of the Company, has sought to represent any of the employees, representatives or agents of the Company. There is no strike or other

labor dispute involving the Company pending, or to the best knowledge of the Company threatened, which could have a material adverse effect on the assets, properties, condition (financial or otherwise), operating results, prospects or business of the Company (as such business is presently conducted and as it is proposed to be conducted), nor is the Company aware of any labor organization activity involving its employees. The Company is not aware that any officer or key employee, or that any group of key employees, intends to terminate such person's employment with the Company, nor does the Company have a present intention to terminate the employment of any of the foregoing persons. The employment of each officer and employee of the Company is terminable at the will of the Company. Schedule 3.8 hereto sets forth the name of and annual rate of compensation (including salary, bonuses and other compensation) payable for the current year to each (i) officer and (ii) employee who is paid an annual salary greater than $100,000.

3.9 TITLE TO PROPERTIES; LIENS AND ENCUMBRANCES. Set forth on Schedule 3.9 hereto is a list of all of the real property, capital assets and intellectual property owned, leased or licensed to or by the Company, excluding items with an original cost (or in the case of intellectual property a fair market value) of less than $1,000. In the case of leased or licensed property, complete and correct copies of all leases and licenses have been furnished to counsel to the Purchasers. Except as set forth on Schedule 3.9 and Schedule 3.11 hereto, (i) the Company has good and marketable title to all of the properties and assets, both real and personal, tangible and intangible, that it purports to own, including the properties and assets reflected on the Balance Sheet, and they are not subject to any mortgage, pledge, lien, security interest, conditional sale agreement, encumbrance or charge except routine statutory liens securing liabilities not yet due and payable and minor liens, encumbrances, restrictions, exceptions, reservations, limitations and other imperfections which do not materially detract from the value of the specific asset affected or the present use of such asset; and (ii)

the Company is not in default or in breach of any material provision of its leases or licenses and holds a valid leasehold or licensed interest in the property it leases or that is licensed to it.

3.10 COMPLIANCE WITH OTHER INSTRUMENTS. The Company is not in default (a) under its Third Restated Certificate or its By-laws or, in any material respect, under any material note, indenture, mortgage, lease, agreement, contract, purchase order or other instrument, document or agreement to which the Company is a party or by which it or any of its property is bound or affected or (b) with respect to any order, writ, injunction or decree of any court or any federal, state, municipal or other governmental department, commission, board, bureau, agency or instrumentality, domestic or foreign, which default, in any such case, would materially and adversely affect or in the future is reasonably likely to materially and adversely affect the Company's business, prospects, condition (financial or otherwise), affairs, operations or assets. To the best of the Company's knowledge, no third party is in material default under any material agreement, contract or other instrument, document or agreement to which the Company is a party or by which it or any of its property is affected.

3.11 PATENTS, TRADEMARKS AND OTHER INTANGIBLE ASSETS. (a) Schedule 3.11 hereto is a true and complete list and summary description of all patents, patent applications, trademarks, service marks, trade names and copyrights, and licenses and rights to the foregoing presently owned or held by the Company, none of which is in dispute or in any conflict with the right of any other person or entity except as indicated on Schedule 3.11. Except as set forth in Schedule 3.11, the Company to the best of its knowledge (i) owns or has the right to use, free and clear of all liens, claims and restrictions, all patents, trademarks, service marks, trade names and copyrights, and licenses and rights with respect to the foregoing, used and sufficient for use in the conduct of its business as now conducted and proposed to be conducted as described in the Operating Plan without infringing upon or otherwise acting adversely to the

right or claimed right of any person, corporation or other entity under or with respect to any of the foregoing and (ii) is not obligated or under any liability whatsoever to make any payments by way of royalties, fees or otherwise to any owner or licensee of, or other claimant to, any patent, trademark, service mark, trade name, copyright or other intangible asset, with respect to the use thereof or in connection with the conduct of its business or otherwise.

(b) Except as set forth on Schedule 3.11, the Company owns and/or has the unrestricted right to use all trade secrets, including know-how, inventions, designs, processes, works of authorship, computer programs (with the exception of normal software purchased and sold as such) and technical data and information (collectively herein "intellectual property") required for or incident to the development, manufacture, operation and sale of all products and services sold or proposed to be sold by the Company, to the best of its knowledge free and clear of and without violating any right, lien, or claim of others, including without limitation, former employees and former employers of its past and present employees.

(c) The Company has taken security measures to protect the secrecy, confidentiality and value of all the Company's intellectual property, which measures are reasonable and customary in the industry in which it intends to operate. Each of the Company's employees and other persons who, either alone or in concert with others, developed, invented, discovered, derived, programmed or designed the Company's intellectual property, or who has knowledge of or access to information about the Company's intellectual property, has entered into a written agreement with the Company in the form of Exhibit B hereto, (i) providing that the intellectual property and other information are proprietary to the Company and are not to be divulged or misused and (ii) transferring to the Company, without any further consideration being given therefor by the Company, all of such employee's or other person's right, title and interest in and to such intellectual property and other information and to all patents, trademarks,

service marks, trade names, copyrights, licenses and rights with respect to such intellectual property and information.

(d) The Company has not received any communications alleging that the Company has violated or by conducting its business as proposed, would violate any of the patents, trademarks, service marks, trade names, copyrights or trade secrets or other proprietary rights of any other person or entity. The Company is not aware that any of its employees is obligated under any contract (including licenses, covenants or commitments of any nature) or other agreement, or subject to any judgment, decree or order of any court or administrative agency, that would interfere with the use of his best efforts to promote the interests of the Company or that would conflict with the Company's business as proposed to be conducted. Neither the execution nor delivery of this Agreement, nor the carrying on of the Company's business by the employees of the Company, nor the conduct of the Company's business as proposed, will, to the Company's knowledge, conflict with or result in a breach of the terms, conditions or provisions of, or constitute a default under, any contract, covenant or instrument under which any of such employees is now obligated. The Company does not believe it is or will be necessary to utilize any inventions of any of its employees (or people it currently intends to hire) made prior to their employment by the Company other than those that have been assigned to, or licensed by the Company, as described in Schedule 3.11.

3.12 TAXES. The Company has accurately prepared and timely filed all federal income and payroll tax returns and filings and all state and municipal tax returns that are required to be filed by it (the "Tax Returns") and has paid or made provision for the payment of all amounts due pursuant to such returns. The Tax Returns are true and complete in all material respects. None of the Tax Returns have been audited by the Internal Revenue Service or any state taxing authority, as the case may be, the Company has not been advised that any of such Tax Returns will be so audited, and there are no waivers in effect of

the applicable statute of limitations for any period. No deficiency assessment or proposed adjustment of federal income taxes or state or municipal taxes of the Company is pending and the Company has no knowledge of any proposed liability for any tax to be imposed. The Company has not elected pursuant to the Internal Revenue Code of 1986, as amended (the "Code"), to be treated as an S corporation or a collapsible corporation pursuant to Section 1362(a) or Section 341(f) of the Code, nor has it made any other elections pursuant to the Code (other than elections that related solely to methods of accounting, depreciation or amortization) that would have a material effect on the Company, its financial condition, its business as presently conducted or proposed to be conducted or any of its properties or material assets.

3.13 CONTRACTS. Schedule 3.13 contains a true and complete list of all contracts and agreements to which the Company is a party or by which its property is bound. Except as set forth on Schedule 3.13 hereto, the Company has no employment or consulting contracts, deferred compensation agreements or bonus, incentive, profit-sharing, or pension plans currently in force and effect, or any understanding with respect to any of the foregoing. Schedule 3.13 hereto also lists all employment, non-competition and confidentiality agreements (i) between the Company and any employee or consultant of the Company or any other entity and (ii) to the Company's best knowledge between any employee of the Company and any former employer or person for whom such employee or consultant performed consulting or other services. All of the contracts listed on Schedule 3.13 and on other Schedules hereto are in full force and effect, and the Company, or to the best of the Company's knowledge any other party, is not in default under any of them, nor does any event or condition exist which after notice or lapse of time or both would constitute a material default thereunder. The Company has delivered to the Purchasers true, correct and complete copies of each contract and agreement listed on Schedule 3.13.

3.14 LITIGATION. No action, proceeding or governmental inquiry or investigation is pending or to

the best knowledge of the Company threatened against the Company or any of its officers, directors or employees (in their capacity as such) or any of the Company's properties before any court, arbitration board or tribunal or administrative or other governmental agency, nor is the Company aware that there is any basis for the foregoing. The foregoing includes, without limiting its generality, actions pending or known to the Company to be threatened involving the prior employment of any of the Company's employees or use by any of them in connection with the Company's business of any information, property or techniques allegedly proprietary to any of their former employers. The Company is not a party to or subject to the provisions of any order, writ, injunction, judgment or decree of any court or governmental agency or instrumentality. There is no action, suit, proceeding or investigation by the Company currently pending or that the Company intends to initiate.

3.15 PRIVATE OFFERING. The Company agrees that neither the Company nor anyone acting on its behalf has offered or will offer any securities of the Company or any part thereof or any similar securities for issuance or sale to, or solicit any offer to acquire any of the same from, anyone so as to make the issuance and sale of the Series C Preferred not exempt from the registration requirements of Section 5 of the Securities Act of 1933, as amended (the "Securities Act"). None of the shares of the Company's capital stock issued and outstanding has been offered or sold in such a manner as to make the issuance and sale of such shares not exempt from such registration requirements, and all such shares of capital stock have been offered and sold in compliance with all applicable federal and state securities laws.

3.16 FULL DISCLOSURE. Neither this Agreement nor any certificates made or delivered in connection herewith contains any untrue statement of a material fact or omits to state a material fact necessary to make the statements herein or therein not misleading, in view of the circumstances in which they were made, provided, however, that the Company makes no representation or warranty with respect to any projections, other than that any such

projections were prepared in good faith and that the Company reasonably believes there is a reasonable basis for such projections. There is no material fact known to the Company relating to the business, prospects, condition (financial or otherwise), affairs, operations, or assets of the Company that has not been disclosed to the Purchasers in writing by the Company.

3.17 FEES AND COMMISSIONS. The Company has not retained, or otherwise authorized to act, any finder, broker, agent, financial advisor or other intermediary (collectively "Intermediary") in connection with the transactions contemplated by this Agreement and the Company shall indemnify and hold harmless the Purchasers from liability for any compensation to any Intermediary retained or otherwise authorized to act by, or on behalf of, the Company, and the fees and expenses of defending against such liability or alleged liability.

3.18 INTERESTED PARTY TRANSACTIONS. No officer, director or stockholder of the Company or any "affiliate" or "associate" (as these terms are defined in Rule 405 promulgated under the Securities Act) of any such person or entity or the Company has or has had, either directly or indirectly, (a) an interest in any person or entity which (i) furnishes or sells services or products which are furnished or sold or are proposed to be furnished or sold by the Company, or (ii) purchases from or sells or furnishes to the Company any goods or services, or (b) except as set forth on Schedule 3.13, a beneficial interest in any contract or agreement to which the Company is a party or by which it may be bound or affected. Except as set forth on Schedule 3.13 hereto, there are no existing material arrangements or proposed material transactions between the Company and any officer, director, or holder of more than 5% of the capital stock of the Company, or any affiliate or associate of any such person.

3.19 ERISA. Except as set forth in Schedule 3.19, the Company does not maintain, sponsor, or contribute to any program or arrangement that is an "employee pension benefit plan," an "employee welfare benefit plan," or a

"multiemployer plan", as those terms are defined in Sections 3(2), 3(1), and 3(37) of the Employee Retirement Income Security Act of 1974, as amended. Except as listed in Schedule 3.13, the Company does not maintain or contribute to any material incentive or benefit arrangements for its employees. All incentive or benefit arrangements listed in Schedule 3.13 are, and have heretofore been, operated in compliance, in all material respects, with the terms of such arrangements and with the requirements prescribed by any and all applicable laws.

3.20 SECTION 83(b) ELECTIONS. Except as set forth in Schedule 3.20, to the best of the Company's knowledge, all elections and notices permitted by Section 83(b) of the Code, and any analogous provisions of applicable state tax laws have been timely filed by all individuals who have purchased shares of the Company's Common Stock other than pursuant to any stock option plans of the Company. The Company makes no representation or warranty regarding the content or accuracy of any such election or notice.

3.21 COMPANY TRANSACTIONS. The Company has not engaged in the past eleven (11) months in any discussion (i) with any representative of any corporation or corporations regarding the merger of the Company with or into any such corporation or corporations, (ii) with any corporation, partnership, association or other business entity or any individual regarding the sale, conveyance or disposition of all or substantially all of the assets of the Company or a transaction or series of related transactions in which more than fifty percent (50%) of the voting power of the Company is disposed of, or (iii) regarding any other form of liquidation, dissolution or winding up of the Company.

3.22 PERMITS. The Company has all franchises, permits, licenses, and any similar authority necessary for the conduct of its business as now being conducted by it, the lack of which could materially and adversely affect the business, properties, prospects, or financial condition of the Company, and the Company believes it can

obtain, without undue burden or expense, any similar authority for the conduct of its business as planned to be conducted. The Company is not in default in any material respect under any of such franchises, permits, licenses, or other similar authority.

3.23 INSURANCE.(i) The Company has in full force and effect life insurance upon the lives of the Key Employees in a minimum amount of $1,000,000 each, with the proceeds payable to the Company, (ii) the Company has in full force and effect fire and casualty insurance policies, with extended coverage, sufficient in amount (subject to reasonable deductibles) to allow it to replace any of its properties that might be damaged or destroyed, (iii) the Company has in full force and effect liability and umbrella liability insurance policies sufficient in amount (subject to reasonable deductibles) to cover all reasonably foreseeable liability claims that may be made against the Company and the expenses thereof, (iv) no claims under any of such policies of insurance are

pending or have been denied, and (v) no notices of cancellation regarding any of such policies have been received by the Company.

3.24 CERTAIN TAX-RELATED PROVISIONS. The Company has not made any purchase of its capital stock within the one (1) year period preceding the Closing Date and the Company covenants and agrees with the Purchasers that the Company will not within the one (1) year period following the Closing Date make any purchase of its capital stock that would result in the shares of Series C Preferred issued and sold pursuant to this Agreement not being treated as "qualified business stock" within the meaning of Subpart B, Section 13113 of the 1993 Tax Reform Act, without the prior written approval of the holders of at least fifty percent (50%) of the Series C Preferred. The Company agrees to submit such reports to the Commissioner of Internal Revenue and to the Purchasers as the Commissioner may require to carry out the purposes of such provisions.

3.25 ENVIRONMENTAL MATTERS. Except as set forth in Schedule 3.25:

(a) Neither the Company, nor, to the knowledge of the Company without investigation other than as set forth on Schedule 3.25, any operator of its past or present properties is in material violation, or alleged material violation, of any judgment, decree, order, law, license, rule or regulation pertaining to environmental matters, including without limitation the Resource Conservation and Recovery Act, as amended, the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended ("CERCLA"), and the Superfund Amendments and Reauthorization Act of 1986, as amended (hereinafter "Environmental Laws").

(b) The Company has not received notice from any third party including without limitation any governmental authority, (i) that the Company or any predecessor in interest has been identified by the Environmental Protection Agency ("EPA") as a potentially responsible party under CERCLA with respect to a site

listed on the National Priorities List, 40 C.F.R. Part 300 Appendix B (1986); (ii) that a material quantity of hazardous materials or substances regulated by any Environmental Laws ("Hazardous Substances") which either the Company or any predecessor in interest has generated, transported or disposed of have been found at any site at which a remedial investigation, removal or other response action pursuant to any Environmental Law has been ordered or conducted; or (iii) that the Company is or shall be a named party to any claim, action or administrative proceeding arising out of any third party's incurrence of costs or damages in connection with the release of Hazardous Substances.

(c) No portion of the property owned, leased or controlled by the Company has been used by the Company or, to the knowledge of the Company without investigation other than as set forth on Schedule 3.25, by any past or present owners or operators of its properties for the handling, manufacturing, processing, storage or disposal of Hazardous Substances in a manner that would materially violate applicable Environmental Laws. In the course of any activities conducted by the Company or, to the knowledge of the Company without investigation other than as set forth on Schedule 3.25, by any past or present owners or operators of its properties, no Hazardous Substances have been generated or are being used on such properties in a manner that would materially violate applicable Environmental Laws. There have been no releases or threatened releases of Hazardous Substances by the Company or, to the knowledge of the Company without investigation other than as set forth on Schedule 3.25, by any past or present owners or operators of its properties on, upon, into or from such properties of the Company, which releases would have a material adverse effect on the value of such properties, any adjacent properties or the environment. Any Hazardous Substances that have been generated by the Company or, to the knowledge of the Company without investigation other than as set forth on Schedule 3.25, by any past or present owners or operators of its properties on such properties of the Company, have been transported offsite only by carriers having an identification number issued by the

EPA and treated or disposed of only by treatment or disposal facilities maintaining valid permits as required under applicable Environmental Laws, which transporters and facilities have been and are, to the best of the Company's knowledge, operating in compliance with such permits and applicable Environmental Laws.

4. REPRESENTATIONS, WARRANTIES AND COVENANTS OF THE PURCHASERS. Each Purchaser, severally and not jointly, represents and warrants that:

4.1 AUTHORIZATION. It has full power and authority to enter into and to perform this Agreement in accordance with its terms. This Agreement has been duly executed and delivered by it and constitutes its valid and legally binding obligation.

4.2 INVESTMENT REPRESENTATIONS. It is acquiring the Shares for its own account, for investment purposes and not with a view to, or for sale in connection with, any distribution of such Shares or any part thereof.

4.3 INVESTMENT EXPERIENCE; ACCESS TO INFORMATION. It (a) is an "accredited investor" as that term is defined in Rule 501(a) promulgated under the Securities Act, (b) is an investor experienced in the evaluation of businesses similar to the Company, (c) is able to fend for itself in the transactions contemplated by this Agreement, (d) has such knowledge and experience in financial, business and investment matters as to be capable of evaluating the merits and risks of this investment, (e) has the ability to bear the economic risks of this investment, (f) was not organized or reorganized for the specific purpose of acquiring the Shares purchased by it, and (g) has been afforded prior to the Closing Date the opportunity to ask questions of, and to receive answers from, the Company and to obtain any additional information, to the extent the Company has such information or could have acquired it without unreasonable effort or expense, all as necessary for the Purchaser to make an informed investment decision with respect to the purchase of the Shares. The foregoing, however, does not limit or modify the representations and

warranties of the Company in Section 3 of this Agreement or the right of such Purchaser to rely thereon.

4.4 ABSENCE OF REGISTRATION. It understands that:

(a) The Shares to be sold and issued hereunder (and the Common Stock to which such shares may be converted) are unregistered and may be required to be held indefinitely unless they are subsequently registered under the Securities Act, or an exemption from such registration is available.

(b) Except as provided in Section 8, the Company is under no obligation to file a registration statement with the Securities and Exchange Commission (the "Commission") with respect to the Shares (or the Common Stock to which such shares may be converted).

(c) Rule 144 promulgated under the Securities Act ("Rule 144"), which provides for certain limited sales of unregistered securities, is not presently available with respect to the Shares (or the Common Stock to which such shares may be converted), and the Company is under no obligation to make Rule 144 available except as otherwise provided in Section 7.6.

4.5 RESTRICTIONS ON TRANSFER. (a) It will not offer, sell, pledge, hypothecate, or otherwise dispose of the Shares (or the Common Stock to which such shares may be converted) unless such offer, sale, pledge, hypothecation or other disposition is (i) registered under the Securities Act, or (ii) in compliance with an opinion of counsel to the Purchaser, delivered to the Company and reasonably acceptable to the Company, to the effect that such offer, sale, pledge, hypothecation or other disposition thereof does not violate the Securities Act, and (b) the certificate(s) representing the Shares (and any Common Stock to which such shares may be converted) shall bear a legend stating in substance:

THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, AND MAY NOT BE OFFERED, SOLD OR OTHERWISE

TRANSFERRED, PLEDGED OR HYPOTHECATED UNLESS AND UNTIL REGISTERED UNDER SAID ACT OR, IN THE OPINION OF COUNSEL IN FORM AND SUBSTANCE SATISFACTORY TO THE ISSUER OF THESE SECURITIES, SUCH OFFER, SALE OR TRANSFER, PLEDGE OR HYPOTHECATION DOES NOT VIOLATE THE PROVISIONS THEREOF.

Upon request of a holder of Series C Preferred, the Company shall remove the legend set forth above from the certificates evidencing such Shares, or issue to such holder new certificates therefor free of such legend, if with such request the Company shall have received an opinion of counsel selected by the holder and reasonably satisfactory to the Company, in form and substance reasonably satisfactory to the Company, to the effect that such Shares are not required by the Securities Act to continue to bear the legend.

4.6 TRANSFER INSTRUCTIONS. It agrees that the Company may provide for appropriate transfer instructions to implement the provisions of Section 4.5 hereof.

4.7 ECONOMIC RISK. It understands that it must bear the economic risk of the investment represented by the purchase of Shares for an indefinite period.

4.8 FEES AND COMMISSIONS. It represents and warrants that it has not retained, or otherwise authorized to act, any Intermediary in connection with the transactions contemplated by this Agreement and agrees to indemnify and hold harmless the Company from liability for any compensation to any Intermediary retained or otherwise authorized to act by, or on behalf of, the Purchaser and the fees and expenses of defending against such liability or alleged liability.

5. CONDITIONS TO CLOSING OF THE PURCHASERS. The obligation of each Purchaser on the Closing Date to purchase the Shares to be purchased under this Agreement on the Closing Date by it shall be subject to each of the following conditions precedent, any one or more of which may be waived by Purchasers purchasing at least 66-2/3% of the Shares to be purchased at the Closing:

5.1 REPRESENTATIONS AND WARRANTIES. The representations and warranties made by the Company herein shall be true and accurate on and as of the Closing Date as if made on such Date, except to the extent that such representations and warranties are made as of a specified date, in which case such representations and warranties shall be true in all material respects as of the specified date.

5.2 PERFORMANCE. The Company shall have performed and complied with all agreements and conditions contained herein or in other ancillary documents incident to the transactions contemplated by this Agreement required to be performed or complied with by it prior to or at the Closing Date.

5.3 CONSENTS, ETC. The Company shall have secured all permits, consents and authorizations that shall be necessary or required lawfully prior to the Closing to consummate this Agreement and to issue the Shares to be purchased by each Purchaser at the Closing, and the Third Restated Certificate shall have been duly filed with the Secretary of State of the State of Delaware.

5.4 COMPLIANCE CERTIFICATES. The Company shall have delivered to the Purchasers or their representative at the Closing an Officer's Certificate to the effect that all conditions specified in Sections 5.1 through 5.3 have been fulfilled.

5.5 PROCEEDINGS AND DOCUMENTS. All corporate and other proceedings in connection with the transactions contemplated by this Agreement and all documents and instruments incident to such transactions shall be reasonably satisfactory in substance and form to the Purchasers and their counsel, and the Purchasers and their counsel shall have received all such counterpart originals or certified or other copies of such documents as the Purchasers or their counsel may reasonably request.

5.6 CO-SALE AGREEMENT. Each of the Key Employees, the Prior Investors and the Company shall have entered

into a Co-Sale Agreement with the Purchasers, substantially in the form annexed hereto as Exhibit C.

5.7 COMPOSITION OF BOARD OF DIRECTORS. The Board of Directors shall consist of seven members, initially including: Berry Cash, Jon W. Bayless, Patrick Nettles, David Huber, Clifford Higgerson, and Michael J. Zak. The seventh Board seat shall be filled in accordance with Section 10(a) of this Agreement.

5.8 OPINION OF COUNSEL. The Company shall have delivered to the Purchasers the opinion of Paul, Weiss, Rifkind, Wharton & Garrison, counsel to the Company, in the form annexed hereto as Exhibit D.

6. CONDITIONS TO CLOSING OF COMPANY. The obligation of the Company on the Closing Date to issue and sell the Shares to be purchased under this Agreement on the Closing Date shall be subject to the representations and warranties made by the Purchasers herein being true and accurate on and as of the Closing Date as if made on such Date, except to the extent that such representations and warranties are made as of a specified date, in which case such representations and warranties shall be true in all material respects as of the specified date.

7. AFFIRMATIVE COVENANTS.

7.1 INSPECTION; BUSINESS REPORTS; ANNUAL OPERATING PLAN. The Company covenants and agrees that, for so long as an Investor (together with its affiliates) holds at least (a) 100,000 shares of Series C Preferred and/or Common Stock issued upon conversion of Series C Preferred, or (b) 750,000 of the Preferred Shares and/or Common Stock issued upon conversion of Preferred Shares, other than shares of Common Stock issued upon an Additional Automatic Conversion Event (as defined in Article Fifth, Section (d)(ii)(B) of the Third Restated Certificate) (the "Investor Shares"), as adjusted for stock splits, stock dividends, recapitalizations, reclassifications and similar events (together herein called "Recapitalization Events"):

(a) the Company will permit any authorized representatives of any such Investor free and full access at normal business hours and upon advance notification to all of the books, records, personnel and properties of the Company, for any purpose whatsoever, subject to Section 7.9 hereof;

(b) the Company shall provide to all such Investors by December 31, 1995, and by December 31 of each fiscal year thereafter, an operating plan, setting forth the operational and strategic plans of the Company for the coming fiscal year; and

(c) any such Investor shall be entitled to have one designee attend (but not to vote at) meetings of the Board of Directors (and business discussions immediately prior to such meetings) as an observer, provided that such designee shall not be entitled to be present at those portions of any such meetings in which the Board of Directors will be discussing issues that are competitive with the business of the Investor, such determination to be made in the Board's good faith business judgment.

7.2 ACCOUNTING. The Company will maintain and cause each of its Subsidiaries (other than inactive Subsidiaries) to maintain a system of accounting established and administered in accordance with GAAP consistently applied, and will set aside on its books and cause each of its operating Subsidiaries to set aside on its books all such proper reserves as shall be required by GAAP. For purposes of this Agreement, "Subsidiary" means any corporation or entity at least a majority of whose voting securities are at the time owned by the Company, or by one or more Subsidiaries, or by the Company and one or more Subsidiaries.

7.3 MONTHLY AND ANNUAL FINANCIAL STATEMENTS. The Company will deliver to each Investor holding at least (i) 100,000 shares of Series C Preferred and/or Common Stock issued upon conversion of Series C Preferred, or (ii) 750,000 Investor Shares:

(a) within 30 business days after the end of each calendar month, an unaudited consolidated balance sheet of the Company and its Subsidiaries as at the end of each such month and unaudited consolidated statements of (i) income and (ii) cash flow of the Company and its Subsidiaries for each such month and for the period from the beginning of the current fiscal year to the end of such month. Such financial statements shall be in reasonable detail and certified by the chief financial officer of the Company that such financial statements were prepared in accordance with GAAP (subject to (x) there being no footnotes contained therein and (y) changes resulting from year-end audit adjustments), applied on a basis consistent (except as otherwise disclosed therein and consented to by a majority of the Board of Directors) with that of preceding periods, and except as otherwise stated therein, shall present fairly the financial position of the Company as of their date; and

(b) within 90 days after the end of each fiscal year of the Company, a consolidated balance sheet of the Company and its Subsidiaries as of the end of such year and statements of income and statements of cash flow of the Company and its Subsidiaries for such year, setting forth in each case in comparative form the figures for the previous fiscal year, all in reasonable detail and accompanied by the opinion thereon of a firm of independent public accountants of nationally recognized standing, which opinion shall state that such balance sheet and statements of income and cash flow have been prepared in accordance with GAAP applied on a basis consistent with that of the preceding fiscal year (except as otherwise approved by the Board of Directors), and present fairly and accurately the financial position of the Company as of their date, and that the audit by such accountants in connection with such financial statements has been made in accordance with GAAP.

7.4 PROJECTIONS; BUDGETS; REPORTS. The Company will deliver, upon request, to each Investor (together with its affiliates) that holds at least 100,000 shares

of Series C Preferred and/or 750,000 Investor Shares, as adjusted for Recapitalization Events:

(a) within the first 45 days after the beginning of each fiscal year, projections of the statements referred to in paragraph (a) of Section 7.3 of this Agreement for each month in such year;

(b) within the first 30 days after the beginning of each fiscal quarter, revised projections of the statements referred to in paragraph (a) of Section 7.3 of this Agreement.

(c) at least 30 days prior to the beginning of each fiscal year, a budget for such fiscal year, substantially in the form of the prior budget delivered to the Investors, setting forth in detail reasonably acceptable to the Investors the Company's budget for such fiscal year; provided, however, that the Company will deliver the budget for 1996 by January 30, 1996;

(d) promptly upon the filing thereof, reports and statements filed by the Company or any of its Subsidiaries with the Commission (or any governmental authority succeeding to any of its functions) or with any securities exchange; and

(e) with reasonable promptness, such other information and data with respect to the Company or any of its Subsidiaries as from time to time may be reasonably requested.

7.5 USE OF PROCEEDS. The Company shall use the proceeds from the sale of the Shares in order to fund operating losses and working capital requirements.

7.6 PUBLIC INFORMATION. At any time and from time to time after the earlier of the close of business on such date as (a) a registration statement filed by the Company under the Securities Act becomes effective, (b) the Company registers a class of securities under Section 12 of the Securities Exchange Act of 1934, as amended, or any federal statute or code which is a successor thereto

(the "Exchange Act"), or (c) the Company issues an offering circular meeting the requirements of Regulation A under the Securities Act, the Company shall undertake to make publicly available and available to the Holders (as hereinafter defined in Section 8), pursuant to Rule 144, such information as is necessary to enable the Holders to make sales of Registrable Stock (as hereinafter defined in Section 8) pursuant to that Rule. The Company shall comply with the current public information requirements of Rule 144 and shall furnish thereafter to any Holder, upon request, a written statement executed by the Company as to the steps it has taken to so comply.

7.7 INSURANCE. The Company will maintain life insurance upon the lives of the Key Employees in a minimum amount of $1,000,000 each, with the proceeds payable to the Company, unless the Board of Directors determines that such insurance is no longer required to protect the interests of the Company. The Company also shall obtain and keep in effect so long as the Board of Directors deems advisable, term life insurance on the lives of such other employees as, and in the principal amounts as, the Board of Directors shall determine, in each case with proceeds payable to the Company. The Company will keep and maintain in full force and effect fire, casualty and umbrella liability insurance policies, with extended coverage, reasonably sufficient in amount to allow it to replace any of its properties that might be damaged or destroyed or pay reasonably foreseeable liabilities to which it may be subject.

7.8 EMPLOYEE STOCK OPTIONS. From and after the date of this Agreement, except as specifically approved by the Company's Board of Directors, all shares of Common Stock and all options granted by the Company to employees, consultants, officers and non-investor directors for shares of Common Stock (a) shall, until an IPO (as defined in Section 7.12), be subject to a right of first refusal in favor of the Company, (b) shall vest over a four-year period as follows: (i) 1/4 at the end of the twelfth calendar month following the commencement of such person's employment or other retention, and (ii)

1/48 at the end of each month for the next 36 months of such employment or other retention, and shall be subject to the right of the Company to repurchase any non-vested stock at the price paid by the employee prior to full vesting; provided that upon a sale of the Company (whether pursuant to a stock or asset transaction) or a merger of the Company with and into another company (unless the Company is the surviving corporation), all non-vested shares shall immediately become vested and (c) shall be subject to a restriction against transfer of non-vested stock, other than to a family trust. The rights of the Company in (a) and (b) hereof are assignable by the Company, subject to the approval of a majority of the Board of Directors, except that any assignment pursuant to Section 7.10(e) hereof shall not require Board approval.

7.9 CONFIDENTIALITY. Any information provided pursuant to Sections 7.1, 7.3 and 7.4 shall be used by each Investor solely in furtherance of its interests as an investor in the Company, and each Investor shall (except as otherwise required by law) maintain the confidentiality of all confidential information of the Company obtained under said sections, provided that (a) the Company makes an appropriate designation of any such confidential information, and (b) any other term of this Agreement to the contrary notwithstanding, the Company shall not be obligated to disclose any information under such Sections, the disclosure of which it believes in good faith would be detrimental to the business of the Company, except that nothing in this clause (b) will limit in any way the obligation of the Company and its officers to fully disclose the business affairs of the Company to the members of the Board of Directors that have entered into confidentiality agreements for the benefit of the Company. The term "confidential information" shall not include such information that (i) is or becomes generally available to the public other than as a result of a disclosure by an Investor or its agents, representatives or employees in violation of its obligations hereunder; (ii) is or becomes available to an Investor on a non-confidential basis from a source (other than the Company or one of its directors, officers,

agents, representatives or employees) that is not prohibited from disclosing such information by a legal, contractual or fiduciary obligation; or (iii) was known to an Investor on a non-confidential basis prior to its disclosure to such Investor by the Company.

In the event that an Investor, or anyone to whom an Investor transmits any confidential information, becomes legally compelled to disclose any confidential information, such person will provide the Company with prompt notice so that it may seek a protective order or other appropriate remedy and/or waive compliance with the provisions of this Section 7.9. In the event that such protective order or other remedy is not obtained, or the Company waives compliance with the provisions of this Section 7.9, the Investor will furnish only that portion of the confidential information that it is advised by counsel is legally required and will exercise its reasonable efforts to obtain reliable assurance that confidential treatment will be accorded the confidential information.

7.10 RIGHT OF FIRST REFUSAL. The Company hereby grants to each Investor the right of first refusal to purchase, pro-rata, all (or any part) of (x) New Securities (as defined in Section 7.10(a) below) that the Company may, from time to time, propose to sell and issue and (y) Employee Stock (as defined in Section 7.10(d) below) that the Company is entitled to, but shall not, repurchase from an employee. The Investor's pro rata share shall be the ratio of the number of Preferred Shares then held by the Investor as of the date of the Rights Notice (as defined in Section 7.10(b)) or the Repurchase Notice (as defined in Section 7.10(e)), as the case may be, to the sum of the total number of Preferred Shares then held by all Investors (including for this purpose permitted transferees of the Investor pursuant to Section 7.10(f) hereof) as of such date. This right of first refusal shall be subject to the following provisions:

(a) "New Securities" shall mean any Common Stock or preferred shares of any kind of the Company, whether now

or hereafter authorized, and rights, options, or warrants to purchase said Common Stock or preferred shares, and securities of any type whatsoever that are, or may become, convertible into said Common Stock or preferred shares; provided, however, that "New Securities" shall not include (i) securities issuable with respect to the Preferred Shares issued on or prior to the date hereof and shares of Series C Preferred issued hereunder; (ii) securities issuable upon exercise of warrants, options and rights issued prior to the date hereof and Common Stock issuable upon conversion of any securities issued under this clause (ii); (iii) securities offered to the public pursuant to a registration statement filed under the Securities Act; (iv) securities issued in connection with the acquisition of another corporation, business entity or line of business of another business entity by the Company by merger, consolidation, purchase of all or substantially all of the assets, or other reorganization as a result of which the Company owns not less than fifty-one percent (51%) of the voting power of such corporation; (v) shares of the Company's Common Stock or preferred shares issued in connection with any Recapitalization Event by the Company; (vi) securities authorized by the Company's Board of Directors to be issued in connection with the leasing or acquisition of assets by the Company or supply arrangements for the Company; (vii) options, warrants or rights issued pursuant to employee stock purchase and/or stock ownership plans that have been or will be adopted by the Company for Key Employees; (viii) securities reserved, not to exceed 2,110,000 shares of Common Stock, under employee stock option or purchase plans, or securities to be issued to consultants of the Company or in connection with an acquisition or the formation of a joint venture, in each case as approved by the Board of Directors; or (ix) securities issued pursuant to Section 18 hereof.

(b) If the Company proposes to issue New Securities, it shall give the Investors written notice (the "Rights Notice") of its intention, describing the New Securities, the price, the general terms upon which the Company proposes to issue them, and the number of shares that the Investor has the right to purchase under

this Section 7.10. Each Investor (including for this purpose any permitted transferee of an Investor under Section 7.10(f) hereof) shall have twenty-five (25) days from delivery of the Rights Notice to agree to purchase (i) all or any part of its pro-rata share of such New Securities and (ii) all or any part of the pro-rata share of any other Investor to the extent that such other Investor does not elect to purchase its full pro-rata share, in each case for the price and upon the general terms specified in the Rights Notice, by giving written notice to the Company setting forth the quantity of New Securities to be purchased. If the Investors who elect to purchase their full pro-rata shares also elect to purchase in the aggregate more than 100% of the New Securities, such New Securities shall be sold to such Investors in accordance with their respective pro-rata shares.

(c) If the Investors fail to exercise in full the right of first refusal within the period or periods specified in Section 7.10(b), the Company shall have one hundred twenty (120) days after delivery of the Rights Notice to sell the unsold New Securities at a price and upon general terms no more favorable to the purchasers thereof than specified in the Company's notice. If the Company has not sold the New Securities within said one hundred twenty (120) day period the Company shall not thereafter issue or sell any New Securities without first offering such securities to the Investors in the manner provided above.

(d) "Employee Stock" shall mean any Common Stock of the Company, whether now or hereafter authorized, that the Company has issued or sold to an employee pursuant to an employee stock purchase, option or benefit plan, agreement or other offering or arrangement, including, without limitation, all shares sold by the Company to employees of the Company subject to agreements of restriction by the Company and all Reserved Shares described in Section 3.2(b).

(e) If the Company has the right to repurchase any Employee Stock from any employee for any reason,

including, without limiting the generality of the foregoing, the termination of such employee's employment, and if it shall not repurchase all of the shares of such Employee Stock, it shall promptly give each Investor written notice (the "Repurchase Notice") of the Investor's right to repurchase, describing the Employee Stock, the price, the general terms upon which such Employee Stock is available for repurchase, and the number of shares that the Investor has the right to purchase under this Section 7.10. Each Investor shall have fifteen (15) days from delivery of any such notice in accordance with Section 13 to agree to purchase (i) all or any part of its pro-rata share of such Employee Stock and (ii) all or any part of the pro-rata share of any other Investor (including, for this purpose, any assignee of an Investor's rights of first refusal under Section 7.10(f) hereof) to the extent that such other Investor does not elect to purchase his full pro-rata share, in each case for the price and upon the general terms specified in the notice by giving written notice to the Company setting forth the quantity of Employee Stock to be purchased. If the Investors who elect to purchase their full pro-rata shares also elect to purchase in the aggregate more than 100% of the Employee Stock, such Employee Stock shall be sold to such Investors in accordance with their respective pro-rata shares.

(f) The rights of first refusal described in this Section 7.10 are nonassignable except to an affiliate of each Investor or any of such Investor's beneficial owners, including without limitation partners of a general or limited partnership, shareholders of a corporation, and beneficiaries of a trust (a "Beneficial Owner"). Each Investor shall be entitled to apportion the rights of first refusal hereby granted among itself and its affiliates and Beneficial Owners in such proportions as it deems appropriate.

7.11 MAINTENANCE OF EXISTENCE AND PROPERTIES, ETC.. The Company will, and will cause each of its Subsidiaries to (a) maintain its corporate existence, rights, governmental approvals and franchises necessary to the conduct of its business, (b) keep its properties in good

repair, working order and condition, reasonable wear and tear excepted, (c) give appropriate notice of events of default pursuant to any agreements of the Company, (d) enter into transactions with "affiliates" or "associates" (as those terms are defined in Rule 405 promulgated under the Securities Act) only on fair and reasonable terms and (e) promptly pay and discharge, or cause to be paid and discharged, when due and payable, all lawful taxes, assessments and governmental charges or levies imposed upon the income, profits, property or business of the Company or any Subsidiary; provided, however, that any such tax, assessment, charge or levy need not be paid if the validity thereof shall at the time be contested in good faith by appropriate proceedings and provided further that, unless otherwise approved by the Board of Directors, the Company will pay all such taxes, assessments, charges or levies forthwith upon the commencement of proceedings to foreclose any lien which may have attached as security therefor.

7.12 TERMINATION OF COVENANTS. The covenants set forth in Sections 7.1 through 7.4, 7.10 and 7.11 shall terminate and be of no further force or effect on the consummation of the first firm commitment underwritten public offering of securities of the Company pursuant to a registration statement filed by the Company under the Securities Act (an "IPO") or with respect to shares of Common Stock held by an Investor that have been issued upon conversion of Preferred Shares pursuant to an Additional Automatic Conversion Event (as defined in Article Fifth, Section (d)(ii)(B) of the Third Restated Certificate).

8. REGISTRATION. The following provisions govern the registration of Common Stock:

8.1 DEFINITIONS. As used herein, the following terms have the following meanings:

Forms S-1, S-2 and S-3: The forms so designated, promulgated by the Commission for registration of securities under the Securities Act, and any forms

succeeding to the functions of such forms, whether or not bearing the same designation.

Holder: A holder of Registrable Stock (subject to Section 8.13 hereof), provided that anyone who acquires any Registrable Stock in a distribution pursuant to a registration statement filed by the Company under the Securities Act shall not thereby be deemed to be a "Holder".

Key Employees: The Key Employees and certain employees of the Company designated by a majority of the Board of Directors from time to time as "Key Employees"; provided that in no event shall a person be considered a Key Employee if such person is no longer employed by the Company.

"Register", "registered" and "registration" refer to a registration effected by filing a registration statement in compliance with the Securities Act and the declaration or ordering by the Commission of effectiveness of such registration statement.

Registrable Stock: All shares of Common Stock issued or issuable upon conversion of the Preferred Shares (other than shares converted pursuant to an Additional Automatic Conversion Event) or held by a person to whom registration rights have been transferred pursuant to the provisions of this Section 8, all shares of Common Stock issued by the Company in respect of such shares and all shares of Common Stock that the Investors may hereafter purchase pursuant to their rights of first refusal or otherwise, or Common Stock issued on conversion or exercise of securities so purchased.

Required Demand Amount: 51% of the Registrable Stock then outstanding, in the case of the first registration effected pursuant to Section 8.2, and 25% of the Registrable Stock then outstanding, in the case of the second registration effected pursuant to Section 8.2.

Subject Stock: All Registrable Stock held by the Investors or by a person to whom registration rights have been transferred pursuant to this Section 8, and the shares of Common Stock held by the Key Employees. Subject Stock shall not include shares acquired in a distribution pursuant to a registration statement filed by the Company under the Securities Act.

8.2 REQUIRED REGISTRATION. (a) If (i) the holder or holders of an aggregate of at least the Required Demand Amount propose to dispose of at least 20% of the then outstanding Registrable Stock (such holder or holders being herein called the "Initiating Holders"), and (ii) such disposition may not, in the opinion of such Initiating Holders, be effected in the public marketplace (as opposed to a private transaction under the Securities Act) on equally favorable net terms to the Initiating Holders without registration of such shares under the Securities Act, the Initiating Holders may request the Company in writing to effect such registration, stating the number of shares of Registrable Stock to be disposed of by such Initiating Holders (which, in the aggregate, shall be not less than 20% of the then outstanding Registrable Stock) and the intended method of disposition. Upon receipt of such request, the Company will give prompt written notice thereof to all other Holders whereupon such other Holders shall give written notice to the Company within 20 days after the date of the Company's notice (the "Notice Period") if they propose to dispose of any shares of Registrable Stock pursuant to such registration, stating the number of shares of Registrable Stock to be disposed of by such Holder or Holders and the intended method of disposition.

(b) The Key Employees may register securities for sale for their own account in the registration requested pursuant to this Section 8.2, subject to limitations on the number of shares which may be imposed by the underwriter as set forth in Section 8.4(d) below. At the time the Company shall give the notice to Holders required by Section 8.2(a), it shall also give the same notice to the Key Employees whereupon each Key Employee

shall give written notice to the Company within the Notice Period if such Key Employee proposes to dispose of any shares of Common Stock held by him or her pursuant to such registration, stating the number of shares of Common Stock to be disposed of by such Key Employee and the intended method of disposition.

(c) The Company will use its best efforts to effect promptly after the Notice Period the registration under the Securities Act of all shares of Subject Stock specified in the requests of the Initiating Holders, the requests of the other Holders and the requests of the Key Employees, subject, however, to the limitations set forth in Section 8.4.

8.3 REGISTRATION PROCEDURES. Whenever the Company is required by the provisions of this Section 8 to use its best efforts to effect promptly the registration of shares of Registrable Stock, the Company will:

(a) prepare and file with the Commission a registration statement with respect to such shares and use its best efforts to cause such registration statement to become and remain effective as provided herein;

(b) prepare and file with the Commission such amendments and supplements to such registration statement and the prospectus used in connection therewith as may be necessary to keep such registration statement effective and current and to comply with the provisions of the Securities Act with respect to the disposition of all shares covered by such registration statement, including such amendments and supplements as may be necessary to reflect the intended method of disposition from time to time of the prospective seller or sellers of such shares, but for no longer than one hundred twenty (120) days subsequent to the effective date of such registration in the case of a registration statement on Form S-1 or S-2 and for no longer than ninety (90) days in the case of a registration statement on Form S-3;

(c) furnish to each prospective seller such number of copies of a prospectus, including a preliminary

prospectus, in conformity with the requirements of the Securities Act, and such other documents, as such seller may reasonably request in order to facilitate the public sale or other disposition of the shares owned by such seller;

(d) use its best efforts to register or qualify the shares covered by such registration statement under such other securities or blue sky or other applicable laws of such jurisdiction within the United States as each prospective seller shall reasonably request, to enable such seller to consummate the public sale or other disposition in such jurisdictions of the shares owned by such seller; provided, however, that in no event shall the Company be obligated to qualify to do business in any jurisdiction where it is not at the time so qualified or to take any action which would subject it to service of process in suits other than those arising out of the offer or sale of the Subject Stock covered by such registration statement in any jurisdiction where it is not at the time so subject;

(e) furnish to each prospective seller (i) a signed counterpart, addressed to the prospective sellers, of an opinion of counsel for the Company, dated the effective date of the registration statement, covering substantially the same matters with respect to the registration statement (and the prospectus included therein) as are customarily covered (at the time of such registration) in opinions of issuer's counsel delivered to the underwriters in underwritten public offerings of securities, and (ii) a letter dated such date, from the independent certified public accountants of the Company, in form and substance as is customarily given by independent certified public accountants to underwriters in an underwritten public offering, addressed to the underwriters, if any, and to the Holders requesting registration of Registrable Stock;

(f) in the event of any underwritten public offering, enter into and perform its obligations under an underwriting agreement, in usual and customary form, with the managing underwriter of such offering; each Holder

participating in such underwriting shall also enter into and perform its obligations under such an agreement;

(g) notify each Holder of Registrable Stock covered by such registration statement at any time when a prospectus relating thereto is required to be delivered under the Securities Act of the happening of any event as a result of which the prospectus included in such registration statement, as then in effect, includes an untrue statement of a material fact or omits to state a material fact required to be stated therein or necessary to make the statements therein not misleading in the light of the circumstances then existing; and

(h) apply for listing and use its best efforts to list the Registrable Stock being registered on any national securities exchange on which a class of the Company's equity securities are listed or, if the Company does not have a class of equity securities listed on a national securities exchange, apply for qualification and use its best efforts to qualify the Registrable Stock being registered for inclusion on the automated quotation system of the National Association of Securities Dealers, Inc. or on a national securities exchange.

8.4 LIMITATIONS ON REQUIRED REGISTRATIONS. (a) The Company shall not be required to effect more than two registrations on behalf of the Investors pursuant to Section 8.2.

(b) The Company shall not be required to cause a registration requested pursuant to Section 8.2 to become effective prior to the earlier of (i) December 1, 1998 and (ii) the expiration of six (6) months after the effective date of the first registration statement initiated by the Company (other than a registration effected solely to implement an employee benefit plan or a transaction to which Rule 145 of the Commission is applicable).

(c) The Company shall not register securities for sale for its own account in any registration requested pursuant to Section 8.2 unless permitted to do so by the

written consent of Holders who hold at least 51% of the Registrable Stock as to which registration has been requested. The Company may not cause any other registration of securities for sale for its own account (other than a registration effected solely to implement an employee benefit plan) to be initiated after a registration requested pursuant to Section 8.2, unless such other registration becomes effective at least 120 days after the effective date of any registration requested pursuant to Section 8.2.

(d) Whenever a requested registration is for an underwritten offering, only shares which are to be included in the underwriting may be included in the registration. Notwithstanding the provisions of Sections 8.2(b) and 8.4(c), if the underwriter determines that (i) marketing factors require a limitation of the total number of shares to be underwritten or a limitation of the total number of shares of the Key Employees to be underwritten, or (ii) the offering price per share would be reduced by the inclusion of the shares of the Key Employees and/or the Company, then the number of shares to be included in the registration and underwriting shall first be allocated among all Holders who indicated to the Company their decision to distribute any of their Registrable Stock through such underwriting, in proportion, as nearly as practicable, to the respective numbers of shares of Registrable Stock owned by such Holders at the time of filing the registration statement, then to the Key Employees who have indicated to the Company their decision to distribute any of their Subject Stock through such underwriting, in proportion, as nearly as practicable, to the respective numbers of shares of Subject Stock owned by the Key Employees at the time of filing of the registration statement, and the remainder, if any, to the Company; provided, however, that if the underwriter determines that marketing factors require a limitation of the number of shares of the Key Employees to be underwritten or that the offering price per share would be reduced by the inclusion of the shares of the Key Employees, then the number of shares of the Key Employees that may be so included shall be reduced, or eliminated from registration, as the underwriter shall

advise. No stock excluded from the underwriting by reason of the underwriter's marketing limitation shall be included in such registration. If any Holder, Key Employee or the Company disapproves of any such underwriting, such person may elect to withdraw therefrom by written notice to the Initiating Holders and the underwriter. The securities so withdrawn from such underwriting shall also be withdrawn from such registration.

(e) The Company shall not be required to effect a registration pursuant to Section 8.2 unless the proposed disposition of shares of Subject Stock has an aggregate expected offering price (before deduction of underwriting discounts and expenses of sale) of not less than $5,000,000.

(f) If at the time of any request to register Registrable Stock pursuant to Section 8.2 hereof, the Company is engaged, or has fixed plans to engage within 90 days of the time of the request, in a registered public offering as to which the Holders may include such Stock pursuant to Section 8.5 hereof or is engaged in any other activity which, in the good faith determination of the Company's Board of Directors, would be adversely affected by the requested registration to the material detriment of the Company, then the Company may at its option direct that such request be delayed for a period not in excess of six months from the effective date of such offering, or the date of commencement of such other material activity, as the case may be, such right to delay a request to be exercised by the Company not more than once while the rights set forth in Section 8.2 are in effect.

(g) The registration rights granted under Section 8.2 shall terminate as to any Holder or permissible transferees or assignee of such rights if such person (i) holds one percent (1%) or less of the outstanding shares of Common Stock of the Company and (ii) would be permitted to sell all of the Subject Stock held by it pursuant to Rule 144(k).

8.5 INCIDENTAL REGISTRATION. If the Company at any time proposes to register any of its securities under the Securities Act (other than a registration effected solely to implement an employee benefit plan or a transaction to which Rule 145 of the Commission is applicable), it will each such time give prompt written notice to all Holders and to the Key Employees of its intention so to do. Upon the written request of a Holder or Holders or a Key Employee or Key Employees given within 20 days after receipt of any such notice (stating the number of shares of Subject Stock to be disposed of by such Holder or Holders or such Key Employee or Key Employees and the intended method of disposition), the Company will use its best efforts to cause all such shares of Subject Stock intended to be disposed of, the Holders or the Key Employees owners of which shall have requested registration thereof, to be registered under the Securities Act so as to permit the disposition (in accordance with the methods in said request) by such Holder or Holders or such Key Employee or Key Employees of the shares so registered, subject, however, to the limitations set forth in Section 8.6.

8.6 LIMITATIONS ON INCIDENTAL REGISTRATION. If the registration of which the Company gives notice pursuant to Section 8.5 is for an underwritten offering, only securities that are to be included in the underwriting may be included in the registration. Notwithstanding any provision of Section 8.5, if the underwriter determines that marketing factors require a limitation of the number of shares to be underwritten, the underwriter may eliminate or reduce the number of shares of Subject Stock to be included in the registration and underwriting. The Company shall so advise all Holders and the Key Employees (except those Holders and Key Employees who have not indicated to the Company their decision to distribute any of their Subject Stock through such underwriting), and the number of shares of Subject Stock that may be included in the registration and underwriting shall be allocated among such Holders and Key Employees in proportion, as nearly as practicable, to the respective amounts of Subject Stock owned by such Holders and Key Employees at the time of filing the registration

statement. No Subject Stock excluded from the underwriting by reason of the underwriter's marketing limitation shall be included in such registration. If any Holder or Key Employee disapproves of any such underwriting, such person may elect to withdraw therefrom by written notice to the Company and the underwriter. The Subject Stock and/or other securities so withdrawn from such underwriting shall also be withdrawn from such registration. The registration rights granted under Section 8.5 shall terminate as to any Key Employee or Holder or permissible transferees or assignee of such rights if such person (a) holds one percent (1%) or less of the outstanding shares of Common Stock of the Company and (b) would be permitted to sell all of the Subject Stock held by him pursuant to Rule 144(k).

8.7 DESIGNATION OF UNDERWRITER. (a) In the case of any registration effected pursuant to Section 8.2 or 8.8, a majority in interest of the requesting Holders shall have the right to designate the managing underwriter(s) in any underwritten offering.

(b) In the case of any registration initiated by the Company, the Company shall have the right to designate the managing underwriter in any underwritten offering.

8.8 FORM S-3. (a) The Company shall register its Common Stock under the Exchange Act as soon as legally permissible following the effective date of the first registration of any securities of the Company on Form S-1 and the Company shall thereafter file all reports and effect all qualifications and compliances as would permit or facilitate the sale and distribution of its stock on Form S-3. After the Company has qualified for the use of Form S-3, the Holders shall have the right to request up to six (6) registrations on Form S-3 (such requests shall be in writing and shall state the number of shares of Registrable Stock to be disposed of and the intended method of disposition) subject only to the following:

(i) The Company shall not be required to effect a registration pursuant to this Section 8.8

unless the Holder or Holders requesting registration propose to dispose of shares of Registrable Stock having an aggregate expected public offering price (before deduction of underwriting discounts and expenses of sale) of at least $500,000.

(ii) The Company shall not be required to effect a registration pursuant to this Section 8.8 more frequently than once during any twelve-month period.

The Company shall give prompt written notice to all Holders and Key Employees of the receipt of a request for registration pursuant to this Section 8.8 and shall provide a reasonable opportunity for other Holders and Key Employees to participate in the registration, provided that if the registration is for an underwritten offering, the terms of paragraph (d) of Section 8.4 shall apply to all participants in such offering. Subject to the foregoing, the Company will use its best efforts to effect promptly the registration of all shares of Subject Stock on Form S-3 to the extent requested by the Holder or Holders thereof or by a Key Employee.

(b) The registration rights granted under this Section 8.8 shall terminate as to any Holder or permissible transferees or assignee of such rights if such person (a) holds one percent (1%) or less of the outstanding shares of Common Stock of the Company and (b) would be permitted to sell all of the Subject Stock held by it pursuant to Rule 144(k).

8.9 COOPERATION BY PROSPECTIVE SELLERS. (a) Each prospective seller of Subject Stock, and each underwriter designated by a majority in interest of the requesting Holders, will furnish to the Company such information as the Company may reasonably require from such seller or underwriter in connection with the registration statement (and the prospectus included therein).

(b) Failure of a prospective seller of Subject Stock to furnish the information and agreements described

in this Section 8.9 shall (i) with respect to registration rights under Section 8.2, terminate such prospective seller's registration rights, and (ii) with respect to registration rights under Section 8.5, terminate such prospective seller's registration rights with respect to the registration at issue. However, such failure shall not affect the obligations of the Company under this Section 8 to remaining sellers who furnish such information and agreements unless, in the reasonable opinion of counsel to the Company or the underwriters, such failure impairs or may impair the viability of the offering or the legality of the registration statement or the underlying offering.

(c) The Holders and the Key Employees holding shares included in the registration statement will not (until further notice) effect sales thereof after receipt of telegraphic or written notice from the Company to suspend sales to permit the Company to correct or update a registration statement or prospectus; but the obligations of the Company with respect to maintaining any registration statement current and effective shall be extended by a period of days equal to the period such suspension is in effect unless (i) such extension would result in the Company's inability to use the financial statements in the registration statement initially filed pursuant to the Holder or Holders' request and (ii) such correction or update did not result from the Company's acts or failures to act.

At the end of the period during which the Company is obligated to keep the registration statement current and effective as described in paragraph (b) of Section 8.3 (and any extensions thereof required by the preceding sentence), the Holders and the Key Employees holding shares included in the registration statement shall discontinue sales of shares pursuant to such registration statement upon receipt of notice from the Company of its intention to remove from registration the shares covered by such registration statement which remain unsold, and such Holders and Key Employees shall notify the Company of the number of shares registered which remain unsold immediately upon receipt of such notice from the Company.

8.10 EXPENSES OF REGISTRATION. (a) All expenses incurred in effecting any registration pursuant to Sections 8.2 and 8.5 including, without limitation, all registration and filing fees, printing expenses, expenses of compliance with blue sky laws, fees and disbursements of counsel for the Company, expenses, fees and disbursements of one special counsel retained by the Holders and/or the Key Employees not to exceed $10,000, and expenses of any audits incidental to or required by any such registration, shall be borne by the Company, except (i) that all expenses, fees and disbursements of any additional counsel retained by the Holders and/or the Key Employees, and all underwriting discounts and commissions shall be borne by the Holders of and the Key Employees holding the securities registered pursuant to such registration, pro rata according to the quantity of their securities so registered; (ii) the Company shall not be required to pay for any expenses of any registration proceeding begun pursuant to Section 8.2 if the registration request is subsequently withdrawn at the unilateral written request, not concurred in by the Company, of the Holders of a majority of the Registrable Securities to be registered (in which case all participating Holders shall bear such expenses), unless the Holders of a majority of the Registrable Securities agree to forfeit their right to one demand registration pursuant to Section 8.2; provided, however, that if immediately prior to the time of such withdrawal, the Holders have learned of a materially adverse change in the condition, business or prospects of the Company from that known to the Holders at the time of their request, then the Holders shall not be required to pay any of such expenses and shall retain their rights pursuant to Section 8.2; and (iii) with respect to registrations effectuated under Section 8.2, the Company shall be required to pay expenses only in respect of the first two such registrations.

(b) All expenses incurred in effecting any registration pursuant to Section 8.8, including without limitation all registration and filing fees, printing expenses, expenses of compliance with blue sky laws, fees and disbursements of counsel for the Company, expenses,

fees and disbursements of special counsel retained by the Holders and/or the Key Employees, all underwriting discounts and commissions, and expenses of any audits incidental to or required by any such registration, shall be borne by the Holders of, and the Key Employees holding, the securities registered pursuant to such registration, pro rata according to the quantity of their securities so registered.

8.11 INDEMNIFICATION. (a) To the extent permitted by law, the Company will indemnify and hold harmless each Holder and Key Employee requesting or joining in a registration, each agent, officer and director of such Holders, each person controlling (within the meaning of Section 15 of the Securities Act) such Holder and each underwriter and selling broker of the securities so registered (collectively, "Indemnitees") against all claims, losses, damages and liabilities (or actions in respect thereof) arising out of or based on any untrue statement (or alleged untrue statement) of a material fact contained in any prospectus, offering circular or other document incident to any registration, qualification or compliance (or in any related registration statement, notification or the like) or any omission (or alleged omission) to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, or any violation (or alleged violation) by the Company of the Securities Act, the Exchange Act or state securities laws or any rule or regulation promulgated under the Securities Act, the Exchange Act or a state securities law, in each case applicable to the Company, and will reimburse each such Indemnitee for any legal and any other fees and expenses reasonably incurred in connection with investigating or defending any such claim, loss, damage, liability or action, provided, however, that the Company will not be liable to any Indemnitee in any such case to the extent that any such claim, loss, damage or liability is caused by any untrue statement or omission so made in strict conformity with written information furnished to the Company by an instrument duly executed by such Indemnitee and stated to be specifically for use therein and except that the foregoing indemnity agreement

is subject to the condition that, insofar as it relates to any such untrue statement (or alleged untrue statement) or omission (or alleged omission) made in the preliminary prospectus but eliminated or remedied in the amended prospectus on file with the Commission at the time the registration statement becomes effective or in the amended prospectus filed with the Commission pursuant to Rule 424(b) (the "Final Prospectus"), such indemnity agreement shall not inure to the benefit of any underwriter, or any Indemnitee if there is no underwriter, if a copy of the Final Prospectus was not furnished to the person or entity asserting the loss, liability, claim or damage at or prior to the time such furnishing is required by the Securities Act; provided, further, that this indemnity shall not be deemed to relieve any underwriter of any of its due diligence obligations; provided, further, that the indemnity agreement contained in this subsection 8.11(a) shall not apply to amounts paid in settlement of any such claim, loss, damage, liability or action if such settlement is effected without the consent of the Company, which consent shall not be unreasonably withheld.

(b) To the extent permitted by law, each Holder and each Key Employee requesting or joining in a registration and each underwriter and selling broker of the securities so registered will indemnify and hold harmless the Company and its officers and directors and each person, if any, who controls any thereof within the meaning of Section 15 of the Securities Act and their respective successors against all claims, losses, damages and liabilities (or actions in respect thereof) arising out of or based on any untrue statement (or alleged untrue statement) of a material fact contained in any prospectus, offering circular or other document incident to any registration, qualification or compliance (or in any related registration statement, notification or the like) or any omission (or alleged omission) to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading and will reimburse the Company and each other person indemnified pursuant to this paragraph (b) for any legal and any other fees and expenses reasonably incurred in

connection with investigating or defending any such claim, loss, damage, liability or action, provided, however, that this paragraph (b) shall apply only if (and only to the extent that) such statement or omission was made in reliance upon and in strict conformity with written information (including, without limitation, written negative responses to inquiries) furnished to the Company by an instrument duly executed by such Holder, Key Employee, underwriter or selling broker and stated to be specifically for use in such prospectus, offering circular or other document (or related registration statement, notification or the like) or any amendment or supplement thereto; and except that the foregoing indemnity agreement is subject to the condition that, insofar as it relates to any such untrue statement (or alleged untrue statement) or omission (or alleged omission) made in the preliminary prospectus but eliminated or remedied in the amended prospectus on file with the Commission at the time the registration statement becomes effective or in the Final Prospectus, such indemnity agreement shall not inure to the benefit of (i) the Company and (ii) any underwriter, Holder or Key Employee, if there is no underwriter, if a copy of the Final Prospectus was not furnished to the person or entity asserting the loss, liability, claim or damage at or prior to the time such furnishing is required by the Securities Act; provided, further, that this indemnity shall not be deemed to relieve any underwriter of any of its due diligence obligations; provided, further, that the indemnity agreement contained in this subsection 8.11(b) shall not apply to amounts paid in settlement of any such claim, loss, damage, liability or action if such settlement is effected without the consent of the Holder, Key Employee or underwriter, as the case may be, which consent shall not be unreasonably withheld; and provided, further, that the obligations of such Holders or Key Employees shall be limited to an amount equal to the net proceeds received by such Holder or Key Employee from the sale of Subject Stock in such offering as contemplated herein, unless such claim, loss, damage, liability or action resulted from such Holder's or Key Employee's intentional fraudulent misconduct.

(c) Each party entitled to indemnification hereunder (the "indemnified party") shall give notice to the party required to provide indemnification (the "indemnifying party") promptly after such indemnified party has actual knowledge of any claim as to which indemnity may be sought, and shall permit the indemnifying party (at its expense) to assume the defense of any claim or any litigation resulting therefrom, provided that counsel for the indemnifying party, who shall conduct the defense of such claim or litigation, shall be reasonably satisfactory to the indemnified party, and the indemnified party may participate in such defense at such party's expense, and provided further that the omission by any indemnified party to give notice as provided herein shall not relieve the indemnifying party of its obligations under this Section 8.11 except to the extent that the omission results in a failure of actual notice to the indemnifying party and such indemnifying party is damaged as a result of the failure to give notice. No indemnifying party, in the defense of any such claim or litigation, shall consent, except with the consent of each indemnified party, to entry of any judgment or enter into any settlement which does not include as an unconditional term thereof the giving by the claimant or plaintiff to such indemnified party of a release from all liability in respect to such claim or litigation.

(d) The reimbursement required by this Section 8.11 shall be made by periodic payments during the course of the investigation or defense, as and when bills are received or expenses incurred.

(e) The obligation of the Company under this Section 8.11 shall survive the redemption, if any, of the Preferred Shares, and the completion of any offering of Subject Stock in a registration statement under this Section 8, or otherwise.

8.12 RIGHTS THAT MAY BE GRANTED TO SUBSEQUENT INVESTORS. (a) Within the limitations prescribed by this paragraph (a), but not otherwise, the Company may grant to subsequent investors in the Company rights of

incidental registration (such as those provided in Section 8.5). Such rights may only pertain to shares of Common Stock, including shares of Common Stock into which any other securities may be converted. Such rights may be granted with respect to (i) registrations actually requested by Initiating Holders pursuant to Section 8.2, but only in respect of that portion of any such registration as remains after inclusion of all Registrable Stock requested by Holders but before inclusion of any Subject Stock requested by the Key Employees and (ii) registrations initiated by the Company, but only in respect of that portion of such registration as remains after inclusion of all Subject Stock. With respect to registrations which are for underwritten public offerings, the number of shares held by subsequent investors that may be included in the underwriting shall be allocated as specified in clauses (i) and (ii) of the third sentence of this paragraph (a). Shares not included in such underwriting shall not be registered.

(b) The Company may not grant to subsequent investors in the Company rights of registration upon request (such as those provided in Sections 8.2 and 8.8) unless (i) such rights are limited to shares of Common Stock, (ii) all Holders and the Key Employees are given enforceable contractual rights to participate in registrations requested by such subsequent investors (but subordinate to the rights of priority of registration set forth in Sections 8.4(d) and 8.6), such participation to be on a pro-rata basis, and subject to the limitations, described in the final three sentences of paragraph (a) of this Section 8.12, (iii) such rights shall not become effective prior to 90 days after the effective date of the first registration pursuant to Section 8.2 and (iv) such rights shall not be more favorable than those granted to the Holders.

8.13 TRANSFER OF REGISTRATION RIGHTS. The registration rights granted to the Investors under this Section 8 may be transferred but only to (i) a transferee who shall acquire not less than 500,000 shares of Registrable Stock, as adjusted for Recapitalization

Events, (ii) affiliates of the Investors, (iii) Beneficial Owners, and (iv) spouses, ancestors, lineal descendants, and siblings (and lineal descendants and siblings of such spouses who acquire Registrable Stock by gift, will or intestate succession) if all such transferees or assignees agree in writing to appoint a single representative as their attorney in fact for the purpose of receiving any notices and exercising their rights under this Section 8.

8.14 "STAND-OFF" AGREEMENT. In consideration for the Company performing its obligations under this Section 8, each Investor and each Key Employee severally agrees for such period of time (not to exceed 270 days) as is determined by the underwriters managing any underwritten offering of the Company's securities (the "Managing Underwriter") from the effective date of any registration (other than a registration effected solely to implement an employee benefit plan) of securities of the Company (upon request of the Company or of the Managing Underwriter) not to sell, make any short sale of, loan, grant any option for the purchase of, or otherwise dispose of any Subject Stock or any other stock of the Company held by each Investor or Key Employee, other than shares of Subject Stock included in the registration, without the prior written consent of the Company or such underwriters, as the case may be, provided that all officers and directors of the Company and each holder of more than 2% of the outstanding Common Stock shall enter into similar agreements.

8.15 DELAY OF REGISTRATION. The Investors and the Key Employees shall have no right to take any action to restrain, enjoin, or otherwise delay any registration as the result of any controversy that might arise with respect to the interpretation or implementation of this Section 8.

9. NEGATIVE COVENANTS. (a) So long as not less than 500,000 Preferred Shares (as adjusted for Recapitalization Events) are outstanding, the Company shall not, without the affirmative vote of the holders of record of at least 51% of

the outstanding Preferred Shares, voting together as one class:

(i) declare or pay any dividends or make any other distributions on shares of Common Stock;

(ii) repurchase, or permit any corporation, firm or entity under its control (a "Controlled Entity") to repurchase any shares of Series C Preferred, Series B Preferred, Series A Preferred or Common Stock (other than Employee Stock or redemptions effected upon the terms contained in the Third Restated Certificate);

(iii) make, or permit any Controlled Entity to make, any investments in, loans, advances, capital contributions, or transfers of property to any person or entity (other than to the Company, a wholly-owned subsidiary of the Company or to their respective employees in the ordinary course of business as advances against salary, as employee expense advances or to enable such employees to either purchase Employee Stock or exercise options for Common Stock issued to them pursuant to stock option plans by giving a promissory note therefor);

(iv) create, incur, assume, guaranty or become liable for, or permit any Controlled Entity to create, incur, assume, guaranty or become liable for, any Indebtedness other than (A) current liabilities of the Company not incurred through the borrowing of money or the obtaining of credit except credit on an open account customarily extended; (B) Indebtedness in respect of taxes or other governmental charges not yet due and payable or being contested in good faith and by appropriate proceedings; (C) refinancings of the Indebtedness listed in Schedule 3.5 in a principal amount not exceeding the outstanding principal and accrued interest on such Indebtedness; and (D) Indebtedness incurred in the ordinary course of business in connection with the acquisition by the Company after the date hereof of any personal property of the Company, provided that the amount of such Indebtedness in respect of any such acquisition shall not exceed $3,000,000 without the

consent of at least 66-2/3% of the Board of Directors (for purposes of this subparagraph (a)(iv), Indebtedness shall include all obligations, contingent or otherwise, that in accordance with GAAP should be classified as liabilities on the balance sheet of the Company);

(v) engage in any business other than the business engaged in at the Closing Date, or provided for in the Operating Plan, or liquidate or wind-up its business or its assets;

(vi) merge with or consolidate into any corporation, firm or entity, or sell, lease or otherwise dispose of all or substantially all of its assets unless the Company is the surviving or acquiring entity;

(vii) mortgage or pledge, or create a security interest in, or permit any Controlled Entity to mortgage, pledge or create a security interest in, all or substantially all of the property of the Company or such Controlled Entity, unless unanimously approved by the entire Board of Directors of the Company; or

(ix) own, or permit any Controlled Entity to own, any stock or other securities of any Controlled Entity or other corporation, partnership or entity unless it is wholly owned by the Company, except certificates of deposit, high quality commercial paper, United States government securities and other short-term, high quality liquid investment grade securities.

10. BOARD OF DIRECTORS. (a) The Investors and the Key Employees (in respect of the designations in clause (iv) below) shall act in all capacities and vote the shares of stock of the Company now or hereafter owned or controlled by them so as to cause and maintain the election to the Board of Directors of (i) one designee of the holders of a majority in interest of the Series C Preferred, voting as a single class, which designee shall be a designee of Weiss, Peck & Greer (the "WP&G Designee"), subject to the approval of the remaining directors, which approval shall not be unreasonably withheld, and which WP&G Designee Weiss, Peck & Greer may

at any time and from time to time, in its sole discretion, remove; (ii) one designee of the holders of a majority in interest of the Series B Preferred, voting as a single class, which designee shall be a designee of Charles River Partnership VII; (iii) three designees of the holders of a majority in interest of the Series A Preferred, voting as a single class; and (iv) David Huber and Patrick Nettles. Weiss, Peck & Greer agrees to act with reasonable promptness to propose as a replacement of the initial WP&G Designee an outside director of recognized standing in the industry in which the Company operates, and thereafter, with respect to nominations of any subsequent WP&G Designees, to propose for consideration only candidates satisfying this same qualification criterion.

(b) The Investors and Key Employees shall act in all capacities and/or vote the shares of stock of the Company now or hereafter owned or controlled by them so as to maintain the number of directors on the Board of Directors to be limited to seven members.

(c) Each certificate for shares of capital stock of the Company owned by an Investor or Key Employee shall bear thereon substantially the following legend:

"THE STOCK REPRESENTED BY THIS CERTIFICATE IS SUBJECT TO THE TERMS OF A PREFERRED STOCK PURCHASE AGREEMENT DATED AS OF DECEMBER 20, 1995 WITH RESPECT TO THE VOTING OF THE SHARES REPRESENTED BY THIS CERTIFICATE, OR ANY INTEREST THEREIN, WHICH MAY BE EXAMINED AT THE OFFICES OF THE COMPANY."

(d) Until the earlier of (i) the fifth anniversary of the date of this Agreement and (ii) the consummation by the Company of an IPO, neither Key Employee shall offer, sell, transfer, assign, pledge, hypothecate or otherwise dispose of in the aggregate, in one or more transactions, more than 10% of the shares of Common Stock owned by such Key Employee at the date of this Agreement (and without giving effect to any of the transactions contemplated hereby) without the prior consent of the Board of Directors, provided this provision shall not

apply to any transactions exempted from the Amended and Restated Co-Sale Agreement of even date herewith pursuant to Section 2.05(a)(i)or (iv).

(e) Each party shall act in all capacities to cause any transferee of the shares of its stock in the Company to assume the obligations of its or his transferor hereunder.

(f) Any designee of any holder or holders of the Company's stock who shall serve as a member of the Board shall have full authority to exercise his discretion and business judgment to perform his duty as Director and shall incur no special obligation or liability to any of such holders as a result of such exercise. No party shall have any claim against any such designee, or the holder or holders who selected such designee, with regard to such selection. The Company shall take all actions as may be necessary to cause the Company to indemnify the members of the Board of Directors to the fullest extent permitted under applicable law.

(g) The provisions of this Section 10 shall continue in effect until the earlier of (i) an Automatic Conversion Event (as defined in the Third Restated Certificate) or (ii) ten years from the date hereof.

11. EXPENSES. The Company will pay (a) all the costs and expenses of the reproduction of this Agreement, of all agreements and documents referred to herein and of the certificates for the Shares; (b) all taxes (if any) payable with respect to this Agreement and the issuance of the Shares; (c) all costs of complying with the securities or Blue Sky laws of any jurisdiction with respect to the offering or sale of the Shares; (d) the cost of delivering to such address as each Purchaser shall specify the certificates for the Shares purchased by each such Purchaser; (e) the reasonable fees of special counsel for the Purchasers, not to exceed $17,500 plus actual expenses and disbursements, in connection with the subject matter of this Agreement and the transactions contemplated hereby (other than events described in Section 8 hereof) and payable at the Closing Date; and (f) the fees and expenses incurred with respect to any amendments to this

Agreement or the Third Restated Certificate proposed by the Company (whether or not the same become effective).

12. SURVIVAL OF AGREEMENTS. All representations and warranties contained herein or made in writing by or on behalf of the Company in connection with the transactions contemplated hereby shall survive the execution and delivery of this Agreement (despite any investigation at any time made by the Purchasers or on their behalf) for a period of thirty-six months, and all agreement and covenants contained herein or made in writing by or on behalf of the Company in connection with the transactions contemplated hereby shall survive the execution and delivery of this Agreement (despite any investigation at any time made by the Investors or on their behalf). All statements contained in any certificate or other instrument executed and delivered by the Company or its duly authorized officers or representatives pursuant hereto in connection with the transactions contemplated hereby shall be deemed representations by the Company hereunder.

13. NOTICES. All notices, requests, consents and other communications herein (except as stated in the last sentence of this Section 13) shall be in writing and shall be deemed to be delivered (i) on the date delivered, if personally delivered or transmitted via facsimile with return confirmation of such transmission; (ii) on the business day after the date sent, if sent by recognized overnight courier service and (iii) on the fifth day after the date sent, if mailed by first-class certified mail, postage prepaid and return receipt requested, as follows:

(a) If to the Company:
CIENA Corporation
8530 Corridor Road
Savage, Maryland 20763
Attention: Patrick Nettles, President
Facsimile: (301) 317-5441

with a copy to:

Paul, Weiss, Rifkind, Wharton & Garrison
1615 L Street, N.W., Suite 1300
Washington, D.C. 20036-5694

Attention: Phillip L. Spector, Esq.
Facsimile: (202) 223-7420

(b) If to the Investors, at their respective addresses set forth in Schedules 1, 2.1 and 2.2 hereto; with a copy to:

Venture Law Group
2800 Sand Hill Road
Menlo Park, CA 94025
Attention: Mark B. Weeks, Esq.
Facsimile: (415) 854-1121

and

SVM Star Ventures Management GmSbH
Leopoldstrasse 28A
80802 Munich
Federal Republic of Germany
Facsimile: 49-89-381-70555

and

Leeway & Co.
State Street Bank and Trust Company
Master Trust Division
One Monarch Drive
Willard Building, 6th Floor, W6C
North Quincy, MA 02171
Attn: William M. Mahoney
Facsimile: (617) 847-2308

and

Leeway & Co.
c/o ATTIMCO
One Oak Way
Berkeley Heights, New Jersey 07922
Attn: Paul D. Fetsch
Investment Management
Organization
Facsimile: (908) 771-9614

and

Leeway & Co.
c/o Actuarial Sciences Associates, Inc.
295 North Maple Avenue
Basking Ridge, New Jersey 07920
Attn: Clarin Schwartz, Esq.
Facsimile: (908) 953-8360

and

Ropes & Gray
One International Place
Boston, Massachusetts 02110-2624
Attn: Arthur G. Siler, Esq.
Facsimile: (617) 951-7050

or such other addresses as each of the parties hereto may provide from time to time in writing to the other parties. The financial statements and other reports required by Section 7 may be mailed by first-class regular mail.

14. MODIFICATIONS; WAIVER. (a) Except as set forth in Section 14(b), neither this Agreement nor any provision hereof may be changed, waived, discharged or terminated orally or in writing, except that any provision of this Agreement may be amended and the observance of any such provision may be waived (either generally or in a particular instance and either retroactively or prospectively) with (but only with) the written consent of (i) the Company, (ii) except for modifications of Sections 7 through 10, 13 and 17 through 22, the holders of at least 67% of the outstanding shares of the Preferred Shares (excluding from both the numerator and denominator of the fraction from which such percentage is derived all shares theretofore disposed of by the Investors or their Transferees pursuant to one or more registration statements under the Securities Act or pursuant to Rule 144 or otherwise) acting together as a single class, (iii) in the case of any modification of Sections 7 through 10, 13 and 17 through 22, the holders of at least 67% of the Investor Shares (excluding from both the numerator and denominator of the fracton from which such percentage is derived all shares therefore disposed of by the Investors or their Transferees

pursuant to one or more registration statements under the Securities Act or pursuant to Rule 144 or otherwise) acting together as a single class, (iv) in the event of any modification of Section 8, Investors holding at least 67% of the Registrable Stock (with any shares of Preferred Shares voting as the number of shares of Common Stock into which they are then convertible) then held by the Investors, and (v) in the event the Key Employees' registration rights in Section 8 are modified, waived or terminated, the holders of at least 51% of the aggregate number of shares of Common Stock outstanding as of the date of such modification, waiver or termination that are held by the Key Employees who at such time are stockholders of the Company; provided that this Section 14 may not be modified or amended without the written consent of all the parties hereto; and provided, further, that the Board of Directors shall be permitted to grant to any officer of the Company registration rights that are the equivalent of the Key Employees' registration rights and the granting of such officer registration rights shall not be deemed a modification of the Key Employees' registration rights, for purposes of this Section 14(a) if granted with the approval of a majority of the Board of Directors.

(b) Notwithstanding anything to the contrary contained in Section 14(a), the Board of Directors of the Company may, from time to time, designate additional employees of the Company as "Key Employees," as such term is used in this Agreement. Each person so designated shall execute all such documents as shall be necessary so that he or she shall be considered a "Key Employee" within the meaning of this Agreement, and thereafter, all references to "Key Employees" in this Agreement shall be deemed to include such designee; provided that in no event shall a person be considered a Key Employee if such person is no longer employed by the Company.

15. EXCULPATION AMONG PURCHASERS. Each Purchaser acknowledges that it is not relying upon any statements or instruments made or issued by any person, firm or corporation, other than the Company and its officers, directors and agents, in making its decision to invest in the Company. Each Purchaser agrees that no other Purchaser nor the respective controlling persons, officers, directors, partners, agents, or employees of any Purchaser shall be liable to such Purchaser

for any action heretofore or hereafter taken or omitted to be taken by any of them in connection with the Preferred Shares (and Common Stock issued upon conversion thereof).

16. ENTIRE AGREEMENT. This Agreement, together with the schedules and exhibits attached hereto and made a part hereof, contains the entire agreement between the parties with respect to the transactions contemplated hereby, and supersedes all negotiations, agreements, representations, warranties, commitments, whether in writing or oral, prior to the date hereof.

17. SUCCESSORS AND ASSIGNS.

(a) Except as otherwise expressly provided in this Agreement, all of the terms of this Agreement shall be binding upon and inure to the benefit of and be enforceable by the respective successors and transferees of the parties hereto, except that the rights set forth in Sections 7.1, 7.3 and 7.4 hereof may be assigned but only

(i) to an assignee who shall acquire not less than 100,000 Investor Shares or not less than 100,000 shares of Series C Preferred, as adjusted for Recapitalization Events; or

(ii) in connection with the distribution by a holder of Investor Shares to a Beneficial Owner who holds at least 100,000 shares of Series C Investor Shares or Registrable Stock or not less than 100,000 shares of Series C Preferred, that has been distributed to it, as adjusted for Recapitalization Events.

(b) Any other provision of this Agreement to the contrary notwithstanding, but at all times subject to the provisions of Sections 4.5(a) and (b) hereof, any of the STAR Purchasers (as defined in Schedule 1) shall be entitled to transfer its shares and to freely assign all of its rights under this Agreement to any legal entity

that controls, is controlled by, or is under common control with any of the STAR Purchasers, or that is managed by the Manager (as defined below), and such shares shall remain subject to the provisions of this Agreement. For purposes of this Section 17(b), the "Manager" means the entity that makes investment decisions for any of the STAR Purchasers, or any entity that controls, is controlled by, or is under common control with, such entity. For all purposes under this Agreement, the STAR Purchasers and any permitted transferee of any such STAR Purchaser shall be deemed together to be a single purchaser. Any other provision of this Agreement to the contrary notwithstanding, Leeway & Co. shall be entitled to transfer its shares and to freely assign all of its rights under this Agreement to any successor trustee or nominee or successor by reorganization of a qualified pension trust.

18. ENFORCEMENT. (a) Remedies at Law or in Equity. If the Company shall default in any of its obligations under this Agreement or if any representation or warranty made by or on behalf of the Company in this Agreement or in any certificate, report or other instrument delivered under or pursuant to any term hereof shall be untrue or misleading in any material respect as of the date of this Agreement or as of the date it was made, furnished or delivered, the Purchasers or the Investors, as appropriate, may proceed to protect and enforce their rights by suit in equity or action at law, whether for the specific performance of any term contained in this Agreement or the Third Restated Certificate, injunction against the breach of any such term or in furtherance of the exercise of any power granted in this Agreement or the Third Restated Certificate, or to enforce any other legal or equitable right of such Investors or to take any one or more of such actions. In the event the Purchasers or the Investors bring such an action against the Company, the prevailing party in such dispute shall be entitled to recover from the losing party all fees, costs and expenses of enforcing any right or asserting any defense of such prevailing party under or with respect to this Agreement or the Third Restated Certificate, including without limitation such reasonable fees and expenses of attorneys and accountants, which shall include, without limitation, all fees, costs and expenses of appeals.

(b) Remedies Cumulative; Waiver. No remedy referred to herein is intended to be exclusive, but each shall be cumulative and in addition to any other remedy referred to above or otherwise available to the Purchasers or the Investors at law or in equity. No express or implied waiver by the Purchasers or the Investors of any default shall be a waiver of any future or subsequent default, unless otherwise specified. The failure or delay of the Purchasers or the Investors in exercising any rights granted them hereunder shall not constitute a waiver of any such right and any single or partial exercise of any particular right by the Purchasers or the Investors shall not exhaust the same or constitute a waiver of any other right provided herein.

19. PRIOR AGREEMENTS. Sections 7 through 10, 13, and 17 through 21 of the Series A Agreement and Sections 7 through 10, 13 and 17 through 22 of the Series B Agreement are hereby replaced in their entirety by Sections 7 through 10, 13, and 17 through 22 of this Agreement, respectively. Except as amended and modified hereby, the Prior Agreements shall continue in full force and effect in accordance with their respective terms. By execution of this Agreement, (a) the Prior Investors and the Key Employees hereby consent to the amendment of the Prior Agreements as contemplated herein, and (b) the Prior Investors waive the rights of first refusal under Section 7.10 of the Prior Agreements in respect of the issuances of Series C Preferred hereunder, such waiver to be effective on behalf of all the Investors referred to in the Prior Agreements pursuant to Section 14 thereof.

20. EXECUTION AND COUNTERPARTS. This Agreement may be executed in any number of counterparts, each of which when so executed and delivered shall be deemed an original, and all such counterparts together shall constitute one instrument. Each party shall receive a duplicate original of the counterpart copy or copies executed by it and by the Company.

21. GOVERNING LAW AND SEVERABILITY. Except for matters directly in the purview of the General Corporation Law of the State of Delaware, this Agreement shall be governed by and construed in accordance with the laws of the State of New York, without regard to principles of conflicts of law. In the event any provision of this Agreement or the application

of any such provision to any party shall be held by a court of competent jurisdiction to be contrary to law, the remaining provisions of this agreement shall remain in full force and effect.

22. HEADINGS. The descriptive headings of the Sections hereof and the Schedules and Exhibits hereto are inserted for convenience only and do not constitute a part of this Agreement.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement by their duly authorized officers as of the date first above written.

KEY EMPLOYEES:

/s/ PATRICK NETTLES
Patrick Nettles

/s/ DAVID HUBER
David Huber

THE COMPANY:

CIENA CORPORATION

By: /s/ PATRICK NETTLES
Patrick Nettles
President

INVESTORS:

OSHKIM LIMITED PARTNERSHIP

By:
Name:
Title:

/s/ L.J. SEVIN
L.J. Sevin

SEVIN ROSEN BAYLESS
MANAGEMENT CO.

By: /s/ JOHN V. JAGGERS
John V. Jaggers
Vice President

SEVIN ROSEN MANAGEMENT CO.

By: /s/ JOHN V. JAGGERS

John V. Jaggers
Vice President

SEVIN ROSEN FUND IV

By: SRB Associates IV L.P., its General Partner

By: /s/ JOHN V. JAGGERS

John V. Jaggers
General Partner

SEVIN ROSEN FUND IV, L.P.

By: SRB ASSOCIATES IV L.P.,its General Partner

By:/s/ JOHN V. JAGGERS

John V. Jaggers
General Partner

SVM STAR VENTURES MANAGEMENTGESELLSCHAFT MBH NR. 3

By: /s/ MEIR BAREL

Dr. Meir Barel
Managing Partner

SVE STAR VENTURES NO. II, III, IIIA, RESPECTIVELY

By: SVM Star Ventures Managementgesellschaft mbH Nr. 3
Managing Partner

By:/s/ MEIR BAREL

Dr. Meir Barel
Managing Partner

SVM STAR VENTURES MANAGEMENTGESELLSCHAFT MBH NR. 3 & CO. BETEILIGUNGS KG

By: SVM Star Ventures Managementgesellschaft mbH Nr. 3
Managing Partner

By: /s/ DR. MEIR BAREL

Dr. Meir Barel
Managing Partner

CHARLES RIVER PARTNERSHIP VII

By: /s/ MICHAEL ZAK

Michael Zak, General Partner

INTERWEST MANAGEMENT PARTNERS V

By: /s/ W.J. HAWLEY

General Partner

INTERWEST PARTNERS V

By: InterWest Management Partners V,
General Partner

By: /s/ W.J. HAWLEY

General Partner

INTERWEST INVESTORS V

By: /s/ W.J. HAWLEY

General Partner

/s/ THOMAS ASCHENBRENNER

Thomas Aschenbrenner

UVCC FUND II

By: Arete Ventures, Inc.,
General Partner

By: /s/ WILLIAM T. HEFLIN

William T. Heflin
Vice President

UVCC II PARALLEL FUND, L.P.

By: Arete Ventures, Inc.,
General Partner

By: /s/ WILLIAM T. HEFLIN

William T. Heflin
Vice President

JAPAN ASSOCIATED FINANCE CO., LTD.

By: /s/ MASAKI YOSHIDA

Name: Masaki Yoshida
Title: President

JAFCO R-1 (A) INVESTMENT ENTERPRISE PARTNERSHIP

By: /s/ M. YOSHIDA

Name: Masaki Yoshida
Title: President, Japan Associated Finance Co., Ltd.

JAFCO R-1 (B) INVESTMENT ENTERPRISE PARTNERSHIP

By: /s/ M. YOSHIDA

Name: Masaki Yoshida
Title: President

JAFCO G-5 INVESTMENT ENTERPRISE PARTNERSHIP

By: /s/ M. YOSHIDA

Name: Masaki Yoshida
Title: President

U.S.INFORMATION TECHNOLOGY INVESTMENT ENTERPRISE PARTNERSHIP

By: /s/ M. YOSHIDA

Name: Masaki Yoshida
Title: President

VANGUARD VENTURE PARTNERS

By: /s/ CLIFFORD H. HIGGERSON

Name: Clifford Higgerson
Title: General Partner

VANGUARD IV, L.P.

By: /s/ CLIFFORD H. HIGGERSON

Name: Clifford Higgerson
Title: General Partner

INVESTMENT ADVISERS, INC.

By: /s/ NOEL P. RAHN

Name: Noel P. Rahn
Title: Chief Executive Officer

GIBRALTAR TRUST

By: /s/ JOSHUA RICH

Joshua Ruch
Attorney-in-fact for Trustee

WA & H INVESTMENT, L.L.C.

By: Wessels, Arnold, & Henderson Group, L.L.C.

By: /s/ KENNETH J. WESSELS

Kenneth J. Wessels
President/CEO

DOMINION VENTURES

By: /s/ RANDOLPH D. VERNON

Name: Randolph D. Vernon
Title: Vice President

TECHNOPARTNERS

By: /s/ MIKE ORSAK

Name: Mike Orsak
Title: Partner

WEISS, PECK & GREER

By: /s/ CHRISTOPHER J. SCHAEPE

Name: Christopher J. Schaepe
Title: Venture Partner

TEKNOINVEST MANAGEMENT A.S.

By: /s/ BJORN BYORN

Name: Bjorn Byorn
Title: Managing Director

MOSVOLD FARSUND A.S.

By: /s/ BJORN BYORN

Name: Bjorn Byorn
Title: Attorney-In-Fact

LEEWAY & CO.

By: /s/ JOHN MUIR

Name: John Muir
Title: Assistant Secretary

COWEN INVESTMENT PARTNERS XXIII

By: /s/ DAVID R. SARUS

Name: David R. Sarus
Title: Managing Director

HARVEY B. CASH SELF-DIRECTED IRA

By: /s/ HARVEY B. CASH

Harvey B. Cash

HARVEY B. CASH

By: /s/ HARVEY B. CASH

Harvey B. Cash
Executor/Trustee

MAHUMA, N.V.

By: /s/ BENJAMIN O'SULLIVAN

Name: Benjamin O'Sullivan
Title: Attorney-In-Fact

BESSEMER VENTURE PARTNERS III, L.P.

By: Deer III & Co., General Partner

By: /s/ ROBERT BUESCHER
----------, Partner

BELISARIUS CORPORATION

By: /s/ ROBERT BUESCHER

Name: Robert Buescher
Title:

QUENTIN CORPORATION

By: /s/ ROBERT BUESCHER

Name: Robert Buescher
Title:

BVP III SPECIAL SITUATIONS, L.P.

By: Deer III & Co., General Partner

By: /s/ ROBERT BUSECHER
----------, Partner

ROBERT H. BUESCHER

- ---

* /s/ ROBERT H. BUESCHER

Robert H. Buescher
Atty-in-fact, for those so marked

CHRISTOPHER GABRIELI

*/s/ ROBERT H. BUESCHER

GABRIELI FAMILY FOUNDATION

*/s/ ROBERT H. BUESCHER

NEILL H. BROWNSTEIN

*/s/ ROBERT H. BUESCHER

FELDA G. HARDYMON

*/s/ ROBERT H. BUESCHER

MICHAEL I. BARACH

*/s/ ROBERT H. BUESCHER

THOMAS F. RUHM

*/s/ ROBERT H. BUESCHER

RICHARD R. DAVIS

*/s/ ROBERT H. BUESCHER

WARD W. WOODS

*/s/ ROBERT H. BUESCHER

ROBERT D. LINDSAY

*/s/ ROBERT H. BUESCHER

BARBARA M. HENAGAN

*/s/ ROBERT H. BUESCHER

/s/ JAN LUKENS

Jan Lukens

/s/ STEPHEN L. DOMENIK

Stephen L. Domenik

/s/ DIETRICH ERDMANN

Dietrich Erdmann

/s/ FREDERIC A. RUBINSTEIN

Frederic A. Rubinstein

/s/ EDWIN A . ALLBRITTON

Edwin A. Allbritton

/s/ CHRIS APPLE

C. Chris Apple

/s/ DAVID BELLET

FBO David Bellet

/s/ STEVEN FINN

Steven Finn

/s/ GERARDO ROSENKRANZ
- ------------------------------
Gerardo Rosenkranz

/s/ KEVIN KIMBERLIN
- ------------------------------
Kevin Kimberlin

/s/ SETH HARRISON
- ------------------------------
Seth Harrison

*/s/ ROBERT H. BUESCHER

Robert H. Buescher
Atty-in-fact, for those so marked

RODNEY A. COHEN

*/s/ ROBERT H. BUESCHER

ADAM P. GODFREY

*/s/ ROBERT H. BUESCHER

ROBERT J. RORISTON

*/s/ ROBERT H. BUESCHER

RUSSELL D. STERNLICHT

*/s/ ROBERT H. BUESCHER

KEVIN KIMBERLIN PARTNERS, L.P.

By: /s/ KEVIN KIMBERLIN

Kevin Kimberlin
General Partner

SCHEDULE 3.2
SECURITY HOLDERS OF THE COMPANY

Stockholder	Common Stock Issued & Outstanding	Common Stock Warrants, Options & Rights	Series A Preferred Issued & Outstanding	Preferred Warrants, Options and Rights	Series A Series B Preferred Issued & Outstanding	Series B Preferred Warrants, Options and Rights
David Huber	1,209,590(1)					
James R. & Margaret M. Huber	6,000					
Braden Huber	7,000					
Davis Christopher Huber	7,000					
Alyssa Nicole Huber	7,000					
Brock Larson Huber	7,000					
Kim Larsen	13,817	6,667				
Patrick Nettles	695,427(2)					
Celeste Baker	10,000					
Alan Nettles	10,000					
Garrett Baker	10,000					
Management (other)*		1,851,250				
Gary P. Johnson	8,750					

(1) 300,054 of these shares remain subject to vesting, at the rate of 1/48th of 1,200,000 shares per month, so long as Dr. Huber is still employed by the Company.

(2) 408,352 of these shares remain subject to vesting, at the rate of 1/48th of such shares per month thereafter, so long as Dr. Nettles is still employed by the Company.

Stockholder	Common Stock Issued & Outstanding	Common Stock Warrants, Options & Rights	Series A Preferred Issued & Outstanding	Series A Preferred Warrants, Options and Rights	Series B Preferred Issued & Outstanding	Series B Preferred Warrants, Options and Rights
General Instrument		125,636(3)				
Kevin Kimberlin Partners, L.P.			221,520			
Kevin Kimberlin	15,312		200,000		131,733	250,000
Spencer Trask Holdings Inc.						45,000
Laura M. MacNamara						5,000
Sevin Rosen Fund IV	40,865		1,125,000	25,000	740,998	
SRB Management Company	182		5,000		3,293	
InterWest Partners Fund V	40,865		1,125,000		740,998	
InterWest Investors V	218		6,000	25,000	3,952	
Vanguard Venture Partners	27,244		750,000			
Vanguard IV, L.P.					493,999	
Dominion Ventures				120,000		
Thomas Aschenbrenner	55,449(4)		100,000		65,866	
Chris Apple	182		5,000		3,293	
Seth Harrison	182		5,000		3,293	
Charles River Partnership VII					1,500,000	

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(3) This number is subject to further adjustment upon any issuance of additional common stock, so that it will continue to represent 5% of issued and outstanding common stock, up to January 11, 1996.

(4) 31,943 of these shares remain subject to vesting, at the rate of 1/36th of 50,000 shares per month, so long as Mr. Aschenbrenner is still retained as a consultant to the Company.

Stockholder	Common Stock Issued & Outstanding	Common Stock Warrants, Options & Rights	Series A Preferred Issued & Outstanding	Series A Preferred Warrants, Options and Rights	Series B Preferred Issued & Outstanding	Series B Preferred Warrants, Options and Rights
SVE Star Ventures Enterprises No. II Limited Partnership					256,000	
SVE Star Ventures Enterprises No. III Limited Partnership					687,100	
SVE Star Ventures Enterprises No. IIIA Limited Partnership					56,900	
William K. Woodruff III	82,577					
William K. Woodruff & Company Inc. Profit Sharing Trust	31,637					
Jack N. Greenman	12,826					
William K. Barnard	6,413					
Andrew W. May	3,420					
Cass G. Caspary	3,420					
Jeffrey R. Ohl	2,138					
John Wallace	49,700					
Darren B. vonBehren	855					
Lawrence N. Goldstein	428					
J. Scott Blome	86					
Barton W. Stuck	21,500					
Investment Advisors, Inc.					333,333	
UVCC Fund II					250,000	
UVCC II Parallel Fund, L.P.					250,000	

Stockholder	Common Stock Issued & Outstanding	Common Stock Warrants, Options & Rights	Series A Preferred Issued & Outstanding	Series A Preferred Warrants, Options and Rights	Series B Preferred Issued & Outstanding	Series B Preferred Warrants, Options and Rights
Edwin A. Allbritton					16,667	
Mahuma N.V. (Rosenkranz)					33,333	
FBO David Bellet					50,000	
Frederic A. Rubinstein					16,667	
Steven Finn					16,667	
Neili. H. Brownstein					6,667	
Robert H. Buescher					3,000	
Felda G. Hardymon					23,666(5)	
Christopher Gabrieli					33,333	
Gabrieli Family Foundation					3,333	
Michael I. Barach					3,333	
Richard R. Davis					6,667	
Barbara M. Henagan					3,333	
Robert D. Lindsay					3,333	
Thomas F. Ruhm					667	
Ward W. Woods, Jr.					10,000	
BVP III Special Situations L.P.					22,222	

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(5) Mr. Hardymon has initiated a transfer of certain of his Series B Preferred Shares to the following Bessemer employes: David J. Cowan (5,333 shares); Samantha Chen (1,333 shares); Gautam A. Prakash (2,667 shares); John K. Rodakis (2,000 shares); and Robi L. Soni (2,333 shares).

Stockholder	Common Stock Issued & Outstanding	Common Stock Warrants, Options & Rights	Series A Preferred Issued & Outstanding	Series A Preferred Warrants, Options and Rights	Series B Preferred Issued & Outstanding	Series B Preferred Warrants, Options and Rights
Bessemer Venture Partners III L.P.					580,446	
Japan Associated Finance Co., Ltd.					40,000	
JAFCO G-5 Investment Enterprise Partnership					82,712	
JAFCO R-1 (A) Investment Enterprise Partnership					38,644	
JAFCO R-1 (B) Investment Enterprise Partnership					38,644	
U.S. Information Technology Investment Enterprise Partnership					800,000	
Michael Fagan	50,000					

Schedule 1

Purchaser's Name and Address	Shares to be Purchased at Closing	Purchase Price
InterWest Partners V 3000 Sand Hill Road Building 3, Suite 255 Menlo Park, CA 94025 Facsimile: (415) 854-4706	248,438	$1,739,066
InterWest Investors V 3000 Sand Hill Road Building 3, Suite 255 Menlo Park, CA 94025 Facsimile: (415) 854-4706	1,562	10,934
Harvey B. Cash Self-Directed IRA Two Galleria Tower 13455 Noel Road Suite 1670, LB-5 Dallas, Texas 75240 Phone: (214) 392-7279 Facsimile: (214) 490-6349	14,500	101,500
Sevin Rosen Fund IV L.P. c/o Sevin Rosen Management Co. Two Galleria Tower 13455 Noel Road Suite 1670, LB-5 Dallas, Texas 75240 Facsimile: (214) 702-1103	285,714	1,999,998
Sevin Rosen Fund V L.P. c/o Sevin Rosen Management Co. Two Galleria Tower 13455 Noel Road Suite 1670, LB-5 Dallas, Texas 75240 Facsimile: (214) 960-1749	142,857	999,999

Purchaser's Name and Address	Shares to be Purchased at Closing	Purchase Price
Sevin Rosen Bayless Management Company Two Galleria Tower 13455 Noel Road Suite 1670, LB-5 Dallas, Texas 75240 Facsimile: (214) 960-1749	714	4,998
L.J. Sevin c/o Sevin Rosen Management Co. Two Galleria Tower 13455 Noel Road Suite 1670, LB-5 Dallas, Texas 75240 Facsimile: (214) 960-1749	25,000	175,000
Dietrich Erdmann c/o Sevin Rosen Management Co. Malstrasse 18 6052 Hergiswie, NW Switzerland Facsimile: 011-4141-951372	25,000	175,000
Harvey Cash Trust Two Galleria Tower 13455 Noel Road Suite 1670, LB-5 Dallas, Texas 75240 Facsimile: (214) 392-7279	14,286	100,002
Stephen L. Domenik Sevin Rosen Funds 550 Lytton Avenue Suite 200 Palo Alto, CA 94301 Phone: (415) 326-0550 Facsimile: (415) 326-0707	6,429	45,003

Purchaser's Name and Address	Shares to be Purchased at Closing	Purchase Price
Charles River Partnership VII c/o Charles River Ventures 10 Post Office Square Suite 1330 Boston, Massachusetts 02109 Phone: (617) 292-7717 Facsimile: (617) 292-7718	250,000	1,750,000
Vanguard IV L.P. 525 University Avenue Suite 600 Palo Alto, California 94301 Phone: (415) 321-2900 Facsimile: (415) 321-2902	142,850	999,950
SVM Star Ventures Managementgesellschaft mbH Nr. 3 Possartstr. 9 D-81679 Munchen Germany Facsimile: (011) 49-89-41-943-030	83,898	587,286
SVE Star Ventures Enterprises No. II Limited Partnership Possartstr. 9 D-81679 Munchen Germany Facsimile: (011) 49-89-41-943-030	33,548	234,836
SVE Star Ventures Enterprises No. III Limited Partnership Possartstr. 9 D-81679 Munchen Germany Facsimile: (011) 49-89-41-943-030	90,026	630,182

Purchaser's Name and Address	Shares to be Purchased at Closing	Purchase Price
SVE Star Ventures Enterprises No. IIIA Limited Partnership Possartstr. 9 D-81679 Munchen Germany Facsimile: (011) 49-89-41-943-030	7,528	52,696
SVM Star Ventures Managementgesellschaft mbH Nr. 3 & Co. Beteiligungs KG Possartstr. 9 D-81679 Munchen Germany Facsimile: (011) 49-89-41-943-030	107,143	750,001
Techno Partners 555 California Street, #4380 San Francisco, California 94104 Telephone: (415) 788-0706 Facsimile: (415) 788-0709	3,571	24,997
Japan Associated Finance Co., Ltd. c/o JAFCO American Ventures 555 California Street, #4380 San Francisco, CA 94104 Phone: (415) 788-0706 Facsimile: (415) 788-0709	6,857	47,999
JAFCO G-5 Investment Enterprise Partnership c/o JAFCO American Ventures 555 California Street, #4380 San Francisco, CA 94104 Phone: (415) 788-0706 Facsimile: (415) 788-0709	14,179	99,253

Purchaser's Name and Address	Shares to be Purchased at Closing	Purchase Price
JAFCO R-1(A) Investment Enterprise Partnership c/o JAFCO American Ventures 555 California Street, #4380 San Francisco, CA 94104 Phone: (415) 788-0706 Facsimile: (415) 788-0709	6,625	46,375
JAFCO R-1(B) Investment Enterprise Partnership c/o JAFCO American Ventures 555 California Street, #4380 San Francisco, CA 94104 Phone: (415) 788-0706 Facsimile: (415) 788-0709	6,625	46,375
U.S. Information Technology Investment Enterprise Partnership c/o JAFCO American Ventures 555 California Street, #4380 San Francisco, CA 94104 Phone: (415) 788-0706 Facsimile: (415) 788-0709	137,143	960,001
Neill Brownstein c/o Bessemer Venture Partners 1025 Old Country Road Suite 205 Westbury, NY 11590 Phone: (516) 997-2300	1,428	9,996
Robert H. Buescher c/o Bessemer Venture Partners 1025 Old Country Road Suite 205 Westbury, NY 11590 Phone: (516) 997-2300	1,000	7,000

Purchaser's Name and Address	Shares to be Purchased at Closing	Purchase Price
G. Felda Hardymon c/o Bessemer Venture Partners 1025 Old Country Road Suite 205 Westbury, NY 11590 Phone: (516) 997-2300	3,000	21,000
Michael I. Barach c/o Bessemer Venture Partners 1025 Old Country Road Suite 205 Westbury, NY 11590 Phone: (516) 997-2300	1,430	10,010
Rodney A. Cohen c/o Bessemer Venture Partners 1025 Old Country Road Suite 205 Westbury, NY 11590 Phone: (516) 997-2300	358	2,506
Richard R. Davis c/o Bessemer Venture Partners 1025 Old Country Road Suite 205 Westbury, NY 11590 Phone: (516) 997-2300	1,333	9,331
Adam P. Godfrey c/o Bessemer Venture Partners 1025 Old Country Road Suite 205 Westbury, NY 11590 Phone: (516) 997-2300	430	3,010
Barbara M. Henagan c/o Bessemer Venture Partners 1025 Old Country Road Suite 205 Westbury, NY 11590 Phone: (516) 997-2300	1,000	7,000

Purchaser's Name and Address	Shares to be Purchased at Closing	Purchase Price
Belisarius Corporation c/o Bessemer Venture Partners 1025 Old Country Road Suite 205 Westbury, NY 11590 Phone: (516) 997-2300	1,000	7,000
Robert J. Roriston c/o Bessemer Venture Partners 1025 Old Country Road Suite 205 Westbury, NY 11590 Phone: (516) 997-2300	300	2,100
Thomas F. Ruhm c/o Bessemer Venture Partners 1025 Old Country Road Suite 205 Westbury, NY 11590 Phone: (516) 997-2300	300	2,100
Quentin Corporation c/o Bessemer Venture Partners 1025 Old Country Road Suite 205 Westbury, NY 11590 Phone: (516) 997-2300	1,429	10,003
BVP III Special Situations L.P. 1025 Old Country Road Suite 205 Westbury, NY 11590 Phone: (516) 997-2300	9,523	66,661
Bessemer Venture Partners III L.P. 1025 Old Country Road Suite 205 Westbury, NY 11590 Telephone: (516) 997-2300	410,326	2,872,282

Purchaser's Name and Address	Shares to be Purchased at Closing	Purchase Price
Kevin Kimberlin c/o Spencer Trask Securities, Inc. 535 Madison Avenue 18th Floor New York, New York 10022 Facsimile: (212) 751-3483	72,533	507,731
UVCC Fund II Arete Ventures, Inc. Suite 1040 6110 Executive Boulevard Rockville, Maryland 20852 Phone: (301) 881-2555 Facsimile: (301) 770-2877	32,775	229,425
UVCC II Parallel Fund, L.P. Arete Ventures, Inc. Suite 1040 6110 Executive Boulevard Rockville, Maryland 20852 Phone: (301) 881-2555 facsimile: (301) 770-2877	32,775	229,425
Investment Advisers, Inc. 3800 First Bank Place 601 Second Avenue Minneapolis, Minnesota 55402 Facsimile: (612) 376-2616	43,701	305,907
Thomas Aschenbrenner 6016 Oakcrest Dallas, Texas 75248 Facsimile: (214) 931-2495	21,745	152,215
FBO David Bellet c/o Crown Advisors Ltd. The Lincoln Building 60 East 42nd Street Suite 3405 New York, New York 10165 Facsimile: (212) 808-9073	6,555	45,885

Purchaser's Name and Address	Shares to be Purchased at Closing	Purchase Price
Mahuma, N.V. Holtzman, Wise & Sheppard 1271 Avenue of the Americas Suite 4500 New York, New York 10020 Facsimile: (212) 554-8181	4,370	30,590
Frederic A. Rubinstein Kelley, Drye & Warren 101 Park Avenue New York, New York 10178-0002 Facsimile: (212) 808-7897	2,185	15,295
Edwin A. Allbritton c/o Allbritton Capital Management Assoc. Inc. One Galleria Tower 13355 Noel Road Suite 1375, LB 71 Dallas, Texas 75240-6615 Facsimile: (214) 661-8108	2,185	15,295
Steven G. Finn 2 Barry Drive Framingham, Massachusetts 01701 Facsimile: (617) 258-8553	2,185	15,295
C. Chris Apple 3460 Lotus Drive, Suite 123 Plano, Texas 75075 Phone: (214) 612-5136 Facsimile: (214) 612-5198	1,087	7,609
Dominion Ventures 44 Montgomery Street, Suite 4200 San Francisco, CA 94104	25,596	179,172

Purchaser's Name and Address	Shares to be Purchased at Closing	Purchase Price
WPG Enterprise Fund II, L.P. 555 California Street Suite 4760 San Francisco, CA 94104 Phone: (415) 854-5381 Facsimile: (415) 989-5108	725,000	5,075,000
Technoinvest Management A.S. Eiken Industripark Gamleveien #32 N-1394 Horten Norway	8,286	58,002
Mosvold Farsund A.S. Gamleveien #32 P.O. Box 1004 N-1394 Horten Norway	135,714	949,998
Leeway & Co. State Street Bank and Trust Company Master Trust Division One Monarch Drive Willard Building, 6th Floor, W6C North Quincy, Massachusetts 02171 Facsimile: (617) 847-2308	285,714	1,999,998
Gilbraltar Trust Rho Management 767 5th Avenue, 43rd Floor New York, New York 10053	142,857	999,999
Cowen Investment Partners XXIII Financial Square 30th Floor New York, NY 10005 Phone: (212) 495-6830 Facsimile: (212) 495-8436	36,000	252,000

Purchaser's Name and Address	Shares to be Purchased at Closing	Purchase Price
Jan Lukens 1761 Friar Tuck Road Atlanta, Georgia 30309 Phone: (404) 876-0806	14,286	100,002
WA & H Investment, L.L.C. 901 Marquette Street Suite 2700 Minneapolis, MN 55402 Phone: (612) 373-6203 Facsimile: (612) 373-6285	36,000	252,000

C&S CORRIDOR-32 LIMITED PARTNERSHIP

LEASE AGREEGMENT

CIENA CORPORATION

COVER LETTER

DATED: October 5, 1995

This Lease Agreement (the "Lease") is made between C&S CORRIDOR-32 LIMITED PARTNERSHIP ("Landlord") and CIENA CORPORATION ("Tenant"), and consists of this Cover Letter, the attached General Terms and Conditions of the Lease Agreement, and any exhibits and/or riders hereto. For purposes of this Lease, the following terms, when used in the attached General Terms and Conditions, shall have the meaning set forth below.

1. THE PARTIES

A. Tenant: CIENA CORPORATION, a Delaware Corporation

B. Tenant's Current Address

1340-C Ashton Road

Hanover, MD 21076

C. Tenant's Address and Contact at the Premises

Name: Joseph R. Chinnici, CFO

Address: 8530 Corridor Road

Savage, MD 21076

D. Landlord C&S Corridor-32 Limited Partnership

E. Landlord's Address:
2200 Broening Highway, Suite 110
Baltimore, Maryland 21224
(410) 631-7100 FAX (410) 633-0236

F. Landlord's Representative: Mr. John Knauff

G. Managing Agent: Creaney & Smith Properties, Inc.

2. DESCRIPTION OF PREMISES:

A. Premises: 50,550 gross square feet, being the entirety of the Building, along with parking spaces more particularly described on the plans by Hoffmann dated September 28, 1995 for the Premises and landscaped areas around the Building, all as shown on Exhibit A.

B. Building: The building located at 8530 Corridor Road, Savage, MD 21076.

C. Real Property: The Building and Lot C-2 as shown on the plat entitled Corridor Industrial Park, Section 1, Parcels C-2, C-3, C-4, a Resubdivision of Parcel C-1, Sheet 1 of 1," which plat is recorded among the Land Records of Howard County, Maryland, as Plat No. 6013, the lot upon which the Building is situated, together with the non-exclusive access rights reflected on such plat as more particularly described in Exhibit G attached hereto and made a part hereof. Lot C-2 contains approximately 4.115 acres, more or less.

D. Project: Corridor 32 Business Center

E. Permitted Uses: office, research, manufacturing and storage, and uses incidental thereto

F. Project Covenants: The Project covenants of record are available for inspection in the offices of the Landlord.

3. TERM:

A. Term: An initial term of six (6) years; one five-year renewal option

B. Commencement Date: January 1, 1996 (as same may be adjusted pursuant to the provisions of Section 7.4 of the Lease).

C. Estimated Commencement Date: January 1, 1996
Estimated Expiration Date: December 31, 2001

4. RENT:

A. Total Basic Rent Schedule:

	Period	Rate Per Square Ft	Gross Square Ft	Monthly Installment of Basic Rent	Period Total
Months	1-12	$9.00	38,850*	$29,137.50	$349,650.00
Months	13-24	8.57	50,550	36,118.75	433,425.00
Months	25-36	8.57	50,550	36,118.75	433,425.00
Months	37-48	8.92	50,550	37,575.67	450,908.00
Months	49-60	8.98	50,550	37,848.67	454,184.00
Months	61-72	8.98	50,550	37,848.67	454,184.00

*Although Tenant will have access to and use of the entire Building, Tenant will not be obligated to pay Basic Rent on the 11,700 square feet portion of the Building (the "Unfinished Space") for the first twelve months of the Lease Term.

B. Total Basic rent: Two Million Five Hundred Seventy-five Thousand Seven Hundred Seventy-six Dollars ($2,575,776.00)

C. Advance Rent: Five Thousand Nine Hundred Sixty-four Dollars and Thirteen Cents ($5,964.13) representing a portion of the Monthly Installment of Basic Rent for the first month of the Term. Tenant and Landlord agree that upon execution of the Lease Tenant's initial deposit currently held in escrow in the amount of $42,082.88 shall be applied first to the Security Deposit and

the balance to Advance Rent.

D. Security Deposit: Thirty-six Thousand One Hundred Eighteen Dollars and Seventy-five Cents ($36,118.75)

E. Rent Commencement Date: Commencement Date (estimated January 1, 1996)

5. RENT ADJUSTMENTS:

A. Proportionate Share: one hundred percent (100%).

B. Insurance Base Year: Ends November 30, 1996.

C. Tax Base Year: Ends June 30, 1997.

D. Common Area Expenses: complete passthrough

E. Additional Services Expenses: complete passthrough

6. MISCELLANEOUS:

A. Broker: Creaney & Smith Properties, Inc. and Casey and Associates, Inc./Oncor International

B. Exhibits: This Lease includes the following Exhibits:

Exhibit A - Premises
Exhibit B - Schematic Floor Plan
Construction Outline Specifications
Exhibit C-1 - Tenant's Work
Exhibit C-2 - Landlord's Work
Exhibit D - Common Area Expenses
Exhibit E - Additional Services Expenses
Exhibit F - Expansion
Exhibit G - Plat of Lot C-2
Exhibit H - Landlord's Lien Waiver
Schedule 1 - Interval Cleaning Specifications

C. Riders:This Lease includes the following Riders:

Rider 1 - Renewal Option
Rider 2 - Exclusions

D. Tenant Improvements:

Subject to the other provisions of this Lease, Tenant accepts the Premises together with the improvements to be constructed by Landlord in the Premises. These improvements are designated on the "Schematic Floor Plan" approved by Tenant and attached hereto as Exhibit B, and the "Construction Outline Specifications" approved by Tenant and attached hereto as Exhibits C-1 and C-2. Tenant shall pay Landlord the cost of all Tenant's Work, identified on Exhibit C-1, and the cost of any mutually agreed additional improvements (collectively, the "TI Work"). Landlord shall not incur any costs for which Tenant shall be

liable hereunder until the Tenant has approved such costs, which approval shall not be unreasonably withheld, conditioned or delayed, or unless otherwise agreed between the parties. Landlord shall contribute Three Thousand Eight Hundred and Fifty Dollars ($3,850.00) toward said costs, as Landlord's reimbursement to Tenant for preparation of preliminary space planning by Tenant's architect. Payment for the TI Work shall be made within ten (10) days after receipt of an invoice from Landlord, which invoice shall also include such supporting material as Tenant may reasonably request. The invoices shall e submitted as follows: (1) for 50% of the TI Work when 50% is completed; (2) for 40% of the TI Work on the Completion Date; and (3) the balance following substantial completion of any punchlist items.

WITNESS/ATTEST:

LANDLORD:

C & S Corridor-32 Limited Partnership

By: Creaney & Smith Properties, Inc.,
Managing Agent

By /s/ C. P. CREANEY (SEAL)

Name: C. P. Creaney

Title: President

(Please print or type)

Date: 10-15-95 , 1995

TENANT:

By: /s/ JOSEPH R. CHINNICI (SEAL)

Name: Joseph R. Chinnici

Title: Vice President & Chief

(Please print or type)

Date: October 5 , 1995

CIENA CORPORATION LEASE AGREEMENT
GENERAL TERMS AND CONDITIONS

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Exhibit A - Premises
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Exhibit F - Expansion
Exhibit G - Plat of Lot C-2
Exhibit H - Landlord's Lien Waiver

Schedule 1 - Interval Cleaning Specifications

Rider No. 1 - Renewal Option
Rider No. 2 - Exclusions

GENERAL TERMS AND CONDITIONS
OF
CIENA CORPORATION LEASE AGREEMENT

THIS LEASE, made as of this 5th day of October, 1995, by and between Landlord and Tenant.

WITNESSETH, that the parties agree as follows:

1. LEASED PREMISES. Landlord leases to Tenant, and Tenant rents from Landlord, the Premises, as shown on Exhibit A, together with the rights of ingress and egress over the driveways and sidewalks leading to and from the Building.

2. TERM. The Lease Term shall commence on the "Commencement Date", as defined below, and shall end at 11:59 p.m. on the last day of the Term, unless otherwise terminated or extended in accordance with the terms hereof. Each respective period of twelve (12) successive calendar months during the Term or any renewals thereof commencing with the first calendar month of the Term shall be referred to as a "lease year". The first lease year shall include the portion, if any, of the month during which the Commencement Date occurs. See Rider No. 1 - Renewal Option.

2.1 The Estimated Commencement Date and Estimated Expiration Date are based on the anticipated time needed to construct any Tenant improvements. In the event that Landlord shall be unable, by reason of construction delays or otherwise, to deliver possession of the Premises on the Estimated Commencement Date, then this Lease shall nevertheless continue in full force and effect, and Tenant shall have the right, provided it gives prompt notice thereof to Landlord, to rescind, cancel or terminate the same if possession is not given within one hundred eighty (180) days after (a) execution of this Lease, and (b) satisfaction of the conditions precedent to Landlord's commencement of construction of Tenant Improvements set forth in Section 7 hereof. If this Lease is not so terminated, Tenant's liability for rent shall commence on the date on which Landlord shall deliver possession to Tenant, which date shall thereafter be deemed the "Commencement Date" for all purposes of this Lease. Whether or not Landlord shall deliver possession of the Premises on the Estimated Commencement Date or within said one hundred eighty-day period, Tenant agrees that in no event shall Landlord be liable for damages, if any, sustained by Tenant as a result of Landlord's failure to deliver possession.

2.2 On or after the Commencement Date upon Landlord's request, Tenant and Landlord shall promptly amend this Lease to specify the dates as of which the Term shall have begun and shall end.

3. RENT AND RENTAL ADJUSTMENTS.

3.1 Basic Rent: Tenant shall pay Landlord the Total Basic Rent for the initial term, without any deductions or set-offs, and without demand, in the amounts set forth in the Cover Letter of this Lease.

(a) Tenant shall pay to Landlord, concurrently with its execution hereof, the Advance Rent. Tenant shall pay the balance of the Total Basic Rent in accordance with the Total Basic Rent Schedule, in advance, commencing on the Rent Commencement Date and on the first day of each month thereafter. If the Rent Commencement Date of this Lease is other than the first day of the month, the Monthly Installment of Basic Rent for the portion of the month in which the Rent Commencement Date occurs and the last month of the Term shall be prorated.

3.2 ADDITIONAL RENT: Unless specifically stated otherwise in this Lease, the term "Additional Rent" will include all payments or installments due under this Lease (including attorneys' fees), other than the Basic Rent. Tenant covenants to pay all Additional Rent within thirty (30) days after Landlord has notified Tenant of the amount due or as provided in this Lease Agreement. Tenant's obligation for Additional Rent and any unpaid Basic Rent will remain in effect after the termination or expiration of this Lease. Attorney's fees incurred by Landlord hereunder other than as a result of Tenant's Default shall not exceed One Thousand Dollars ($1,000.0.0) per occurrence.

3.3 All Basic Rent, and any other sums or Additional Rent, accruing under this Lease and not paid within five (5) days after notice of non-payment to Tenant shall bear interest at the rate per annum equal to the prime rate of interest announced from time to time by Mercantile- Safe Deposit and Trust Company plus two percent from the due date until paid. Additionally, any Monthly Installment of Basic Rent or Additional Rent not paid within five (5) days after notice of non-payment to Tenant shall be considered delinquent and subject to a late payment charge equal to five percent (5%) of the amount which is overdue and payable or Twenty-five Dollars ($25.00), whichever amount is greater. This late payment charge shall be in addition to the interest provided for above and shall be due and payable with the payment of the arrearage. Notwithstanding the foregoing, no notice shall be required to be given to Tenant if Landlord has given such notice to Tenant two (2) times in the preceding twelve months.

3.4 DEFINITIONS.

"Real Estate Taxes" shall mean any present or future taxes, general and special, including business park charges, which are levied or assessed against the Real Property, consisting of, without limitation: (a) a tax, assessment, imposition or charge, wholly or partially as a capital levy or otherwise, on the rents payable hereunder; (b) a tax, assessment, (including but not

limited to any municipal, State, or Federal levy), imposition or charge measured by, or based in whole or in part upon, the Premises and imposed upon the Landlord; or (c) a license fee measured by the Basic Rent payable under this Lease. Any reasonable expenses incurred by Landlord in contesting any tax alteration or increase shall also be included as an item of Real Estate Taxes for the purposes of computing Additional Rent due to Landlord, which expenses, however, shall not exceed fifty percent (50%) of the actual savings from such contest. Real Estate Taxes shall not include (i) income, estate, gift, succession, inheritance, transfer, mortgage, gains, unincorporated business, commercial rent and franchise taxes imposed upon Landlord; (ii) any interest or penalties incurred by Landlord by reason of a late payment of Real Estate Taxes provided Tenant has timely performed its monetary obligations hereunder; (iii) water, sewer, value and sales taxes, rents and/or other similar charges; and, (iv) any item which is included as Common Area Expenses or Additional Services Expenses.

"Proportionate Share" shall mean the share of Common Area Expenses, Real Estate Taxes, utilities, or Insurance premiums that are reasonably attributable to Tenant based upon the Tenant's use of and improvements to the Premises. The Proportionate Share shall be the percentage specified in the Cover Letter of this Lease. Notwithstanding the foregoing, Landlord shall be allowed to allocate the reasonable costs of Common Area Expenses such as water charges, trash removal and utility usage based e on actual use of such services by Tenant.

"Insurance" shall mean all insurance of whatsoever nature kept or caused to be kept by Landlord in connection with its ownership of the Real Property and the Project, equipment, fixtures and other improvements installed and/or owned by Landlord and used in connection with the Building, and/or all alterations, rebuildings, replacements and additions thereto, including, but not limited to, insurance insuring the same against loss or damage by, or abatement of rental income resulting from, fire, and other such hazards, casualties and contingencies (including, but not limited to, liability and indemnity insurance). If Landlord's Insurance covers premises other than the Building, the cost thereof shall be reasonably allocated between the Building and such other premises.

"Common Area Expenses" shall mean all expenses incurred by Landlord in connection with managing the Real Property and Landlord's maintenance and repair of the common areas of the Real Property, including but not limited to repairs for normal wear and tear of the roof and its various components, such as skylights, parapets, drains, gutters and caulking; monitoring, repairing and payment of all common area public utilities, including water and sewer and other utility infrastructures, including any equipment owned by Landlord and used in connection with such utilities; monitoring and repairing the sprinkler system; maintenance and repair of all exterior landscaping and grounds, including parking areas; snow removal; and exterior Building repairs and maintenance. Common Area Expenses shall also include (i) all those expenses of the Project attributable on a reasonable basis to the Real Property, including, but not limited to, any expenses incurred by Landlord for employees and contractors of Landlord or its affiliate which

employee expenses shall be pro-rated to the extent such employees also serve other projects and (ii) expenses incurred in providing those services shown on Exhibit D. See Rider No. 2 - Exclusions.

"Additional Services Expenses" shall mean all expenses incurred by Landlord in connection with providing the Premises with those services shown on Exhibit E and trash removal (including recycling), all reasonable and necessary repair and maintenance to the interior portions of the Building, periodic interval cleaning in accordance with Schedule I attached hereto and incorporated by reference herein and all reasonable and necessary repair and maintenance of the heating, ventilation and air-conditioning systems servicing the Building, including the cost of maintaining a full service contract thereon, together with costs of any other necessary repairs or maintenance required to keep the Premises and appurtenances thereto in good order and condition.

3.5 RENT ADJUSTMENTS:

(a) Rent Adjustment - Taxes: if the sum of the Real Estate Taxes for any future fiscal tax year exceeds the Real Estate Taxes for the Tax Base Year, Tenant shall pay to Landlord, as Additional Rent for each whole or partial lease year, an amount equal to its Proportionate Share of the increase. As of the date of this Lease, the tax year is a fiscal year commencing July 1. Landlord shall give Tenant prompt notice of any proposed increase in Taxes and Tenant shall be entitled, at its own expense, and through its own counsel, to participate with Landlord or independently to contest or oppose any such increase. Landlord shall cooperate, but without pecuniary liability, with Tenant as may be reasonably required in any such contest. All refunds, including interest, if any, of Taxes attributable to the Lease Term and which have been paid by Tenant shall belong to Tenant.

(b) Rent Adjustment - Insurance: If Landlord's premiums for Insurance for any future year exceed the premium for Insurance for the Insurance Base Year, Tenant shall pay to Landlord, as Additional Rent, an amount equal to Tenant's Proportionate Share of the increase, for each whole or partial lease year. Landlord shall provide reasonable supporting materials together with the bills provided for in this clause (b) and in clause (a) above.

(c) Rent Adjustment - Additional Services Expenses and Common Area Expenses: Commencing on the Commencement Date, Tenant shall pay to Landlord as Additional Rent, simultaneously with the payments of Monthly Installments of Basic Rent (or if no Monthly Installment of Basic Rent is due for a particular month, then on the first day of such month), the following amounts:

1. from the Commencement Date until the earlier to occur of (a) the completion of improvements to the portion of the Unfinished Space which is crosshatched on Exhibit B (the "Shell Space"), or (b) the first day of the second lease year, $1,852.50 per month (calculated on

the basis of $.52 per rentable square foot of the Premises [other than the Shell Space]) and, thereafter, until further adjusted as set forth below, $2,190.50 per month as one-twelfth of Tenant's estimated Proportionate Share of the Additional Services Expenses; and

2. commencing on the Commencement Date and continuing throughout the Lease Term until further adjusted as set forth below, the sum of $1,853.50 per month (calculated on the basis of $.44 per square foot of the Premises) as one-twelfth of Tenant's estimated Proportionate Share of the Common Area Expenses. Prior to the Commencement Date, Landlord shall deliver to Tenant a statement of the Common Area Expenses for the period of January 1, 1994 through December 31, 1994.

At any time during each year, Landlord may revise its estimate of Tenant's Estimated Monthly Proportionate Share of the Common Area Expenses and Additional Services Expenses, and adjust Tenant's monthly installments payable thereafter to reflect such revised estimates. Landlord will give Tenant written notice of any such adjustment, and Tenant will be required to pay such adjusted monthly installments commencing on the first day of the month following Tenant's receipt of such notice.

Landlord will deliver to Tenant, within one hundred twenty (120) days (or such additional time thereafter as is reasonable under the circumstances) after the end of each applicable period, a statement (a "Statement") of the actual Real Estate Taxes (along with a copy of all bills therefore Insurance, Common Area Expenses and Additional Services Expenses (collectively, the "Expenses") for such period, showing Tenant's Proportionate Share thereof. Tenant will pay Landlord or Landlord will credit Tenant's account or pay Tenant if such adjustment is at the end of the Lease Term, within thirty (30) days after the receipt of such statement, such amounts as may be necessary to adjust Tenant's payments of Tenant's Monthly Proportionate Share of the Estimated Common Area Expenses and Additional Services Expenses for such preceding period so that such payments will equal Tenant's Proportionate Share of the actual expenses for such period.

Upon reasonable notice, Landlord shall make available for Tenant's inspection and copying at Landlord's office, during normal business hours, Landlord's records relating to the Expenses for the period reflected in such Statement, and all information examined shall be kept by Tenant in the strictest confidence; provided, however, that unless Tenant shall have given Landlord written notice of its exception to any such Statement within one hundred twenty (120) days after delivery thereof, the same shall be conclusive and binding on Tenant; provided further that in the event that Tenant shall give to Landlord written notice of its exception to such Statement within such one hundred twenty (120) day period, Tenant shall nevertheless be obligated to pay the Additional Rent, but shall have the right, following such payment, to contest the amount set forth in such Statement before an arbitrator (pursuant to Section 34 hereof) without being in breach or default of this Lease. Failure of Landlord to provide a Statement

called for hereunder within the time prescribed shall not relieve Tenant from its obligations hereunder. If such inspection or arbitration shows there to have been an underpayment or an overpayment, the parties shall, within thirty (30) days after such determination, either remit to Landlord, or credit to Tenant's account, as the case may be, such amount.

4. TELEPHONE, UTILITIES & SERVICES:

4.1 Landlord represents that the Premises are, or will be, separately metered for water, sewer, gas and electric. Tenant shall pay on a timely basis to the appropriate supplier (other than for water and sewer, the cost of which shall be paid to Landlord as part of the Common Area Expenses and shall be based on usage as shown by the meter), all charges for telephone, electricity, gas, and other such services or utilities, used, rendered and/or supplied upon or in connection with the Premises.

4.2 As long as Tenant is not in default under any of the covenants of this Lease, Landlord shall. if and insofar as existing facilities permit, and at Tenant's costs, as set forth above:

(a) furnish electricity, heat and air conditioning to the Premises; and

(b) furnish Tenant with water (hot and cold) at those points of supply provided for general use of tenancv.

4.3 Landlord reserves the right, upon reasonable prior notice to Tenant (except in the event of an emergency) at times other than during normal business hours whenever practicable, to temporarily stop service of the heating, air conditioning, plumbing and electric systems, when necessary, by reason of accident, or emergency, or for repairs, alterations, replacement or improvements, which in the judgment of Landlord are desirable or necessary to be made, until said repairs, alterations, replacements or improvements shall have been completed. Landlord shall have no responsibility or liability for failure to supply heat, air conditioning, plumbing, cleaning and electric service during said period or when prevented from so doing by energy shortages, laws, orders or regulations of any federal, state, county or municipal authority or by strikes, accidents or by other cause whatsoever beyond Landlord's control. In the event of any cessation of any service herein provided due to any such cause, such cessation shall not be construed to be a constructive eviction of Tenant and shall not excuse Tenant's failing to pay Basic Rent or any other of Tenant's obligations under this Lease. To the extent within Landlord's reasonable control Landlord shall not permanently discontinue service unless required to do so by law or emergency until Tenant is able to obtain alternate service.

5. SECURITY DEPOSIT. Tenant shall deposit with Landlord upon the execution of this Lease, the Security Deposit for Tenant's full and faithful performance of the terms of this

Lease. During the Term, for whatever cause, Landlord may use or apply, or retain the whole or any part of the Security Deposit for any obligation of Tenant arising under the terms of this Lease. Any unused portion of the Security Deposit plus any interest actually accrued thereon shall be refunded to Tenant after termination of the tenancy and delivery of possession of the Premises to Landlord. In the event that any part of the Security Deposit is ever utilized by Landlord, Tenant shall deposit with Landlord, a sum equal to the utilized amount within ten (10) days after Landlord's demand therefor.

The Security Deposit may not be used by Tenant as rent, or as a deduction from the last month's rent. Tenant may not indemnify itself with respect to any violation or default by resort to the Security Deposit.

In the event of a bona fide sale of the Building, Landlord shall transfer the Security Deposit to the purchaser of the Building for the benefit of Tenant, at which time Landlord shall be released by Tenant from all liability for the return of the Security Deposit. Tenant agrees to look solely to the new landlord or any subsequent successor landlord for the return of the Security Deposit.

Any reentry of the Premises by Landlord prior to the expiration of the Term of the Lease, where occasioned by default on the part of the Tenant, shall entitle the Landlord to retain the Security Deposit as an additional remedy for such default.

6. USE. The Premises shall be used only for the purposes set forth in the Cover Letter of this Lease, which uses are deemed approved by the Landlord. Any misuse of the Building or Project by Tenant or its agents shall be considered a material violation of this Lease and Landlord shall have all rights and remedies available to it under this Lease in regard to such violation. Landlord represents that upon Landlord's notice to Tenant that the Premises are ready for occupancy pursuant to Section 7.5 below the Premises may be lawfully occupied by Tenant for the use permitted herein.

6.1 Parking. Tenant shall have, for Tenant's exclusive use, two hundred parking spaces on the Real Property as shown on Exhibit A. Tenant shall not permit the parking of Tenant or its invitees vehicles so as to interfere unreasonably with the use of any driveway, corridor, footwalk, parking lot or other common area used by other tenants of the Project. Landlord reserves the right to tow, at Tenant s expense, any vehicle violating the parking provisions of this Article.

7. CONSTRUCTION OF TENANT IMPROVEMENTS. Landlord shall construct the initial Tenant improvements prior to Tenant's occupancy, and such construction shall commence following Tenant's approval of the final Schematic Floor Plan and its incorporation into this Lease as Exhibit B and the Construction Outline Specifications and their incorporation

into this Lease as Exhibits C-l and C-2 ("Tenant's Approval"). Once commenced, construction shall be prosecuted with due diligence until completion. Tenant shall direct all communication concerning the Schematic Floor Plan, the Construction Outline Specifications or the actual construction solely to Landlord's Representative.

7.1 The Schematic Floor Plan and Construction Outline Specifications may be modified by the parties provided they mutually agree to (a) the modifications to be made; (b) the manner in which any additional cost shall be paid or reflected in the Total Basic Rent; and (c) modifications of the schedule for the construction of Tenant improvements and of the Estimated Commencement Date. To the extent that such modifications result in increased expenses, such expenses will be paid by Tenant at the time of such modification, and decreases in expenses resulting from such modifications shall be credited to Tenant.

7.2 All improvements now or hereafter constructed, except movable furniture and trade fixtures and those improvements described on Exhibit C-1 (the "Initial Tenant Improvements") put in at the expense of Tenant, shall be the property of Landlord and shall remain with the Premises at the termination of this Lease without molestation or injury; provided, however, that Landlord may elect, at the time it approves the plans therefor, to require Tenant to remove all or any part of said Tenant improvements (other than the Initial Tenant Improvements except as hereinafter provided) at the expiration of this Lease, in which event such removal shall be done at Tenant's sole cost and expense. Tenant shall, at its sole cost and expense, repair any damage to the Premises and/or the Building caused by the removal of its personalty. The Initial Tenant Improvements shall be deemed to be owned during the Term by Tenant but shall not be removed or altered by Tenant without Landlord's prior approval, to the extent required under this Lease, and shall remain with the Premises at the termination of this Lease. Notwithstanding the foregoing, Tenant shall remove all Initial Tenant Improvements from the area crosshatched on Exhibit B and shall restore such area to its condition prior to such removal.

7.3 Provided this Lease and all Exhibits are fully executed on or before noon on October 1, 1995, Tenant shall have access to the Premises beginning on or about November 6, 1995 for cabling and computer installation; provided that (i) Tenant shall give advance verbal notice to Landlord of at least one working day but not more than ten days of its intention to seek such access; (ii) neither Tenant nor Tenant's employees, contractors, agents, or representatives shall interfere with Landlord's construction of the Tenant improvements (and if such interference occurs and the Completion Date is delayed as a result, the Completion Date shall be deemed to have occurred one day earlier than it actually occurs for each day the construction of the Tenant improvements is delayed due to such interference); (iii) all cabling and installation of fixtures shall be approved in advance by Landlord and shall be done under the general supervision of Landlord; and (iv) all terms of this Lease shall be deemed to be in effect as of the first day hereunder except for Sections 3.1, 3.5 and 4.1. Tenant agrees to indemnify and hold harmless

Landlord for any damage or personal injury which may occur as a result of Tenant s entry into the Premises prior to the Commencement Date. Tenant shall deliver to Landlord evidence of the insurance required to be maintained by Tenant pursuant to Section 19 of this Lease prior to Tenant's entry into the Premises.

7.4 Upon substantial completion of the Tenant improvements such that the Premises are in a condition suitable to permit installation of Tenant's manufacturing equipment, Landlord shall notify Tenant that the Premises are ready for occupancy. Landlord shall then arrange a joint inspection of the Premises during which Landlord and Tenant shall develop a mutually agreeable list of any items to be completed (the "Punchlist"). Agreement to and completion of those items on the Punchlist which materially interfere with Tenant's use or occupancy of the Premises, if any, shall establish the "Completion Date" which is estimated to be on December 4, 1995. If the Completion Date occurs later than December 4, 1995, other than as a result of Tenant's fault, the Commencement Date shall be deferred one (1) day for every two (2) days between December 4, 1995 and the actual Completion Date. The occurrence of the Completion Date, with the exception of those remaining minor items contained in the Punchlist, conclusively shall establish that as of the Commencement Date the Premises (a) are in good and satisfactory condition, subject to Landlord's Warranty set forth in Exhibit C-2; (b) have been accepted by the Tenant; (c) have been completed in accordance with the Schematic Floor Plan and Construction Outline Specifications; and (d) in such event, shall establish the Commencement Date of this Lease. If any remaining minor Punchlist item is not completed by Landlord within a reasonable period of time after notice thereof from Tenant, Tenant may complete same and offset any cost incurred as a result thereof against Tenant's remaining construction payment obligations to Landlord.

7.5 Leasehold Mortgages. Provided the terms of any leasehold mortgage are acceptable to Landlord's lenders (the "Superior Lienholders"), Tenant shall have the right to mortgage its interest in this Lease, provided that no holder of any mortgage of Tenant's interest in this Lease, nor anyone claiming by, through or under such mortgagee, shall, by virtue thereof, except as specifically provided in this Article, acquire any greater rights under this Lease than Tenant has.

The Tenant or the leasehold mortgagee shall provide to Landlord and the Superior Lienholders a final draft of any such mortgage for review and approval by such Superior Lienholders prior to the execution and delivery thereof.

If Tenant shall mortgage its interest under this Lease, then, at the option of Tenant, as long as any leasehold mortgage shall remain unsatisfied of record, notwithstanding any other provision contained in this Lease:

(a) There shall be no cancellation, surrender, acceptance of surrender or modification of this Lease without the prior written consent of such leasehold mortgagee;

(b) Provided Tenant has given Landlord written notice of the necessary addresses, Landlord shall, upon serving upon Tenant any notice of default or termination pursuant to the provisions of or with respect to this Lease, at the same time serve a copy of such notice upon the holder of such leasehold mortgage, and no such notice to Tenant shall be deemed to have been duly given unless and until a copy thereof has been so served. Such leasehold mortgagee shall, upon being given a copy of a notice of default, have any and all rights of Tenant with respect to the curing of such default, including, but not limited to, the same period, after service of such notice upon it, for remedying the default or causing the same to be remedied as is given Tenant after service of such notice upon it;

(c) Such leasehold mortgagee, in case Tenant shall be in default hereunder, shall have the right, within the aforesaid period and otherwise as herein provided, to remedy such default, or cause the same to be remedied on Tenant's behalf, and Landlord shall accept such performance by, or at the instigation of, such leasehold mortgagee as if the same had been performed by Tenant;

(d) To the extent the time by which such leasehold mortgagee may cure any default by Tenant reasonably requires that said mortgagee be in possession of the Premises to do so, such cure period shall be deemed extended to include the period of time required by said mortgagee to obtain such possession with due diligence, provided, however, that during such period all other obligations of Tenant under the Lease, including payment of Base Rent and Additional Rent, are being duly and timely performed;

(e) Anything herein contained notwithstanding, if an event or events of default shall occur which shall entitle Landlord to terminate this Lease and if, before the expiration of fifteen (15) days after the date of service of notice of termination, such leasehold mortgagee shall have paid to Landlord all Base Rent and other payments herein provided for, if any, then in default, and shall have complied or shall be engaged in the work of complying with all the other requirements of this Lease, if any, then in default, then, in such event, Landlord shall not be entitled to terminate this Lease, and any notice of termination theretofore given shall be null and void and of no force or effect, provided, however, that such loss of entitlement shall in no way affect, diminish or impair any right of Landlord under this Lease to terminate this Lease or to enforce any other remedy upon the nonpayment of any such Base Rent and Additional Rent thereafter payable by Tenant or upon any other subsequent default in the performance of any of the obligations of Tenant hereunder:

(f) Landlord agrees that such leasehold mortgagee may be named as an insured, as its interest may appear, in any and all insurance policies required to be carried by the Tenant hereunder or by Landlord (if Tenant is required to be named as an insured on such policies);

(g) If an action or proceeding shall be brought to foreclose the leasehold

mortgage, due notice of the commencement thereof will be given to the Landlord and to all Superior Lienholders, and true copies of the summons and complaint and true copies of all interlocutory and final judgments entered in such action or proceeding will be served upon Landlord and such Superior Lienholders:

(h) No leasehold mortgagee shall become liable under the provisions of this Lease unless and until such time as it becomes, and then only for as long as it remains, the owner of Tenant's leasehold estate and only to the extent, if any, that Tenant would be liable hereunder;

(i) in the case of the termination of this Lease by reason of the happening of any default, Landlord shall give notice thereof to each leasehold mortgagee who shall become entitled to notice and who has provided Landlord with its address for notices, and shall specify in such notice the amount of Base Rent and other sums and charges due to Landlord as of the date of termination. Landlord shall, on written request of such leasehold mortgagee made at any time within thirty (30) days after the giving of such notice by Landlord, enter into a new lease of the Premises with such leasehold mortgagee, or its designee, within twenty (20) days after receipt of such request, which new lease shall be effective as of the date of such termination of this Lease for the remainder of the term of this Lease, upon the same terms, covenants, conditions and agreements as are herein contained; provided that such leasehold mortgagee shall (i) contemporaneously with the delivery of such request pay to Landlord all the installments of Base Rent and all other sums and charges due hereunder as specified in the aforesaid notice from Landlord; (ii) pay to Landlord at the time of the execution and delivery of said new lease any and all sums for Base Rent and other sums and charges which would have been due hereunder from the date of termination of this Lease (had this Lease not been terminated) to and including the date of the execution and delivery of said new lease, together with all expenses, including reasonable attorneys' fees, incurred by Landlord in connection with the termination of this Lease and with the execution and delivery of such new lease, decreased by the excess, if any, of all sums received by Landlord from any subtenants in occupancy of any part or parts of the Premises up to the date of commencement of such new lease over expenses incurred by Landlord in operating the Premises or increased by the excess, if any, of expenses incurred by Landlord in operating the Premises over all sums received by Landlord from any subtenants in occupancy of the Premises up to the date of commencement of such new lease, as the case may be; and (iii) on or prior to the execution and delivery of said new lease, agree in writing that, promptly following the delivery of such new lease, such leasehold mortgagee or its designee will perform or cause to be performed all of the other covenants and agreements herein contained on Tenant's part to be performed to the extent that Tenant shall have failed to perform the same to the date of delivery of such new lease. Nothing herein contained shall be deemed to impose any obligation on the part of Landlord to deliver physical possession of the Premises to such leasehold mortgagee unless Landlord at the time of the execution and delivery of such new lease shall have obtained physical possession thereof; and

(j) In the event that there shall at any time be more than one leasehold

mortgagee entitled to exercise any of the foregoing rights, the leasehold mortgagee holding the leasehold mortgage most junior in lien which shall have fully paid and discharged all such leasehold mortgages which were prior to it shall have priority over the other leasehold mortgagees with regard to such rights or, if no leasehold mortgagee has been so discharged, the leasehold mortgagee holding the leasehold mortgage most senior in lien shall have such priority.

(k) Notwithstanding anything to the contrary contained in this Lease, Landlord shall have no right to consent to the assignment of this Lease to a purchaser in foreclosure of any previously approved leasehold mortgage given by Tenant, or to any leasehold mortgagee or its designee in lieu of such foreclosure

(l) The provisions of this Section 7.5 shall also apply to any collateral assignment by Tenant of its interest under this Lease.

(m) if required by any leasehold mortgagee, and notwithstanding anything to the contrary contained herein, Tenant shall have the right to record a memorandum or other evidence of this Lease provided that it pays all taxes payable in connection with such recordation.

(n) Nothing in this Lease shall be deemed to prohibit the financing by Tenant of, and the granting of a lien on, any of its personal property or any of the Initial Tenant Improvements, so long as. in the case of the Initial Tenant Improvements, the lender is not given any rights that are inconsistent with the provisions of the penultimate sentence of Section 7.2 and the provisions of this Section 7.5 are fulfilled, and, as to any personal property, the lender is not given any rights that are inconsistent with the provisions of Section 14. Subject to the above provisions, Landlord agrees to reasonably cooperate with Tenant, without any pecuniary obligation therefor, in Tenant's efforts to procure financing for the Initial Tenant Improvements and agrees to execute and deliver to Tenant the Waiver, hereinafter defined in Section 14, incorporating such modifications and additions to the form of Waiver as such lender shall request, provided the same are not materially adverse to Landlord.

8. COMPLIANCE WITH REGULATIONS:

8.1 Compliance with Governmental Regulations and Private Covenants: Tenant shall, at its sole expense, continually comply with all Federal, State, and local laws, codes, ordinances, administrative and court orders and directives, rules, and regulations and those private covenants recorded in Liber 733 at folio 726 et am. (the "CC and R's") or any other private covenants of which Tenant receives actual knowledge applicable to Tenant's use and occupancy of the Premises, as are now or may (except in the case of private covenants unless Tenant's consent has been obtained thereto, which consent shall not be unreasonably withheld with respect to private covenants not materially adverse to Tenant's rights hereunder) be subsequently in effect during the Term. Landlord represents that is has not, during its ownership of the Real Property, entered into any private covenants other than the CC and R's. Landlord represents that as of the

Completion Date, to the best of Landlord's actual knowledge, the Premises will comply with the CC and R's and all applicable laws, including the Americans with Disabilities Act and laws relating to asbestos and asbestos containing materials. Tenant shall be entitled, at its own expense, and through its own counsel, to independently contest, appeal, oppose or otherwise defer compliance with any law imposed after the Completion Date, provided, however, that as a result of Tenant's non-compliance Landlord is not subjected to criminal or civil prosecution and the Project is not materially adversely affected thereby. Landlord shall cooperate, without pecuniary liability, with Tenant as may be reasonably required in any such contest. Landlord shall be responsible for undertaking improvements to the Premises necessary to comply with laws (the costs of which shall herein be referred to as the "Government Compliance Costs"). if such Government Compliance Costs are not capital in nature. as reasonably determined under sound accounting principles, they shall be paid for by Tenant unless the noncompliance exists on the date hereof. If such Government Compliance Costs are capital in nature, as reasonably determined under sound accounting principles (the "Capital Government Compliance Costs"), such Capital Government Compliance Costs shall be amortized over such period of time as may be reasonable under the circumstances of such particular improvements and the portion of such amortized costs, together with the interest on the unamortized balance at a fluctuating annual rate that is at all times equal to l 't2% over the prime interest rate as determined from time to time by Citibank, N.A., falling within the Lease Term shall be paid by Tenant as a part of Common Area Expenses unless the noncompliance exists on the date hereof. Notwithstanding anything set forth above, any Government Compliance Costs incurred in removing Hazardous Substances from the Premises shall be deemed a Capital Government Compliance Cost which shall be amortized as aforesaid unless the noncompliance exists on the date hereof.

8.2 Compliance with Rules and Regulations: Tenant shall also comply with all rules and regulations announced by Landlord from time to time applicable to the Project provided same do not materially adversely affect Tenant's use of the Premises as permitted hereby and are enforced uniformly among all tenants of the Project.

9. MAINTENANCE AND REPAIRS.

9.1 Tenant's Obligations

(a) Tenant shall, at its sole expense, maintain its personal property in the Premises, fixtures and appurtenances including, without limitation, the repair and replacement of appliances and equipment installed specifically for Tenant such as refrigerators, disposals, or trash compactors. Tenant shall take good care of the Premises, fixtures and appurtenances, and shall suffer no waste or injured to the Premises.

(b) In order that the Premises may be kept in a good state of preservation and cleanliness, Tenant shall, during the Term of this Lease, contract with a contractor approved by

Landlord which approval shall not be unreasonably withheld or delayed to take care of and clean the interior of the Premises on a daily basis. Landlord shall not be responsible to Tenant for loss of property or for any damage done to the furniture or other property of Tenant by the Landlord or any of its employees or agents or any other persons or firms except where proof of Landlord's responsibility for such damage or loss of property is established.

(c) Landlord shall, at Tenant's expense, but subject to Landlord's Warranty as set forth in Exhibit C-2, make all repairs to the Premises, fixtures and appurtenances necessitated by the fault of the Tenant, its agents, employees or invitees. At or before the end of the Lease Term, as reasonably determined by Landlord, any and all damage to the Premises or the Building, caused by the installation or removal of furniture or other property, shall be repaired by Landlord at Tenant's expense. The cost of any repairs to be made by Landlord under this Lease resulting from the fault or negligence of Tenant shall include a reasonable fee for Landlord's supervision of such repairs.

(d) Upon the termination of the Lease, Tenant will leave the Premises broom swept and clean, and at least in the same good condition (reasonable wear and tear and insured casualty damage excepted) as when the Lease Term began. Tenant will remove all of its property and possessions from the Premises except to the extent provided by Section 7 above, within ninety (90) days after the termination of this Lease.

9.2 Landlord's Obligations.

(a) Landlord will provide, in a high quality manner consistent with the use of the Premises as a corporate headquarters, at Tenant's cost, the Additional Services and those services described in the definition of Common Area Expenses.

(b) Landlord may, but will not be obligated to, make such repairs, alterations, or improvements as it or its authorized representatives deem necessary for the safety or preservation of the Building or for any other reasonable purpose upon reasonable prior notice to Tenant (except in the case of an emergency) and in such a manner as to not unreasonably interfere with Tenant's business. Basic Rent will not abate while Landlord is exercising any of its rights under this Article.

(c) Landlord agrees, at Tenant's costs, to make all necessary repairs to keep the Premises and appurtenances thereto in good order and condition within a reasonable time after it shall receive written notice from the Tenant of the need of such repairs.

9.3 Landlord's Failure to Repair. Anything contained in this Lease to the contrary notwithstanding, Landlord shall not be obligated to make any repairs to the interior of the Building, nor shall it be liable to Tenant or any other person, for any claim or injury arising

out of Landlord's failure to make any such repairs under the terms of this Lease, unless Tenant gives Landlord prompt written notice of the condition requiring repair upon discovery and Landlord has not made a timely effort to effect the needed repair. Upon discovery, Tenant shall also give Landlord prompt written notice of any condition requiring repair to the exterior of the Building and common areas of the Premises.

10. ACCESS BY LANDLORD. Landlord and its agents shall have the right at all reasonable times, upon reasonable prior notice to Tenant and within the company of Tenant's representative (except in the event of an emergency), during the Term to enter the Premises for the purpose of inspecting the Building, performing maintenance and repairs or for any other reasonable purpose. Whenever practicable, Landlord shall use reasonable efforts to avoid interfering with Tenant's business and should perform all work after business hours or during business hours reasonably designated by Tenant. Except as reasonably necessary, Landlord shall not store materials or equipment in the Premises. Landlord may show both the interior and exterior of the Premises to prospective tenants or purchasers at any time during the Term and place "For Rent" signs on the Premises during the last four (4) months of the Term

11. SUBORDINATION. This Lease shall be subject to and subordinate at all times to the lien of any mortgage, deed of trust, or financing statement now or hereafter made on the Premises, and to all advances made or hereafter to be made. This subordination provision shall be self-operative and no further instrument of subordination shall be required. Notwithstanding the foregoing, this Lease shall not be subordinate to any future mortgage or deed of trust unless the mortgagees or beneficiary thereunder deliver to Tenant a non-disturbance agreement reasonably acceptable to the Tenant. Prior to the Commencement Date, Landlord agrees to furnish to Tenant a list identifying any mortgages or ground leases affecting the Premises. Landlord represents that, as of the date hereof, to the best of its actual knowledge, Landlord is not in default, and no condition has occurred which would constitute a default, under any mortgage affecting the Premises.

12. ATTORNMENT. Tenant shall, upon the termination of Landlord's interest in the Premises and upon request, attorn to the person or entity that holds title to the reversion of the Premises (the "Successor") and to all subsequent Successors. Tenant also will pay to the Successor all rents and other sums required to be paid by Tenants and perform all of the other covenants, agreements and terms required of Tenant under this Lease.

13. ESTOPPEL CERTIFICATE. Tenant shall, during the Term of this Lease, execute, acknowledge and deliver to Landlord, or to any entity Landlord shall designate, within ten (10) business days after written notice by Landlord pursuant to Section 25 hereof, a certified written estoppel certificate in the form reasonably required by Landlord's lender or any prospective lender or purchaser. Any statement delivered pursuant to this Article 12 may be relied upon by any mortgagee or prospective mortgagee of the Building or of Landlord's interest, or any

prospective assignee of any mortgagee. If Tenant fails to deliver the statement to Landlord within ten (10) business days after Landlord's notice, Tenant shall be deemed to have acknowledged that this Lease is in full force and effect, without modification except as may be represented by Landlord and that there are no uncured defaults in Landlord's performance. Furthermore, in the event Tenant's failure to deliver the statement to Landlord within the ten (10) business day period results in (i) Landlord being placed in default by its lender under its financing for the Building or (ii) Landlord's inability to close any loan which it is negotiating, Tenant may, at Landlord's sole discretion, be deemed in default of this Lease and Landlord shall have all rights and remedies available to it under this Lease in regard to a default.

If at any time during the Lease Term, Tenant's lender or a permitted assignee requires Tenant to provide it an estoppel certificate from Landlord, then within ten (10) business days after written notice from Tenant's lender or such assignee for same pursuant to Section 25 hereof, Landlord shall provide a certified written estoppel certificate addressed to said lender or such assignee, certifying as to whether to Landlord's knowledge: (i) this Lease is in full force and effect; and (ii) Tenant is not in breach of this Lease (and if Tenant is in breach, the nature of the breach). The estoppel certificate may not be relied upon by anyone other than Tenant's lender or any permitted assignee. Notwithstanding the foregoing provisions, Landlord shall not be required to provide an estoppel certificate if Landlord has already provided one to the party requesting the same in the twenty-four (24) months preceding the request for an estoppel certificate.

14. ASSIGNMENT OR SUBLETTING. Tenant is the only party that may use or occupy the Premises. No assignment of this Lease or subletting of all or any part of the Premises is permitted without the prior written consent of Landlord. The granting of such consent will not be unreasonably withheld or delayed with respect to the type of Assignment described in clauses (I) and (2) in the following subparagraph so long as the proposed assignee is no less creditworthy and as experienced in operating the business which will be operated in the Premises as is Tenant with respect to its business as of the date hereof.

The foregoing restriction will include, but not be limited to, the following (all of which will be deemed to be an "Assignment"): (1) any assignment of this Lease or a subletting of the Premises; (2) any permission to a third party to use all or part of the Premises; (3) any mortgage or other encumbrance of this Lease or of the Premises except as specifically permitted pursuant to Section 7.5 above or in this Section; (4) the appointment of a receiver or trustee of any of the Tenant's property unless said appointment is vacated within ninety (90) days; and (5) any assignment or sale in bankruptcy or insolvency. An Assignment shall not include and no consent of Landlord shall be required to the sale of stock or other equity interest in Tenant.

Although an Assignment includes an assignment of the Lease to any successor entity as a result of merger, consolidation or sale of all, or substantially all, of the assets of Tenant (a "Transfer") or to any subsidiary, parent or affiliated corporation or other entity of

Tenant (a "Related Company") no consent of Landlord thereto shall be required provided such Related Company or the entity resulting from the Transfer (the "Successor Tenant") shall have a creditworthiness comparable to that of Tenant as of the date of the Transfer. All other provisions of this Section 14 shall, however, apply to such Transfer or Related Party transaction. Notwithstanding the foregoing, no creditworthiness test will be required if, (a) following such Related Company transaction, Tenant remains fully liable on the Lease; or (b) the Successor Tenant or the Related Company provides Landlord with additional security in form and substance reasonably acceptable to Landlord (not in any event to exceed, in the aggregate, an amount equal to nine (9) months of Basic Rent).

Even if Landlord consents to an Assignment, Tenant will remain primarily liable under this Lease. Also, Tenant will bear all reasonable legal costs actually incurred by Landlord in connection with Landlord's review of documents concerning an Assignment, whether or not Landlord consents to it. Landlord's consent to a specific Assignment does not waive Landlord's right to withhold consent to any future or additional Assignment. Tenant will give Landlord notice of its intention to make an t Assignment at least fifteen (15) days prior to such Assignment, which notice will contain such details as Landlord may reasonably request (the "Details"). If Tenant intends to Assign this Lease, Landlord may terminate this Lease by giving written notice to Tenant within thirty (30) days after Landlord has received written notice from Tenant of an intended Assignment and Tenant has provided all requested Details.

If the amount of rent and other sums received by Tenant in the nature of rent under any Assignment other than to a Related Company is more than the Rent due from Tenant under this Lease, then, after reimbursing Tenant for amounts paid toward Tenant Improvements, and other Tenant improvements to the Premises, reasonable brokerage and legal fees, transfer taxes, if any, or other tenant concessions or incentives (which reimbursement will be amortized over the Lease Term), Tenant will pay the remaining excess to Landlord on a monthly basis and promptly upon Tenant's receipt of such excess amounts. The foregoing shall not apply to transactions which do not require Landlord's consent under the foregoing provision of this Article 14.

If, without Landlord's consent, this Lease is Assigned, or if the Premises are occupied or used by any party other than Tenant, a Related Company, or an entity resulting from a Transfer, then and payable by Tenant upon receipt of an invoice. If Tenant defaults, Landlord may collect rent from the assignee, subtenant, occupant or user (the "Assignee") of the Premises and apply it towards the Rent due under this Lease. Such collection will not be deemed an acceptance of the Assignee as tenant, will not waive or prejudice Landlord's right to initiate legal action against Tenant to enforce Tenant's fulfillment of its obligations under this Lease and will not release Tenant from such obligations.

No assigning of this Lease or subletting of the Premises shall release or be deemed

to release the assignor or sublessor from liability under this Lease for the defaults of any successor assignee (immediate or remote) or any subtenant.

Notwithstanding anything contained herein to the contrary, Tenant shall have the right to grant to a lender a security interest in any of Tenant's personal property, trade fixtures, furniture, equipment and capital improvements to the extent same are personalty ("FF&E") located in the Premises. In the event that Tenant elects to so encumber such FF&E, Landlord shall, within twenty (20) days after (a) Tenant's request for a Waiver and (b) the date Tenant provides all details with respect to Tenant's proposed financing as reasonably requested by Landlord, execute and deliver a waiver of "landlord's" or other statutory or common law liens of Landlord securing payment of rent or performance of any other of Tenant's covenants under this Lease ("Waiver"). Such Waiver shall be in substantially the form attached hereto as Exhibit H. and, if required by the terms of any existing financing liens on the Real Property, shall otherwise be acceptable to the entities secured thereby. Such Waiver shall include such other terms as may be reasonably requested by the proposed FF&E lender.

15. QUIET ENJOYMENT. Upon payment of Basic Rent and Additional Rent and performance by Tenant of all covenants on Tenant's part to perform under this Lease within any applicable cure period, Tenant shall have and hold the Premises, free from any interference from Landlord and any person lawfully claiming through or under Landlord except as may be otherwise provided.

16. ALTERATIONS OR CHANGES.

16.1 Tenant shall not make any alterations, improvements, or changes (collectively the "Changes") of any kind to the Premises without securing the prior written consent of the Landlord, which consent shall not be unreasonably withheld or delayed as long as the Changes are not unlawful or would not materially reduce the value or utility of the Premises, in Landlord's reasonable opinion, and which consent shall be evidenced by a separate agreement between Landlord and Tenant setting forth the terms and conditions of making such Changes, and the terms of payment therefor. All Changes shall be completed in a prompt and workmanlike manner and shall not materially alter the character or use of the Building. Notwithstanding anything to the contrary set forth above, Tenant shall have the right to make interior non-structural Changes to the Premises so long as the Changes do not diminish the value of the Premises and so long as Landlord is given prior notice of the Changes Tenant intends to make.

16.2 Landlord shall construct the Shell Space at Tenant's sole cost and expense, in accordance with plans and specifications submitted by Tenant for Landlord's consent, which consent shall not be unreasonably withheld or delayed and shall not be withheld if said plans and specifications are substantially similar to the Schematic Floor Plans and Construction Outline Specifications regarding the initial Tenant improvements. Landlord shall seek bids for such work

from competing contractors, and the bids selected shall be the ones reasonably acceptable to Landlord and Tenant. No construction of the Shell Space shall commence until Tenant and Landlord have agreed to the costs thereof. Upon completion of same by Landlord, Landlord shall represent, to the best of Landlord's actual knowledge. that the Shell Space complies with all applicable laws, including the Americans with Disabilities Act.

17. RESTORATION.

17.1 Premises Rendered Partially Untenantable: If, during the Term, (i) the Building is damaged or destroyed by fire, storm, or other casualty, or (ii) a portion of the Building is ordered by a duly constituted public authority to be demolished, razed or altered due to deterioration or unsafe condition (collectively the "Listed Causes") but in either event not to the extent that Tenant, in its reasonable determination, is prevented from carrying on its business in the Premises, Landlord shall promptly restore the Premises to the condition existing immediately prior to the casualty. If the damage renders a material portion of the Premises unusable by Tenant, or if access to the Premises is materially impaired, the Basic Rent and Additional Rent shall be apportioned from and reduced during the period of unusability by the same percentage by which the unusable area bears to the Premises.

Notwithstanding anything to the contrary contained in this Subsection 17.1, if during the last ten months of the Lease Term, fifty percent (50%) or more of the Premises is destroyed, whether covered by insurance or not, either party may elect to cancel and terminate this Lease by giving written notice of its election to the other party within thirty (30) days after the date of such destruction. However, regardless of any such notice of termination from Landlord to Tenant, this Lease shall not be so terminated if Tenant exercises its renewal option hereunder by written notice to Landlord within five (5) business days after Landlord's notice to terminate and in any event within the time set forth in Rider No. 1. In such event, this Lease shall remain in full force and effect and Landlord shall proceed with repair and restoration of the Premises to the extent prescribed herein.

17.2 Premises Rendered Wholly Untenantable: If, during the Term, the Building is destroyed or so damaged by any of the Listed Causes to such an extent that Tenant, in Tenant's reasonable determination, is prevented from carrying on its business in the Premises (a "total destruction"), Landlord shall restore the Premises. Notwithstanding the aforesaid, if Landlord is not able to use insurance proceeds for such restoration and the reasonably estimated cost of restoration exceeds $2,000,000.00, Landlord may terminate the Lease. Landlord shall exercise this option by giving written notice to Tenant within thirty (30) days after the casualty. In the event of termination, Tenant shall be required to surrender the Premises as soon as possible and Basic Rent and Additional Rent shall abate from and be apportioned to the date of the casualty. If the Landlord restores the Premises, the restoration shall be completed as promptly as reasonably possible, and the Basic Rent and Additional Rent shall be apportioned from and abate during the

period of restoration until the date when Tenant is able to make reasonable use of the Premises.

Notwithstanding the provisions of this Subsection 17.2, within sixty (60) days after the date of total destruction of the Premises, Landlord shall obtain from Landlord's architect or contractor an estimate of the time which will be required to repair the Premises. Landlord shall promptly communicate said estimate to Tenant. In the event that said estimate of time exceeds One hundred eighty (180) days (provided Landlord is able to provide reasonably satisfactory alternate premises to Tenant in Howard County or Anne Arundel County, Maryland within a fifteen (15) mile radius of the Premises and at no greater rent than Tenant is then paying hereunder) or ninety (90) days (if no alternate space can be provided) from the date of such destruction, then Tenant shall have the right, within ten (10) days after receipt of said estimate, to terminate this Lease without any further liability or obligation on the part of the parties hereto for obligations thereafter accruing, provided that Tenant shall give written notice to Landlord within said ten (10) days and that no Event of Default exists hereunder.

17.3 Notwithstanding subsections 17.1 and 17.2, but subject to Section 19.4, if the partial or total damage or destruction is due to the fault, negligence, or other willful misconduct of Tenant, its agents, employees or visitors, the damage shall be repaired by Landlord at Tenant's expense except in such cases as Landlord, in its sole discretion, shall decide not to repair or rebuild the Building or the Premises and there shall be no apportionment or abatement of Rent.

17.4 No liability shall accrue to Landlord for delay in commencing or completing any repairs or restoration to either the Premises or the Building caused by adjustment of insurance claims governmental requirements or any cause beyond Landlord's reasonable control. Nothing in this Section 17.4 shall affect the termination and abatement rights hereinabove provided.

17.5 No termination, pursuant to this Article 17, shall release Tenant from any liability to Landlord or from any of the obligations or duties imposed on Tenant prior to any termination.

18. CONDEMNATION.

18.1 If during the Term, all or a substantial part of (i) the Premises, (ii) the means of ingress and egress thereto, or (iii) the means of obtaining services or utilities to which Tenant is entitled is taken by eminent domain, this Lease shall terminate as of the date of taking, and the Basic Rent and Additional Rent shall be apportioned to and abate from that date. Tenant shall have no right to participate in any award or damages for any such taking and hereby assigns all of its right, title and interest therein to Landlord. For purposes of this Article, "a substantial part of the Premises" shall mean so much of the Premises as to render the remainder inadequate and not practicably capable of repair so as to permit Tenant to carry on its business to substantially the same extent and with substantially the same efficiency as before the taking.

18.2 if, during the Term, less than "a substantial part of the Premises" or the means of ingress and egress thereto is taken by eminent domain, this Lease shall remain in full force and effect and Tenant shall have no right to participate in any award or damages for the taking. Landlord shall, at its expense, up to but not in excess of the amount of the award of damages received, promptly make all necessary repairs and improvements needed to make the remainder of the Premises adequate to permit Tenant to carry on its business to substantially the same extent and the same efficiency as before the taking. If, as a result of any taking, a part of the Building is rendered permanently or temporarily unusable, the Basic Rent and Additional Rent shall be reduced by a fair and reasonable amount, not, however, to exceed the proportion by which the portion of the Premises taken or made unusable bears to the entire Premises. If the unusability is temporary, the rental abatement shall be apportioned from the date of taking to the date when full usability is restored. If the taking does not render any part of the Premises unusable, there shall be no abatement of Basic Rent and Additional Rent.

18.3 For the purpose of this Article, "taking under the power of eminent domain" shall include a negotiated sale or lease and transfer of possession to a condemning authority under bona fide threat of condemnation for public use. Landlord alone shall have the right to negotiate with the condemning authority and conduct and settle all litigation connected with the condemnation. As used in this Article. the words "award or damages" shall, in the event of such sale or settlement, include the purchase or settlement price.

18.4 Nothing shall, however, prevent Tenant from separately claiming and receiving from the condemning authority compensation for the taking of Tenant's own tangible property or the unamortized cost of the Capital Improvements, and damages for Tenant's loss of business, business interruption, goodwill or removal and relocation.

19. INSURANCE.

19.1 Tenant's Insurance responsibilities: Tenant shall, at its expense throughout the

Term, maintain in force public liability insurance insuring against claims for bodily injury, including death, and property damage occurring in or about the Premises and on or about the adjoining driveways and passageways, with a combined single limit of not less than One Million Dollars ($1,000.000.00) per occurrence and Two Million Dollars ($2,000,000.00) with respect to the aggregate.

(a) All required insurance shall be effected with an insurer licensed to do business in the State of Maryland, and all policies shall name Landlord and Managing Agent as additional insureds and Tenant as the insured, as their respective interests may appear. Each of these policies shall provide that notwithstanding any act or negligence of Tenant which might otherwise result in its forfeiture, the policy shall not be canceled without at least fifteen (15) days written notice to each additional insured.

(b) Prior to Tenant's entering the Premises for the purposes described in Section 7.3, and thereafter not less than thirty (30) days prior to the expiration dates of expiring policies, the originals or certificates of each policy and endorsement shall be delivered to Landlord, together with satisfactory proof of the payment of the premiums.

(c) Landlord has no insurable interest in Tenant's personal property and, therefore, Tenant shall be solely responsible for maintenance of any and all casualty insurance protection for such personalty.

19.2 Landlord's Insurance Responsibilities. During the construction of the initial Tenant improvements and throughout the Lease Term, Landlord shall carry, or cause others to carry, policies of worker's compensation, general liability and builder's risk or casualty insurance covering occurrences at the Premises in commercially reasonable amounts or in such other amounts as may be required by Landlord's lender, if any, from time to time but, as to general liability, in at least a combined single limit of not less than One Million Dollars ($1,000,000). Tenant shall be named as an additional insured on the liability, builder's risk and casualty insurance policies carried by Landlord. Within ten (10) days after this Lease is fully executed, and thereafter not less than thirty (30) days prior to the expiration dates of expiring policies, the originals or certificates of each policy and endorsement shall be delivered to Tenant, together with satisfactory proof of the payment of the premiums.

19.3 Actions by Tenant.

(a) Compliance with Insurance Requirements: Tenant shall comply with all orders, rules, regulations, and requirements of any insurance company which may at any time have in force any policy of fire, public liability, or other insurance applicable to the Premises or the Building.

(b) Increase in Insurance Premiums: Tenant shall not do, or permit anything to be done in the Premises which will, in any way invalidate or conflict with the fire insurance policies on the Real Property; obstruct or interfere with the good order of the Building and the other tenants. Tenant agrees that any increase in fire or other insurance premiums on the Real Property and/or the contents thereof caused by the use or occupancy of Tenant shall be Tenant's sole responsibility, payable as Additional Rent

(c) Landlord's Right to Terminate Lease: If any act or conduct of Tenant in the operation of its business in a manner different from that now being conducted by Tenant results in the inability of Landlord to insure the Premises, Landlord shall have the option of terminating this Lease upon thirty (30) days prior written notice unless Tenant remedies such offensive act or conduct within such time period. If Landlord elects not to terminate this Lease, Landlord may take any available legal action to enjoin Tenant from continuing such acts or conduct. Landlord represents that Tenant's use of the Premises as described in Section 6 hereof will not violate existing insurance policies, and shall not cause an increase in the premium or a cancellation of existing insurance policies.

19.4 Subrogation and Waiver. Landlord and Tenant hereby mutually waive all claims for recovery from the other or its agents, employees, officers, partners, affiliates, and any other person or entities occupying the Premises, including subtenants provided such subtenants waive their right of subrogation against Landlord, for any loss or damage to any of Landlord's property or Tenant's property insured under valid and collectible insurance policies to the extent of any recovery for loss insured thereunder or required by the terms of this Lease to be insured hereunder and, to that end, the parties agree to a mutual subrogation clause to be inserted or endorsed on each policy setting forth that the insurance shall not be invalidated in the event that the insured should waive in writing prior to any loss, any or all right of recovery against the other party for any such loss

Notwithstanding anything set forth above, Landlord or Tenant, as the case may be, (the ensured") shall have the right to recover from the other the amount of the deductible on the Insured's policies for any damage or destruction to the Building caused by the fault, negligence, omission, or other misconduct of the other, its agents, employees, licensees, invitees, or visitors, provided, however, if such deductible increases after the Commencement Date, Landlord or Tenant, as the case may be, shall only be liable to pay the increased deductible to the extent that it is equal to that of similar insurance policies customarily carried by property owners and tenants, as the case may be, of similar facilities in the greater Columbia, Maryland area, but in no event shall such deductible amount increase in any year by more than twenty percent (20%) of the preceding year's deductible. Prior to the Commencement Date, the parties shall advise the other of the amount of such deductible.

19.5 Mutual Indemnification. Landlord and Tenant agree that each will

indemnify and hold harmless the other from any and all claims for liability of any nature arising from any use, occupancy, construction, repairs, or other work or activity done in, or about the Premises during the Term. or from any condition of the Premises during the Term, or from any occurrence whatever in, on or about the Premises during the Term, including all reasonable costs, expenses and counsel fees in connection with any claim, to the extent such claims arise from the negligence or willful misconduct of the indemnifying party, or of its agents, servants, or employees or by such party's breach of the provisions of this Lease. This mutual indemnification shall survive the termination or expiration of this Lease.

20. TENANT'S DEFAULT.

20.1 Tenant shall be considered in default of this Lease upon the happening of any one of the following:

(a) Failure to pay in full within five days after notice, any and all Monthly installments of Basic Rent, Additional Rent or any other sum required by the terms of this Lease, provided, however, that no notice shall be required to be given to Tenant (but the aforesaid five-day grace period shall continue to apply after the due dates of the payment in question) if Landlord has given such notice to Tenant two (2) times in the preceding twelve months;

(b) Violation of or failure to perform any term, covenant or condition of this Lease, which violation or failure is not a safety threat to the Building and is not cured promptly but in no case more than thirty (30) days after written notice to Tenant; except that in the event Tenant is unable to complete the cure within the thirty (30) day period, the cure period shall be extended if Tenant has commenced the cure within said thirty (30) days and thereafter diligently prosecutes such cure to completion .

(c) The commencement of an action or proceeding under any section or chapter of the Federal Bankruptcy Act or under any similar law or statute of the United States or any state, or the adjudication of Tenant as a bankrupt or insolvent by any court of competent jurisdiction; the appointment of a receiver or trustee for all or substantially all of the assets of Tenant; or the making of any assignment for the benefit of creditors by Tenant or if Tenant admits in writing its inability to pay its debts generally as they come due or files Articles of Dissolution with the appropriate authority of the place of its incorporation unless, as to an involuntary proceeding, same is not dismissed or vacated within ninety (90) days thereafter;

(d) The attachment, execution or other judicial seizure of substantially all of Tenant's assets located in the Premises or of Tenant's interest in this Lease which is not dismissed or vacated within ninety (90) days;

(e) The holding of possession of the Premises after the termination of this

Lease without Landlord's written consent;

(f) The suspension of business by Tenant except if Tenant continues to pay in full when due, any and all monthly installments of Basic Rent, Additional Rent or any sum required by the terms of this Lease and fully performs all other obligations required of it under this Lease within any applicable cure periods;

(g) The abandonment of the Premises by Tenant unless prior notice is given to Landlord and all Basic Rent and Additional Rent is kept current and Tenant fully performs all other obligations required of it under this Lease and the Building temperature is maintained at least 50(degree)F during any period of cold weather; or

(h) The encumbrance of the Premises, or any part thereof, by any mechanics' or materialmen's lien and/or any ether lien or encumbrance, resulting from any act, matter or thing done or suffered to be done by Tenant which is not bonded or discharged within thirty (30) days after notice to Tenant of such lien or encumbrances

20.2 Upon the occurrence of any event of default, Landlord shall, without any notice or demand, in addition to, and not in limitation of, any other remedy permitted by law or this Lease, have the option to do any one or more of the following:

(a) Terminate this Lease, in which event Tenant shall immediately surrender the Premises to Landlord. Should Tenant fail to surrender the Premises, Landlord may, without notice and without prejudice to any other remedy available, re-enter and take possession of the Premises and remove Tenant or anyone occupying the Premises and all property from the Premises, which property may be removed and stored, for the account of, and at the expense and risk of Tenant. Tenant waives all claims for damages which may be caused by Landlord's reentry and taking possession of the Premises or removing or storing the furniture and property as provided. Tenant shall save Landlord harmless from any loss, fees, costs or damages suffered by Landlord because of any termination and reentry. No reentry shall be considered or construed to be an illegal forcible entry.

(b) Without terminating this Lease, declare to be due and payable immediately, the entire amount of all Basic Rent which would have become due and payable during the remainder of the Term of this Lease, said amount to be discounted at the discount rate then in effect at the Federal Reserve Bank in Baltimore, in which event Tenant agrees to pay the same to Landlord immediately. This payment shall constitute payment in advance of the Basic Rent stipulated for the remainder of the Term. Acceptance by Landlord of the payment of Basic Rent shall not constitute a cure or waiver of any then existing default or any subsequent default.

(c) Enter upon and take possession of the Premises, without terminating this

Lease and without being liable to prosecution or any claims for damages. Landlord may then relet all or any portion of the Premises upon any terms and conditions as Landlord, in its sole discretion, may deem advisable. In the event of any reletting, rentals received by Landlord from reletting shall be applied: first, to the payment of any indebtedness including costs of collection and recovery, other than Basic Rent and Additional Rent, due from Tenant to Landlord; second, to the payment of the Basic Rent and Additional Rent due and unpaid; third, to the payment of cost of any repairs to the Premises; and the residue, if any, shall be held by Landlord and applied in payment of future Basic Rent and Additional Rent as the same may become due and payable. Should rentals received from reletting during any month be less than the Basic Rent required to be paid by Tenant herein, then Tenant shall immediately pay any deficiency to Landlord. Deficiencies shall be calculated and paid monthly. Notwithstanding any reletting without termination Landlord may at any time elect to terminate this Lease for any previous breach or act of default. Should Landlord at any time terminate this Lease for any breach or act of default, in addition to any other remedy it may have, Landlord may recover from Tenant all damages it may incur by reason of any breach or act of default. Landlord's recovery shall include the cost of recovering the Premises, legal fees, and the worth, at the time of termination, of the excess, if any, of the amount of Basic Rent reserved in this Lease for the remainder of the stated Term over the then reasonable rental value of the Premises, based on Landlord's rental rate for comparable space, for the remainder of the stated Term.

20.3 if Tenant holds possession of the Premises after the termination of this Lease without Landlord's written consent, Tenant shall become a tenant from month to month at double the Basic Rent which was due for the last lease year of the Term and upon all other terms herein specified and shall continue to be such tenant from month to month until such tenancy shall be terminated by either party giving the other a written notice of at least thirty (30) days of its intention to terminate such tenancy. Nothing contained in this Lease shall be construed as a consent by Landlord to the occupancy or possession of the Premises by Tenant after termination of this Lease. Upon the termination of this Lease, Landlord shall be entitled to the benefit of all public general or public local laws relating to the speedy recovery of the possession of lands and tenements held over by tenants, that may now or hereafter be in force.

20.4 All remedies available to Landlord under this Lease and at law and in equity shall be cumulative and concurrent. No termination of this Lease, taking or recovering possession of the Premises, nor acceptance of any Monthly Installment of Basic Rent or Additional Rent by Landlord with knowledge of the breach of any covenant or condition, shall act as a waiver of the breach or deprive Landlord of any remedies or actions against Tenant for Basic Rent or Additional Rent, for charges, or for damages for the breach of any covenant or condition, nor shall the bringing of any action for Basic Rent or Additional Rent, charges or damages for breach, be construed as a waiver or release of the right to insist upon the forfeiture and to obtain possession of the Premises.

20.6 Tenant shall be considered in "Habitual Default" of this Lease upon Tenant's failure, on three or more occasions during any lease year, to pay, when due following any applicable notice or cure period, any Monthly Installment of Basic Rent, Additional Rent or any other sum required by the terms of this Lease. Upon the occurrence of any event of Habitual Default, Tenant shall immediately be deemed to have released any and all options or rights granted, or to be granted, to Tenant under the terms of this Lease (including, without limitation, rights of renewal, rights to terminate, or rights of first refusal).

21. WAIVER OF REDEMPTION. Tenant hereby expressly waives (to the extent legally permissible) for itself and all persons claiming by, through or under it, any right of redemption or right for the restoration of the operation of this Lease under any present or future law in case Tenant shall be dispossessed for any cause, or in case Landlord shall obtain possession of the Premises as provided in this Lease. Tenant understands that the Premises are leased exclusively for business, commercial, and mercantile purposes and, therefore, shall not be redeemable under any provision of law.

22. ASSIGNMENT OF LANDLORD'S INTEREST. Landlord shall have the right to assign this Lease to another entity. In the event of an assignment, Tenant agrees to recognize the assignee as Landlord and shall execute, upon Landlord s request, an instrument certifying the existence and good standing of this Lease and any agreement or modification of this Lease documenting the assignment, including endorsement of applicable insurance policies.

Tenant shall, after notice of assignment, pay all Basic Rent subsequently coming due to assignee and give all required notices under this Lease, both to Landlord and the assignee. Tenant shall also have all required policies of insurance endorsed so as to protect the assignee's interest as it may appear and deliver the policies or certificates to the assignee.

23. A. LANDLORD'S RIGHT TO PERFORM TENANT'S COVENANTS. If Tenant fails to perform any covenant or duty required of it by this Lease or by law, Landlord shall have the right, but not the duty, to perform these obligations after notice and the expiration of any applicable cure period. Any performance by Landlord under this Article will be undertaken solely at the option of Landlord and at the sole cost and expense of Tenant. Tenant will pay Landlord all costs incurred by Landlord in performing Tenant's obligations, plus Landlord's reasonable supervisory fee, as Additional Rent.

B. TENANT'S RIGHT TO PERFORM LANDLORD'S COVENANTS. In addition to all other remedies available at law, Tenant shall have the right after providing fifteen (15) days prior written notice to Landlord (which period may be extended for whatever period of time is reasonably required if such default cannot be reasonably cured within fifteen (15) days so long as Landlord commences such cure within said fifteen-day period and thereafter diligently prosecutes such cure until completion), to cure a default of Landlord in which event Landlord

shall be liable to Tenant for all reasonable costs and expenses incurred by Tenant in curing such default; provided, however, in no event shall Tenant be entitled to deduct the costs and expenses of curing such default from any amounts payable by Tenant pursuant to the terms of the Lease, including all Basic Rent and Additional Rent.

24. WAIVER OF BREACH. The failure of either party to insist upon a strict performance of any of the Lease terms, conditions, or covenants shall neither be deemed a waiver of any rights or remedies that such party may have nor be deemed a waiver of any subsequent breach or default. This instrument may not be changed, modified, or discharged orally.

25. NOTICE. All notices to Tenant under this Lease shall be conclusively presumed to have been delivered (a) when actually delivered to the Premises, with a signed receipt acknowledging delivery or (b) by courier service, service fees prepaid, with a signed receipt acknowledging delivery addressed to Tenant, Attention: Chief Financial Officer, at the Premises or at Tenant's Address or to any other address Tenant may from time to time designate with a copy to Mitchell Berg, Esquire, Paul, Weiss, Rifkind, Wharton & Garrison, 1285 Avenue of the Americas, New York, New York 10019-6064. All notices to Landlord shall be conclusively presumed to have been delivered when actually delivered to Landlord at Landlord's Address, Attention: Landlord's Representative with a signed receipt acknowledging delivery, or to any other place as Landlord may from time to time designate with a copy to Ann Clary Gordon, Esquire, Shapiro and Olander, 20th Floor, 36 South Charles Street, Baltimore, Maryland 21201.

26. SEVERABILITY. Each and every term of this Lease is, and shall be construed to be, a separate and independent covenant and shall not be construed to be dependent on any other provision of this Lease unless expressly provided. If any term of this Lease shall, to any extent, be declared invalid or unenforceable, the remainder of this Lease shall not be affected.

27. LIMITED PERSONAL LIABILITY. The term "Landlord" as used in this Lease means only the owner, the mortgagee, or the trustee or the beneficiary under a deed of trust, as the case may be, for the time being, of the Building (or the owner of a lease of the Building). so that in the event of any transfer of title to the Building (or an assignment or sublease of a lease of the Building), the Landlord shall be and hereby is entirely freed and relieved of all covenants and obligations of Landlord hereunder thereafter accruing. Landlord is a limited partnership, and no partner, general or limited, of said partnership, as it may now or hereafter be constituted, shall have any personal liability to Tenant and/or any person or entity claiming under, by or through Tenant upon any action, claim, suit or demand brought under or pursuant to the terms and conditions of this Lease and/or arising out of the use or occupancy by Tenant of the Premises, and, as to Landlord, recourse shall be limited to Landlord's interest in the Real Property or to refinancing or sales proceeds received by Landlord after notice from Tenant of any failure by Landlord to perform its obligations hereunder within any applicable cure period.

28. ENVIRONMENTAL ASSURANCES.

28.1 Landlord's Representations and Indemnification. Landlord represents to Tenant that, to Landlord's actual knowledge, neither Landlord nor the previous tenant of the Building has generated, stored, transported, treated or disposed of, or will generate, store, transport, treat or dispose of Hazardous Substances (as defined by federal or state laws) at, to or from the Premises, except for quantities of Hazardous Substances not in excess of reportable guidelines therefor. Landlord has delivered to Tenant a recent Phase I audit of the Premises (the "Audit"). Landlord agrees to indemnify and defend Tenant (with legal counsel reasonably acceptable to Tenant) from and against any costs, fees or expenses incurred by Tenant in connection with any asbestos and asbestos containing material in the Leased Premises. This indemnification by Landlord will remain in effect after the termination or expiration of this Lease.

28.2 Tenant's Covenants. Tenant covenants with Landlord:

(1) that it shall not Generate Hazardous Substances except for quantities not in excess of reportable guidelines therefor at, to or from the Premises unless the same is specifically approved in advance by Landlord in writing;

(2) in using and occupying the Premises or suffering or permitting the Premises to be used or occupied, to comply with all obligations imposed by applicable law, and regulations promulgated thereunder, and all other restrictions and regulations upon the Generation of Hazardous Substances at, to or from the Premises;

(3) to deliver promptly to Landlord true and complete copies of all notices received by Tenant from any governmental authority with respect to the Generation by Tenant of Hazardous Substances (whether or not at, to or from the Premises);

(4) to complete fully, truthfully and promptly any questionnaires sent by Landlord with respect to Tenant's use of the Premises and Generation of Hazardous Substances;

(5) to permit entry onto the Premises in accordance with Section 10 above by Landlord or Landlord's representatives at any reasonable time upon reasonable prior notice of at least one (I) business day (or at least three (3) business days if access to any laboratory space is required) which notice may be verbal, to verify and monitor Tenant's compliance with its representations, warranties and covenants set forth in this Section; and

(6) to pay to Landlord, as additional rent, the costs incurred by Landlord hereunder, including the costs of such monitoring and verification provided, however, that the

costs of such monitoring and verification shall not exceed $1000.00 in any twelve month period, unless Landlord has reasonable cause to be believe Tenant may not be complying with its obligations under this Section 28.2.

28.3 Indemnification. Tenant agrees to indemnify and defend Landlord (with legal counsel reasonably acceptable to Landlord) from and against any costs, fees or expenses (including, without limitation, environmental assessment, investigation and environmental remediation expenses, third party claims and environmental impairment expenses and reasonable attorneys' fees and expenses) incurred by Landlord in connection with Tenant's Generation of Hazardous Substances at, to or from the Premises or in connection with Tenant's failure to comply with its representations, warranties and covenants set forth in this Section. This indemnification by Tenant shall survive the termination or expiration of this Lease.

28.4 Definitions. The term "Hazardous Substance" means (i) any "hazardous waste" as defined by the Resource Conservation and Recovery Act of 1976 (42 U.S.C. Section 6901 et seq.), as amended from time to time, and regulations promulgated thereunder; (ii) any "hazardous substance" as defined by the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (42 U.S.C. Section 9601 et seq.), as amended from time to time, and regulations promulgated thereunder; (iii) any "oil, petroleum products, and their by-products" as defined by the Maryland Environment Code Ann. Section 4411(3)(i), as amended from time to time, and regulations promulgated thereunder; (iv) any "controlled hazardous substance" or "hazardous substance" as defined by the Maryland Environment Code Ann., Title 7, subtitle 2, as amended from time to time, and regulations promulgated thereunder; (v) any "infectious waste" as defined by the Maryland Environment Code Ann. Section 9-227, as amended from time to time, and regulations promulgated thereunder; (vi) any substance the presence of which on the Real Property is prohibited, regulated or restricted by any law or regulation similar to those set forth in this definition; and (vii) any other substance which by law or regulation requires special handling in its Generation. The term "To Generate" means to use, collect, generate, store, transport, treat or dispose of.

28.5 Lien Notice. Tenant shall promptly notify Landlord as to any liens threatened or attached against the Premises or the Real Property pursuant to any Environmental Law which are a result, direct or indirect, of Tenant's use or storage of Hazardous Substances. If such a lien is filed against the Premises or the Real Property, Tenant shall, within fifteen (15) days from the date that the lien is placed, and in any event prior to the date any governmental authority commences proceedings to sell the Real Property pursuant to the lien, either: (a) pay the claim and remove the lien; or (b) furnish either (i) a bond or cash deposit reasonably satisfactory to Landlord and Landlord's title insurance company in an amount not less than the claim out of which the lien arises, or (ii) other security satisfactory to the Landlord and to any superior mortgagee in an amount not less than that which is sufficient to discharge the claim out of which the lien arises.

28.6 in the event this Lease is terminated, canceled or surrendered for any reason whatsoever, Tenant shall deliver the Premises to Landlord free of any and all Hazardous Substances other than as may have been noted in the Audit or as is caused by persons other than Tenant, its agents, employees or invitees ("Third Parties") so that the Premises shall be returned to Landlord in the same condition as when delivered to Tenant. The reasonable costs of Tenant's proving such causal connection, which costs must be mutually agreed to by the parties prior to their being incurred, shall be borne by Landlord if such investigation shows such Hazardous Substances to have been caused by Third Parties. Any claim that Tenant has violated the provisions of this Section 28.6 shall be made within the applicable statute of limitations. If such claim is more than two (2) years after termination of this Lease, Landlord shall initially bear the burden of proof and the costs incurred in determining whether Tenant has violated these provisions, provided, however, if Landlord proves Tenant's violation, Landlord shall be entitled to recover from Tenant all such costs and any other damages resulting therefrom.

29. COMMISSIONS. Tenant represents that Tenant has dealt directly with, and only with, the Broker in connection with this Lease, and that insofar as Tenant knows, no other broker negotiated this Lease or is entitled to any commissions in connection with it. Tenant and Landlord each shall hold the other harmless from and indemnify the other for any costs incurred by the other arising out of any other broker's claim that such other broker has assisted such person with respect to this Lease. Landlord shall pay all commissions due to the aforesaid Broker in accordance with their separate agreement.

30. ATTORNEY'S FEES: in the event that any action shall be instituted by either of the parties hereto for the enforcement of any of its rights or remedies in and under this Lease, the prevailing party, whether in court or by way of out-of-court settlement, shall be entitled to recover from the nonprevailing party or parties such prevailing party's attorneys' fees, court costs, expert witness fees and/or other expenses relating to such controversy, including attorneys' fees, court cost and/or expenses on appeal, if any.

31. TIME. Time is of the essence of this Lease with respect to Tenant's monetary obligations subject to any applicable notice and grace period.

32. ZONING. Landlord represents that, as of the date hereof, Landlord has not received from any state or local governmental authority any notice that the Building is in violation of any applicable state or local building and zoning codes. Landlord assumes no responsibility for current zoning requirements or for future changes in zoning classifications of the Real Property.

33. LIMITED WAIVER OF JURY TRIAL. Landlord and Tenant desire a prompt resolution of any litigation between them with respect to this Lease. To that end, Landlord and Tenant waive trial by jury in any action, suit, proceeding and/or counterclaim brought by either

against the other or any matters whatsoever arising out of or in any way connected with this Lease, the relationship of Landlord and Tenant, Tenant's use or occupancy of the Premises, any claim of injury or damage and/or any statutory remedy. This waiver is knowingly, intentionally and voluntarily made by the parties. Each acknowledges that neither the other nor any person acting on behalf of the other has made any representations of fact to induce this waiver of trial by jury or in any way to modify or nullify its effect.

Each further acknowledges that it has been represented (or has the opportunity to be represented) in the signing of this Lease and the making of this waiver by independent counsel, selected of its own free will, and that it has had the opportunity to discuss this waiver with counsel. Each further acknowledges that it has read and understands the meaning and ramifications of this waiver of jury trial.

34. ARBITRATION. Notwithstanding the foregoing, any controversy or claim arising out of or relating to the "reasonableness" of an act or an expense, or the propriety of including an expense within Common Area Expenses or Additional Services Expenses shall be settled by arbitration if the parties are not able to resolve the issue after at least thirty (30) days good faith negotiation. The arbitrator will be an independent arbitrator selected by the two individuals appointed by the parties (one appointed by Landlord and the other appointed by Tenant) within ten (10) days after the need therefor arises. Such individuals shall name the arbitrator within fifteen (15) days after their appointment by the parties. The arbitration shall be conducted promptly after the arbitrator's appointment and in accordance with the Commercial Arbitration Rules of the American Arbitration Association. Judgment upon the award rendered by the arbitrator may be entered in any court having jurisdiction thereof and shall, in any event, be final and binding upon the parties. The cost thereof shall be borne in accordance with the decision of the arbitrator

35. MISCELLANEOUS.

(a) As used in this Lease, and where the context requires: (1) the masculine shall be deemed to include the feminine and neuter and vice-versa; and (2) the singular shall be deemed to include the plural and vice-versa.

(b) This Lease was made in the State of Maryland and shall be governed by and construed in all respects in accordance with the laws of the State of Maryland.

(c) Tenant covenants and agrees that it shall not inscribe, affix, or otherwise display signs, advertisements or notices in, on, upon or behind any windows or on any door, partition or other pan of the interior or exterior of the Building which is visible from the exterior or is permanently attached, without the prior written consent of Landlord which consent shall not be unreasonably withheld or delayed provided same complies with the requirements of the

Howard Research and Development Corporation ("HRD"). if such consent be given by Landlord, any such sign, advertisement, or notice shall be inscribed, painted or affixed by Landlord, or a company approved by Landlord, but the reasonable and customary cost of the same shall be charged to and be paid by Tenant, and Tenant agrees to pay the same promptly, on demand.

(d) Except as approved by HRD and Landlord in connection with the initial Tenant improvements, Tenant covenants and agrees that it shall not attach or place awnings, antennas or other projections to the outside walls or any exterior portion of the Building, without Landlord's consent, which consent shall not be unreasonably withheld or delayed provided same complies with the requirements of HRD. No curtains, blinds, shades or screens shall be attached to or hung in, or used in connection with, any window or door of the Premises which is visible from the exterior. without the prior written consent of Landlord which consent shall not be unreasonably withheld or delayed provided same complies with the requirements of HRD.

(e) Tenant further covenants and agrees that it shall not pile or place or permit to be placed any goods on the sidewalks or parking lots in the front, rear or sides of the Building or in a place which in any manner blocks said sidewalks, parking lots and loading areas and/or not to do anything that directly or indirectly will take away any of the rights of ingress or egress or of light from any other tenant of Landlord on the Real Property.

(f) Tenant, Tenant's servants, agents, invitees, employees and/or licensees shall not park on, store on, or otherwise utilize any parking or loading areas on the Real Property, except as shown on "Exhibit A" in accordance with such rules and regulations as Landlord may from time to time promulgate with respect thereto, subject to the restrictions on such rules and regulations as are referenced in Section 8.2 hereof.

(g) Except as otherwise specifically provided in this Lease, no abatement, refund, offset, counter-claim, recoupment, diminution or any reduction of rent, charges or other compensation shall be claimed by or allowed to Tenant, or any person claiming under it, under any circumstances, whether for inconvenience, discomfort, interruption of business, or otherwise, arising from the making of alterations, changes, additions, improvements or repairs to the Building or the Premises, by virtue or because of any present or future governmental laws, ordinances, or for any other cause or reason

(h) All plats, exhibits, riders or other attachments to this Lease shall be deemed a part hereof and incorporated by reference herein.

(i) This Lease and the Cover Letter of even date herewith contain the entire agreement among the parties regarding the subject matter of this Lease. There are no promises, agreements. conditions, undertakings, warranties or representations, oral or written, express or implied, among them, relating to this subject matter, other than as herein set forth. This Lease

is intended by the parties to be an integration of all prior or contemporaneous promises, agreements, conditions, negotiations and undertakings between them. This Lease may not be modified orally or in any other manner than by an agreement in writing signed by all the parties or their respective successors in interest. This Lease may be executed in several counterparts, each of which shall be an original, but all of which shall constitute one and the same instrument.

(j) This Lease shall be effective only when fully executed by Landlord and delivered to Tenant.

(k) if at any time, any lienholder or other party which has a right to require Landlord to do so, requires the recordation of this Lease, Tenant will execute such acknowledgements as may be necessary to effect such recordation. If Landlord requires, or is required, to record this Lease, it will pay all recording fees, transfer taxes and/or documentary stamp taxes payable in connection with the recordation. If Tenant is required to record this Lease, it will make all such payments. Tenant will not record this Lease or a memorandum thereof without Landlord's prior consent, except as may be allowed or required in connection with the matters allowed under Section 7.5 above.

(l) In the event that either party to this Lease is delayed, hindered or prevented, by reason of strikes, lock-outs, labor troubles, inability to produce materials, delays in transportation, failure of power, restrictive governmental laws or regulations, riots, insurrection, war, fire or other casualties, acts of God, rain or other weather conditions or any other reason (excluding lack of funds) not reasonably within the control of the party so delayed, hindered or prevented, from performing work or doing any act required under the terms of this Lease, then performance of such act will be excused for the period of the delay, and the period of the performance of any such act will be extended for a period equal to the period of such delay but in no event more than ninety (90) days beyond any time period stated herein. The occurrence of any event described in this subsection will not operate to excuse Tenant from prompt payments of Basic Rent, Additional Rent or any other payments required by this Lease, nor shall it reduce any rental abatement period granted Tenant hereunder, or affect Tenant's right to terminate under Section 2.1 above.

36. TENANT'S AUTHORITY. Tenant warrants to Landlord that Tenant is a corporation organized and validly existing in good standing under the laws of the State of Delaware and qualified to transact business in the State of Maryland. In addition, Tenant warrants to Landlord that this Lease has been properly authorized and executed by Tenant and is binding upon Tenant in accordance with its terms. Tenant's resident agent's name and address in the State of Maryland are Dr. Patrick Nettles, 1340-C Ashton Road, Hanover, Maryland 21076. Tenant agrees to notify Landlord in writing of any change with respect to its resident agent.

37. LANDLORD'S AUTHORITY. Landlord warrants to Tenant that Landlord is a

limited partnership organized and validly existing in good standing under the laws of the State of Maryland. In addition, Landlord warrants to Tenant that this Lease has been properly authorized and executed by Landlord and is binding upon Landlord in accordance with its terms. Landlord's resident agent's name and address in the State of Maryland is C. Patrick Creaney, c/o Creaney & Smith, 2200 Broening Highway Suite 110, Baltimore, Maryland 21224. Landlord agrees to notify Tenant in writing of any change with respect to its resident agent.

38. LENDER'S APPROVAL. This Lease is specifically contingent upon the approval of its terms by Landlord's mortgagees (collectively, the "Lender"). Tenant agrees to execute and deliver to Landlord an amendment to this Lease incorporating such modifications of, and additions to, the terms and provisions of this Lease as Lender shall require. Notwithstanding the foregoing, Tenant shall not be required to execute any such amendment which shall adversely affect Tenant's rights hereunder. If Landlord has not been able to obtain the Lender's consent and the non-disturbance agreement referenced in Section 11 above within 45 days after the date this Lease is fully executed, Tenant shall have the right as its sole remedy hereunder, to terminate this Lease provided it gives notice of such election to Landlord with five (5) days thereafter. If Tenant elects to terminate the Lease in such event Landlord shall promptly remit to Tenant any amounts paid by Tenant to Landlord pursuant to Section 6D of the Cover Letter above $15 000.00.

39. EXPANSION. Landlord and Tenant contemplate the need to expand the Building in the future and therefore agree to use reasonable efforts to effect an expansion as generally shown on Exhibit F attached hereto (the "Expansion"). If any additional parking is reasonably required to accommodate the Expansion, Landlord shall attempt to obtain land therefor, on a commercially reasonable basis, by purchasing or leasing a portion of Lot B adjoining the Premises which Lot B is not now owned or leased by Landlord or Tenant.

IN WITNESS WHEREOF, the Landlord has caused its seal to be affixed and its proper and duly authorized officers or partners to affix their signatures, and Tenant has caused its seal to be affixed and its proper and duly authorized officers or partners to affix their signatures, the day and year first written above.

WITNESS:

LANDLORD

C&S Corridor-32 Limited Partnership
Creaney & Smith Properties, Inc.
Managing Agent

By: /s/ C. P. CREANEY

Name: C. P. Creaney

Title: President

ATTEST/WITNESS:

TENANT:

CIENA CORPORATION

William F. Grimes

By: /s/ JOSEPH R. CHINNICI (SEAL)

Name: Joseph R. Chinnici

Title: Vice President & Chief Financial Officer

LANDLORD'S ACKNOWLEDGEMENT

STATE OF MARYLAND COUNTY (CITY) OF Baltimore, TO WIT:

I HEREBY CERTIFY that on this 15th day of December, 1995 before me, the subscriber, a Notary Public of the State aforesaid, Baltimore County (City), duly commissioned and qualified, personally appeared C. Patrick Creaney, who acknowledged himself to be an authorized general partner of C&S Corridor-32 Limited Partnership, a Maryland limited partnership, and that he, being authorized to do so, executed the foregoing instrument for the purposes therein contained by signing, in my presence, the name of said limited partnership by himself as such partner.

WITNESS my hand and Notarial Seal.

/s/ KATHLEEN A. SHIVELY
Kathleen A. Shively
Notary Public

My Commission expires: January 6, 1998

TENANT'S ACKNOWLEDGEMENT

STATE OF MARYLAND, COUNTY (CITY) OF Anne Arundel, TO WIT:

I HEREBY CERTIFY that on this 5th day of October, 1995 before me, the subscriber, a Notary Public of the State aforesaid, Anne Arundel County (City), duly commissioned and qualified personally appeared Joseph R. Chinnici who acknowledged himself to be the Vice President, Chief Financial Officer of CIENA Corporation, a Delaware corporation, and that he, being authorized to do so, executed the foregoing instrument for the purposes therein contained by signing, in my presence, the name of said corporation by himself as such officer.

WITNESS my hand and Notarial Seal.

/s/ Wanda B. Nace
Notary Public

My Commission expires: April 22, 1997

Notary Public

My Commission expires:

RIDER NO. 1

Renewal Option

Rider to Section 2 (Term)

Provided (i) this Lease is then in full force and effect, (ii) Tenant is not in default following any applicable cure period respecting any provision or condition of this Lease either on the date Tenant elects to renew or on the date the renewal term commences, and, (iii) Tenant has not been in "Habitual Default" during the original term of this Lease, then Tenant shall have the right to renew this Lease for one (1) renewal term (the "Renewal Term") of five (5) years immediately following the expiration of the original term on the same terms, conditions, and provisions as are set forth in this Lease with the same force and effect as though this Lease had originally provided for an eleven (11) year term, save that:

(i) there shall be no further right of renewal, after the renewal term, and

(ii) the Basic Rent payable with respect to the Premises shall be adjusted by increasing the Basic Rent as follows:

	Period	Rate Per Square Ft.	Gross Square Ft.	Monthly Installment of Basic Rent	Period Total
Months	73-84	$9.37	50,550	$39,467.38	$473,608.50
Months	85-96	$9.44	50,550	$39,750.13	$477,001.50
Months	97-108	$9.44	50,550	$39,750.13	$477,001.50
Months	109-120	$9.84	50,550	$41,433.63	$497,203.50
Months	121-132	$9.98	50,550	$42,036.66	$504,439.95

Tenant shall be deemed to have waived the right to exercise this renewal option unless not less than 270 days prior to the date of termination of the original term, Tenant shall have notified Landlord in writing of Tenant's election to renew (the "Renewal Notice"). Time is of the essence with respect to Tenant's exercise of its rights under this Rider and Tenant acknowledges that Landlord requires strict adherence to the requirement that the Renewal Notice be timely made and in writing.

Rider No. 2

Exclusions
Rider to Subsection 3.4

Notwithstanding anything to the contrary contained in this Lease, Common Area Expenses shall not include any of the followings

(a) Franchise, estate, gift, mortgage, gains, transfer, unincorporated-business, commercial rent or income taxes imposed upon Landlord;

(b) Salaries and benefits of personnel above the grade of property manager;

(c) Any sum paid to any entity affiliated with Landlord which is in excess of the amount that would have been payable in the absence of such affiliation with Landlord:

(d) Attorney's fees and disbursements and other costs in connection with (i) any judgment, settlement or arbitration resulting from any tort liability on the part of Landlord and the amount of such settlement or judgment or (ii) any bankruptcy or similar proceeding:

(e) Arbitration expenses to the extent such expenses are unrelated to the operation, repair, cleaning, maintenance, management, security or ownership of the Project;

(f) Costs incurred by Landlord due to Landlord's failure to comply with the provisions of leases with other tenants in the Project or any other contract or agreement pertaining to the Project;

(g) Any expense included in Taxes as that term is defined in Subsection 3.4;

(h) Dues paid to any trade associations or similar expenses;

(i) Any expense included in Additional Services Expenses as that term is defined in Section 3.4

(j) Any costs which are subsequently rebated or credited to Landlord;

(k) Costs of removing hazardous substances including asbestos containing material to the extent caused by Landlord or its agents, employees or representatives;

(l) The costs of capital improvements, other than the cost of replacing any heat exchangers which shall be equally shared between Landlord and Tenant, and other than Capital Government Compliance Costs as defined in Section 8.1 of the Lease;

(m) Marketing, promotion and advertising expenses in connection with the leasing of space in the Building;

(n) All costs associated with Landlord's financing of the Real Property;

(o) Costs paid under any other provision of this Lease which, if included within Common Area Expenses, would result in Tenant's paying twice for the same expense; and

(p) Any Real Estate Taxes or interest, fines, penalties or other late payment charges paid by Landlord thereon, provided Tenant has performed timely its obligations to pay all increases in such Real Estate Taxes as defined in Subsection 3.4 (the same being payable in accordance with Subsection 3.5(a)).

* indicates confidential material has been omitted pursuant to Rule 406 under the Securities Act of 1933, as amended.

EXHIBIT 10.8

Agreement Number: KC103251ML

PROCUREMENT AGREEMENT
BETWEEN SPRINT\UNITED MANAGEMENT COMPANY
AND
CIENA CORPORATION

THIS PROCUREMENT AGREEMENT ("Agreement"), made effective as of the 14 day of December, 1995 ("Effective Date"), by and between Sprint\United Management Company, a Kansas corporation, having its principal place of business at 2330 Shawnee Mission Parkway, Westwood, Kansas 66205 (hereinafter referred to as "SUMC"), and Ciena Corporation, a Delaware corporation, having its principal place of business at 8530 Corridor Road, Columbia, Maryland 20763 (hereinafter referred to as "Supplier").

WHEREAS, SUMC is a subsidiary of Sprint Corporation, a Kansas corporation ("Sprint Corp."), and provides certain administrative and purchasing services for Affiliated Entities (as defined in Article 25) of Sprint Corporation. (Sprint Corp., together with SUMC and Affiliated Entities, is hereinafter collectively referred to as "Sprint");

WHEREAS, Supplier is able and willing to develop, build, deliver, install and support the Equipment as required by this Agreement and Sprint desires to retain Supplier on such terms:.

NOW, THEREFORE, in consideration of the foregoing premises and the representations, warranties, covenants and agreements herein contained, the parties agree as follows:

DEFINITIONS: Defined terms and definitions are set forth in Article 25 of this Agreement.

ARTICLE 1. SUPPLIERS DELIVERABLES

1.1 Technical Requirements, Quantities, Terms

Supplier agrees to provide Deliverables which satisfy and perform in accordance with the Technical Requirements set forth in Exhibit B, in the quantities specified by Sprint in Purchase Orders in accordance with the terms and conditions set forth in this Agreement and Purchase Orders.

1.2 Sprint Testbed

(a) Supplier agrees to supply Sprint * , such production Equipment as is outlined in Section 1.2 (b) below for one testbed ("Sprint Testbed") to be located at a site designated by Sprint and communicated to Supplier on or before the Effective Date.

(b) The Sprint Testbed Equipment shall initially include a minimum of: * end terminals equipped with * payload information carriers (channels) each and at least * intermediate optical line amplifiers all of which satisfy and perform in accordance with the Technical Requirements are configured with Software Revision Levels and Equipment Revision Levels reasonably determined by Sprint so long as the determined configuration and Revision Levels are available from Supplier at that time ("Configuration"). * no * for any * installed in the Sprint Testbed. Supplier also agrees to provide Sprint with Ciena's EMS Software to enable Sprint to configure and provision functions for Equipment during testing.

(c) Supplier agrees to supply and maintain for the * , any Licensed Software needed to maintain the Sprint Testbed Equipment, including any additional intermediate line amplifiers purchased by Sprint from Supplier, in compliance with the Technical Requirements and Configuration. Supplier shall assemble the Licensed Software and Equipment into such Configuration as is stated in the applicable Purchase Order.

(d) Except as stated in 1.2 (b) above, any Equipment Sprint requests Supplier to add to the Sprint Testbed shall be *

1.3 Sprint Soak Tests

Sprint shall conduct Soak Tests * First Installations of Systems of end terminal to end terminal route segments designated by Sprint to demonstrate field performance of the Equipment, as part of the Final Acceptance in accordance with paragraph 3.6 of Exhibit B. Soak Tests will encompass testing the Equipment for both the A (working) and B (standby) Systems and will be conducted on the following Sprint SONET routes for the timeframes specified below:

	ROUTE	CONFIGURATION	SOAK DURATION
(a)	*	*	*
(b)	*	*	*
(c)	*	*	*

1.4 Supplier Testbed

(a) Supplier shall allow Sprint use of at Supplier's premises, an Equipment testbed meeting (i) the requirements set forth in Section 1.2(b), and (ii) configured with an additional * , ("Supplier Testbed"). During the Initial Term of the Agreement * . Sprint shall give reasonable Notice of its use of Supplier's Testbed.

(b) The Supplier Testbed shall be maintained by the Supplier * . At Sprint's request, Supplier agrees to install and integrate SONET Network Elements supplied to Sprint by another vendor needed for FAT and Interoperability testing, up to and including the most recent such revision levels deployed in Sprint's network as directed by Sprint. If Sprint requests the integration of third-party equipment into Suppliers Testbed, Sprint shall provide such equipment at no cost to Supplier.

1.5 Supplier shall, if requested by Sprint, assist Sprint personnel in the installation and maintenance of the Equipment and any Software and Equipment included in the Sprint Testbed and in the field. Such assistance will include but not be limited to providing information or help regarding installation procedures, testing and acceptance procedures, provisioning procedures, and general operational maintenance procedures. Such assistance shall be provided * . Supplier shall make available to Sprint, after the First Installations, additional technical support at the Prices set forth in Exhibit C.

1.6 Sprint shall perform validation and acceptance testing as set forth in Article 6 of this Agreement and Exhibit B.

1.7 Supplier shall notify Sprint within twenty four (24) hours, upon learning of any material defects in any of the Deliverables.

1.8 All Deliverables, including purchased spare parts, shall be newly manufactured.

1.9 (a) Supplier shall support all Licensed Software and Equipment * . Each Software Revision level shall have * .

(b) If Supplier discontinues manufacture and/or support of the Equipment, Supplier shall at Sprint's request, to the extent of Supplier's legal rights to do so, without obligation or charge to Sprint and without limiting Sprint's other rights or remedies, deliver to Sprint all of the technical information owned and possessed by Supplier relating to the manufacture and/or support of the Equipment, in the form being used in Supplier's factories in its

day-to-day operations of manufacture, or arrange for the replacement and repair spare parts for the Equipment to Sprint's reasonable satisfaction. Sprint may use such technical information only to manufacture, have manufactured, obtain such spare parts from other sources in connection with the Equipment and System Software obtained from Supplier and owned and operated or licensed by Sprint. Title to Suppliers technical information and intellectual property rights shall remain with Supplier.

1.10 Except as provided in Section 16.3(e), during the term of this Agreement, * .

ARTICLE 2. QUANTITIES AND DELIVERY SCHEDULES

2.1 During the Term of this Agreement, Sprint shall furnish Supplier a monthly Projection Schedule ("Schedule") setting forth a rolling * month forecast of the respective quantities of each type of Deliverable that Sprint then estimates it will require for each month in the immediately succeeding * month period. The Schedule for the immediately succeeding * period following the date the Schedule is submitted to Supplier ("Commitment") shall be considered a firm commitment by Sprint to order the forecasted Deliverables. In the event that Supplier indicates that it cannot meet Sprint's entire Commitment, Sprint shall have the right to reduce the Commitment and seek alternative sources for like Deliverables * . Notwithstanding the provisions set forth in Article 7, in the event that Sprint .fails to submit Purchase Orders for at least the respective forecasted quantity of Deliverables for the Commitment period by the last day of the month that the Deliverables are forecasted to have been delivered to Sprint ("Shortfall"), and provided that Supplier gives Sprint written Notice of such Shortfall, then Supplier may invoice Sprint for a penalty of * of the Net Price of such Shortfall. Sprint shall pay such penalty pursuant to the provisions set forth in Section 3.1(a). In the event that Sprint submits Purchase Orders for the Shortfall within * days following the forecasted delivery date, then (i) Supplier shall deliver the Deliverables in the times frames set forth in Section 2.2; and (ii) Sprint shall make payment for the remaining * of the Net Price of such Shortfall pursuant to the provisions set forth in Section 3.1(a).

2.2 During the Term of this Agreement, Sprint shall issue Purchase Orders specifying the Deliverables ordered, the quantities necessary, the delivery site or sites (hereinafter the "Specified Site[s]") for the Deliverables and the delivery schedule. The delivery schedule set forth in the Purchase Order will reflect the following intervals:

(a) * after receipt of order ("ARO") for PO's placed *

(b) * ARO for PO's placed *

(c) * ARO for orders placed *

Unless mutually agreed upon in advance in writing, Supplier shall make shipments in response to a Purchase Order only if the shipment completely satisfies the Purchase Order. Time is of the essence to Sprint and Supplier understands and acknowledges that the delivery schedule must and will be strictly observed. Sprint may defer delivery of all or part of the Deliverables ordered under any Purchase Order for as long as * days beyond the scheduled delivery date, provided that Sprint provides in written Notice in the form of a Purchase Order supplement to Supplier at least fifteen (15) days prior to the scheduled delivery date.

2.3 All deliveries of Deliverables shall be made F.O.B. Specified Site, third party bill. Supplier agrees to follow Sprint's routing instructions set forth in Exhibit E, including required carrier choices and Sprint agrees to pay freight charges. If Supplier fails to follow such routing instructions, Supplier will bear any expenses and/or other

liabilities above that which would have been incurred had the routing instructions been followed. Risk of loss or damage to the Deliverables shall remain with Supplier until delivered to Sprint at the Specified Site and Sprint has verified receipt of all Deliverables ordered in the Purchase Order, but such verification shall not prejudice Sprint's right to determine Final Acceptance. Except for First Installations, title to the Deliverables shall transfer upon delivery of Deliverables. The preceding provisions of this clause are valid for deliveries in the United States, its possessions and territories only. All deliveries outside the aforementioned areas will be mutually agreed upon on a case by case basis.

2.4 Sprint shall have the right to alter the Specified Site(s) within ten (10) days before Supplier's scheduled shipment date for Deliverables, without cost or expense to Sprint, by timely transmitting Notice to Supplier of the new Specified Site(s).

2.5 Supplier shall execute and deliver to Sprint an order acknowledgment within seven (7) days of Supplier's receipt of each Purchase Order. If the order is in excess of 110% of the most recent forecasted amount, Supplier will indicate if it will commit to delivery of the excess amount.

2.6 During the Term of the Agreement * . Additionally, Supplier agrees that in the event that at any time during the Term of this Agreement *

ARTICLE 3. PRICING, INVOICING, PAYMENT AND OTHER FINANCIAL TERMS

3.1 Prices for new or replaced Deliverables (if the replaced Deliverable has substantially similar purpose and functionality) are set forth in Exhibit C and shall not be increased for the Initial Term of this Agreement. In the event that Supplier decreases prices for Deliverables, Supplier shall apply immediately such decreases to any outstanding Purchase Order whose Deliverables have not yet been delivered to Sprint. * Sprint shall not be responsible for any other charges such as insurance or similar charges unless otherwise agreed to by Sprint in writing except sales, use, excise or similar taxes reimbursable by Sprint with respect to Deliverables, which shall be detailed as a separate line item on each applicable invoice. Payment terms are set forth as follows:

(a) Standard Orders: Except for the provisions of 3.1(b), 3.1(c), and 3.1(d), Sprint shall remit payment to Supplier for * percent * of the undisputed invoice amount within thirty (30) days after receipt of the invoice, which shall be issued upon shipment of the Equipment or completion of services as applicable.

(b) * : In consideration of * upon the Purchase Order acknowledgment, provided, however, that until Supplier has successfully completed the initial FAT. Sprint shall not be obliged to pay such invoices. Except as provided in 3.1(c), below, Supplier may invoice the balance due upon delivery.

(c) First Installation Orders: For orders designated by this Agreement as First Installations, Supplier shall invoice the balance due upon Final Acceptance in accordance with the provisions of paragraph 3.6 of Exhibit B.

(d) Sprint shall not be required to pay for Deliverables or Services which are rightfully rejected.

(e) In the event that a System does not complete Final Acceptance to Sprint's satisfaction, Sprint has the right to remove the respective Equipment that does not pass Final Acceptance in accordance with the provisions set forth in Sections 15.3 and 20.3.

(f) Notwithstanding the provisions set forth in Sections 3.1 (a), 3.1 (b), and 3.1 (c), in the event that Sprint experiences at least a * percent installation failure rate ("Installation Failure Rate") of field replaceable module types ("Module Types"), which Module Types are set forth in Exhibit C, Sprint shall have the right to suspend all outstanding payments, without penalty, until such time as the problem(s) causing such failures have been resolved or a satisfactory course of action is agreed to by Sprint and Supplier. The Installation Failure Rate of Module Types shall equal the total number of such Module Types which failed within * of installation thereof, divided by the total number of that Module Type installed during the preceding * .

3.2 In the event Supplier fails to receive payment from Sprint as required herein, or if Supplier reasonably disputes the amount remitted by Sprint, then Supplier shall so notify Sprint in writing. Sprint shall have fifteen (15) calendar days to cure such non-payment, *

3.3 Invoicing instructions shall be as follows:

Original Invoice Sent To:	One Copy of Invoice Sent To:
Sprint	Sprint Transmission Engineering
Accounts Payable	ATTN.: SONET Project Manager
P.O. Box 5409	Mailstop: MOKCMD0203
Kansas City, MO 64131-5409	901 E 104th Street
	Kansas City, MO 64131-5409

3.4 *

ARTICLE 4. TERM

Subject to the terms and conditions of this Agreement, the initial term of this Agreement shall be three (3) years from the Effective Date and if none should be entered, the date of the signing of the Agreement by the last party to sign ("Initial Term"). At the end of the Initial Term, Sprint shall have the option to extend this Agreement * . Thereafter, the Agreement may be renewed upon mutual agreement. The Initial Term in combination with any extensions is also referred to in this Agreement as the "Term."

ARTICLE 5. DOCUMENTATION AND REPORTS

5.1 (a) Supplier shall provide to Sprint, * , sufficient Documentation as reasonably determined by Sprint, and reports referred to in Sections 5.4 and 5.5, in each case, in English, on or before the specified delivery date for such Deliverable, in the case of System Documentation, or the specified due date in the case of reports. The Supplier will provide one copy of such Documentation and reports for each Specified Site, and twenty five (25) additional copies for administrative use. Delivery instructions therefor will be specified in each Purchase Order. Sprint agrees to provide Supplier with an updated distribution list for revisions or updates, or both, as provided for herein below. Soft (computer disk) copies of the Documentation will be available upon Sprint's request. Additionally, Sprint may order a Documentation in CD ROM form in lieu of paper copies, if available from Supplier * . Sprint may also reproduce hard copy Documentation for its internal use provided that any copyright notice of such Documentation is copied as well.

(b) All hard copy Documentation shall be delivered on 8 1/2 by 11 inch paper with numbered pages with one of those copies being in "camera ready" form for permissible reproduction and/or printing. Diagrams shall be included in the respective documents and may be 11 x 17 inch paper as appropriate, or issued separately if they are a stand-alone document.

5.2 Supplier shall, within the applicable time period set forth in Section 5.3, 5.4 and 16.11, provide Sprint with (a) updates, as such updates are made generally available, to the Documentation, and (b) new and/or revised data incorporating any changes to the Deliverables which affect form, fit, or function, in each case at no additional charge to Sprint. Such Documentation may be reproduced by Sprint for its internal use, provided that any copyright notice of such Documentation is copied as well. Soft copies of such Documentation shall be available upon Sprint's request. Such Documentation will be used for Sprint's internal use only on a strict need to know and need to use basis.

5.3 Supplier shall provide Sprint with relevant Documentation within thirty (30) days of correction of the conditions described in (a), (b) or (c) below:

(a) Any E1 or E2 condition of Software and/or Equipment as described in Article 16;

(b) A hazardous electrical or mechanical condition in the Equipment; or

(c) Support Services do not correct System Software and/or Equipment failures to meet Technical Requirements, even on a temporary basis.

5.4 Supplier shall maintain a data base and furnish to the Sprint SONET Project Manager, at the times specified below and at a location to be designated by the Sprint Project Manager, three (3) copies each of the reports described below:

(a) Supplier shall furnish every * , unless otherwise stated, for * the following reports:

(i) Reports of all Items returned for repair and disposition of the Items by type, date of receipt, serial number and common language equipment identifier ("CLEI"). The categories of the report may be modified during the Life of System but at minimum will include: the cause of failure, including whether no trouble found ("NTF"), the disposition of the unit as being returned or replaced, and any repair action taken.

(ii) Percent NTF by type. Each report shall include a comparison of Sprint versus all Customers (who shall not be specifically identified).

(iii) CSR Report, which definition is set forth in Article 16.4, which shall show:

(A) the date each CSR was submitted to the Supplier by Sprint;

(B) as to each CSR, whether it is open or closed, and the date of closing of each closed CSR (such closing shall require the concurrence of Sprint);

(C) the identification number ("ID") assigned to the CSR by Sprint and if the ID number assigned thereto by the Supplier is different, then the Supplier's ID number shall also be included;

(D) the priority code assigned to the CSR (i.e., E1, E2, P1, P2 or P3) pursuant to Article 16 of this Agreement;

(E) whether the actions necessary to correct the trouble found, or provide upgrades or enhancements, involved one or more of the following: Software Upgrade, Equipment Upgrade, Software Feature Enhancement or Equipment Feature Enhancement

(iv) Product Change Notices ("PCN") issued by identification number and title.

(v) List of Sprint Purchase Orders providing the date of receipt, status of order and status of paid invoice.

(vi) Acknowledgment, in writing, as to whether Supplier can meet Sprint's entire Commitment. *

(vii) List of forecasted Deliverables for each month of the Commitment period, with associated Purchase Order(s), and applicable Shortfall, if any. *

(b) Supplier shall furnish (starting * from the date of initial delivery of the Equipment) the following reports:

(i) *
.

(ii) Turnaround (interval) time for normal and emergency repairs. The report for emergency turnaround shall provide the time the call was received versus the time the module was shipped. The report for normal turnaround shall provide the date the part is received versus the date the replacement or repaired part is shipped.

5.5 In addition, * during the Life of the System, Supplier shall provide Sprint with a * .

ARTICLE 6. DELIVERY, INSTALLATION AND ACCEPTANCE

6.1 Supplier shall meet or exceed all Technical, Test and Acceptance Requirements set forth in Exhibit B with respect to the Deliverables supplied to Sprint.

6.2 Supplier shall mark each shipment to Sprint with Supplier name, the Purchase Order number, Sprint work order number (if such designation is included in the Purchase Order), the identity and quantity of Deliverables, and notice of partial or final delivery. Partial delivery may be made only with prior written permission from Sprint. Final destination, interim staging area or any special shipping instructions and any applicable charge will be specified on each Purchase Order.

6.3 (a) During the Initial Term of this Agreement, Supplier shall make available on-site installation spares of all parts and components of the Equipment ("Spares Kits" or "Kits") at the time of installation in sufficient quantities to enable timely Final System Acceptance of Equipment. In the event that Sprint elects not to purchase Spares Kits at the start of installation, Sprint shall * . Sprint and Supplier shall periodically coordinate to determine a mutually agreed quantity and contents of the Kits , which shall be provided by Supplier to the extent required to meet Sprint's then current installation needs, and furnished to the Specified Sites. The actual composition of the Kits will be defined for each installation scheme and be based on the actual type of Equipment to be installed. Ownership of the Kits remains with Supplier until and except to the extent that spares are required to be used to complete installation of the applicable System. Upon completion of Final Acceptance at each site as set forth in Exhibit B, (i) Sprint shall have the option to return the respective Spares Kits to Supplier which shall include the defective Items from such installation; (ii) Supplier shall replenish such Kit to the extent necessary to replace all defective Items with respect to such installation, (iii) Supplier shall return such replenished Kit or a new installation Spares Kit to Sprint to the extent required to meet Sprint's installation needs, (iv) Sprint * of Sprint's purchase price for any unaccounted for and/or physically damaged installation spares.

(b) Sprint also shall have the option to * , or in the event of multiple Kits being used on an installation project, *

(c) Supplier shall provide, as back-up to the installation Spares Kit * emergency replacement of any failed unit during installation and supplement installation spares for spares which have been depleted.

ARTICLE 7. FORCE MAJEURE

7.1 Except as otherwise provided herein, neither Supplier nor Sprint shall be liable to the other for any delay in performing in accordance with this Agreement if such delay arises directly out of an Act of God including fire, flood, earthquake, explosion, casualty, or accident, or out of war, riot, civil commotion, labor dispute, the requirement of any governmental agency or instrumentality, or any other cause beyond the control of the party claiming force majeure, its agents, suppliers or other subcontractors ("subcontractors").

7.2 Such delay by Supplier that arises out of any delay in performing or failure to perform by any of its subcontractors shall be excusable only if the (a) delay or failure by such subcontractor arises directly out of a cause or event referred to in Section 7.1, and without the fault or negligence of either or both of Supplier and such subcontractor and (b) the materials or services to be furnished by such subcontractor or Supplier were not reasonably obtainable from other sources in sufficient time to permit Supplier to meet the required schedule.

7.3 The party asserting that an event of force majeure has occurred shall send the other party Notice thereof in accordance with Section 22 no later than five (5) business days after the beginning of such claimed event

setting forth a description of the event of force majeure, an estimate of its effect upon the party's ability to perform its obligations under this Agreement and the duration or expected duration thereof. The Notice shall be supplemented by such other information or documentation as the party receiving the notice may reasonably request.

7.4 The party asserting that an event of force majeure has occurred shall be excused, on a day-to-day basis, from the performance of its obligations under this Agreement to the extent prevented or delayed by such event (and the other party likewise shall be excused, on a day-to-day basis, from the performance of its obligations under this Agreement to the extent such party's obligations related to the obligations are so prevented or delayed); provided, however, that the party asserting the occurrence of a force majeure event shall use its best efforts to avoid or remove such force majeure event.

7.5 In the event that Supplier delays in performing or fails to perform any of its obligations under this Agreement as a result of an event of force majeure and such delay or failure continues for * or more, Sprint shall be entitled in its sole discretion to terminate any affected Purchase Order without penalty. As soon as possible after the cessation of any event of force majeure, the party which asserted such event shall give the other party written notice of such cessation. Whenever possible, each party shall give the other party written Notice of any threatened or impending event of force majeure.

ARTICLE 8. TRAINING

8.1 Supplier shall provide, upon Sprint's request and at the time or times required by Sprint during the Term of this Agreement, up * training class days of training and training materials for Sprint personnel, * . Such training shall be kept current to encompass the latest Licensed Software and Equipment, or any other Software Revision Level and/or Equipment Revision Level directed by Sprint. Subject to the foregoing, course content and material will be designed and agreed to by mutual consent. Supplier shall have operator training available * and train-the-trainer classes available within * . Sprint shall have the right to copy Supplier's training materials for its internal use provided that any copyright notice included in such material is copied as well. Unless otherwise directed by Sprint, courses shall be limited to ten (10) attendees in each course session. Sprint is obligated to pay for all travel and lodging of Sprint personnel. All training will be conducted at Ciena's Maryland location unless otherwise agreed. For each of the courses described below, Supplier shall sufficiently train and test class attendees such that the individual can perform the respective functions on the Equipment and Licensed Software. Supplier shall conduct classes for each course described below:

(a) Installation training will include training to technical personnel presumed not qualified or trained specifically on installation or testing of the Equipment as it interfaces with a SONET System or the Equipment or Software. The subject matter will include a general overview of Equipment technology and how it interfaces with fiber optic transmission systems, and any other information necessary to successfully install and test the Equipment in a field location.

(b) Operations, Maintenance and Provisioning ("OM&P") training will include training to technical personnel presumed not qualified or trained specifically on operating the Equipment and Software included therein. The subject matter will include (i) a general overview of wave division multiplexers and how that type of equipment interfaces with fiber optic transmission systems (ii) a system overview of the Equipment, Software initiation and configuration requirements, required interconnections, troubleshooting and testing requirements, recovery from System failures, use of the craft interface device, and (iii) any other information necessary to successfully operate, troubleshoot, maintain, or set up the Equipment to direct traffic to the intended location, in each case so that the Equipment successfully operates in a field location.

(c) *

Supplier will certify attendees upon successful completion of the course. Such course content and materials may be tailored or customized by Sprint for internal use only and shall include training with respect to the following topics which are applicable, as appropriate, to the installation, operation and maintenance of the Equipment such as:

(i) Hardware configuration;

(ii) Communication interfaces and protocols;

(iii) Software operating system (current to latest Software Revision Level);

(iv) Data base configuration, structure and content;

(v) Data base down loading;

(vi) Program function;

(vii) Troubleshooting procedures; and

(viii) Other subject matter which is necessary or desirable to understand current Equipment operation and maintenance as well as any enhancements as they are added to the Equipment.

ARTICLE 9. SOFTWARE LICENSE

9.1 Supplier hereby grants to Sprint, and Sprint hereby accepts from Supplier * right to use license (the "RTU License"), with rights to transfer and sublicense, only to the extent explicitly authorized in this Agreement for:

(a) the EMS Software in machine readable form, including any applicable Software Upgrades provided under the warranty provisions of this Agreement and any EMS Software Feature Enhancements licensed by Sprint under this Agreement, and any copies of any of the foregoing as authorized herein;

(b) System Software in machine readable form, including any applicable Software Upgrades provided under the warranty provisions of this Agreement or any System Software Feature Enhancements licensed by Sprint under this Agreement, and any copies of any of the foregoing as authorized herein, and

(c) Third Party Software embedded in and integrated with the Equipment, System Software, and EMS Software, in machine readable form.

The RTU License for each Item of Licensed Software commences on * and extends perpetually thereafter unless terminated in accordance with the provisions of this Article 9.

* Sprint may physically transfer the EMS Software from one workstation to another without Notice to Supplier and from one site to another provided that (a) the workstation from which the EMS Software has been transferred shall cease to be a Licensed EMS Workstation for such transferred Software and the workstation to which the EMS Software has been transferred shall thereafter be deemed to be a Licensed EMS Workstation, and (b) the EMS Software delivered by

Supplier pursuant to a Sprint Purchase Order shall not be resident at any time on more than the total number of Licensed EMS Workstations set forth on the applicable Sprint Purchase Order.

Sprint's * for the System Software shall be limited to use in Equipment provided under this Agreement which incorporates such System Software for transmission of a number of information payload carriers ("Channels") excluding service channel carriers (order wires), in either optical transmission path of such Equipment which does not exceed the number of Channels set forth in Sprint's Purchase Order, or otherwise authorized by this Agreement, for (a) the Equipment and System Software, or (b) license upgrade applicable to the Equipment, and authorized by Supplier through provision of an applicable release of the System Software for that System or an acknowledgment by Supplier of purchase by Sprint's of * for increasing the maximum number of * (hereinafter, a "Licensed System"). Sprint may transfer the System Software from one site to another so long as operated only on a Licensed System.

The Licensed Software contains copyrighted material, trade secrets and other proprietary material of Supplier or Supplier's subcontractors. Sprint is granted no title or ownership rights to the Licensed Software, and Sprint shall not sell, transfer (except as authorized under this Agreement), rent, copy (other than for archival or backup purposes), reverse engineer, or grant any rights in the Licensed Software except as provided herein without Supplier's prior written consent. Sprint agrees to protect the Licensed Software in a manner consistent with the maintenance of Supplier's ownership and proprietary rights therein, including displaying of any copyright marks incorporated by Supplier.

9.2 Sprint agrees that the System Software is intended for use with Supplier's Equipment and Supplier agrees that the Software will have Interoperability with systems, equipment and software provided by other suppliers and Customers. *

9.3 * Levels issued within * Supplier. Sprint shall be required to procure a license for * Some Software Feature Enhancements may require attendant hardware as described generally in Article 11, which will be purchased by Sprint consistent with Article 11.

9.4 The provisions of this Article 9 shall survive the termination of this Agreement, regardless of the cause of termination.

9.5 In conjunction with a distribution of the Source Code escrow described in Section 9.6, Supplier hereby grants to Sprint the perpetual right and license to use, modify, and enhance the released Source Code of the Software licensed by Sprint under the restrictions set forth in Section 9.6, and Supplier agrees that the rights and licenses granted herein: (i) are fully performed, (ii) are not of an executory nature, (iii) will not be subject to rejection under Title 11, Section 365 (a) of the United States Code, or any replacement provision therefor, and (iv) will be deemed to be, for purposes of Title 11, Section 365 (n) of the United States Code, or any replacement provision therefor, licenses to rights to "intellectual property" as defined therein.

9.6 Supplier hereby grants Sprint, and Sprint hereby accepts from Supplier, a Right to Modify license ("RTM License"), limited in use only for the maintenance, modification and support of that Equipment purchased or operated and System Software and EMS Software licensed by Sprint, including access to Source Code, with access to the Source Code exercisable by Sprint only under the following conditions:

(a) If Supplier becomes insolvent, makes a general assignment for the benefit of creditors, files a voluntary petition in bankruptcy or an involuntary petition in bankruptcy is filed against Supplier which is not dismissed within sixty (60) days, or suffers or permits the appointment of a receiver for its business, or its assets become subject to any proceeding under a bankruptcy or insolvency law, domestic or foreign, or has liquidated its business, or Supplier, or a business unit of Supplier that is responsible for maintenance of the Licensed Software ceases doing business without providing for a successor, and Sprint has reasonable cause to believe that any such event will cause Supplier to be unable to meet its support requirements hereunder; or

(b) If Supplier assigns, transfers or otherwise provides for maintenance rights or other such rights to the Licensed Software to a third party, excluding merger or acquisition, unless Sprint consents, in writing, to such transfer or assignment (which consent shall not be unreasonably withheld) after receiving assurances which are reasonably satisfactory to Sprint that Support Services provided under Article 16 for the Licensed Software, and Equipment during the Warranty Period and any Extended Warranty Periods as defined in Article 13 with respect to the same will be maintained as contemplated by this Agreement;

(c) *

9.7 Supplier agrees, at Sprint's request, to become a party to a mutually acceptable master Source Code escrow agreement signed by Sprint and Supplier and consistent with the terms of this Agreement ("Escrow Agreement") which will allow Sprint to obtain access to Supplier's Source Code in accordance with the terms set forth in Section 9.6 and such Escrow Agreement. Supplier shall pay those costs associated with providing Supplier's Source Code to the Escrow Agent and Sprint shall pay those costs associated with release of such Source Code. Supplier warrants and agrees that (a) the Source Code delivered into escrow in accordance with the Escrow Agreement will comprise the full Source Code language statement of the System Software and EMS Software as developed and used by Supplier to maintain or modify the Equipment and management system including (i) the complete Software, maintenance, and support Documentation, and (ii) all other materials necessary to allow a reasonably skilled third-party programmer to maintain, modify, or enhance the deposited Software without the assistance of any other person or the reference to any other material; and excluding (i) Third Party Software incorporated in the Licensed Software and sublicensed by Supplier to Sprint under the terms of Article 9.1 of this Agreement, (ii) commercial software development tools which were licensed by Supplier for its use in developing the Software; (b) such Source Code shall include all Software Revision Levels thereof which have been delivered by Supplier to Sprint under this Agreement from the date of initial creation of such Software until the date the RTM License becomes effective, (c) such Source Code shall be kept up to date, including all updates needed to maintain compliance with the Technical Requirements. In addition, all parts of the Source Code from the date of its creation until the date the RTM License first becomes effective thereof, and all updates thereto (including, without limitation, those which are necessary to maintain compliance with the Technical Requirements) shall be delivered into escrow in accordance with the Escrow Agreement, and (d) the escrow agent will give Sprint written notice of any deposit by Supplier and any refusal by Supplier to pay applicable any escrow fees and expenses. At Sprint's request, the escrow agent will also certify that the deposit meets the technical requirements set forth in the Escrow Agreement, including tests of the deposited Software. The Source Code delivered to the escrow agent will be in a form suitable for reproduction by Sprint.

9.8 In the event Sprint obtains the RTM License, Supplier warrants that the System Software delivered to Sprint will be in a form suitable for reproduction by Sprint and shall comprise the full Source Code language statement

of the System Software as used by Supplier sufficient to allow a reasonably skilled third party programmer to maintain or modify the Equipment without the help of any other person or reference to any other material.

9.9 In the event that, after exercising the RTM license, Sprint is later satisfied that Supplier can meet its Software Support and maintenance obligations as set forth in this Agreement, then Sprint shall cease to exercise its access rights under the RTU License and Sprint shall thereafter return any copies of Software delivered from escrow to Supplier.

ARTICLE 10. SOFTWARE CHANGES

10.1 Software Upgrades shall be provided to Sprint by Supplier at * , during the Warranty Period or Extended Warranty Period and such Upgrade shall have * prior to installation into the Sprint network.. Software Feature Enhancements during or after the Warranty Period shall be provided to Sprint by Supplier at any time, if requested by Sprint, and Sprint shall be obligated to pay * . Sprint shall not be obligated to pay any fee related to any Software Feature Enhancement supplied to Sprint at the initiative of Supplier unless Sprint elects to utilize any new feature included therein. The fee for any Software Enhancement addressed by the immediately preceding sentence shall be due and payable within days of written Notice from Sprint to Supplier that Sprint has elected to use such new feature and has made Final Acceptance thereof. In the event Supplier at any time issues a Software Upgrade which is combined with any Software Feature Enhancement (collectively the "Combined Release") to such Licensed Software, the Combined Release shall be provided at unless and until Sprint elects to use any of the Software Feature Enhancement(s) included within the Combined Release and has made Final Acceptance thereof. Any Software modification provided by Supplier to Sprint at any time shall be subject to the terms of the Software License set forth in Article 9.

10.2 To the extent practicable in light of Supplier's software development practices, Supplier shall give Sprint not less than * written notice of the introduction of any Software Feature Enhancement or Software Upgrade of the Licensed Software to be released by Supplier.

10.3 During the Term of this Agreement, Supplier agrees, if requested by Sprint, *

10.4 Except as provided in Section 16.3 (e), during the term of this Agreement, installation, testing and acceptance of the Licensed Software shall be performed in accordance with Exhibit B, prior to the delivery of the applicable Software Upgrade or Software Feature Enhancement, but in no event no later than thirty (30) days prior to the time such Software Upgrade or Software Feature Enhancement is to be deployed in the field.

10.5 In the event that any Third Party Software modification, Software Upgrade or Software Feature Enhancement or Software Revision Level supplied by Supplier during the Life of System has the effect of preventing the Equipment from satisfying, or performing in accordance with, the Technical Requirements or otherwise adversely affects the functionality or features of the Equipment, then Supplier shall promptly make such program changes, replace the Licensed Software or take such other corrective action as may be necessary to assure that the Licensed Software, as modified to include each such Software Upgrade or Software Feature Enhancement, will satisfy, and perform in accordance with, the Technical Requirements and restore all preexisting functionality and features as well as provide any new features and functionality provided by any of the foregoing modifications, in each case without any charge to Sprint.

10.6 Sprint shall have the option to procure a license for Supplier's Software Feature Enhancement releases. In the event that Sprint declines to procure a license for one or more successive releases pursuant to this section, it shall nonetheless be eligible to procure any current release at a price *

ARTICLE 11. EQUIPMENT CHANGES.

11.1 Equipment Upgrades shall be provided to Sprint by Supplier * except for Class A and Class AC * The Net Price for any Equipment Feature Enhancement addressed by the immediately preceding sentence shall be due within thirty (30) days of written Notice from Sprint to Supplier that Sprint has elected to use such new feature and has made Final Acceptance thereof. In the event Supplier at any time issues an Equipment Upgrade which is combined with any Equipment Feature Enhancement (collectively the "Combined Release") to such Equipment, the Combined Release shall be *

11.2 To the extent practicable in light of Supplier's Equipment development practices, Supplier shall give Sprint not less than * prior written Notice of the introduction of any new Equipment Feature Enhancement to the Equipment by Supplier.

11.3 During the Term of this Agreement, Supplier agrees, if requested by Sprint, *

11.4 Installation, testing and acceptance of the Equipment Upgrades and Equipment Feature Enhancements shall be performed in accordance with Exhibit B.

11.5 In the event that any Equipment Upgrade or Equipment Feature Enhancement supplied by Supplier during the Life of System has the effect of preventing the Equipment from satisfying, or performing in accordance with, the Technical Requirements or otherwise adversely affects the functionality or features of the Equipment, then Supplier shall promptly repair or take such other corrective action as may be necessary to assure that the optical Equipment, as modified to include each such Equipment Upgrade and Equipment Feature Enhancement, will satisfy, and perform in accordance with the Technical Requirements and restore all preexisting functionality and features as well as provide any new features and functionality provided by any of the foregoing modifications, in each case without any charge to Sprint.

11.6 Supplier reserves the right to discontinue any product that is a Deliverable under this Agreement if a functional equivalent is offered generally at substantially the same price or if Sprint has not ordered any of that product for * consecutive years. Supplier will provide a minimum of * Notice for products being discontinued. Notwithstanding the conditions set forth in the first two sentences of this Section 11.6, *

products still in use by Sprint. For a product to be considered a functional equivalent, however, it must meet the Technical Requirements.

ARTICLE 12. PROPRIETARY INFORMATION

12.1 Each party acknowledges the other party's ownership of trade secrets, proprietary or confidential information, including but not limited to products, planned products, services or planned services, the identity of or information concerning customers or prospective customers, data, financial information, computer software, processes, methods, knowledge, inventions, ideas, marketing promotions, discoveries, current or planned activities, research development or other information relating to the other party's business activities or operations and those of its customers or subcontractors (collectively referred to hereinafter as the "Proprietary Information").

12.2 (a) This Agreement creates a confidential relationship between Sprint and the Supplier and, in the course of, negotiating or performing this Agreement, including providing Deliverables pursuant to this Agreement, the disclosing party may disclose Proprietary Information to the receiving party. The receiving party shall keep Proprietary Information confidential and, except as directed or authorized in writing, shall use Proprietary Information only to provide the Deliverables and services pursuant to this Agreement and shall not disclose to any person or entity, directly or indirectly, in whole or in part, any Proprietary Information, information prepared from Proprietary Information, or information that comes into possession by reason of services hereunder. Dissemination of Proprietary Information shall be limited to the personnel within the receiving party's organization with a need to know and solely for the purpose of the performance of duties hereunder. Upon cessation of work hereunder, the receiving party shall return or destroy and certify to the disclosing party such destruction of all documents, papers and other materials in its control that contain or relate to Proprietary Information. To the extent practicable all proprietary information disclosed to the receiving party shall be promptly identified as such by the disclosing party in writing.

(b) The receiving party shall protect the Proprietary Information from unauthorized use or disclosure by exercising the same degree of care that it uses with respect to information of its own of a similar nature, but in no event less than reasonable care.

12.3 Proprietary Information does not include any information which:

(a) was rightfully known prior to * , other than information obtained in confidence under prior engagements;

(b) as shown by written records, has been independently developed without any reliance on Proprietary Information; or

(c) is or later becomes part of the public domain or is lawfully obtained from any nonparty to this Agreement.

12.4 Either party may from time to time, request that the other party disclose such of the other party's Proprietary Information as may be reasonably necessary to permit the design and implementation of such Software interfaces and other systems to permit Interoperability of the Equipment with the equipment or software of other suppliers of equipment and customers of Sprint, excluding equipment which is intended to replace portions of Supplier's Equipment, and each party shall otherwise reasonably cooperate with the other and such other suppliers and customers for the purpose of achieving such Interoperability.

12.5 Supplier may not use or reproduce the Sprint name with the diamond logo, the diamond logo alone, or any other registered or otherwise protected trademark of Sprint, even in responses to or in correspondence with Sprint, without the express, prior written permission of Sprint.

12.6 All equipment, materials, drawings, software, data or other such property of every description that Supplier receives directly or indirectly from Sprint or from a third party on behalf of Sprint in relation to this Agreement, or that is paid for or in whole or in part by Sprint, is the property of Sprint. ("Sprint Owned Property"). Supplier must mark all Sprint Owned Property as such and return all Sprint Owned Property to Sprint upon Sprint's request, or upon the termination or expiration of this Agreement whichever is earlier. Supplier is responsible and must account for all Sprint Owned Property, and bears the risk of loss while such property is in Supplier's possession. Sprint Owned Property may only be used in Supplier's performance of this Agreement. Sprint may inspect any agreements and associated records, including invoices, by which Supplier acquires Sprint Owned Property.

12.7 The provisions of this Article 12 shall survive * .

ARTICLE 13. WARRANTIES

13.1 Supplier warrants for a period of * from the date of delivery of any Deliverable or the provision of any Service ("Warranty Period") and any Extended Warranty Period as defined in Section 13.4, that such Deliverable or Service (as applicable) will meet all applicable industry standards, be free from defects in material and workmanship, including without limitation, design defects to the extent that such design defects prevent conformity with Technical Requirements as modified and attached hereto, will conform to the Technical Requirements, will be newly manufactured, and will be free from all liens and encumbrances. Supplier warrants that it is authorized to and hereby passes through to Sprint without modification, all warranties for Third Party Software and Equipment (that was not manufactured by Supplier) as were provided to Supplier by Third Party Software licensors and Equipment manufacturers.

13.2 Supplier warrants that during the Warranty Period or any Extended Warranty Period, that each Deliverable to be furnished hereunder will conform to all standards established for such Deliverables in accordance with applicable federal, state, local laws or regulations at time of delivery.

13.3 With respect to Deliverables repaired or replaced during the * Warranty Period, Supplier warrants, for a period equal to the greater of (i) the remaining unexpired portion of such Warranty Period, or (ii) * from the date the repair is effected, in the case of Deliverables repaired at the installation site, and from the date a replacement is shipped to Sprint, in the case of defective Deliverables that are replaced, that such Deliverables will satisfy and perform in accordance with the Technical Requirements, throughout such time period.

13.4 During the Life of System, Sprint shall be entitled to purchase *

13.5 Supplier warrants that it has good marketable title to the Equipment, that it has the full power and authority to grant the license granted Sprint under this Agreement with respect to the Licensed Software, and to Supplier's knowledge, after investigation, neither the license to nor use by Sprint of the Licensed Software or Equipment, as permitted under this Agreement, will in any way constitute an infringement or other violation of any copyright, patent, trade secret, trademark, non-disclosure, or any other intellectual property right of any third party. The Licensed Software licensed under this Agreement will be free and clear of all liens and encumbrances.

13.6 Except for the warranties expressly set forth in this Article 13 and Section 14.5, Supplier hereby expressly disclaims any and all warranties, whether express or implied, verbal or written, statutory or at law, including, without limitation, any warranty of merchantability or fitness for any particular purpose.

13.7 In the event that Sprint makes any unauthorized modifications to the Equipment or System Software, the Equipment warranty will be voided.

13.8 The Software delivered to Sprint under this Agreement will be free from any viruses, disabling programming codes, instructions, or other such items that may interfere with or adversely affect Sprint's permitted use of the Software.

13.9 To the best of Supplier's knowledge, after investigation, neither Supplier nor its personnel performing services under this Agreement has any existing obligation that would violate or infringe upon the rights of third parties, including property, contractual, employment, trademark, trade secrets, copyright, patent, proprietary information and non disclosure rights, that may affect Supplier's ability to fulfill its obligations under this Agreement.

ARTICLE 14. REPRESENTATIONS AND OTHER WARRANTIES

14.1 Each party represents and warrants that it is duly organized, existing and in good standing under the laws of its State of organization, and is duly qualified as a foreign corporation and in good standing in all jurisdictions in which the failure to so qualify would have a materially adverse impact upon its business and assets.

14.2 Each party represents and warrants that it has the corporate power and requisite authority to execute, deliver and perform this Agreement, the non disclosure agreement between the parties incorporated as Exhibit D, the Hardware and Software Trial Evaluation agreement between the parties dated * , any Source Code escrow agreement entered into pursuant to this Agreement, and all Purchase Orders to be executed pursuant to or in connection with this Agreement, and that it is duly authorized to, and has taken all corporate action necessary to authorize, the execution, delivery and performance of this Agreement and such other agreements and documents.

14.3 Each party represents and warrants that neither the execution and delivery of this Agreement and the agreements or documents stated in Section 14.2 above executed by it pursuant to or in connection with this Agreement, nor the consummation of any of the transactions herein or therein contemplated, nor compliance by it with the terms and provisions hereof or with the terms and provisions thereof will (i) contravene or materially conflict with any provision of applicable law to which it is subject or any judgment, license, order or permit applicable to it, or any indenture, mortgage, deed of trust, or other agreement or instrument to which it is a party or by which it or its property may be bound, or to which it or its property may be subject, (ii) violate any provision of its articles of incorporation or bylaws or partnership agreement, if any or (iii) require the consent or approval of, the giving of notice to, or the registration, recording or filing of any document with, or the taking of any other action in respect of, any person, entity or governmental agency.

14.4 Each party represents and warrants that this Agreement and the agreements or documents stated in Section 14.2 above executed by it pursuant to or in connection with this Agreement will constitute when executed in full the legal, valid and binding obligations of said party, enforceable in accordance with their respective terms, subject to applicable bankruptcy, insolvency, reorganization, fraudulent transfer, moratorium or similar laws affecting the enforcement of creditors rights generally and to general principles of equity.

14.5 Supplier represents and warrants that Supplier possesses the technical capability, personnel, financial and other resources and proprietary rights to develop, build, test, deliver and support on a timely basis Deliverables that will satisfy the Technical Requirements.

ARTICLE 15. REMEDIES

15.1 In the event that any Licensed Software , or Equipment is discovered to be defective or otherwise fails to satisfy, or perform in accordance with, the Technical Requirements, or to conform to any of the other warranties specified in Article 13 during the applicable Warranty Period, Supplier promptly shall repair or replace, at its option and expense, all such defective or nonconforming System Software, EMS Software or Equipment so as to cause them to satisfy, and perform in accordance with, the Technical Requirements, and all of the other warranties in Article 13 during the applicable Warranty Period or any Extended Warranty Period. In the event that any Deliverable is returned for repair (including Deliverables with no trouble found following inspection) * , Supplier shall not deliver that specific Deliverable to Sprint repaired, but will exchange it at no cost to Sprint, for a new Deliverable.

15.2 During the Term of the Agreement, in the event Supplier fails to meet the delivery schedule specified in an applicable Purchase Order for Deliverables, Supplier shall have a grace period following the scheduled delivery date, then Sprint shall either *

15.3 *

15.4 During the Term of the Agreement, in the event Supplier does not correct the cause of any failure contemplated by Section 16.7 within the time periods specified therein, Sprint shall be entitled to deduct from the payments otherwise required to be made by Sprint to Supplier under this Agreement, or request or credit to its account with Supplier or a payment from Supplier, in an amount equal to * Should occurrence cause additional derivative problems of the type as identified in Section 16.7, the remedies payable to Sprint by Supplier shall not be cumulative.

15.5 The parties acknowledge that disclosure of any Proprietary Information other than as allowed by Article 12 may give rise to irreparable injury and may be inadequately compensable in monetary damages and therefore

the non-disclosing party shall be entitled to seek and to obtain injunctive or other equitable relief against the breach or threatened breach of the obligations of said Article 12, in addition to any other remedies which may be available.

15.6 Notwithstanding any other provision to the contrary in Article 15 (except Section 15.4) or elsewhere in this Agreement:

(a) Except for those provided in Section 16.7, all remedies available to either party under this Agreement are cumulative and may be exercised concurrently or separately; the exercise of any one remedy shall not be deemed an election of such remedy to the exclusion of other remedies; and the rights and remedies of the parties as set forth in this Agreement are not exclusive and are in addition to any other rights and remedies available to it at law or in equity; provided, however, that the aggregate amount that Sprint shall be permitted to deduct from payments otherwise required to be made by it to Supplier under this Article 15, or to request a credit or payment as aforesaid, shall not exceed the aggregate Net Price of Deliverables invoiced to Sprint pursuant to Purchase Orders throughout the Term of this Agreement.

(b) *

15.7 Except for Supplier's indemnity obligations set forth in Article 19, anything in this Agreement to the contrary notwithstanding, Supplier's uninsured liability to Sprint pursuant to this Agreement or in connection with any matters in any manner related to this Agreement shall not exceed in the aggregate the Net Price of all Deliverables purchased by Sprint from Supplier and paid for during the term of this Agreement.

15.8 Except for Supplier's indemnity obligations set forth in Article 19, anything else to the contrary in this Agreement notwithstanding (except for Sections 15.2 and 15.4 of this Agreement), Neither party shall be liable to the other or to anyone claiming through the other party for any indirect, consequential, special or exemplary damages of any kind whatsoever.

ARTICLE 16. SUPPORT SERVICES

16.1 Support services consist of immediate and long-term emergency and non-emergency services provided during the Warranty Period and any Extended Warranty Period. Subject to the terms and conditions of this Agreement, Supplier will provide to Sprint the support services described below ("Support Services") *

(a) Upon receipt of a request for technical assistance, the nature of the problem will be identified, and a priority assigned by Sprint as either an emergency or non-emergency condition and resolution thereof will be expedited accordingly.

(b) Following corrective actions by Sprint in accordance with applicable maintenance documentation provided by the Supplier, when Supplier is notified by Sprint that the Licensed Software or Equipment fails to operate in accordance with the Technical Requirements, Supplier will promptly commence and diligently pursue all reasonable efforts to correct the defect.

(c) Supplier's correction of such defects in the Licensed Software or Equipment may take the form of new System Software code, new or supplementary operating instruction or procedures, modifications of the Software code in customer's possession, modification of Equipment, or any other commonly used method for correcting Software defects, as Sprint and Supplier deem appropriate.

(d) Supplier will provide non-emergency technical support to Sprint via telephone, facsimile transmission, or modem access, during Sprint's normal business hours.

(e) Supplier will provide an emergency technical assistance to Sprint via telephone, twenty-four (24) hours per day, three hundred sixty-five (365) days per year.

16.2 (a) From time to time, failures in or degradation of Equipment or System Software may cause services provided by the Equipment to be adversely affected. Critical service outages which cannot be resolved by Sprint field technicians or technical support engineers using procedures defined in Supplier documentation and training will be transmitted to the Supplier as a Trouble Report ("TR"). Supplier shall assign an identifying number to each TR to aid in tracking its disposition. TR's will be immediately addressed by the Supplier through emergency technical assistance under guidelines set forth below. It is necessary that immediate assistance be provided by the Supplier to allow Sprint to restore the affected service. Trouble Reports may not be considered concluded until the solution is concurred in by a designated Sprint Operations Control Center. The root cause of problems resulting in TR's may be system deficiencies which must be corrected through Equipment, System Software or procedure changes. Problems with the Equipment requiring such changes will be referred to the Supplier for action through a Customer Service Request ("CSR"). CSR's will also be the means for Sprint to request certain improvements or the addition of features to the Equipment.

(b) Sprint is authorized by Supplier to install and integrate any Software Upgrade or Software Feature Enhancement provided by Supplier pursuant to Supplier's instructions.

16.3 (a) The term Emergency Technical Assistance ("ETA") is defined to mean the provision of emergency technical assistance to Sprint for the purpose of resolving a problem which adversely affects service. When a problem is encountered which adversely affects service with respect to the Deliverables provided by Supplier, a Sprint maintenance technician will attempt to repair, correct, or replace any malfunctioning Deliverable using the procedures recommended in the Supplier's Documentation. If unsuccessful, a Sprint technical representative will consult the Supplier's designated ETA group at the telephone number provided by the Supplier in Section 16.3(c). Following receipt of notification by the ETA group, the ETA group will utilize all available technical resources and will ensure that a qualified technical engineer is communicating with Sprint personnel regarding the problem within fifteen (15) minutes of such notification.

(b) A problem adversely affecting service that has a severity level defined below as either E1 or E2 is to be addressed under ETA procedures:

(i) The term E1 Emergency Condition is defined to mean any failure of a Deliverable that renders any primary function and all recovery procedures inoperative. Supplier shall clear all E1 Emergency Conditions within twenty-four (24) hours or as soon as possible. Work must continue around the clock until the defect causing the E1

Emergency Condition is solved or the severity thereof is reduced to P1, as defined below, or less.

(ii) The term E2 Emergency Condition is defined to mean any emergency condition in which there is a clearly identified degradation of customer service that continues or repeats even after recovery procedures have been executed, and which will ultimately results in the loss of any primary function of the Deliverable. Supplier shall clear all E2 Emergency Conditions within twenty-four (24) hours or as soon as possible. This includes problems resulting in loss of system redundancy. Work must continue around the clock until the defect causing the E2 Emergency Condition is solved or the severity is reduced to P1, as defined below, or less.

(c) In the event that an E1 or E2 Emergency Condition should remain unresolved following referral to the Supplier by Sprint, the problem causing such condition shall be reported to the levels of management set forth below (with comparable titles, if different) to ensure all available resources necessary to address the problem will be committed in accordance with the following:

*

* * * *
* * * *
* * * *
* * * *
* *
* * * *

(d) In the event that Sprint reasonably determines that Supplier has not provided sufficient ETA to resolve any E1 or E2 Emergency Condition on a timely basis, *

.

(e) Time is of the essence during E1 and E2 Emergency Conditions, and Supplier shall deliver to Sprint each Software Upgrade and each Equipment Upgrade developed by or on behalf of Supplier to resolve any E1 or E2 Emergency Condition promptly following completion of development and successful testing of such Software Upgrade or Equipment Upgrade but in no event later than * following completion of such development.

16.4 (a) The term Non-Emergency Services includes providing to Sprint any requested technical assistance and support, remote monitoring and outage review consultation and the handling of Customer Service Requests ("CSR").

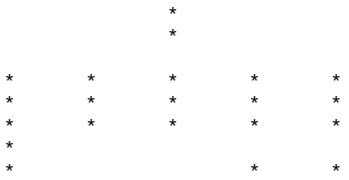
(b) Technical assistance and support shall be provided for the purpose of resolving non-emergency problems defined below as P1, P2 and P3 which shall be reported to Supplier.

(i) The term P1 Major Condition is defined to mean any non-emergency failure of specific features or functions of the Deliverable that restricts its operations, but does not render the Deliverable inoperable, or require significant manual intervention for the Deliverable to operate properly.

(ii) The term P2 Significant Problem is defined to mean any non-emergency, intermittently occurring problem related to specific primary functions, or features and/or any inoperable secondary functions, but the impact of such problems does not have a significant adverse affect on the overall performance of the Deliverable. By-pass or work around procedures shall be used to alleviate such problem until it is corrected.

(iii) The term P3 Minor Problem is defined to mean any non-emergency problem that does not affect the performance or functions of the Deliverable. The Deliverable is fully operable without restrictions. Such problems may include Documentation inaccuracies, cosmetics, minor requests for changes or maintenance requests. Supplier will clear minor problems during the next available scheduled Software Upgrade or Equipment Upgrade.

(c) Should non-emergency problems remain unresolved following referral to the Supplier by Sprint, such problem shall be reported to higher levels of management to ensure all available resources are committed to address such problem in accordance with the following schedule:



Non-emergency problems referred to the Supplier as a CSR will be resolved based upon the priority assigned to them as reasonably determined by Sprint , and will generally be incorporated into the next scheduled Software Upgrade, Feature Enhancement or Revision Level, or Equipment Upgrade, Feature Enhancement or Revision Level, as applicable and which time reasonably permits. Technical assistance for P1, P2, and P3 type problems shall be included in the Support Services during the Warranty or Extended Warranty Period during normal business hours (Monday-Friday 0800 - 1700 hours local time, Kansas City).

16.5 In the event that emergency or non-emergency technical support provided from the Supplier's technical support center is not sufficient to resolve level E1 or E2 Emergency Conditions or P1 or P2 problems, Supplier shall send a technically qualified person to this site of such emergency condition or problem to assist Sprint employees in solving the condition or problem. The technically qualified person shall be on-site within twenty-four (24) hours or as soon thereafter as reasonably practicable after notification to Supplier by Sprint, or at such later time as may be determined by Sprint.

16.6 A CSR will be submitted by Sprint to request a repair of Emergency Conditions or a Non-Emergency Problem, or to request the addition of a Software or Equipment Upgrade or other Software or Equipment Feature Enhancement. Sprint's CSRs will define the problem or feature desired, and state whether Sprint considers the CSR to be a Software Equipment Upgrade or Software Equipment Feature Enhancement. Changes to the Equipment resulting from CSR's must be fully tested and accepted in accordance with the provisions of Exhibit B. The Supplier shall respond to the submission of a CSR by Sprint within five (5) business days, acknowledging receipt of the CSR, confirming or denying agreement with Sprint's assessment of whether the CSR may be considered a Software or Equipment Upgrade or a Software or Equipment Feature Enhancement and summarizing the Supplier's intended actions to handle the CSR. A CSR may result in a Software Upgrade or Equipment Upgrade as well as a Software Feature Enhancement or Equipment Feature Enhancement.

To the extent that Sprint notifies Supplier of a problem to be remedied by Supplier, whether under Article 16 or any other provision of this Agreement, and such problem is determined to be not attributable to products or services provided by Supplier, Sprint shall promptly, but in no event later than thirty (30) days after receipt of * therefor*. Notwithstanding the previous sentence, if such problem is the result of an installation by Sprint is based on erroneous Documentation or advice from Supplier, any expenses incurred by Supplier shall not be paid by Sprint. Reimbursement provisions for Supplier's expenses are set forth in Exhibit C.

16.7 In the event that Sprint's efforts in resolving the following issues are unsuccessful, Sprint may submit a CSR to Supplier.:

(a) *

(b) *

.

(c) Software Upgrades or Software Feature Enhancements cannot be installed into working Equipment without affecting customer traffic.

Supplier shall have * from the date the CSR is submitted to identify and isolate the cause, recommend a solution that is satisfactory to Sprint or notify Sprint that Supplier does not believe that the fault relates to its Deliverable, and the basis for this conclusion. If, in Sprint's determination a Deliverable is at fault, Supplier agrees to correct the cause of the failure at no cost or expense to Sprint (and to deliver the same to Sprint).

If the cause of any failure is not corrected within the time periods specified above, Sprint shall be entitled to the remedy set forth in Section 15.4.

16.8 Deliverables which fail in service will be returned by Sprint to the Supplier for repair in accordance with the following:

(a) During the applicable Warranty Period, or Extended Warranty Period, repair of failed Deliverables shall be accomplished by the Supplier * .

(b) Under non-emergency circumstances, Supplier shall repair or replace failed Equipment and return it to Sprint no later than * following receipt from Sprint.

(c) Under emergency conditions, the Supplier shall provide emergency replacement of failed or inoperational Deliverables in the event that a spare is not available through Sprint's stock of spares in the region affected. In such event, Supplier shall deliver emergency spare parts to Sprint within * of Supplier's receipt of Sprint's request. A request from Sprint shall be made through the emergency support contact as defined in Section 16.3. If Supplier fails to comply with the aforesaid obligation in *

one emergency request.

16.9 All units repaired by the Supplier for immediate or eventual return to Sprint shall be tested for full functionality in accordance with Supplier's current practices. Should no trouble be found ("NTF") with Equipment returned by Sprint to the Supplier for repair, a functionality testing period, intended to discover latent problems with the Equipment, shall be accomplished by the Supplier for no less *

16.10 Supplier will notify Sprint of any problem described in this Section, below, with Equipment, Software or Documentation discovered through any internal investigation or trouble reporting process from any customer using the Equipment. Such notification shall be in writing and shall be made within * of the discovery of level E1 or E2 Emergency Condition, * for level P1 problems and * for level P2 or P3 problems. Supplier shall make reasonable efforts to verbally notify Sprint and discuss the problem with a technician or engineer as soon as practicable, but in no event later than * after the internal discovery of level E1 or E2 Emergency Condition problems. Written notifications will be made by fax or overnight courier at Supplier's discretion. Notification will include:

(a) Impact on traffic if the condition or problem is not fixed;

(b) Impact on traffic caused by implementing fix;

(c) If fix is already included in an upcoming Software Upgrade, Revision Level, Equipment Upgrade or Revision Level;

(d) Cost, if any, to Sprint to implement;

(e) Impact on performance of the Equipment or Software if implemented; and

(f) Any workarounds or modifications to protect Sprint customer traffic and the associated cost as applicable.

16.11 Changes to the system required by Supplier due to its normal business processes or required by TR's, CSR's or other problem resolution methods shall be communicated to Sprint through a formal Product Change Notice ("PCN") process. This process will ensure formal Documentation is issued to Sprint to describe any necessary modifications to the Software or to the Equipment, and procedures for implementing them on a timely basis.

(a) Product Changes for problems for which a fix has been identified through the TR or CSR process must be tested and demonstrated within * for E1 or E2 level conditions, and * for P1, P2 or P3 level problems and implemented in the network as soon as reasonably practicable.

(b) Sprint must be notified of all upgrades that result in a functional change prior to the change being implemented on repaired Deliverables, or through Software Upgrades to individual Deliverables or the overall Equipment. Sprint must approve changes that affect functionality or Interoperability of Supplier's Equipment.

(c) An Equipment Upgrade or Software Upgrade to Supplier's Equipment that changes functionality may, at Sprint's election, be jointly tested by the Supplier and Sprint in Supplier's or Sprint's Testbed prior to use by Sprint.

16.12 All Equipment capable of being marked with bar codes using the CLEI standards as defined by Bellcore shall be so marked.

16.13 Supplier shall make available appropriate members of its senior management at a mutually agreed upon date once each quarter, or at such dates no more frequently directed by Sprint, to participate in quality assurance meetings conducted by Sprint which will cover, at a minimum, Supplier performance, business process and procedure improvements, projected schedules for future System Software releases and their proposed contents, and ongoing operations topics.

16.14 The Supplier shall be obligated to fulfill all of the duties and perform all of the obligations, for reasonable rates after the Warranty Period or Extended Warranty Period as the case may be, set forth in or contemplated by each of Sections 16.1 through and including 16.13 during the Life of System.

ARTICLE 17. DISASTER RECOVERY

17.1 Supplier shall commit to its best efforts to have available to Sprint sufficient Equipment and/or System Software inventory to replace the most complex Sprint network node site which would include any combination of up to * Sprint network, in each case as directed by Sprint. This commitment shall be exercised in the event the Sprint's network incurs a Catastrophic Failure and thereupon Supplier shall be obligated to use its best efforts to ship such Equipment and System Software immediately following Sprint's request in writing, but in no event later than twenty-four (24) hours following such request. Equipment and/or System Software used in the Supplier's testbed, specified under Article 1, may be used in combination with Supplier's inventory to satisfy this commitment. Where appropriate, Sprint shall purchase Equipment or procure additional licenses for Software supplied to Sprint.

17.2 In the event the Equipment and/or System Software is used to support Sprint in a disaster recovery, Supplier shall restore to full operation the Supplier Testbed in the configuration specified in Article 1 as soon as possible but in no event later than * after such Equipment and/or Licensed Software was removed.

ARTICLE 18. INSURANCE

18.1 Supplier shall procure and maintain, during the Term of this Agreement insurance in not less than the following amounts:

(a) Worker's Compensation insurance in accordance with the provisions of the applicable Workers' Compensation or similar law of the state with jurisdiction applicable to Supplier's personnel.

(b) Commercial General Liability, including Contractual Liability insurance with a coverage limit of not less than five million dollars ($5,000,000) Combined Single Limit per occurrence for bodily injury or property damage liability. Such policy or policies shall name Sprint as an additional insured and shall contain a provision waiving the insurer's right of subrogation against Sprint and its employees, agents, officers and directors.

(c) If the use of any automobile is required by the Supplier or any third party acting on behalf of Supplier in the performance of this Agreement, Supplier shall also obtain and maintain business auto liability insurance for the operation of all owned, non-owned and hired automobiles with a coverage limit of not less than one million dollars ($1,000,000) combined single limit per accident for bodily injury or property damage liability. Such policy or policies shall name Sprint as an Additional Insured and shall contain a provision waiving the insurer's rights of subrogation against Sprint and its employees, agents, officers and directors.

18.2 Supplier shall deliver to Sprint certificates of insurance satisfactory in form and content to Sprint evidencing that all of the insurance required by this Agreement is in force, and that no policy may be canceled or materially altered without first giving Sprint at least thirty (30) days prior written notice.

18.3 Nothing in this Article 18 is intended to imply that the Supplier's liability to Sprint is limited to the amount of insurance carried. Supplier's liability is limited by other provisions of this Agreement, such as Section 15.7.

ARTICLE 19. PATENT, COPYRIGHT AND TRADE SECRET

19.1 Supplier agrees to indemnify, defend and hold harmless Sprint, and each director, officer, employee or agent of Sprint (the "Indemnified Parties"), against any claims, suits, proceedings, damages, liabilities, judgments, amounts paid in settlement with the consent of the Supplier (which consent shall not be unreasonably withheld), costs or expenses (including the reasonable cost of investigating and defending any of the foregoing and attorneys' fees incurred in connection therewith), joint or several, as incurred, which may be based in whole or in part upon, or arise in whole or in part out of (A) any infringement or alleged infringement of any patent or copyright or similar rights protected under the laws of the United States of America ("USA") or any other country which is a signatory to the Paris Convention of March 20, 1883, as revised relating to the Deliverables or use thereof;(B) any wrongful use or misappropriation or alleged wrongful use or misappropriation of any trade secret or other proprietary rights relating to Deliverables, hereunder pursuant to any statute, regulation or common law of the USA or any other country which is a signatory to the Paris Convention of March 20, 1883, as revised (collectively referred to hereinafter as "Indemnified Liabilities"), provided that Supplier shall not be liable with respect to any Indemnified Liabilities which result from use by Sprint of the Equipment and Licensed Software different from the uses contemplated by this Agreement.

19.2 Without limiting the foregoing, in the event any such claim, action, suit, proceeding or investigation is brought against any Indemnified Party, unless Supplier assumes the defense as hereinafter provided, (a) the Indemnified Parties may retain counsel satisfactory to them and Supplier and Supplier shall pay all fees and expenses of such counsel for the Indemnified Parties promptly as statements therefor are received; and (b) Supplier will use all reasonable efforts to assist in the vigorous defense of any such matter, provided that Supplier shall not be liable for any settlement effected without its written consent, which consent, however, shall not be unreasonably withheld. The Supplier will be entitled to participate at its own expense in the defense, or, if the Supplier so elects, to assume the defense of any suit brought to enforce any such liability, but, if the Supplier elects to assume the defense, such defense shall be conducted by counsel chosen by the Supplier. In the event Supplier elects to assume the defense of any such suit and retain such counsel, any Indemnified Party may retain additional counsel but shall bear the fees and expenses of such counsel unless (i) the Supplier shall have specifically authorized the retaining of such counsel or (ii) the parties to such suit include such Indemnified Party, and the Supplier and the Indemnified Party have been advised by counsel that one or more legal defenses may be available to it or them which may not be available to the Supplier, in which case the Supplier shall not be entitled to assume the defense of such suit notwithstanding its obligation to bear the fees and expenses of such counsel.

19.3 Any Indemnified Party wishing to claim indemnification under this Article 19, upon learning of any such claim, action, suit, proceeding or investigation, shall notify the Supplier promptly (but the failure so to notify shall not relieve Supplier from any liability which it may have under this Article 19 except to the extent such failure prejudices Supplier). Supplier shall promptly notify Sprint that it has assumed the defense of any claim, action, suit, proceeding, or investigation and shall apprise Sprint of the progress of such defense.

19.4 If Sprint is enjoined from use of the Equipment or any component thereof or Licensed Software, Supplier must procure the rights, at Supplier's cost and expense, for Sprint to continue use of the Equipment or affected

component, or Licensed Software, or replace it with non-infringing Equipment or components, or Licensed Software, or modify same to be non-infringing.

19.5 This indemnity obligation shall be in addition to, and not in limitation of, any liability or obligation which Supplier might otherwise have to any Indemnified Party.

19.6 The indemnities provided in this Article 19 do not extend to: (i) any suit or proceeding which is based on an infringement claim covering a combination of a Deliverable purchased under this Agreement with other devices or elements not provided, and of which Supplier is unaware, or specified by Supplier unless such is an intended combination; (ii) any Deliverable whose infringement is a direct result of Supplier being required to adhere to a specific design provided by Sprint if, and only if, Supplier informs Sprint that it does not approve the specific design be; or (iii) any Deliverable that is otherwise modified by Sprint in a manner not authorized by Supplier.

19.7 Except for the indemnity provisions of this Agreement, neither party will be liable to the other for special, indirect, or consequential loss or damage, whether or not such loss or damage is caused by the fault or negligence of that party, its employees, agents, or subcontractors.

19.8 No limitation of liability contained in this Agreement will be applicable in the event of Supplier's gross negligence or intentional misconduct, or in the event of personal injury or property damage. Furthermore, no limitation of liability contained in this Agreement will apply with respect to any Supplier liability arising under or relating to Section 13.5 and 13.9, or this Article 19.

ARTICLE 20. TERMINATION

20.1 Either party may terminate this Agreement and any outstanding Purchase Order, in whole or in part, in the event of a default by the other, provided that the non-defaulting party so advises the defaulting party in writing of the event of alleged default and affords the defaulting party thirty (30)days within which to cure the default. The termination upon default of this Agreement for any reason shall not terminate any license or sublicense granted to Sprint by this Agreement. Default is defined to include:

(a) Either party becomes insolvent, makes a general assignment for the benefit of creditors, files a voluntary petition in bankruptcy or an involuntary petition in bankruptcy is filed against such party which is not dismissed within * , or suffers or permits the appointment of a receiver for its business, or its assets become subject to any proceeding under a bankruptcy or insolvency law, domestic or foreign, or has liquidated its business;

(b) Either party's material breach of any of the terms or conditions hereof;

(c) The execution by either party of an Assignment for the benefit of creditors or any other transfer or assignment of similar nature.

20.2 Neither the expiration of this Agreement according to its terms nor its termination under the provisions of Section 20.1 shall prejudice any claim for any outstanding amount owed Supplier and Sprint to each other, damages or any other rights or remedies that any party may have under this Agreement or at law or in equity or relieve any party from the duty to hold in confidence proprietary information and otherwise comply with, and exercise the rights set forth in, Articles 9, 11.1, 12, 13, 15, 16, 17, 18, 19, 20, 21, 22, 23, and 25 hereof, each of which shall survive such termination.

20.3 In the event Sprint terminates this Agreement as described in Section 20.1 by reason of Supplier's non-performance of a specific Purchase Order, and does so prior to Final Acceptance of the Deliverables or completion of the work authorized in that Purchase Order, upon Sprint's request, Supplier shall return all fees and moneys paid to Supplier in connection with that Purchase Order within thirty (30) days of such termination. Sprint shall permit Supplier, at its expense to regain possession, upon reasonable advance notice and during normal business hours or such other time of the day designated by Sprint, all Deliverables provided by Supplier to Sprint in connection with that Purchase Order. The license rights which Supplier has provided to Sprint in conjunction with Deliverables delivered under that Purchase Order shall likewise cease, in this event, only. Either party may also pursue any other rights or remedies pursuant to Article 15 or Article 21 or otherwise available to it at law or in equity.

ARTICLE 21. DISPUTE RESOLUTION

21.1 The parties will attempt in good faith to promptly resolve any controversy or claim arising out of or relating to this Agreement or any subsequent performance by the parties before resorting to other remedies available to them. Any such dispute shall be referred to appropriate executives of each party who shall have the authority to resolve the matter. If the executives are unable to resolve the dispute, the parties may by agreement refer the matter to an appropriate form of alternative dispute resolution such as mediation. If the parties cannot resolve the matter or if they cannot agree upon an alternative form of dispute resolution, then either party may pursue resolution of the matter through arbitration in accordance with the rules of the American Arbitration Association applying the substantive law of the State of Kansas without regard to any conflict of laws provisions. The arbitration will be governed by the United States Arbitration Act, 9, U.S.C. Section 1, et. seq. and judgment upon the award rendered by the arbitrators may be entered by any court with jurisdiction. The arbitrators are not empowered to award damages in excess of compensatory damages , and each party waives any damages in excess of compensatory damages. The parties agree to continue performance during the pendency of any dispute, unless performance is terminated according to Article 20 of this Agreement.

21.2 Notwithstanding the foregoing, either party may bring a claim for injunctive relief as provided in Section 15.5 in any court of competent jurisdiction without first submitting the claim to arbitration.

ARTICLE 22. NOTICE AND REPRESENTATIVES OF THE PARTIES

Any notice ("Notice") required or permitted under this Agreement must be given in writing to the address or facsimile number provided for a party below (or such other address or number as any party may provide to the other in writing in the manner contemplated hereby) and will be deemed effective as follows:

(a) if delivered in person or by courier, on the date it is delivered;

(b) if sent by facsimile transmission, on the date that the transmission is received by the recipient party in legible form;

(c) if sent by certified or registered mail or the equivalent (return receipt requested), on the date that mail is delivered or its delivery is attempted but acceptance is refused ;

unless the date and time of any delivery or receipt, as applicable, is not during normal working hours on a local business day, in which case Notice shall be deemed given and effective on the first following day that is a local business day. For purposes hereof, a "local business day" is a business day in the city specified in the address for notice provided by the recipient.

The Notices provided for by this Article 22 shall be given to the following:

If to Sprint:

SONET Project Manager
Sprint Communications Company L.P.
901 E. 104th Street
Kansas City, Missouri 64131
Mailstop MOKCMD0203
Telephone (816) 854-5832
Facsimile (816) 854-7044

With a copy to:
Sprint Materials & Services Management
903 E. 104th Street
Kansas City, Missouri 64131
ATTN: Lead Negotiator, Procurement
Mailstop: MOKCMW0801
Telephone: 816-854-5825
FAX: 816-854-7022

If to Supplier:

Ciena Corporation
ATTN: Vice President, Sales & Marketing
8530 Corridor Road
Columbia, Maryland 20763
Telephone: 301-317-5800

With a copy to:

PAUL, WEISS, RIFKIND, WHARTON & GARRISON
1615 L Street, NW
Washington, DC 20036-5694
ATTN.: Phil Spector

ARTICLE 23. GENERAL

23.1 Assignment. Provided that Sprint gives Notice to Supplier in a manner consistent with Article 22 hereof, Sprint may assign this Agreement to any one or more of the Sprint Affiliated Entities as Sprint may determine in its sole discretion, whether or not Supplier consents to such assignment provided that Sprint remains primarily liable for the performance of its obligations hereunder. Neither party to this Agreement may assign, pledge, encumber or hypothecate its interest in this Agreement or any of its rights hereunder or delegate its obligations hereunder without the prior written consent of the other party to this Agreement, which consent shall not be unreasonably withheld, and any attempted assignment which does not comply fully with this Article 23.1 shall be null and void.

23.2 Governing Law. This agreement shall be construed in accordance with and governed by the law of the State of Kansas without regard to the conflict of law provisions of such state or any other jurisdiction.

23.3 Laws and Regulations. The parties hereby agree to comply with all local, municipal, state, federal, foreign, governmental and regulatory laws, orders, codes, rules and regulations that are applicable to their respective performance of this Agreement.

23.4 Amendment. Any provision of this Agreement, or any schedule, exhibit or rider hereto, may be amended only if such amendment is in writing and signed by all the parties hereto.

23.5 Waiver. Any waiver or delay in the exercise by either party of any of its rights under this Agreement shall not be deemed to prejudice such party's right of termination or enforcement for any further, continuing or other breach by the other party.

23.6 Successors and Assigns. The provisions of this Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective permitted successors and permitted assigns.

23.7 Public Disclosures. Neither party will issue or release for publication any written or recorded, audibly, magnetically or otherwise, materials relating to the existence of this Agreement, the Deliverables or any services to be performed pursuant to this Agreement without the prior written consent of the other party.

23.8 Severability. Whenever possible, each provision of this Agreement, as well as any schedule, exhibit or rider attached hereto, will be interpreted in such manner as to be effective and valid under applicable law, order, code, rule or regulation, but if any provision of this Agreement, as well as any schedule, exhibit or rider hereto, is held to be invalid, illegal or unenforceable in any respect under any applicable law, order, code, rule or regulation, such invalidity, illegality or unenforceability will not affect any other provision, schedule, exhibit or rider of this Agreement, but this Agreement, schedule, exhibit or rider will be reformed, construed and enforced in such jurisdiction as if such invalid, illegal or unenforceable provision, schedule, exhibit or rider had never been contained herein or attached hereto.

23.9 Descriptive Headings. The descriptive headings of this Agreement are inserted for convenience only and do not constitute a part of this Agreement.

23.10 Counterparts. This Agreement may be executed in separate counterparts each of which will be an original and all of which taken together will constitute one and the same agreement.

23.11 Relationship of Parties. Neither Supplier, its subcontractors, employees or agents shall be deemed to be employees or agents of Sprint, it being understood that Supplier, its subcontractors, employees or agents are independent contractors with respect to Sprint for all purposes and at all times. This Agreement shall not be construed as establishing a partnership or joint venture between Sprint and Supplier.

23.12 Supersession of PO. The terms and conditions of this Agreement supersede any pre-printed terms and conditions on any Purchase Order, both front and back, unless otherwise agreed by the parties in writing.

ARTICLE 24. INCORPORATION OF DOCUMENTS

This Agreement hereby incorporates by reference the following Exhibits:

EXHIBIT A.	CUSTOMER SERVICE REQUEST PROCESS
EXHIBIT B.	SPRINT TECHNICAL REQUIREMENTS
EXHIBIT C.	PRICE SCHEDULE
EXHIBIT D.	PROPRIETARY INFORMATION AGREEMENT
EXHIBIT E.	SPRINT ROUTING INSTRUCTIONS

In the event of an inconsistency or conflict between or among the provisions of this Agreement, the inconsistency shall be resolved by giving precedence in the following order:

(a) Agreement
(b) Exhibits
(c) Purchase Orders (excluding any preprinted terms and conditions)

ARTICLE 25. DEFINITIONS

25.1 "Affiliated Entity" shall mean any current or hereinafter acquired corporation, partnership, joint venture or other entity controlled by or under common control with Sprint Corp., directly or indirectly by or through one or more intermediaries or which Sprint Corp. has a minimum of * or similar interest therein. Affiliated Entities are permitted to purchase Deliverables under the terms and conditions of this Agreement.

25.2 *

25.3 "Catastrophic Failure" shall mean any event where/when a large amount of Sprint equipment fails at a site or multiple sites thus rendering Supplier's Equipment to be inoperable due to Acts of God or acts not within Sprint's control, and such repair of Equipment is beyond the normal repair and return or sparing capabilities established for routine maintenance. Such events shall include but not be limited to floods, fires, malicious acts, vandalism and sabotage.

25.4 "CD ROM" shall mean compact disc read only memory.

25.5 "Customer" shall mean any end user customer of Supplier. This term shall include the customers and Supplier's any affiliates, subsidiaries, distributors, agents, licensees or other parties authorized to sell, distribute, market or otherwise make Supplier's products available to telecommunications companies. The term customer shall include Sprint.

25.6 "Deliverable(s)" shall mean all products and Services required to be delivered by this Agreement or any Purchase Order issued pursuant to this Agreement.

25.7 "Documentation" shall mean such written instructions, manuals, practices, descriptions, and similar information relating to installation, maintenance, provisioning, commissioning, testing, operations, and troubleshooting, command manuals, and general descriptions as are necessary for a reasonable Sprint employee to engineer, order, install, provision, maintain, operate, test, and troubleshoot the Deliverables or perform his/her function in relation to this Agreement.

25.8 "DVT" shall mean design verification testing which shall be performed in accordance with Exhibit B and which includes verifying that the general mechanical design characteristics such as thermal shock, vibration, earthquake zone 4 component damage, etc. meet Sprint's Technical Requirements.

25.9 "EMS Software" shall mean Ciena's WaveWatcher(TM) element management system Software.

25.10 "Equipment" shall mean Supplier's MultiWave(TM) division multiplex product line with embedded equipment software systems comprising line amplifiers, remodulators, ancillary system components, and other items and spare parts with respect to any of the foregoing.

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25.14 "Executable Code" shall mean machine readable code (Software Binaries) used by the Equipment for execution of System Software programs.

25.15 "FAT" shall mean factory acceptance testing which test(s) may be conducted at either Supplier's or Sprint's premises for the purpose of initially validating the functionality of the Deliverables or subsequent Product Changes with respect to Interoperability with Supplier's Equipment or Third Party Software in accordance with the Technical Requirements.

25.16 "Final Acceptance" shall mean acknowledgment in writing by Sprint that the initial Deliverables, or subsequent Product Changes to such Deliverables, operate satisfactorily in a production, traffic-bearing environment and otherwise meet the Technical Requirements and that final copies of all pertinent Documentation (including training Documentation) have been approved and delivered to Sprint.

25.17 "First Installations" shall mean * , which segments are set forth in Section 1.4).

25.18 "Interoperability" shall mean the ability of all Equipment to interconnect and successfully operate with all other Equipment, Licensed Software and the equipment of other suppliers which complies with SONET standards or, for FOT asynchronous terminals and regenerators, which have been otherwise certified by Supplier and Sprint in accordance with paragraph 2.2 of Exhibit B for Interoperability.

25.19 "Item" shall mean any Software item listed in Supplier's standard price list on the date this Agreement becomes effective or at any time thereafter and it shall specifically include, without limitation, all Software Upgrades, Software Feature Enhancements, Equipment Upgrades, Equipment Feature Enhancements and modifications, enhancements, updates or other revisions of any kind in any such item and spare parts with respect to any of the foregoing.

25.20 "Licensed Software" shall mean System Software, EMS Software, and Third Party Software, each of which in machine-readable form, and subsequent Software Upgrades and Software Feature Enhancements, necessary to install, operate, and maintain the Deliverables purchased or licensed by Sprint pursuant to this Agreement.

25.21 "Life of System" shall mean * after the Effective Date.

25.22 "Net Price" shall mean the final price paid by any Customer after all sales discounts, price reductions, sales rebates, volume discounts or similar adjustments of any kind are applied, whether under the original contract of purchase or any supplemental, separate, or complimentary transaction.

25.23 "Network Element" shall mean a material component of the Fiber Optic Transmission System, such as an optical amplifier or end node at a given site or node in the network.

25.24 "Purchase Order" shall mean the document issued by Sprint which identifies the Deliverables and specifies the scope of work, Technical Requirements, quantities and dates for delivery, billing instructions, and any other necessary information.

25.25 "Regenerator" shall mean a receiver and transmitter combination used to reconstruct signals for digital transmission.

25.26 "Services" shall mean the services provided by Supplier to Sprint as specified in a Purchase Order to the extent such Services are not included in the supply of other Deliverables.

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25.28 "Soak Test(s)" shall mean those tests which are conducted in a field environment in the Sprint network using actual Equipment and/or Licensed Software that is intended to be deployed by Sprint. Such tests will be conducted according to Exhibit B and will comprise the configuration as determined by Sprint and as such is available from Supplier at that time in order to determine the ability of the Deliverables to meet the Technical Requirements in live traffic circumstances.

25.29 "Software" refers to all the programs, computer languages, and operations used to make Equipment perform a useful function or used to enable human access to the Equipment for the purposes of installing, operating, or maintaining such Equipment

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25.33 "SONET" shall mean a Synchronous Optical Network which adheres to the interface standard of the same name created by the Exchange Carriers Standards Association for the American National Standards Institute ("ANSI"), and promulgated by Bellcore on behalf of the Regional Bell Operating Companies.

25.34 "Source Code" shall mean all intellectual information including but not limited to Documentation, Software in human-readable form, flow charts, schematics and annotations which comprise the pre-coding detailed design specifications for System Software (excluding Third Party Software).

25.35 "System" shall mean a configuration of Equipment with two (2) end terminals, any intermediate line amplifiers connected by fiber to the end terminals, all associated Software, which meets the Technical Requirements, and with the ability to communicate to an element management system such that traffic can be transmitted from end terminal to end terminal and operation can be monitored by the element management system.

25.36 "System Software" shall mean computer programs and routines, with embedded Third Party Software, integral to a Deliverable and contained on a magnetic tape, disk, semi-conductor device, or other memory device or system memory and consisting of (a) hard-wired logic instructions which manipulate data in the central processor and control input-output operations, and error diagnostic and recovery routines, and (b) other instruction sequences in machine readable code, as well as associated Documentation used to describe, maintain or use such programs and routines.

25.37 "Technical Requirements" shall mean (i) the specifications set forth in Exhibit B or as such specifications may be most currently modified or amended pursuant to mutual agreement of the parties, (ii) any mandatory requirements and/or standards recognized in the telecommunications industry, as such standards may be most currently modified or amended with respect to a SONET System in use or designated for use in the Sprint Network for transmission line rates up to OC-48, (iii) * , (iv) Interoperability.

25.38 "Third Party Software" shall mean Software which is independently developed by a third party, sub licensed to Sprint under this Agreement or otherwise provided with the Deliverables hereunder.

ARTICLE 26. ENTIRE AGREEMENT

This Agreement together with all Exhibits and Attachments constitutes the entire Agreement between Sprint and Supplier with respect to the subject matter hereof and supersedes all prior agreements and understandings, both written and oral, between the parties with respect to such subject matter, and except as provided in Article 19, is not intended to confer upon any person other than the parties hereto any rights or remedies hereunder.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their duly authorized representatives as of the day and year below written.

CIENA CORPORATION	SPRINT\UNITED MANAGEMENT COMPANY
BY: /s/ PATRICK H. NETTLES	BY: /s/ DAVID FOXLEMAN
TITLE: President & CEO	TITLE: Acting A-VP, M & SM
DATE: December, 14, 1995	DATE: December, 14 1995

EXHIBITS

EXHIBIT A.	CUSTOMER SERVICE REQUEST PROCESS
EXHIBIT B.	SPRINT TECHNICAL REQUIREMENTS
EXHIBIT C.	PRICE SCHEDULE
EXHIBIT D.	NON DISCLOSURE AGREEMENT
EXHIBIT E.	SPRINT ROUTING INSTRUCTIONS

EXHIBIT 10.9

* Indicates confidential material has been omitted pursuant to Rule 406 under the Securities Act of 1933, as amended.

BASIC PURCHASE AGREEMENT

THIS BASIC PURCHASE AGREEMENT (this "Agreement") is made this 19 day of September, 1996, by and between CIENA Corporation (hereinafter called "Vendor"), having its office at 8530 Corridor Road, Savage, Maryland 20763 and WORLDCOM NETWORK SERVICES, INC. (hereinafter called "WorldCom"), having its principal offices and place of business at One Williams Center, Tulsa, Oklahoma 74172.

W I T N E S S E T H

WHEREAS, WorldCom desires to purchase from Vendor, and Vendor desires to sell to WorldCom certain Vendor products and associated software (hereinafter collectively referred to as the "Products") upon the terms and conditions included herein; and

WHEREAS, the Products purchased hereunder and other terms and conditions relevant thereto shall be described in the Product and Pricing Attachments to this Agreement (the "P&P Attachments").

NOW, THEREFORE, it is mutually agreed as follows:

1. TERM OF AGREEMENT. The term of this Agreement shall be governed by the term of the individual P&P Attachments and it shall remain in effect until the expiration of all of the P&P Attachments. Notwithstanding the foregoing, the sections of this Agreement which are intended to survive termination or expiration of this Agreement shall so survive; such sections shall include, but not be limited to, indemnities, software licenses and Section 12.F of this Agreement.

2. METHOD OF ORDERING.

A. All purchases of Products by WorldCom shall be made by means of purchase orders ("Order(s)") issued from time to time by WorldCom.

B. All Orders issued by WorldCom, and all acceptances by Vendor hereunder, shall be deemed to incorporate the terms and conditions set out in this Agreement and the P&P Attachments. WorldCom shall use its best efforts to have all Orders covered by this Agreement reference this Agreement. Any pre-printed terms and conditions contained in any Order or acceptance which are in conflict with any of the terms of this Agreement and/or the P&P Attachments shall be deemed deleted and of no force and effect. However, WorldCom and Vendor may mutually agree, in writing, to additional, special or modified terms and conditions for specific Order(s) if the scope of such Order(s) warrants.

C. A particular Order issued with reference to this Agreement may be amended from time to time by change orders in writing which shall set forth the particular changes to be made, and the effect, if any, of such changes on the price, quantity and delivery

dates. A change order shall not be binding on either party unless and until accepted by both parties.

D. Upon written notice to Vendor, WorldCom may terminate all or any part of an Order for any reason; provided, that WorldCom shall pay termination fees in accordance with the terms set forth in the P&P Attachment.

3. PRICING.

Pricing terms shall be as set forth in the P&P Attachment.

4. DELIVERY. The matters constituting delivery and the requested delivery date applicable to Products purchased hereunder shall be in accordance with requirements and applicable delivery intervals shown in each P&P Attachment unless otherwise agreed to by the parties in writing.

5. TERMS OF PAYMENT. Payment for Products purchased by WorldCom under this Agreement shall be within thirty (30) days from receipt by WorldCom of an invoice for the Products purchased and delivery of the Products by Vendor (as constituted by compliance with such matters as are applicable to a particular Product) to WorldCom's designated location, whichever is the latter to occur.

6. SHIPMENT. All Products shall be shipped F.O.B. point of origin via the shipping method requested by WorldCom on the face of each Order. In the absence of such request, Vendor shall ship freight prepaid, uninsured, via the carrier selected by Vendor. Vendor shall separately itemize prepaid freight charges and applicable insurance charges on its invoices submitted to WorldCom.

7. SUBSTITUTIONS AND MODIFICATIONS. Vendor reserves the right to modify the design and specifications of the Products supplied hereunder, provided the modification does not adversely affect its operation, life or interchangeability, and meets or exceeds Specifications (defined in Section 15 herein) and is subject to the General Warranty Provisions of Section 8 of this Agreement.

8. GENERAL WARRANTY PROVISIONS.

A. Subject to the limitations stated herein, Products (exclusive of Software, as hereinafter defined, supplied by Vendor) are warranted to be free of defects in workmanship and material at the time of delivery to WorldCom and shall operate in conformity with the Specifications for the warranty period specified in any P&P Attachment. In the event the Products are not as warranted herein at the time of delivery and during the warranty period applicable to the Product in question, Vendor agrees to promptly repair, correct, or replace the nonconforming Product to conform with this warranty at Vendor's sole cost and expense.

B. Subject to the limitations stated herein, Software furnished as part of the Products is warranted to conform with the Specifications for the warranty period specified in any P&P Attachment. Vendor's sole obligation hereunder shall be to promptly remedy any defect in the Software and restore the Software to conform with the foregoing warranty at Vendor's facility at its sole cost and expense by either altering the generic software release of the Software provided to WorldCom or supplying WorldCom with a later generic software release of the Software with the correction included. Any materials or equipment which may be necessary to maintain compatibility between the relevant Product and such later generic software release shall be supplied by Vendor at its sole cost and expense.

C. In order to obtain warranty service for Products and/or Software described above, each of the following conditions must be met unless otherwise indicated in the P&P Attachment applicable to the Product and/or Software in question:

(i) WorldCom must give Vendor notice of the claimed defect or unsuitability of the Product and/or Software in writing within the applicable warranty period;

(ii) The defective Product component (does not apply to Software) is returned to Vendor's designated Warranty Repair Center, transportation prepaid and risk of loss borne by WorldCom, in accordance with Vendor's instructions which shall be promptly given and which shall not be unusually burdensome on WorldCom;

(iii) The Product and/or Software defect was not caused by abuse or improper use, maintenance, repair, installation or alteration by a party other than Vendor or its authorized service center.

D. Any Product or Software repaired or replaced by Vendor in accordance with the foregoing warranty shall be returned to WorldCom with transportation therefor and risk of loss borne by Vendor. Any Product and/or Software shall continue to be warranted for the remainder of the applicable warranty period or six (6) months after repair or replacement of the Product, whichever is longer.

E. Vendor warrants that its Installation Services (if ordered) shall include testing of the Product(s) and related Software for operation in conformity with the Specifications and shall be performed in a good and workmanlike manner in conformity with all applicable codes and ordinances; and any related installation material supplied by Vendor shall be free from defects in workmanship. If Installation Services are found defective * from the date of completion of the installation in question or such other period as may be agreed to by the parties and set forth in a P&P Attachment ("Installation Services Warranty Period"), Vendor shall fulfill this warranty through repair or replacement of any installation materials and/or repair or correction of errors in installation workmanship, provided written notice of the claimed defect is given to Vendor within the Installation Services Warranty Period applicable to the installation in question.

F. Product or Software repair services provided to WorldCom by Vendor, outside the scope of the above specified warranties, are warranted by Vendor for a period of ninety (90) days against defects in material and workmanship, subject, however, to all other applicable terms, limitations and conditions set forth herein.

9. CONTINUING AVAILABILITY OF TECHNICAL SUPPORT AND REPLACEMENT AND REPAIRED PARTS. Vendor shall provide WorldCom with continuing availability of technical support, replacement parts and repaired parts in the following manner:

A. Technical Support - Vendor agrees to offer technical support in the form of both telephone consultation and on-site assistance as may be requested by WorldCom at Vendor's then current price (if any) for a period of at least ten (10) years following delivery of the Product. In the event that the on-site assistance and/or telephone calls arise from a warranty issue and during the applicable warranty period, the on-site assistance and/or telephone calls shall be at no charge to WorldCom.

B. Replacement Parts - Vendor agrees to:

(i) Offer for sale newly manufactured systems, subassemblies, replacement modules and component parts throughout the period in which the Product is in current factory production;

(ii) Provide WorldCom with six (6) months' notice prior to moving the Product from status of "current production" to a status of "additions and maintenance." Modules, selected subassemblies and component parts shall be available during the "additions and maintenance" period to provide for the expansion of previously delivered Product and to augment WorldCom's spares pool for ongoing Product support;

(iii) Provide another notice to WorldCom six (6) months prior to moving the Product to a status of "manufacture discontinued." Upon giving such six (6) month notice, if at any time that Vendor thereafter fails or is unable to supply subassemblies, replacement modules and component parts of the Product to WorldCom at the contractually agreed price and within sixty (60) days from the agreed delivery date for such items, WorldCom shall have the right, in addition to any other right or remedy under this Agreement, to require Vendor to supply WorldCom with all plans, documents, drawings, technical specifications, parts lists and other documents as may be reasonably necessary to enable and authorize WorldCom to obtain or manufacture such subassemblies, replacement modules and component parts; and

(iv) Continue to offer for sale to WorldCom, after the Product is moved to the status of "manufacture discontinued," subassemblies, replacement modules and component parts for so long as inventories of those items are available.

C. Repair Services - Vendor agrees to offer repair services to WorldCom, subject to charges then generally billed by Vendor to its customers, for so long as component parts to perform the repairs are available and the repairs can be accomplished through reasonable efforts.

10. LIMITATION OF LIABILITY. EACH PARTY SHALL BE LIABLE FOR PHYSICAL INJURY TO INDIVIDUALS AND DAMAGE TO PROPERTY PROXIMATELY CAUSED BY SUCH PARTY. NEITHER VENDOR NOR WORLDCOM SHALL BE LIABLE TO THE OTHER FOR INDIRECT, SPECIAL, INCIDENTAL, REMOTE OR CONSEQUENTIAL DAMAGES (INCLUDING BUT NOT LIMITED TO THE LOSS OF REVENUE OR PROFITS) RESULTING FROM OR ARISING OUT OF THE RESPECTIVE PARTIES' PERFORMANCE OR FAILURE TO PERFORM UNDER THIS AGREEMENT.

11. *

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A. Vendor agrees that it shall defend, at its own expense, all suits against WorldCom for *

and Vendor agrees that it shall pay costs incurred by WorldCom to defend such an action, including its attorneys' fees, and shall pay all sums which, by final judgment or decree in any such suits or through settlement, may be assessed against WorldCom on account of * , provided that Vendor shall be given timely written notice of any claims of any * and of any suits brought or threatened against WorldCom and authority to assume the defense thereof through its own counsel and to compromise or settle any suits so far as this may be without prejudice to the right of WorldCom to continue the use, as contemplated, of such Products.

B. If in any such suit so defended *

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12. SOFTWARE LICENSE. Subject to the terms of the P&P Attachment, Vendor agrees to grant a fully paid up, nonexclusive license for the use of any Software furnished in conjunction with Vendor furnished Products in accordance with the definitions set forth in the P&P Attachment and the following:

A Limitations of License Grant - No title to or ownership of the Software or any part thereof is conveyed to WorldCom. Software furnished hereunder is to be used solely in conjunction with the hardware Products with which the Software is furnished as it may be repaired from time to time. WorldCom shall have no right to modify or reverse compile any Software supplied hereunder by Vendor.

B. Software as Proprietary Information - Software furnished hereunder shall be treated as the exclusive property of Vendor, and WorldCom shall hold such Software in confidence to the same extent that it protects its own similar confidential or proprietary information. WorldCom shall not provide or make such Software available to any person, except to those persons working with the Products purchased hereunder. WorldCom shall not reproduce or copy such Software in whole or in part except for backup and archival purposes or as otherwise permitted in writing by Vendor.

C. Term of Software License - This Software license shall remain in effect for the full calendar measured term that beneficial use is derived from the System. Either party shall have the right to terminate this license if the other party fails to comply with the terms and conditions contained herein and WorldCom may voluntarily discontinue the use of the licensed Software upon thirty (30) days' written notice to Vendor. In either event, WorldCom, upon written request from Vendor, shall immediately destroy the original and any copies of the licensed Software, including any source material which may have been furnished, and provide notice of such destruction to Vendor.

D. Assignment of Software License - The Software license granted under this Agreement may not be transferred or assigned by WorldCom without the prior consent of Vendor, which consent shall not be unreasonably withheld or delayed. However, WorldCom may assign such license (i) pursuant to a sale of the System or substantially all assets of WorldCom to a third party or (ii) to an entity, business organization or enterprise that either controls WorldCom, is controlled by WorldCom or is under common control with WorldCom.

E. Software Documentation - Vendor shall keep and maintain a current copy of the Software source codes for, and any other proprietary data information and documentation relevant to, the use and maintenance of the Software licensed hereunder in secure vault storage at its principal place of business designated herein. Should Vendor at a future date contemplate voluntary bankruptcy or be subject to an involuntary bankruptcy proceeding or take other measures to terminate operations or terminate the manufacture and sale of the Software, Vendor agrees that all security-vaulted Software source codes, any other relevant Vendor proprietary data information and documentation, and any licenses, rights and authorizations necessary in utilizing, modifying or copying such, shall be promptly conveyed to WorldCom at no charge. Vendor acknowledges that if a trustee in bankruptcy or Vendor as a debtor in possession rejects this Agreement, WorldCom may elect to retain its rights under this Section 12.F as provided in 11 U.S.C. Section 365(n) of the United States Bankruptcy Code (the "Bankruptcy Code"). Vendor further acknowledges that all security-vaulted Software source codes, any other relevant Vendor proprietary data information and

documentation, and any licenses, rights and authorizations necessary in utilizing, modifying or copying such, shall be deemed to be "embodiments" of the Software licensed hereunder as that term is used in Section 365(n) of the Bankruptcy Code. Should Vendor at a future date contemplate the sale of the right to manufacture the hardware Products, including Software support thereof, to a third party, Vendor agrees that it shall assign to the third party its obligations under this license. Should the third party fail to execute a written assumption of Vendor's license obligations to WorldCom, Vendor's security-vaulted Software source codes, any other relevant Vendor proprietary data information and documentation, and any licenses, rights and authorizations necessary in utilizing, modifying or copying such, shall be promptly conveyed to WorldCom at no charge, prior to the execution by Vendor of any contract for sale to any such third party.

F. Software Upgrades - WorldCom shall be informed by Vendor of Software Upgrades as specified herein. Vendor shall supply Software Upgrades at no charge to WorldCom during the term of the Software License set forth in Section 12.D. However, installation of any Software Upgrade is the responsibility of WorldCom.

G. Tax Determination - For the purposes of determining tax liability, Software licensed hereunder is considered intangible property in as much as it is merely a license to use a Vendor owned method of computer operation and its tangible attributes are only incidental.

13. TAXES.

A. The prices stated in this Agreement or in the P&P Attachments do not include any state, federal or local sales, use or excise taxes. WorldCom expressly agrees to pay Vendor, in addition to the charges herein specified, the amount of any such taxes which may be imposed upon or payable by Vendor upon the sale of the Products.

B. Should WorldCom consider any Products purchased hereunder to be exempt from said taxes, WorldCom shall place on file with Vendor valid tax exemption certificates for the state or other governmental entity which may impose said taxes at the time of sale.

14. TITLE AND RISK OF LOSS. Except as provided in Section 12 as to Software, title and risk of loss or damage to the Products contained in each shipment shall pass to WorldCom upon delivery thereof to a carrier acceptable to both Vendor and WorldCom. Shipping arrangements with such carrier shall be handled by Vendor. Vendor shall pack the Products for shipment in accordance with its standard commercial packing practices. However, if in-transit damage results from Vendor's failure to adequately package the Products or to comply with any custom packaging requested by WorldCom and agreed to by Vendor, Vendor shall repair or replace the damaged Products at no charge to WorldCom.

15. SPECIFICATIONS. Products furnished hereunder are represented to perform in accordance with (a) the higher of Vendor's standard commercial product

specifications and the additional specifications, if any, set forth in a P&P Attachment and (b) any applicable federal regulatory agency requirements (collectively referred to herein as "Specifications"), which Specifications shall constitute the sole basis for technical acceptance of such Products by WorldCom.

16. CONFIDENTIAL INFORMATION.

A. Both parties hereto agree not to use or disclose to anyone other than employees of the parties during the term of this Agreement and for a period of five (5) years thereafter, any Confidential Information concerning the other party. "Confidential Information" is information marked as confidential by either party and which relates to either party's research, development, trade secrets, or business affairs or that of any of its customers or affiliates. Each party agrees to indemnify the other party for any loss or damage resulting from a breach of this provision. However, the obligations of the parties shall not extend to information and data which:

(i) Was already known to either party prior to commencing effort under this Agreement; or

(ii) Was known or was generally available to the public at the time of disclosure hereunder; or

(iii) Becomes known or generally available to the public (other than by act of the recipient) subsequent to its disclosure hereunder; or

(iv) Is disclosed or made available in writing to the recipient by a third party having a bona fide right to do so; or

(v) Is subject to disclosure by process of law.

B. The provisions of this Section 16 may not be construed to encompass data which the parties do not protect from disclosure to third parties.

C. The parties acknowledge that disclosure of any confidential information other than as allowed by this Section 16 may give rise to irreparable injury and may be inadequately compensable in monetary damages and therefore the non-disclosing party shall be entitled to seek and to obtain injunctive or other equitable relief against the breach or threatened breach of such obligations, in addition to any other remedies which may be available.

17. SEVERABILITY. If any term of this Agreement is found or held to be contrary to the laws of any jurisdiction having control of its construction, validity or enforcement or if it is found that any term is void or voidable, then said term shall not apply and this Agreement shall be construed as if said term were not present and its removal shall have no effect on the remainder of the Agreement. In the event that any term is found to be

void or voidable, then Vendor and WorldCom shall in good faith renegotiate the terms of the voided provision.

18. EXCUSABLE DELAYS. Acts of God or of the public enemy, earthquakes, hurricanes, acts of the U.S. Government in its sovereign capacity (including, but not limited to the courts), fires, floods, epidemics, quarantine restriction, strikes and freight embargoes and such similar occurrences which cause failure by either party to perform hereunder, and which, in every case, are beyond the reasonable control and are without the fault or negligence of the party or its subcontractors, shall constitute an excusable delay, provided that notice thereof is promptly given to the other party. In the event of delay resulting from any of the above causes, the performance schedule shall be extended for a mutually agreed period reasonable under the circumstances, but in no event longer than thirty (30) days. If delay pursuant to this Section 18 continues for longer than thirty (30) days, WorldCom may cancel this Agreement with no further liability and shall be reimbursed by Vendor for any monies paid for Products not received due to such delays.

19. GOVERNING LAW. Except for laws relating to conflict of laws, this Agreement, its formation and dispute resolution, construction and interpretation shall be governed by the laws of the State of Delaware in the United States of America. The parties will attempt in good faith to promptly resolve any controversy or claim arising out of or relating to this Agreement or any subsequent performance by the parties before resorting to other remedies available to them. Any such dispute shall be referred to appropriate executives of each party who shall have the authority to resolve the matter. If the executives are unable to resolve the dispute, the parties may by agreement refer the matter to an appropriate form of alternative dispute resolution such as mediation. If the parties cannot resolve the matter or if they cannot agree upon an alternative form of dispute resolution, then either party may pursue resolution of the matter through arbitration in accordance with the rules of the American Arbitration Association applying the substantive law of the State of Delaware without regard to any conflict of laws provisions. The arbitration will be governed by the United States Arbitration Act, 9, U.S.C. Section 1, et. seq. and judgment upon the award rendered by the arbitrators may be entered by any court with jurisdiction. The arbitrators are not empowered to award damages in excess of compensatory damages, and each party waives any damages in excess of compensatory damages. The parties agree to continue performance during the pendency of any dispute, unless performance is terminated according to Article 20 of this Agreement. Notwithstanding the foregoing, either party may bring a claim for injunctive relief as provided in any court of competent jurisdiction without first submitting the claim to arbitration.

20. ASSIGNMENT. Neither party shall assign any of the terms and conditions hereof or any of its rights or obligations hereunder without the prior written consent of the other party which shall not be unreasonably withheld. Notwithstanding the foregoing, however, either party may assign its rights and obligations hereunder to an entity which controls, is controlled by or is under common control with such party, or a successor

organization, which in all respects shall inure to such rights and be bound by such obligations.

21. NOTICES. Notices under this Agreement shall be in writing and delivered to the representative of the party to receive notice (identified below) at the address of the party to receive notice as it appears below or as otherwise provided for by proper notice hereunder. The effective date for any notice under this Agreement shall be the date of delivery of such notice (not the date of mailing) which may be effected by certified U.S. Mail return receipt requested with postage prepaid thereon or by recognized overnight delivery service, such as, FedEx or UPS:

If to Vendor: CIENA Corporation
Attn: Eric Georgatos, Vice President and General Counsel
8530 Corridor Road
Savage, Maryland 20763

If to WorldCom: WorldCom Network Services, Inc.
Attn: Contract Administration
One Williams Center
Tulsa, Oklahoma 74172

22. INSURANCE. Vendor shall obtain, pay for and maintain insurance for the coverages and amounts of coverage not less than those set forth below and shall provide WorldCom certificates issued by insurance companies satisfactory to WorldCom to evidence such coverages. Such certificates shall provide that there shall be no termination, nonrenewal or modification of such coverage without thirty (30) days' prior written notice to WorldCom.

A. Workers' Compensation insurance complying with the law of the state or states of operation, whether or not such coverage is required by law, and Employer's Liability insurance with limits of $500,000 per employee and $500,000 disease policy limit. If work is to be performed in Nevada, North Dakota, Ohio, Wyoming, Washington or West Virginia, Vendor shall purchase Workers' Compensation in the State Fund established in the respective states. Stop Gap Coverage, and if available, Employer's Overhead coverage shall be purchased.

B. Commercial General Liability insurance with a combined single limit for bodily injury and property damage of $1,000,000 each occurrence and General and Products Liability aggregates of $2,000,000 each, covering all insurable obligations or operations of Vendor. The policy shall include no modifications that reduce the standard coverages provided under a Commercial General Liability insurance policy form.

C. Business Automobile Liability insurance with a combined single limit for bodily injury and property damage of $1,000,000 each occurrence to include coverage for all owned, non-owned and hired vehicles.

D. Excess or Umbrella Liability insurance with a combined single limit for bodily injury and property damage of not less than $1,000,000 each occurrence with an annual aggregate of $1,000,000 to apply in excess of all insurance coverages stipulated above.

In the event coverage is denied or reimbursement of a properly presented claim is disputed by the carrier for insurance provided in A through D above in connection with a claim relating to Vendor's performance of its obligations under this Agreement, Vendor shall, upon written request, provide WorldCom with a certified copy of the involved insurance policy or policies within ten (10) business days of receipt of such request.

Vendor waives its right, and its underwriter's right, of subrogation against WorldCom, its shareholders, officers, directors, agents and employees thereof, WorldCom's affiliates and their shareholders, officers, directors, agents and employees thereof, and WorldCom's subsidiaries and their shareholders, officers, directors, agents and employees thereof, providing that such waiver in writing prior to loss does not void or alter coverage, and such waiver shall not affect Vendor's other rights or remedies under this Agreement or under law.

Neither the insurance required herein nor the amount and type of insurance maintained by Vendor shall change the extent of Vendor's liability hereunder for injury, death, loss or damage.

Except as provided in this Agreement, WorldCom, its affiliates and its subsidiaries shall not insure or be responsible for any loss or damage to property of any kind owned or leased by Vendor or its employees, servants and agents. Any policy of insurance covering the property owned or leased by Vendor against loss by physical damage shall provide that the underwriters have given their permission to waive their rights of subrogation against WorldCom, its affiliates and their directors, officers and employees, as well as their subsidiaries including the directors, officers and employees thereof.

Certificate Holder must be shown as:

WorldCom Network Services, Inc.
Attn: Contract Administration
P.O. Box 21348
Tulsa, OK 74121

Except as provided in this Agreement, Vendor, its affiliates and its subsidiaries shall not insure or be responsible for any loss or damage to property of any kind owned or leased by WorldCom or its employees, servants and agents.

If Vendor utilizes contractor(s) per this Agreement, then Vendor shall require such contractor(s) to comply with these insurance requirements and supply certificates of insurance before any work commences.

23. GENERAL PROVISIONS.

A. In the event suit is brought by either party to enforce the terms of this Agreement or to collect any monies due hereunder or to collect money damages for breach hereof, the prevailing party as determined by the judiciary of the forum in which suit is brought, shall be entitled to recover, in addition to any other remedy, reimbursement for reasonable attorneys' fees and court costs incurred in connection therewith.

B. Except as set forth to the contrary herein, any right or remedy shall be cumulative and without prejudice to any other right or remedy, whether contained herein or not. Any single or partial exercise of any right or remedy shall not preclude the further exercise thereof or the exercise of any other right or remedy.

C. Nothing in this Agreement provides any legal or equitable rights to anyone not an executing party of this Agreement.

D. In the event of a conflict between the provisions of this Agreement and those of a P&P Attachment, the provisions of the P&P Attachment shall prevail. Each P&P Attachment identified with this Agreement shall only be effective if the same is reasonably identified herewith and subscribed to by authorized representatives of the parties.

E. All headings used herein are for index and reference purposes only, and are not to be given any substantive effect.

F. Unless defined herein, words having well-known technical or trade meanings shall be so construed. All listings of items shall not be taken to be exclusive, but shall include other items, whether similar or dissimilar to those listed, as the context reasonably requires.

G. No rule of construction requiring interpretation against the draftsman hereof shall apply in the interpretation of this Agreement.

H. Each party to this Agreement represents and warrants to the other that:

(i) It has the right, power and authority to enter into and perform its obligations under this Agreement;

(ii) It has taken all requisite action (corporate or otherwise) to approve execution, delivery and performance of this Agreement, and this Agreement constitutes a legal, valid and binding obligation upon itself in accordance with its terms, except as enforceability may be limited by bankruptcy, insolvency or similar laws;

(iii) Neither the execution of this Agreement nor the fulfillment of or compliance with the terms and provisions hereof shall conflict with or result in a breach of the terms, conditions or provisions of, or constitute a default under, or result in a violation of the charter, bylaws or other governing instruments of such party, or any contract, instrument, order, judgment or decree to which such party is subject; and

(iv) The fulfillment of its obligations hereunder shall not constitute a material violation of any existing applicable law, rule, regulation or order of any government authority, and except as otherwise provided herein, all material, necessary or appropriate public or private consents, permissions, agreements, licenses or authorizations to which it may be subject have been or shall be obtained in a timely manner.

I. Neither party to this Agreement shall use any funds received under this Agreement for illegal or otherwise "improper" purposes. Neither party shall pay any commissions, fees or rebates to any employee of the other party nor favor any employee of the other party or its affiliates with gifts or entertainment of significant cost or value. In the event WorldCom has reasonable cause to believe that this section has been violated, WorldCom or its representative shall have the right to audit the records of Vendor to the extent necessary to determine compliance with this section.

J. Neither party to this Agreement shall divulge its terms to any suppliers or competitors of either party hereto; provided, that it is understood that Vendor may file this Agreement with any U.S. Federal or State governmental agency if such filing is required by law.

24. ENTIRE AGREEMENT. This Agreement together with P&P Attachments, if any, comprise all the terms, conditions and agreements of the parties with respect to the subject matter hereof and may not be altered or amended except in writing and signed by authorized representatives of each party hereto.

IN WITNESS WHEREOF, the parties hereto by their duly authorized representatives have executed this Agreement as of the date and year first set forth above.

"WORLDCOM"

WORLDCOM NETWORK SERVICES, INC.

By: /s/ Larry Murphy for Russ Ray 9/19/96

Name: Larry Murphy for Russ Ray 9/19/96

Its: VP Eng

"VENDOR"

Ciena Corporation

By: /s/ EGG

Name: Eric Georgatos

Its: VP and General Counsel

PRODUCTS AND PRICING ATTACHMENT NO. 1

THIS PRODUCTS AND PRICING ATTACHMENT NO. 1 (this "P&P ATTACHMENT") is made this 19 day of September, 1996, to that certain Basic Purchase Agreement between WorldCom Network Services, Inc. ("WorldCom") and CIENA Corporation("VENDOR") dated September 19, 1996 (the "AGREEMENT"). The following described Products and relevant pricing terms shall be subject to the terms of the Agreement. Unless otherwise specified herein, defined terms shall have the same meanings as set forth in the Agreement. However, in the event of a conflict between the terms and conditions of the Agreement and the terms and conditions of this P&P Attachment, this P&P Attachment shall control.

This P&P Attachment shall also replace and over-rule any previous Letters of Commitment or Letters of Understanding that may exist between the two parties.

1. TERM/COMMITMENT TO ORDER/EXCLUSIVITY.

Under this P&P Attachment, in exchange for the prices offered by CIENA, as represented in Section 2 below, WorldCom agrees that Vendor shall be WorldCom's exclusive supplier of dense (meaning greater than 4 channel) wave division multiplexing system equipment and associated software ("WDM Systems") for a period starting from the execution date of this P&P Attachment through December 31, 1997 ("EXCLUSIVE PERIOD"). This is not a commitment by WorldCom to order any minimum quantity of WDM Systems; however, if WorldCom shall fail to purchase from Vendor during such Exclusive Period Vendor's WDM Systems having an aggregate price, * . WorldCom's obligation to purchase exclusively from Vendor during the Exclusive Period is expressly subject to successful completion of the field trial currently in progress pursuant to that Trial Evaluation Agreement between Vendor and WorldCom dated August 3, 1996. Completion of such trial shall be determined to be successful or not solely at the discretion of WorldCom, and WorldCom shall promptly notify Vendor in writing of its determination.

WorldCom shall have the right to make Orders for the Products described herein and place such Orders within sixty (60) months of the date of this P&P Attachment and Vendor shall accept such Orders subject to the terms of the Agreement and this P&P Attachment. Orders shall indicate (1) quantity of items ordered, (2) desired delivery date, (3) intended delivery site, and (4) delivery site for Vendor's standard documentation. Orders placed byWorldCom with Vendor shall not be binding upon Vendor until accepted in writing by a duly authorized officer or employee of Vendor. Such acceptance will occur within five working days of receipt of order by Vendor. If Vendor fails to respond to the WorldCom individual purchasing agent placing the order within five working days, and if the purchase order otherwise conforms to the terms, conditions and prices required under this Agreement, then such purchase order is presumed to have been accepted by Vendor.

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Upon execution of this Agreement and the P&P Attachment, WorldCom agrees that Vendor may, at its election, make public announcement of the commencement by WorldCom of a field trial of Vendor's WDM System equipment, with the wording of such announcement subject to the reasonable approval of WorldCom. Upon successful completion of the field trial (which shall be deemed successful, if at all, entirely at WorldCom's sole discretion), WorldCom agrees that Vendor may make public announcement of the signing of this Agreement and the P&P Attachment, with the wording of such announcement subject to the reasonable approval of WorldCom.

2. PRODUCT PRICING.

Subject to the True Up obligations set forth below, WorldCom's orders for WDM Systems during the Exclusivity Period shall be entitled to pricing based upon the price schedule listed below:

module description	model number	unit price($)
channel shelf	16000-01	*
common shelf	16000-02	*
dual amp module	16090-01	*
980 pump module	16080-01	*
1480 pump module (standard)	16080-12	*
1480 pump module (high power)	16080-11	*
service channel module	16070-01	*
nodal controll processor	16060-03	*
power supply module	16050-01	*
combiner module (8 way)	16030-08	*
splitter module (8 way)	16040-08	*
dual combiner module	16030-16	*
dual splitter module	16040-16	*
remodulator module (ch. 1)	16010-01	*
remodulator module (ch. 2)	16010-02	*
remodulator module (ch. 3)	16010-03	*
remodulator module (ch. 4)	16010-04	*
remodulator module (ch. 5)	16010-05	*
remodulator module (ch. 6)	16010-06	*
remodulator module (ch. 7)	16010-07	*
remodulator module (ch. 8)	16010-08	*
remodulator module (ch. 9)	16010-09	*
remodulator module (ch. 10)	16010-010	*
remodulator module (ch. 11)	16010-011	*
remodulator module (ch. 12)	16010-012	*
remodulator module (ch. 13)	16010-013	*
remodulator module (ch. 14)	16010-014	*
remodulator module (ch. 15)	16010-015	*
remodulator module (ch. 16)	16010-016	*
dual selector module (ch. X/X)	16020-XX	*

faceplate, 4HP, (0.8 wide)	16120-14	*
faceplate, 7HP, (1.4 wide)	16120-09	*
orderwire	16140-01	*
auxillary management module	16130-01	*
alarm and power distribution		*
fan try	16600-01	*
air filter	16600-02	*
fiber dressing/air plenum	16600-03	*
heat ramp	16600-04	*
fan replacement		*
EMS software**		*
*		*
*		*

PRE-WIRED RACK ASSEMBLIES

7' unequal flange rack (equipped for 8 ch.)	16110-70	*
7' unequal flange rack (equipped for 16 ch.)	16110-80	*
8' unequal flange rack (equipped for 8 ch.)	16110-88	*
8' unequal flange rack (equipped for 16 ch.)	16111-70	*
8'-8" unequal flange rack (equipped for 8 ch.)	16112-70	*
8'-8" unequal flange rack (equipped for 16 ch.)	16112-80	*
7' channel rack (equipped for 8 ch.)	16112-88	*
7' channel rack (equipped for 16 ch.)	16113-70	*

** Price quoted is for Vendor's proprietary EMS Software. Vendor's proprietary EMS Software runs on a Sun workstation with Sun operating software. Vendor believes Sun's price for a primary workstation is approximately $20,000 and for the necessary Sun operating software is approximately $34,000; Vendor further believes Sun's price for a secondary, or sub-network workstation is approximately $10,000 to $15,000 and for the necessary Sun operating software is approximately $19,000. *

Not later than 60 days prior to the end of the Exclusive Period, Vendor shall notify WorldCom of the amount of all WorldCom Orders it has shipped or received since the date of execution of this Agreement and the P&P Attachment. Vendor agrees to meet and confer with WorldCom as to any questions WorldCom may have as to Vendor's record of such amount, and will use its best efforts to reconcile its record with any different record from WorldCom. Vendor's failure to give such notice in a timely manner shall not affect WorldCom's "true-up amount" payment obligations as set forth in the next paragraph.

On or before January 31, 1998, , Vendor shall compute the aggregate price, based on Section 2 prices, of all Orders received on or before December 31, 1997 and shipped or scheduled for shipment within 45 days after December 31, 1997, (such Orders are referred to as the "Exclusive Period Orders" and the aggregate price attributable thereto is referred to as the "Total Purchases"). If the Total Purchases equal or exceed *,

Vendor shall have no claim against WorldCom for payments beyond invoiced amounts on all such Orders. *, Vendor shall recompute the purchase price of all Exclusive Period Orders * (the "Undiscounted Purchases"). (Exclusive Period Orders shall not include orders for installation services, emergency technical support services or training services.) The amount by which the Undiscounted Purchases exceed the aggregate purchase price paid or to be paid by WorldCom on all Exclusive Period Orders shall be the "True Up Amount." WorldCom shall pay the True Up Amount within 30 days of receipt of Vendor's invoice therefor *

The following examples are for illustration:

a)	Assume Total Purchases equal	$*
	Loss of * discount (True Up Amount)	$*
	Total Due	$*
b)	Assume Total Purchases equal	$*
	Loss of * discount (True Up Amount)	$*
	*	*
	*	
	*	*
	*	*

. * Unless and until such negotiations result in a mutual written agreement to the contrary, all Orders received after * .

3. DELIVERY.

To assist in Vendor's manufacturing planning, concurrent with and conditional upon WorldCom's notification to Vendor of successful completion of the field trial, and on each monthly anniversary of the execution hereof, WorldCom shall deliver Vendor a subsequent 12-month forecast of Orders (such Orders to include spares requirements). Such forecast shall not represent a binding purchase commitment by WorldCom; however, for forecasted Orders, Vendor commits to deliveries, including spares, within * after acceptance of Order. Vendor's obligation to deliver * of acceptance of such Orders shall apply only to Orders included in a 12-month rolling forecast provided hereunder.

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4. SOFTWARE/HARDWARE COMMITMENTS.

Vendor commits to provide the following specific software/hardware features at the charges indicated, which features shall be tested and generally available for the Product described herein by the dates indicated:

Hardware

Feature	availability	price	note
	*	*	1
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*			
*	*		
*		*	
*		*	
*		*	
*		*	
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*	*	*	*
*	*	*	*
*	*	*	
*			

Notes:

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Software

a. The following terms shall have the meaning set forth below:

"EMS Software" shall mean the CIENA WaveWatcher(TM) element management system software, which does not include third party hardware or software on which the EMS Software operates.

"Licensed Software" shall mean EMS Software, System Software, and Third Party Software, each of which in machine-readable form, and subsequent Software Upgrades and Software Enhancements, necessary to install, operate, and maintain the WDM Systems purchased by WorldCom pursuant to this Agreement.

"System Software" shall mean computer programs and routines, with Third Party Software, embedded in and integral to a product contained in the WDM System and contained on a magnetic tape, disk, semiconductor device, or other memory device or system memory and consisting of (a) hard-wired logic instructions which manipulate data in the central processor and control input/output operations, and error diagnostic and recovery routines, and (b) other instruction sequences, in machine readable but not source code, as well as associated documentation used to describe, maintain or use such programs and routines.

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"Software Upgrade" shall mean a change or modification or release in or to the EMS Software or System Software which fixes or otherwise corrects faults, design shortcomings, shortcomings in meeting specifications, or makes other corrections as necessary to enable EMS Software or System Software to perform in accordance with specifications. A "Software Upgrade" does not include changes or modifications or releases which add one or more new functions which are not present in the most current version of the EMS Software or System Software or which otherwise materially enhance functionality, value or performance (a "Software Enhancement").

"Software Revision Level" shall mean each specific release of Licensed Software that reflects any amendment, modification or change from the immediately preceding release, each of which releases shall contain a unique, sequential, alphabetical or numeric designation to identify each release of Licensed Software from another.

"Third Party Software" shall mean software which is independently developed by a third party, sublicensed to WorldCom under this Agreement or otherwise provided with the WDM Systems hereunder.

b. *

(1) The EMS Software in machine readable form, including any applicable Software Upgrades provided under the warranty provisions of Section ehereof, and any copies of the foregoing as authorized herein;

(2) System Software in machine readable form, including any applicable Software Upgrades provided under the warranty provisions of Section e hereof, and any copies of the foregoing as authorized herein;

(3) Third Party Software embedded in and integrated with the System, System Software and EMS Software, in machine readable form.

c. WorldCom's RTU License for a single unit of the EMS Software is limited to use with a single workstation which manufacturer and model are authorized by Vendor through provision of the designated release of EMS Software for such workstation. WorldCom may physically transfer the EMS Software from one workstation to another without notice to Vendor, and from one site to another provided that (a) the workstation from which the EMS Software has been transferred shall cease to be a licensed workstation for such transferred EMS Software, and the workstation to which the EMS Software has been transferred shall thereafter be deemed to be a licensed workstation, and (b) the EMS Software delivered by Vendor shall not be resident at any time on more than

the total number of licensed EMS workstations set forth in this Agreement or on the applicable attachment hereto.

d. The EMS Software and System Software contain copyrighted material, trade secrets and other proprietary material of Vendor or Vendor's subcontractors. WorldCom is granted no title or ownership rights to such software, and WorldCom shall not sell, transfer (except as authorized under this Agreement), rent, copy (other than for archival or backup purposes), reverse engineer, reverse compile, or grant any rights in such software without Vendor's prior written consent. WorldCom agrees to protect the software licensed hereunder in a manner consistent with the maintenance of Vendor's ownership and proprietary rights therein, including displaying of any copyright marks incorporated by Vendor.

e. *

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f. *

g. *

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h. WorldCom shall have the option at any time during the term of this Agreement, upon 60 days advance written notice to Vendor, to purchase the Source Code for Vendor's EMS Software for * , paid concurrent with delivery of the Source Code. Notwithstanding such purchase by WorldCom, WorldCom shall have no right to sell, assign, transfer, license or sublicense the Source Code without the prior written consent of Vendor, which consent may be withheld in Vendor's sole discretion. From and after delivery by Vendor of Source Code pursuant to WorldCom's election to purchase it under this Agreement, Vendor's continuing warranty obligations, if any, with respect to providing repair service, Software Upgrades, or other technical support services, shall be void and of no further force or effect insofar as they affect or relate to EMS Software.

5. SONET COMPLIANCE

Vendor represents that its WDM System has been and will continue to be tested for satisfactory functional interoperability with NorTel OC-48 SONET transmission terminals. Vendor further agrees to establish and continuously update and maintain a lab facility WDM System representative of the single WDM System purchased and installed by WorldCom which has the highest number of channels and cascaded optical line amplifiers, for use in replicating and diagnosing any field performance problems. It is acceptable that this facility be a shared facility supporting the combined training and testing requirements of all customers utilizing the same Vendor Product(s). In the event that notwithstanding Vendor's testing for satisfactory interoperability and Vendor's lab replication and diagnosis, there remain in-field interoperability problems, Vendor will designate not less than two of its personnel to form a task force with WorldCom to conduct sufficient additional testing and diagnosis to determine the cause of the problem and possible solutions.

6. ADDITIONAL SPECIFICATIONS.

Vendor and WorldCom acknowledge and agree that the ongoing field trial may result in WorldCom requesting additional specifications for the Products. Vendor and WorldCom agree to work together to develop mutually agreed statements of such specifications and mutually agreed increases, if any, to the prices set forth in Section 2, as a result of such specifications.

7. WARRANTY PERIOD.

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8. DOCUMENTATION AND TRAINING.

A. Documentation

For each:
1. Network Manager System
2. MultiWave(TM) terminal
3. MultiWave(TM) line amplifier

delivered under this P&P Attachment, Vendor shall promptly, at time of delivery, provide, at no additional charge to WorldCom, one complete set of written documentation and user's manual for said Product(s). This documentation will be shipped to the same location that said Product(s) are delivered.

Upon delivery of the first Order placed under this P&P Attachment, Vendor shall, at no charge to WorldCom, provide an additional six (6) complete sets of Product documentation to satisfy WorldCom Engineering requirements.

In accordance with Section 7, "Substitutions and Modifications", of the Agreement, product updates or modifications must be documented and notification of these changes provided in written form ahead of Product deliveries incorporating said changes. Vendor agrees to provide notification and modification documentation in quantities sufficient to update all sets of existing documentation delivered to WorldCom at the time of notification.

Vendor agrees to allow WorldCom to edit, duplicate, and apply said Product literature and documentation solely and exclusively for internal WorldCom use.

B. Training

During the period ending June 30, 1998, Vendor shall provide *
, with WorldCom free to exercise discretion in how to allocate such days based on the following classes and class duration:

Course Number	Class Name	Number of Days	Eastern Time Zone	Central Time Zone	Mountain Time Zone	Pacific Time Zone
M-101	Installation	2	*	*	*	*
M-102	OAM&P	2	*	*	*	*
M-103	WaveWatcher Operator	1	*	*	*	*
M-104	WaveWatcher Administrator	2	*	*	*	*
M-100	Train the Trainer	3	*	*	*	*

WorldCom shall pay Vendor for travel and lodging expenses for Vendor personnel teaching classes held at WorldCom's facilities. WorldCom may pay such expenses at fixed rates in the schedule above or may reimburse Vendor for actual expenses incurred. Class shall be charged by Vendor at Vendor's standard rates.

Class size at Vendor's facilities will be limited to ten (10) people and scheduled three (3) weeks in advance.

Class size at WorldCom facilities will be determined by WorldCom in consultation with Vendor and scheduled three (3) weeks in advance.

Within three (3) months of executing this P&P Attachment, Vendor agrees to develop a Training Video to demonstrate the functionality and maintenance of associated Products. Vendor agrees to solicit input from WorldCom to insure the video addresses WorldCom training concerns. Vendor will provide a master copy of this video to WorldCom at no charge, which WorldCom may duplicate as often as it deems necessary but for the sole purpose of internal training. Except for WorldCom's right to use and duplicate such video for its own internal purposes, Vendor shall own all rights in and to such video, and may use it for training of other customers, distributors, etc.

Training services in excess of the * days shall, if conducted at Vendor's Maryland facility, be charged to WorldCom in accordance with the following schedule:

Course Number	Class Name	Number of Days	Course In Savage
M-101	Installation	2	*
M-102	OAM&P	2	*
M-103	WaveWatcher Operator	1	*
M-104	WaveWatcher Administrator	2	*
M-100	Train the Trainer	3	*

Training services in excess of the 100 free instructor class days shall, if conducted at a WorldCom site, be charged to WorldCom in accordance with the following schedule:

Course Number	Class Name	Number of Days	Eastern Time Zone	Central Time Zone	Mountain Time Zone	Pacific Time Zone
M-101	Installation	2	*	*	*	*
M-102	OAM&P	2	*	*	*	*

M-103	WaveWatcher Operator	1	*	*	*	*
M-104	WaveWatcher Administrator	2	*	*	*	*
M-100	Train the Trainer	3	*	*	*	*

8. TECHNICAL SUPPORT AND INSTALLATION SERVICES PRICING.

Installation Services shall be invoiced to WorldCom at Vendor's standard rates, plus expenses, in accordance with the following schedule:

	1st 48 hrs./week	Overtime Hours	Capabilities
Installer I	*	*	*

An installer is fully trained and equipped for the following tasks: S - superstructure; P - Power; F - Fiber connections; A - Alarm connections. Hauling and Hoisting will be billed as incurred.

For the initial deployment of Vendor's Products and in cases where WorldCom's network service quality is being impacted by problems/failures related to Vendor's Products, the Vendor agrees to provide support personnel that can be available within 24 hours of notification to assist WorldCom personnel resolve a problem on-site. For the case of initial deployment, this service shall be provided per WorldCom's request at Vendor's expense. In cases of emergency troubleshooting, if Vendor's Products were found to be at fault, expenses for travel and assistance are Vendor's responsibility. If Vendor's Products were not at fault, WorldCom will be responsible for Vendor's manpower expenses and reasonable travel and lodging expenses.

After initial deployment and installaction, emergency technical support shall be available by phone from Vendor's Maryland facility 24 hours a day, seven days a week. During core business hours, this service will be available to WorldCom at no charge. For after-hour, week-end, and holiday support rendered from Vendor's Maryland facility, * provided, that in each case, if Vendor's Products were found to be at fault, there shall be no charge for such service.

9. REPAIR AND RETURN.

A. Vendor agrees to maintain the following emergency safety stock specifically for WorldCom utilization:

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This safety stock may be the same hardware used to populate the Vendor lab facility specified in Article 8 Section B of this P&P Attachment as long as this hardware is not committed to another customer's testing or emergency support.

This safety stock must be accessible 24 hours a day, seven days a week, for emergency shipment to a WorldCom-indicated location within a 24 hour time-frame.

At such time as WorldCom places orders for any of the following modules, there shall be added to the safety stock the number of such modules listed below:

*
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*
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*

B. For items no longer within warranty (as defined in this P&P Attachment), Vendor shall within 10 working days of receipt of damaged product, provide WorldCom an estimate for repair charges to any Product, component, or sub-assembly to any Product manufactured by the Vendor.). Such estimate shall not exceed the greater of (i) the price set forth in Section 2 of this P&P Attachment for such product, or (ii) Vendor's cost of materials for making such repair plus 50%. WorldCom may thereafter elect to order such repair work to be done or to purchase replacement Products, components or subassemblies.

C. If repaired, standard repair turn-around time shall be no longer than thirty (30) days from receipt of malfunctioning Product, component, or subassembly to any Product. If Vendor fails to deliver on or before the thirty (30) days and the Product is still under warranty, then Vendor agrees to ship a new replacement, at no cost to WorldCom, within 24 hours to maintain WorldCom's network performance and survivability level.

D. Vendor agrees to provide WorldCom repair reports for every item returned. These reports shall describe the problem found and the corrective action taken. Vendor agrees to maintain a cumulative list documenting problem types and number of occurrences.

10. Assurances.

Vendor agrees to support unannounced WorldCom quality assurance inspections related to the manufacturing and testing of Products WorldCom has on order hereunder.

Vendor warrants and represents that the Products are in current factory production and Vendor has no present plans to discontinue manufacture of the Products. Further, Vendor recognizes the signficance that WorldCom places on the Product commitments contained herein.

All of which is agreed to by the undersigned.

WorldCom Network Services, Inc.	CIENA Corporation (Vendor)
BY: /s/ Larry Murphy for Russ Ray 9/19/96	BY: /s/ EGG
(Signature)	(Signature)
Larry Murphy	Eric Georgatos
(Print Name)	(Print Name)
VP Eng.	VP and General Counsel
(Title)	(Title)

EXHIBIT 10.10

SETTLEMENT AGREEMENT AND MUTUAL RELEASE

This Settlement Agreement and Mutual Release ("Settlement Agreement") is made by and among William K. Woodruff & Company, Inc. ("Woodruff") and William K. Woodruff III ("WKW III"), on the one hand, and Ciena Corporation, f/k/a HydraLite Inc. ("Ciena"), Sevin-Rosen Fund II L.P., a Texas Limited Partnership ("Sevin II"), Sevin Rosen Fund IV, L.P., a Delaware Limited Partnership ("Sevin IV"), InterWest Partners, a California Limited Partnership ("InterWest"), and InterWest Partners V, L.P. ("InterWest V") on the other hand (collectively, "Ciena/Sevin"), on the terms set forth below.

WHEREAS, an agreement was entered into by and between Ciena (then known as HydraLite, Incorporated) and Woodruff on or about September 29, 1993 (the "Agreement"); and

WHEREAS, Woodruff and/or WKW III and/or its affiliates are shareholders of Ciena;

WHEREAS, a Revised Compensation Agreement was entered into by and between Ciena (then known as HydraLite, Incorporated) and Woodruff on or about April 9, 1994 (the "Revised Agreement") (collectively with the Agreement the "Agreements"); and

WHEREAS, a lawsuit was initiated in the 192nd Judicial District Court of Dallas County, Texas by Woodruff against Ciena and Sevin II, numbered 96-07310-K and styled William K. Woodruff & Company, Incorporated v. Ciena Corporation,

f/k/a Hydralite Inc. and Sevin-Rosen Funds II, L.P., a Texas Limited Partnership (the "state court action"); and

WHEREAS, the state court action was removed to the United States District Court for the Northern District of Texas, numbered CA3-96-CV-2100-H and styled William K. Woodruff & Co., Inc. v. Ciena Corporation, f/k/a Hydralite Inc. and Sevin-Rosen Funds II, L.P., a Texas Limited Partnership (the "federal court action"); and

WHEREAS, Woodruff filed its First Amended Complaint and Application for Injunctive Relief in the federal court action, adding Sevin IV and Interwest as parties; and

WHEREAS, the United States District Court has remanded to the 192nd Judicial District Court this case and this dispute is once again pending in Texas state court; and

WHEREAS, Woodruff, inter alia. seeks to recover in the state court action certain relief, including monetary, declaratory, and injunctive relief, in connection with the Agreement and Revised Agreement (collectively, the "Agreements") and in connection with a contemplated initial public offering of Ciena's common stock ("IPO"); and

WHEREAS, bona fide disputes and controversies exist between Woodruff, on the one hand, and Ciena/Sevin, on the other, as to liability, injunctive relief, and the amount of damages, if any, and by reason of such disputes and controversies, Woodruff and Ciena/Sevin desire to compromise and settle all claims and causes of action, including but not limited to all claims and causes of action arising from the

state court action, the federal court action, from the Agreements, from the IPO, from Woodruff, WKW III or affiliates' status as a shareholder, or any other claims or causes of action that have been or could have been or could be asserted against Ciena/Sevin, its predecessors or successors, any present or former employees or agents of Ciena/Sevin or its predecessors or successors, and any underwriters, including but not limited to Goldman Sachs, Alex. Brown & Sons, Wessels, Arnold & Henderson, or any other underwriters that may become involved in a Ciena IPO, and intend that the full and exclusive terms and conditions of the compromise and settlement be set forth in this Settlement Agreement;

NOW THEREFORE, for good and sufficient consideration, the receipt of which is hereby acknowledged, it is hereby agreed by mutual consent of the parties that:

1. In the event of any Ciena IPO, Ciena agrees to retain Woodruff as co-manager, with the name of Woodruff appearing as co-manager on the cover of the prospectus.

2. In the event of any Ciena IPO, Woodruff shall have the right to participate as co-manager, as follows:

a. Woodruff shall have the right to attend any and all "all hands" due diligence and prospectus preparation meetings involving underwriters.

b. Woodruff shall have the right to attend and be introduced when other managers are introduced as a co-manager at such "road show" group presentations at which all co-managers are invited, unless such attendance is deemed inappropriate at the discretion of the lead managing underwriters.

c. Woodruff shall not have the right to participate in any one-on-one meetings between Ciena and potential investors.

d. Woodruff shall not have the right to participate in any meetings in Europe.

3. In the event of any Ciena IPO, Ciena agrees to cause its lead managing underwriter and any other co-managers to agree as follows:

a. Woodruff shall receive 10% of any management fee;

b. Woodruff shall receive that portion of the underwriting fee, net of expenses, equal to the ratio of number of shares underwritten by Woodruff, if any (it being understood that the lead manager shall have sole discretion to determine the number of shares; if any, to be underwritten by Woodruff), to the total number of shares underwritten in the offering;

c. As to the selling concession, the lead manager shall set a fixed portion (which portion shall be determined by the lead manager in its sole discretion but shall in no event be less than 30%) for the institutional pot. WKW shall receive a cash payment equal to one-sixth (1/6) of the selling concession attributable to that part of such fixed portion which is shared among co-managers (exclusive of the lead manager);

d. Woodruff shall be allocated no less than 5,000 shares for sale to Woodruff customers, each of which shall be identified in advance of sale to the lead manager;

e. Underwriting compensation shall apply to all of the stock sold in the IPO, including the underwriters' over-allotment option and shall be paid at such time or times as such compensation is paid to the other co-managers.

4. In the event of any Ciena IPO, shares of Ciena common stock owned by Woodruff or WKW III or affiliates shall be "locked up" for such period as required by the lead manager for directors, officers, and major shareholders of Ciena.

5. Regardless of whether there is a Ciena IPO, Ciena shall pay Woodruff $87,500 in cash upon execution of the Settlement Agreement and receipt of a copy of

the dismissal of the lawsuit with prejudice. Woodruff shall bear its own attorneys' fees and costs in connection with this litigation, and shall not submit any such fees and costs as part of underwriting expenses in connection with any Ciena IPO.

6. Regardless of whether there is any Ciena IPO, any SEC, NASD, or otherwise legally required disclosure regarding this dispute or its resolution shall be determined at the sole discretion of Ciena and its counsel. Ciena agrees to provide a courtesy copy of any such disclosure to Woodruff, except where prohibited by law or regulation.

7. Regardless of whether there is any Ciena IPO, this Settlement Agreement shall supersede the Agreement and the Revised Agreement, copies of which are attached hereto as Exhibits A and B. The Agreement and the Revised Agreement and all rights and obligations of the parties thereunder are null and void and the Agreements are terminated in all respects with the execution of this Settlement Agreement. In connection therewith, Ciena shall sell to Woodruff for $.01/share warrants to purchase 15,000 shares at $20.00/share upon receipt of dismissal of the lawsuit with prejudice following execution of a final settlement agreement in the form attached here to Exhibit C. The warrants shall have a term of five (5) years and shall not be exercisable until the first anniversary of the signing of a settlement agreement. The warrants shall have a "net exercise" provision. The terms of the warrant, including without limitation the exercise price, may be subject to adjustment if required by the NASD under its corporate financing rules. The warrants shall become null and void if, subsequent to the execution of this Settlement Agreement and sale of the warrants to Woodruff, Woodruff or WKW

III asserts any claims of any kind, whether in arbitration, litigation or any other forum (including to the NASD or SEC), including, specifically, claims for breach of this Settlement Agreement, against Ciena/Sevin or any of the entities identified in paragraph 10 herein. Additionally, to the extent the warrants have been exercised at the time Woodruff or WKW III asserts any such claim, Ciena shall have an immediate right to recover from Woodruff and WKW III in cash the greater of (a) the difference between the exercise price per share under the warrants which have been exercised and the fair market value of Ciena common stock at the time the warrants were exercised, or (b) the difference between the exercise price per share under the warrants which have been exercised and the fair market value of Ciena common stock at the time the claim is made. Woodruff and WKW III acknowledge that the foregoing is intended to assure that if Woodruff and WKW III assert claims against Ciena/Sevin or any of the entities identified in paragraph 10, that they will do so with the knowledge of the impact of such action on the unexercised warrants and on Ciena's rights of recovery with respect to the exercised warrants.

8. Regardless of whether there is any Ciena IPO, Woodruff shall dismiss with prejudice all claims asserted in the state court action and federal court action against Ciena/Sevin on or before 4:00 p.m., Thursday, August 22, 1996. On or before 4:00 p.m., Thursday, August 22, 1996, Woodruff shall notify the Court in the federal court action that this lawsuit has been dismissed and is withdrawing its request for attorneys' fees.

9. Regardless of whether there is any Ciena IPO, Woodruff and WKW III covenant not ever to sue or otherwise assert claims against, from this day forward,

Ciena, its present and former directors, officers, agents, attorneys, accountants, underwriters, affiliates, employees, shareholders, partners, general and/or limited, and general or limited partners thereof, for any claims relating to the subject matter of the litigation, or relating to Woodruff/WKW III/or affiliates' status as a shareholder, or relating to any Ciena IPO that might occur in the future, including, without limitation, any claims for breach of contract, defamation, fraud, intentional infliction of emotional distress, negligence, gross negligence, claims under the Texas Deceptive Trade Practices Act, breach of fiduciary duty, tortious interference with contractual or business relationship, and declaratory judgment. Notwithstanding the foregoing, Woodruff shall have the right to assert claims for breach of the Settlement Agreement or of the indemnification provisions of the Underwriting Agreement. Woodruff and WKW III agree that any suit or claims relating to the Settlement Agreement or the indemnification provisions of the Indemnity Agreement, including any request for injunctive relief, shall not be brought in court, but shall be brought in arbitration and shall be subject to binding arbitration before the NASD pursuant to the NASD's code of arbitration procedures.

10. WKW III and Woodruff and its agents, representatives, successors, affiliates, and assigns do fully and finally release and forever discharge Ciena/Sevin, and their present and former officers, directors, shareholders, partners, general and/or limited, and general or limited partners thereof, agents, attorneys, employees, representatives, predecessors, successors, parents, subsidiaries, affiliates, assigns, and underwriters, including, but not limited to, Goldman Sachs, Alex. Brown & Sons, Wessels, Arnold & Henderson, or any other

underwriters that may become involved in a Ciena IPO, from any and all claims or causes of action of any kind whatsoever, known or unknown, direct or derivative, now existing or which may arise hereafter, relating to any relationship between or among WKW III or Woodruff on the one hand and Ciena on the other, including, without limitation, all claims or causes of action directly or indirectly relating to the state court action, the federal court action, Woodruff/WKW III/or affiliates' status as a shareholder, any Ciena IPO, or the Agreements, including, without limitation, claims for breach of contract, negligence, claims under the Texas Deceptive Trade Practices Act, breach of fiduciary duty, tortious interference with contractual or business relationship, gross negligence, fraud, defamation, intentional infliction of emotional distress, and declaratory judgment; provided that nothing herein shall prohibit WKW or Woodruff from asserting claims for breach of the Settlement Agreement. Notwithstanding the foregoing, Woodruff shall have the same rights to indemnification as other underwriters under the Underwriting Agreement executed by Ciena in connection with a Ciena IPO.

11. Ciena/Sevin and their officers, directors, agents, employees, representatives, successors, affiliates, and assigns do fully and finally release and forever discharge WKW III and Woodruff and its present and former agents, representatives, successors, affiliates, assigns, officers, directors, shareholders, attorneys, employees, predecessors, parents, and subsidiaries from any and all claims or causes of action of any kind whatsoever, known or unknown, direct or derivative, now existing or which have arisen to date, including, without limitation, all claims or causes of action directly or indirectly relating to the state court action,

the federal court action, or the Agreements; provided that nothing herein shall prohibit Ciena from asserting claims for breach of the Settlement Agreement or of any Underwriting Agreement entered into in connection with a Ciena IPO; and provided, further, that this release shall immediately and automatically become null and void ab initio at the time, if any, when Woodruff or WKW III asserts any claim of any kind whether in arbitration, litigation or any other forum, including specifically, claims for breach of this Settlement Agreement brought after conclusion of a Ciena IPO, against Ciena/Sevin or any of the entities identified in paragraph 10 herein.

12. It is expressly understood and agreed that the terms hereof are contractual and not merely recitals and that the agreements contained herein and the mutual consideration transferred is to compromise disputed claims fully, and that no releases or other consideration given shall be construed as an admission of liability or wrongdoing, all liability or wrongdoing being expressly denied by Ciena/Sevin.

13. Woodruff and WKW III warrant that the party signing below on its behalf is duly authorized to execute this Settlement Agreement, and that it has read this Settlement Agreement and fully understands it to be a compromise and settlement and release of all claims, known or unknown, present or future, that WKW III and Woodruff have or may have against Ciena/Sevin and their present and former officers, directors, shareholders, agents, attorneys, employees, representatives, predecessors, successors, parents, subsidiaries, affiliates, assigns, and underwriters, including, but not limited to, Goldman Sachs, Alex. Brown &

Sons, Wessels, Arnold & Henderson, or any other underwriters that may become involved in a Ciena IPO, including claims for breach of contract, negligence, claims under the Texas Deceptive Trade Practices Act, breach of fiduciary duty, tortious interference with contractual or business relationship, gross negligence, fraud, defamation, intentional infliction of emotional distress, and declaratory judgment. Woodruff also warrants that it is executing this Settlement Agreement of its own free will and accord, with full knowledge, and without influence or duress, that it has had the benefit and advice of counsel of its own selection, that it is not relying upon any other representations, either written or oral, express or implied, made to Woodruff by any person, and that the consideration received or to be received by Woodruff is actual and adequate. Woodruff further warrants that it has not assigned, pledged, or set over to any third party any of the rights, claims, expectancies, recoveries, or actions, of whatever variety, that have been or could have been or could be asserted against Ciena/Sevin, or which are the subject of the release as set forth in this Settlement Agreement.

14. Ciena/Sevin warrant that their undersigned representatives are duly authorized to execute this Settlement Agreement on behalf of Ciena/Sevin, and that their representatives have read this Settlement Agreement and fully understand it to be a compromise and settlement and release of all claims, known or unknown, present or future, that Ciena/Sevin has or may have against Woodruff, and its present and former agents, representatives, predecessors, successors, affiliates, and assigns. Ciena/Sevin also warrants that they are executing this Settlement Agreement of their own free will and accord, with full knowledge, and without

influence or duress, that they have had the benefit and advice of counsel of their own selection, that they are not relying upon any other representations, either written or oral, express or implied, made to Ciena/Sevin by any person, and that the consideration received or to be received by Ciena/Sevin is actual and adequate. Ciena/Sevin further warrant that they have not assigned, pledged, or set over to any third party any of the rights, claims, expectancies, recoveries, or actions, of whatever variety, that have been or could have been or could be asserted against Woodruff, or which are the subject of the release as set forth in this Settlement Agreement.

15. This Settlement Agreement shall be governed by, and construed in accordance with, the laws of the State of Texas.

16. Woodruff's rights under Nos. 1-4 herein shall be subject to Woodruff being in good standing with the NASD.

17. This Settlement Agreement shall be binding upon and inure to the benefit of the parties, their predecessors, successors, subsidiaries, affiliates, licensees, and assigns.

18. In any litigation for breach of or enforcement of any of the provisions of this Settlement Agreement, the prevailing party shall be entitled to recover its attorney fees and costs.

19. This Settlement Agreement constitutes the entire agreement among the parties with respect to the subject matter hereof, and it supersedes any prior or written oral agreements or discussions among the parties with respect to any of the subject matter contained herein. Woodruff agrees that Ciena/Sevin has made no

other representations or warranties contemporaneously with or in connection with this Settlement Agreement. Ciena/Sevin agrees that Woodruff has made no other representations or warranties contemporaneously with or in connection with this Settlement Agreement. This Settlement Agreement cannot be changed, modified, or otherwise altered orally or by course of conduct.

20. This Settlement Agreement may be executed in multiple counterparts each of which may be deemed to be an original, so long as all parties execute the Agreement.

21. This Settlement Agreement shall become effective, and be deemed to have been executed, on the date on which the last of the undersigned parties signs this Settlement Agreement before a Notary Public.

WILLIAM K. WOODRUFF & COMPANY, INC.

8/22/96 — Date Signed

By: /s/ WILLIAM K. WOODRUFF
William K. Woodruff
Its: _____

THE STATE OF TEXAS §
§
COUNTY OF DALLAS §

BEFORE ME, the undersigned, a Notary Public for said County and State, on this day personally appeared William K. Woodruff, and acknowledged to me that the same was the act of the said corporation, WILLIAM K. WOODRUFF & COMPANY, INCORPORATED, and that he executed the same for the purposes and consideration therein expressed, and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the 22nd day of August, 1996.

/s/ MARLA BARNARD
Notary Public, in and for
the State of Texas

My Commission Expires:

11/12/96

8/22/96 By: /s/ WILLIAM K. WOODRUFF
- ----------------- ----------
Date Signed William K. Woodruff

THE STATE OF TEXAS Section
Section
COUNTY OF DALLAS Section

BEFORE ME, the undersigned, a Notary Public for said County and State, on this day personally appeared William K. Woodruff III, individually, and acknowledged to me that he is the individual above-named.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the 22nd day of August, 1996.

/s/ MARLA MARNARD

Notary Public, in and for
the State of Texas

My Commission Expires:

11/12/96
- -----------------

CIENA CORPORATION

8/23/96 — Date Signed

By: /s/ PATRICK H. NETTLES
Patrick H. Nettles

THE STATE OF MARYLAND
Section
Section
COUNTY OF HOWARD
Section

BEFORE ME, the undersigned, a Notary Public for said County and State, on this day personally appeared Patrick H. Nettles, and acknowledged to me that the same was the act of the said corporation, CIENA CORPORATION, and that he executed the same for the purposes and consideration therein expressed, and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the 22nd day of August, 1996.

/s/ WANDA B. NACE
Notary Public

My Commission Expires:

4/22/97

SEVIN-ROSEN FUND II L.P.
a Texas Limited Partnership

8/23/96 — Date Signed

By: /s/ DENNIS J. GORMAN
Dennis J. Gorman, General Partner
Its:

THE STATE OF TEXAS Section
Section
COUNTY OF DALLAS Section

BEFORE ME, the undersigned, a Notary Public for said County and State, on this day personally appeared Dennis J. Gorman, and acknowledged to me that the same was the act of the said entity, SEVIN-ROSEN FUNDS II, L.P., and that he executed the same for the purposes and consideration therein expressed, and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the 23rd day of August, 1996.

JO ANN EISLER
Notary Public, in and for
the State of Texas

My Commission Expires:

5/27/98

SEVIN-ROSEN FUND IV L.P.
a Delaware Limited Partnership

8/23/96 — Date Signed

By: /s/ DENNIS J. GORMAN
Dennis J. Gorman, General Partner

THE STATE OF TEXAS Section
Section
COUNTY OF DALLAS Section

BEFORE ME, the undersigned, a Notary Public for said County and State, on this day personally appeared Dennis J. Gorman, and acknowledged to me that the same was the act of the said entity, SEVIN-ROSEN FUNDS II, L.P., and that he executed the same for the purposes and consideration therein expressed, and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the 23rd day of August, 1996.

/s/ JO ANN EISLER
Notary Public

My Commission Expires:

5/27/98

INTERWEST INVESTORS V
a California Limited Partnership

8/26/96 By: /s/ ROBERT MOMSEN
- ----------
Date Signed Robert Momsen, General Partner

THE STATE OF CALIFORNIA Section
Section
COUNTY OF SAN MARTEN Section

BEFORE ME, the undersigned, a Notary Public for said County and State, on this day personally appeared Robert Momsen, and acknowledged to me that the same was the act of the said entity, INTERWEST INVESTORS V, and that he executed the same for the purposes and consideration therein expressed, and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the 26th day of August, 1996.

/s/ LORI J. STUMPF

Notary Public

My Commission Expires:

2/7/98
- ----------

INTERWEST INVESTORS V, L.P.
a California Limited Partnership

8/22/96 — Date Signed

By: /s/ ROBERT MOMSEN
Robert Momsen, General Partner

THE STATE OF CALIFORNIA Section
Section
COUNTY OF SAN MARTEN Section

BEFORE ME, the undersigned, a Notary Public for said County and State, on this day personally appeared Robert Momsen, and acknowledged to me that the same was the act of the said entity, INTERWEST INVESTORS V, L.P., and that he executed the same for the purposes and consideration therein expressed, and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the 22nd day of August, 1996.

/s/ LORI J. STUMPF
Notary Public

My Commission Expires:

2/7/98

EXHIBIT A

EXHIBIT 10.10

WILLIAM K. WOODRUFF & COMPANY
INCORPORATED

September 29, 1993

Dr. David R. Huber
President
HydraLite Incorporated
P.O. Box 71
Jamison, PA 18929

Dear Dr. Huber:

We are pleased to present HydraLite Incorporated ("HydraLite" or the "Company") with the terms under which William K. Woodruff & Company, Incorporated ("WKW") will serve as exclusive financial advisor to the Company respecting a private financing of approximately $5 million for the Company. Our advisory services will include, but are not limited to, the presentation of HydraLite to certain qualified prospective institutional investors and strategic investors and the evaluation of financing proposals submitted by such investors solicited by WKW or brought to the Company's attention independently of WKW, including parties contacted by HydraLite prior to the date hereof. WKW agrees to such engagement and for the term of this engagement we will use our best efforts on the Company's behalf.

Set forth below are the services WKW will perform in the course of this assignment, the fees and expenses payable to WKW in exchange for these services, and general terms and conditions of the engagement.

I. SERVICES TO BE PROVIDED BY WKW

1. WKW will perform due diligence on the business, operations, and financial condition and prospects of HydraLite and will assist the Company in preparing a confidential offering memorandum ("Confidential Memorandum") that will provide prospective investors with the necessary information that will enable them to fairly evaluate HydraLite for financing.

2. Subject to the Company's prior approval, WKW will distribute the Confidential Memorandum to a group of prospective investors jointly selected by WKW and the Company.

3. WKW will develop, update and review with the Company on an ongoing basis a list of parties that may be interested in investigating in HydraLite, and contact only parties on this list that are approved by the Company.

4. WKW will screen prospective investors based on their level of interests, financial capability, compatibility, etc. and enter into preliminary negotiations with qualified prospective investors.

5. WKW will assist and advise the Company in negotiations with prospective investors regarding price, type of securities and other material factors.

6. WKW will assist the Company as requested by the Company, with document preparation, procedural execution and closing of the transaction.

II. FEE AND EXPENSE ARRANGEMENTS

The professional fees and expense reimbursement payable to WKW with respect to this assignment are set forth below:

Should the Company consummate a transaction resulting in the financing, joint venture, operating agreement, sale, merger or comparable transaction of HydraLite with another person or entity (the "Transaction") during the period of time this agreement is in effect, WKW shall be paid a contingent advisory fee ("Advisory Fee") in the amount of five percent (5%) of the amounts funded by the prospective investors or, for consideration to HydraLite or its shareholders not in cash, 5% of the amount determined by good faith negotiation between HydraLite and WKW to have been received by HydraLite. No amounts will be owed to WKW for amounts funded on or before December 10, 1993 by Optelecom, Inc. and/or its affiliates. The Advisory Fee will be payable in cash at the time of funding or receipt by HydraLite.

Upon closing of the Transaction contemplated hereby, the Company will sell to WKW, for nominal consideration, warrants entitling WKW to purchase that number of shares of common stock of the Company equal to five percent of the fully-diluted common stock outstanding upon completion of the Transaction. Such warrants shall have an exercise price per common share equal to the actual or implied common share price in the Transaction, shall be exercisable for a period of five years from the date of closing, and shall have standard antidilution provisions and registration rights.

Also upon closing of the Transaction, the Company will grant to WKW a five-year right of first refusal to serve as HydraLite's investment banker in any transaction in which HydraLite retains an investment banker. WKW's compensation will be usual and customary in any such engagement. In any case in which the Company selects two or more investment bankers, WKW's share of overall investment banking fees will be no less favorable to WKW than the total of such fees divided by the number of underwriters or agents, as the case may be, retained by HydraLite.

For its direct accountable expenses incurred in connection with this assignment, such as telephone, travel, postage and express expenses, and computer database access fees, WKW will earn common stock of HydraLite at the rate of 0.0715% of the fully-diluted shares of HydraLite per $1,000 of such expenses. Such shares will be issued to WKW on the basis of such fully-diluted shares as of the date of execution of this letter, and will be issued to WKW at the earlier of the closing of the Transaction or the date of termination of this engagement. The maximum obtainable by WKW pursuant to the provision of this paragraph will be 1.5% of the fully-diluted shares at such time.

III. TERMS OF ENGAGEMENT RELATING TO FINANCING OF THE COMPANY

WKW will have the exclusive right for a period of 270 days from the date of execution of this letter to serve as the Company's representative with respect to the financing of HydraLite. Any entity contacted by WKW or introduced to the Company independently of WKW during the course of this assignment will be deemed to be an interested party ("Interested Party").

Should this assignment be terminated prior to the financing of HydraLite by an Interested Party and should the Company agree in principle to or subsequently secure financing from or be sold to an Interested Party within an 18 month period following the signing of this letter, then WKW shall be due the Advisory Fee as contemplated in Section II above with respect to the financing.

IV. INDEMNIFICATION

Recognizing that transactions of the type contemplated by this engagement sometimes result in litigation and that the role of WKW is limited to acting as of the Company's financial advisor, the Company will indemnify WKW, and its directors, officers, agents and employees and controlling persons (hereinafter referred to as "Indemnified Party") to the full extent lawful against any and all

claims, losses and expenses as incurred (including reimbursement of all reasonable fees and disbursements of Indemnified Party and cost of counsel and of all Indemnified Party's reasonable travel and other out-of-pocket and per diem expenses incurred in connection with the investigation or other proceedings arising therefrom) arising out of WKW's engagement hereunder, provided, however, that the Company shall not be liable in any such case to the extent that any such claim, loss or expense is found in the final judgment by a court and/or jury and/or arbitral body to have resulted from a breach of the obligations of the Indemnified Party to the Company in circumstances involving willfull bad faith or gross negligence in the performance of the services which are the subject of this agreement. The Company shall not be liable for any settlment of any such action or claim without its express written consent.

V. LACK OF INDEPENDENT VERIFICATION

During the course of this assignment, WKW may rely upon the opinions of experts (including, but not limited to, independent public accounting firms) with respect to the accuracy of certain data. WKW will make no effort to independently verify the accuracy of any expert opinons so relied upon.

VI. CONFIDENTIALITY

All information supplied to WKW by the Company will be held in strict confidence, whether or not marked confidential, as we understand that this information is treated as highly confidential by you and is not normally divulged to outside sources. Moreover, WKW will make every reasonable effort to ensure that the confidentiality of the Company data is protected by any prospective investor to whom it is entrusted. Each copy of the Confidential Memorandum will be numbered and accounted for, and the immediate return of the Confidential Memorandum and other accompanying data will be requested from any prospective investor of the Company or any investor who indicates no further interest in the financing contemplated herein.

VII. AMENDMENTS

Both parties agree that this document can be modified or amended only through written agreement of WKW and HydraLite.

If the foregoing accurately sets forth your understanding of our agreement, please so indicate by signing, dating and returning one of the enclosed copies of this letter, retaining the other for your records.

We look forward to working with you.

Sincerely,

WILLIAM K. WOODRUFF & COMPANY, INCORPORATED

By: /s/ JOHN WALLACE

John Wallace

ACCEPTED AND AGREED TO:

HydraLite Incorporated

By: /s/ DAVID HUBER

David Huber
President

EXHIBIT B

EXHIBIT 10.10

REVISED COMPENSATION AGREEMENT

This Revised Compensation Agreement is entered into this 9th day of April, 1994 by and between William K. Woodruff & Company, Incorporated ("Woodruff") and HydraLite Incorporated, a Delaware corporation ("HydraLite").

RECITALS

A. Woodruff and HydraLite are parties to an Agreement dated September 29, 1993 (the "Original Agreement") in which Woodruff agreed to assist HydraLite in raising approximately $5 million in a private financing in return for specified compensation.

B. To accommodate a private placement to be undertaken by Spencer Trask Holdings Incorporated ("Spencer Trask") as private placement agent to HydraLite, Woodruff and HydraLite entered into a letter agreement dated November 22, 1993 and signed by Woodruff on November 29, 1993 (the "Modification Agreement") that excepted from certain terms of the Original Agreement the private placement to be undertaken by Spencer Trask and provided for specific compensation to Woodruff with respect to such private placement.

C. HydraLite is now negotiating an arrangement under which it will receive first round financing from Sevin Rosen and/or other venture capital firms or capital sources in an amount of at least $2 million for shares of Preferred Stock ("First Round Financing") with a second round to be raised through (1) a private placement to be undertaken by Spencer Trask as private placement agent, or (ii) additional venture capital money.

D. As an inducement to Sevin Rosen, other venture capitalists or capital sources and Spencer Trask to invest in and undertake activities on HydraLite's behalf, Woodruff and HydraLite desire to revise the Original Agreement and the Modification Agreement upon the occurrence of the First Round Financing, as further described below.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties do hereby agree as follows:

Conditioned upon the occurrence of HydraLite's obtaining First Round Financing of at least $2 million through the sale of a series of preferred stock having substantially the rights and privileges contained in Attachment A (the "Series A Preferred Stock"), and with the capitalization resulting therefrom also substantially as shown in Attachment A, the following shall occur:

a. Except as provided below, the Original Agreement and the Modification Agreement shall terminate upon the closing of the First Round Financing and the simultaneous execution of the Warrant Agreement by HydraLite and Woodruff and receipt by Woodruff of the Warrants specified in paragraph b (below) and shall be of no further force or effect and the parties shall have no further rights, duties or obligations arising out of such agreements and no compensation or reimbursement of expenses, in whatever form, shall be owed by HydraLite to Woodruff for the First Round Financing or any future investments made in HydraLite (unless other separate agreements between Woodruff & HydraLite are entered into). The agreement contained in Article VI. (Confidentiality) of the Original Agreement shall remain in full force and effect for two years after the First Round Financing, and the provisions of Article IV (Indemnification) shall remain in full force and effect without time limit.

b. HydraLite shall issue to Woodruff warrants to purchase 215,000 shares of HydraLite's Common Stock and execute the attached Warrant Agreement dated April 9, 1994. Such warrants shall be issued to Woodruff simultaneously with the issuance of shares of Series A preferred Stock to investors in the First Round Financing. Issuance of these warrants to Woodruff shall be the sole compensation of any type, except as provided in paragraph c (below), including reimbursement of expenses, payable to Woodruff in connection with the First Round Financing and any subsequent financing of HydraLite (unless other separate agreements between Woodruff and HydraLite are entered into).

c. For a period concluding at the earlier of seven (7) years from the date of closing of the First Round Financing or upon the closing of HydraLite's initial public offering resulting in proceeds to HydraLite of at least $10 million, in any transaction for which HydraLite intends to retain one or more investment bankers, HydraLite shall give right of first refusal to Woodruff for retention as an investment banker. Giving Woodruff right of first refusal shall mean, by way of example but not limitation, that HydraLite shall first evaluate the proposals, advice and qualifications of Woodruff for the transaction before approaching other investments bankers, and if HydraLite agrees to undertake a transaction with another credible such firm, Woodruff will have the right to participate in such transaction provided that it agrees with and accepts the terms (e.g., valuation, investment banking compensation, etc.) accepted by HydraLite. Woodruff's compensation will be usual and customary in any such engagement. In any case in which HydraLite selects two or more investment bankers, Woodruff's share of overall investment banking fees and commissions will be no less favorable to Woodruff than the total of such fees and commissions divided by the number of underwriters or agents, as the case may be, retained by HydraLite.

In all transactions for which Woodruff is retained by HydraLite, whether or not pursuant to its right of first refusal, Woodruff will exercise its best efforts in cooperation with HydraLite and its co-managers or co-agents to effect the transaction to the greatest practicable benefit to HydraLite.

d. HydraLite agrees, subject to the exercise of prudence and good corporate governance practice, to interview Bart Stuck and consider him in good faith as a candidate for an outside board member seat.

This revised Compensation Agreement is executed as of the date specified below.

HYDRALITE INCORPORATED

/s/ Patrick Nettles, CEO
- -------------------------

WILLIAM K. WOODRUFF & CO.

/s/ JOHN WALLACE
- ---
By John Wallace

4/9/94
- ---
Date

Attachment A

Security Holders of the Company Upon Closing of Series A Financing

	Common Stock Issued & Outstanding	Common Stock Warrants and Options	Series A Preferred Stock	Series A Preferred Warrants
David Huber	1,200,000			
Kim Larsen	13,333	6,667		
Patrick Nettles	700,000			
INNO			221,520	
Optelecom	200,000			
Sevin Rosen Fund IV			1,125,000	25,000
SRB Management			5,000	
InterWest V			1,125,000	25,000
InterWest Investors V			6,000	
Vanguard Venture Partners			750,000	
Tom Ashenbrenner			100,000	
General Instrument		105,667		
Woodruff & Co.		215,000 (Note 1)		

Note 1. The value of the General Instrument option is reflected based on the Common Stock Outstanding as of the closing of the Series A financing.

PROPOSED CAPITALIZATION TABLE FOR HYDRALITE FINANCING

	Common (after split)	Preferred A $1.00	Preferred B $1.75	Total	Issued %	Fully diluted %
INNO		221,520		221,520	2.58%	2.39%
Optelecom	200,000			200,000	2.33%	2.16%
Sevin Rosen Fund IV		1,125,000	206,840	1,331,840	15.58%	14.38%
SRB Management		5,000	918	5,918	0.07%	0.08%
InterWest V		1,125,000	206,840	1,331,840	15.50%	14.38%
InterWest Investors V		6,000	1,102	7,102	0.08%	0.08%
Vanguard		750,000	137,760	887,780	10.33%	0.59%
Tom Aschenbrenner		100,000	18,368	118,368	1.38%	1.28%
Spencer Trask Investors			1,714,288	1,714,288	19.95%	18.51%
Kim Larsen	13,333			13,333	0.16%	0.14%
Management	2,760,000			2,760,000	32.12%	29.81%
Issued and outstanding by class	2,773,333	3,532,520	2,285,714	8,591,587	100.00%	92.79%
Cumulative Issued and outstanding	2,773,333	6,305,853	8,591,567			
Rosen Warrant	6,667			8,667		0.07%
Sevin Rosen		25,000		25,000		0.27%
InterWest		25,000		25,000		0.27%
General Instrument @ 5% of com	138,667			138,667		1.50%
Woodruff (provisional)	215,000			215,000		2.32%
Spencer Trask Warrant			257,143	257,143		2.78%
Total (fully diluted)	3,133,687	9,582,520	2,542,057	9,258,044		100.00%

EXHIBIT C

EXHIBIT 10.11

THIS WARRANT AND THE SECURITIES PURCHASABLE HEREUNDER HAVE BEEN ACQUIRED FOR INVESTMENT AND HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR UNDER THE SECURITIES LAWS OF ANY STATE OR OTHER JURISDICTION, AND MAY NOT BE OFFERED, SOLD, OR TRANSFERRED IN THE ABSENCE OF REGISTRATION OR UNLESS AN EXEMPTION FROM REGISTRATION IS AVAILABLE AND THE COMPANY RECEIVES AN OPINION OF COUNSEL SATISFACTORY TO IT TO SUCH EFFECT.

CIENA CORPORATION

WARRANT TO PURCHASE COMMON STOCK

This certifies that, for the sum of $150.00, the receipt of which is hereby acknowledged, William K. Woodruff & Co., Incorporated or its registered assigns pursuant to Paragraph 10(b) hereof ("Holder") is entitled to subscribe for and purchase up to 15,000 shares (subject to adjustment as described herein) of fully paid and nonassessable Common Stock of CIENA Corporation, a Delaware corporation (the "Company"), upon exercise of this Warrant and subject to the provisions and upon the terms and conditions hereinafter set forth.

As used herein, the term "Common Stock" shall mean the Company's presently authorized Common Stock and any securities into which such Common Stock may hereafter be exchanged.

1. TERM.

This Warrant is exercisable, in whole or in part, at any time beginning August 22, 1997 until 5:00 P.M. New York City time on August 21, 2001, provided, however, that if at any time Holder or any of Holder's affiliates (including without limitation, William K. Woodruff, III) brings a claim or claims of any kind, whether in arbitration, litigation or any other forum, including specifically claims brought after conclusion of an IPO by the Company for breach of the Settlement Agreement and Mutual Release dated as of August 21, 1996 between Holder and the Company (the "Settlement"), against the Company, Sevin Rosen or any of the entities identified in paragraph 10 of the Settlement, this Warrant, to the extent unexercised, shall be null and void. Notwithstanding anything herein to the contrary, the Company shall use reasonable efforts to mail to the original Holder, by certified mail, return receipt requested, notice of the expiration date of this Warrant, no later than 15 days prior to the expiration date, but the failure of the Company to send or the Holder to receive such notice shall not affect the expiration hereof.

2. WARRANT PRICE.

The purchase price payable for each share of Common Stock deliverable upon exercise of this Warrant (the "Warrant Price") is $20.00 per share, subject to adjustment as described in Section 5 hereof.

3. METHOD OF EXERCISE; PAYMENT; ISSUANCE OF NEW WARRANT.

(a) Subject to Paragraph 1 hereof, the purchase right represented by this Warrant may be exercised by the Holder hereof, in whole or in part, by the surrender of this Warrant (with the Notice of Exercise form attached hereto as Exhibit 1 duly executed) at the principal office of the Company and by the payment to the Company of an amount equal to the then applicable Warrant Price per share multiplied by the number of shares then being purchased. The Warrant Price shall be paid in cash, by wire transfer or by check.

(b) In lieu of delivering the Warrant Price as set forth in subparagraph (a), the Holder may exercise this Warrant by conversion, in whole or in part, into shares of Common Stock, by instructing the Company in writing ("Notice of Conversion") to deliver to the Holder (without payment by the Holder of any Warrant Price or of any other cash or consideration) that number of shares of Common Stock equal to the quotient obtained by dividing:

(i) the value of this Warrant at the time the conversion right is exercised (determined by subtracting the aggregate Warrant Price in effect immediately prior to the exercise of the conversion right from the aggregate current market price (as determined in accordance with Paragraph 5(f) hereof) of the shares of Common Stock issuable upon exercise of this Warrant immediately prior to the exercise of the conversion right) by

(ii) the current market price (as determined in accordance with Paragraph 5(e) hereof) of one share of Common Stock immediately prior to the exercise of the conversion right,

and multiplying the quotient so obtained by a fraction equal to the portion of this Warrant which the Holder desires to exercise.

The Notice of Conversion may be given by circling the appropriate option in the Notice of Exercise attached to this Warrant.

(c) Each exercise of this Warrant shall be deemed to have been effected immediately prior to the close of business on the business day on which this Warrant shall have been surrendered to the Company, and at such time, the person or persons in whose name or names any certificate or certificates for shares of Common Stock (or other securities) shall be issuable upon such exercise, shall be deemed to have become the holder or holders of record thereof.

(d) In the event of any exercise of the rights represented by this Warrant, certificates for the shares of stock so purchased shall be delivered to the Holder hereof (or the transferee designated in the Notice of Exercise) within a reasonable time (but not later than three (3) business days after the date of such exercise) and, unless this Warrant has been fully exercised or expired, a new Warrant representing the portion of the shares, if any, with respect to which this Warrant shall not then have been exercised shall also be issued to the Holder hereof within such reasonable time.

4. STOCK FULLY PAID; RESERVATION OF SHARES.

All Common Stock which may be issued upon the exercise of the rights represented by this Warrant will, upon issuance, be fully paid and nonassessable, and free from all taxes, liens and charges with respect to the issue thereof. During the period within which the rights represented by this Warrant may be exercised, the Company will at all times have authorized, and reserved for the purpose of the issue upon exercise of this Warrant, a sufficient number of shares of its Common Stock to provide for the exercise of this Warrant in full.

5. ADJUSTMENT OF WARRANT PRICE AND NUMBER OF SHARES.

The kind of securities purchasable upon the exercise of this Warrant and the Warrant Price shall be subject to adjustment from time to time upon the occurrence of certain events as follows:

(a) Reclassification, Consolidation or Merger. In case of any reclassification or change of outstanding securities of the class issuable upon exercise of this Warrant (other than a change in par value, or from par value to no par value, or as a result of a subdivision or combination), or in case of any consolidation or merger of the Company with or into another corporation, (other than a merger (i) with another corporation in which the Company is the surviving corporation and which does not result in any reclassification or change of outstanding securities issuable upon exercise of this Warrant or (ii) a merger in which the Company is not the surviving corporation and holders of equity securities of the Company as a result of such merger receive more than 50% of the equity securities of the surviving corporation), or in case of any sale of all or substantially all of the assets of the Company, or in case of a share exchange in which 80% or more of the outstanding capital stock of the Company is exchanged for capital stock of another corporation, any of which transactions shall be referred to hereinafter as a "Corporate Transaction," the Company or such successor or purchasing company or entity, as the case may be, shall execute with the Holder of this Warrant an agreement pursuant to which the Holder of the Warrant shall have the right thereafter to purchase upon exercise of the Warrant the kind and amount of shares, and/or other securities and property that the Holder of the Warrant would have owned or have been entitled to receive after the happening of such Corporate Transaction had the Warrant been exercised immediately prior to such action. The agreement referred to in this subparagraph (a) shall provide for adjustments which shall be as nearly equivalent as

may be practicable to the adjustments provided for in this Paragraph 5. The provisions of this subparagraph (a) shall similarly apply to successive Corporate Transactions.

(b) Subdivision or Combination of Shares. If the Company at any time while this Warrant remains outstanding and unexpired shall subdivide or combine its Common Stock, the Warrant Price shall be proportionately decreased in the case of a subdivision or increased in the case of a combination.

(c) Stock Dividends. If the Company at any time while this Warrant is outstanding and unexpired shall pay a dividend with respect to Common Stock payable in, or make any other distribution with respect to Common Stock (except any distribution provided for in the foregoing subparagraph (a) or (b)), of Common Stock, then the Warrant Price shall be adjusted, from and after the date of determination of shareholders entitled to receive such dividend or distribution, to that price determined by multiplying the Warrant Price in effect immediately prior to such date of determination by a fraction (a) the numerator of which shall be the total number of shares of Common Stock outstanding immediately prior to such dividend or distribution and (b) the denominator of which shall be the total number of shares of Common Stock outstanding immediately after such dividend or distribution.

(d) Adjustment of Number of Shares. Upon each adjustment in the Warrant Price, the number of shares of Common Stock purchasable hereunder shall be adjusted, to the nearest whole share, to the product obtained by multiplying the number of shares purchasable immediately prior to such adjustment in the Warrant Price by a fraction, the numerator of which shall be the Warrant Price immediately prior to such adjustment and the denominator of which shall be the Warrant Price immediately thereafter.

(e) Current Market Price. For the purpose of any computation under this Warrant, the "current market price" per share of Common Stock on any date shall be deemed to be the average of the daily Closing Prices of the shares of Common Stock for the thirty (30) consecutive Trading Days preceding the applicable date. The "Closing Price" for each day shall be (i) the last reported sale price regular way or, in case no such sale takes place on such date, the average of the closing bid and asked quotations regular way, in either case on the New York Stock Exchange, or, if the Common Stock is not listed or admitted to trading on such exchange, on the principal national securities exchange on which the Common Stock is listed or admitted to trading; or (ii) if the Common Stock is not listed or admitted to trading on any national securities exchange, the last reported sale price regular way or, in case no such sale takes place on such day, the average of the closing bid and asked quotations regular way, in either case on the National Market System of the National Association of Securities Dealers, Inc. ("NASD"); or (iii) if not authorized for trading or quotation on such system, the average of the highest reported bid and lowest reported asked quotations as furnished by the NASD or similar organization if the NASD is no longer reporting such information; or (iv) if no such prices or quotations are available, the fair market value of the Common Stock as determined by good faith action of the Board of

Directors of the Company (whose determination shall be conclusive). A "Trading Day" shall be any day that the principal national securities exchange on which the Common Stock listed or admitted to trading is open for the transaction of business or, if not so listed or admitted, that the New York Stock Exchange is open for the transaction of business.

(f) Adjustment for De Minimis Change. No adjustment in the Warrant Price shall be required unless such adjustment would require an increase or decrease of at least $0.05 in such price; provided, however, that any adjustments which by reason of this subparagraph (f) are not required to be made shall be carried forward and taken into account in any subsequent adjustment required to be made hereunder.

6. NOTICE OF ADJUSTMENTS.

Whenever any Warrant Price shall be adjusted pursuant to Paragraph 5 hereof, the Company shall make a certificate signed by its chief financial officer setting forth, in reasonable detail, the event requiring the adjustment, the amount of the adjustment, the method by which such adjustment was calculated, and the Warrant Price or Prices after giving effect to such adjustment, and shall cause copies of such certificate to be mailed (by registered mail, return receipt requested, postage prepaid) to the Holder of this Warrant at the address specified in Paragraph 10(d) hereof or at any address provided to the Company in writing by the Holder of this Warrant.

7. FRACTIONAL SHARES.

No fractional shares of Common Stock will be issued in connection with any exercise hereunder, but in lieu of such fractional shares the Company shall make a cash payment upon the basis of the Warrant Price then in effect and the fair market value of a full share as determined for this purpose by the Company's Board of Directors.

8. COMPLIANCE WITH SECURITIES ACT; DISPOSITION OF SHARES OF COMMON STOCK.

The Holder of this Warrant, by acceptance hereof, agrees that this Warrant and the shares of Common Stock to be issued upon exercise hereof are being acquired for investment and that it will not offer, sell or otherwise dispose of this Warrant or any shares of Common Stock to be issued upon exercise hereof except under circumstances which will not result in a violation of the Securities Act of 1933, as amended (the "Act") and will provide to the Company upon its request an opinion of counsel satisfactory to the Company as to the exemption from the Act and applicable state securities laws applicable to such offer, sale or disposition. Upon exercise of this Warrant, the Holder hereof shall, if requested by the Company, confirm in writing, in a form satisfactory to the Company, that the shares of Common Stock so purchased are being acquired for investment and not with a view toward distribution or resale. This

Warrant and all shares of Common Stock issued upon exercise of this Warrant (unless registered under the Act) shall be stamped or imprinted with a legend substantially in the following form as well as any additional legends required by applicable securities laws or stockholders' agreements and similar agreements encumbering such shares:

> "THIS WARRANT AND THE SECURITIES PURCHASABLE HEREUNDER HAVE BEEN ACQUIRED FOR INVESTMENT AND HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR UNDER THE SECURITIES LAWS OF ANY STATE OR OTHER JURISDICTION, AND MAY NOT BE OFFERED, SOLD, OR TRANSFERRED IN THE ABSENCE OF REGISTRATION OR UNLESS AN EXEMPTION FROM REGISTRATION IS AVAILABLE AND THE COMPANY RECEIVES AN OPINION OF COUNSEL SATISFACTORY TO IT TO SUCH EFFECT."

The Holder represents and warrants to the Company that it is an "accredited investor" as defined in Securities and Exchange Commission Rule 501 promulgated under the Act.

9. PIGGY-BACK REGISTRATION RIGHTS.

(a) Piggy Back Registrations. If at any time after an initial public offering by the Company of its securities, the Company proposes to make a registered public offering of any of its securities under the Securities Act of 1933 (whether to be sold by the Company or by one or more third parties), the Company agrees on the first such occasion, to give written notice of the proposed registration to Holder, not less than 15 days prior to the proposed filing date of the registration statement, and at the written request of Holder delivered in writing to the Company within 15 days after the receipt of said notice; the Company agrees, subject to the provisions of this Section 9, to include in the registration statement and offering, and in any underwriting of the offering; all shares of Common Stock as may have been designated in the Holder's request.

(b) Underwriter Discretion. If a registration in which the Holder has the right to participate pursuant to this Section 9 is an underwritten registration on behalf of the Company, and the managing underwriters advise the Company, that in their opinion, the number of securities requested to be included in the registration exceeds the number which can be sold in the offering, the Company shall allocate the number of shares to be included in the registration statement as follows: (i) first, all of the securities of the Company proposed to be sold by the Company, (ii) second, stockholders with piggy-back registration rights in existence as of the date hereof; and (iii) third, the Common Stock requested to be sold by Holder and all other requesting stockholders reduced, pro rata, in accordance with the percentage interests in the Company held by each of them.

(c) Information Required. The Company shall have no obligation to include shares of Common Stock owned by Holder in a registration statement pursuant to this Section 9, unless and until the Holder shall have furnished the Company with all information and statements about or pertaining to Holder in the reasonable detail and on a timely basis as is reasonably deemed by the Company to be necessary or appropriate with respect to the preparation of the registration statement.

(d) Hold-back. In the event that the Company effects an underwritten public offering of any security, the Holder agrees, if requested by the managing underwriters, not to effect any public sale or distribution, including any sale pursuant to Rule 144 under the Securities Act of 1933, of any Common Stock (except as part of the underwritten offering) during the 180-day period commencing with the effective date of the registration statement for the offering.

(e) Expenses. If, pursuant to Section 9 hereof, shares of Common Stock owned by any Holder are included in a registration statement, the Holder shall pay all transfer taxes, if any, relating to the sale of its shares, the fees and expenses of its own counsel, and its pro rata portion of any underwriting discounts or commissions or the equivalent thereof. The Company agrees to pay all expenses incident to the registration including all registration and filing fees, fees and expenses of compliance with securities or blue sky laws, underwriting discounts, fees and expenses (other than the Holder's pro rata portion of any underwriting discounts or commissions or the equivalent thereof), printing expenses, messenger and delivery expenses, and fees and expenses of counsel for the Company and all independent certified public accountants and other persons retained by the Company.

(f) Indemnification. In the event that any share of Common Stock owned by a Holder are sold by means of a registration statement pursuant to this Section 9, the Company agrees to indemnify and hold harmless the Holder, each of its officers and directors, and each person, if any, who controls or may control the Holder within the meaning of the Act (the Holder, its officers and directors., and any other persons being hereinafter referred to individually as an "Indemnified Person" and collectively as "Indemnified Persons") from and against all demands, claims, actions or causes of action, assessments, losses, damages, liabilities, costs, and expenses, including, without limitation, interest, penalties, and reasonable attorneys' fees and disbursements, asserted against, resulting to, imposed upon or incurred by the Indemnified Person, directly or indirectly (hereinafter referred to in this Section 9 or, the singular as a "claim" and in the plural as "claims"), based upon, arising out of or resulting from any untrue statement of a material fact obtained in the registration statement or any omission to state therein a material fact necessary to make the statement made therein, in the light of the circumstances under which they were made, not misleading, except insofar as the claim is based upon, rises out of or results from information furnished to the Company in writing by the Holder for use in connection with the registration statement. The Holder agrees to indemnify and. hold harmless the Company, its officers and directors, and each person, if any, who controls or may control the Company within the meaning of the Act (the Company, it's officers and

directors, and any other persons also being hereinafter referred to individually as an "Indemnified Person" and collectively as "Indemnified Persons") from and against all claims based upon, arising out of or resulting from any untrue statement of a material fact contained in the registration statement or any omission to state therein a material fact necessary in order to make the statement made therein, in the light of the circumstances under which they were made, not misleading, to the extent that the claim is based upon, arises out of or results from information furnished to the Company in writing by the Holder for use in connection with the registration statement. Promptly after actually receiving definitive notice of any claim in respect of which an Indemnified Person may seek indemnification under this Section 9, the Indemnified Person shall submit written notice thereof to either the Company or the Holder, as the case may be (sometimes being hereinafter referred to as an "Indemnifying Person"). The omission of the Indemnified Person to so notify the Indemnifying Person of any claim shall not relieve the Indemnifying Person from any liability it may have hereunder except to the extent that (a) the liability was caused or increased by the omission, or (b) the ability of the Indemnifying Person to reduce the liability was materially adversely affected by the omission. In addition, the omission of the Indemnified Person so to notify the Indemnifying Person of any claim shall not relieve the Indemnifying Person from any liability it may have otherwise than hereunder. The Indemnifying Person shall have the right to undertake, by counsel or representatives of its own choosing, the defense, compromise or settlement (without admitting liability of the Indemnified Person) of and the claim asserted, the defense, compromise or settlement to be undertaken at the expense and risk of the Indemnifying Person, and the Indemnified Person shall have the right to engage separate counsel, at its own expense, whom counsel for the Indemnifying Person shall keep informed and consult with in a reasonable manner. In the event the Indemnifying Person shall elect not to undertake the defense by its own representatives, the Indemnifying Person shall give prompt written notice of the election to the Indemnified Person, and the Indemnified Person shall undertake the defense, compromise or settlement (without admitting liability of the Indemnified Person) thereof on behalf of and for the account and risk of the Indemnifying Person by counsel or other representatives designated by the Indemnified Person. In the event that any claim shall arise out of a transaction or cover any period or periods wherein the Company and the Holder shall each be liable hereunder for part of the liability or obligation arising therefrom, then the parties shall, each choosing its own counsel and bearing its own expenses, defend the claim, and no settlement or compromise of the claim may be made without the joint consent or approval of the Company and the Holder. Notwithstanding the foregoing, no Indemnifying Person shall be obligated hereunder with respect to amounts paid in settlement of any claim if the settlement is effected without the consent of the Indemnifying Person (which consent shall not be unreasonably withheld).

10. MISCELLANEOUS.

(a) No Rights as Stockholder. No Holder of the Warrant or Warrants shall be entitled to vote or receive dividends or be deemed the Holder of Common Stock or any other securities of the Company which may at any time be issuable on the

exercise hereof for any purpose, nor shall anything contained herein be construed to confer upon the Holder of this Warrant, as such, any of the rights of a stockholder of the Company or any right to vote for the election of directors or upon any matter submitted to stockholders at any meeting thereof, or to give or withhold consent to any corporate action (whether upon any recapitalization, issuance of stock, reclassification of stock, change of par value or change of stock to no par value, consolidation, merger, conveyance, or otherwise) or to receive notice of meetings, or to receive dividends or subscription rights or otherwise until the Warrant or Warrants shall have been exercised and the shares purchasable upon the exercise hereof shall have become deliverable, as provided herein.

(b) Exchange, Transfer and Replacement of Warrant. Subject to Paragraph 8 hereof, the Holder may transfer or assign this Warrant, in whole but not in part and from time to time. Upon the surrender of the Warrant, properly endorsed, for registration of transfer or for exchange at the principal office of the Company, the Company at its expense will execute and deliver to or upon the order of the Holder thereof a new Warrant of like tenor, in the name of such Holder or as such Holder (upon payment by such Holder of any applicable transfer taxes) may direct, calling on the face thereof for the number of shares of Common Stock called for on the face of the Warrant. On receipt of evidence reasonably satisfactory to the Company of the loss, theft, destruction, or mutilation of this Warrant and, in the case of loss, theft or destruction, on delivery of any indemnity agreement or bond reasonably satisfactory in form and amount to the Company or, in the case of mutilation, on surrender and cancellation of this Warrant, the Company, at its expense, will execute and deliver, in lieu of this Warrant, a new Warrant of like tenor.

(c) Amendments. Neither the Warrant nor any term hereof may be changed, waived, discharged or terminated without the prior written consent of the Holder.

(d) Notice. Any notice given to either party under this Agreement shall be deemed to be given three (3) days after mailing, postage prepaid, addressed to such party at the address as such party may provide to the other.

(e) No Impairment. The Company will not, by amendment of its Certificate of Incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms to be observed or performed hereunder by the Company but will at all times in good faith assist in the carrying out of all the provisions of this Warrant.

(f) Governing Law. This Warrant shall be governed by and construed under the laws of the State of Maryland.

Date: August 21, 1996

CIENA CORPORATION

By: /s/ PATRICK H. NETTLES

Name: Patrick H. Nettles
Title: Chief Executive Officer

RECEIVED BY
WILLIAM K. WOODRUFF & CO. INCORPORATED

By: /s/ WILLIAM K. WOODRUFF

EXHIBIT 1

NOTICE OF EXERCISE

TO: CIENA CORPORATION

1. The undersigned hereby elects to acquire _____ shares of Common Stock of CIENA Corporation pursuant to the terms of the attached Warrant, and [CIRCLE EITHER (A) OR (B)]

(a) tenders herewith payment of the purchase price of such shares in full or

(b) elects to exercise its right of conversion set forth in Paragraph 3(b) of the attached Warrant.

2. Please issue a certificate or certificates representing said shares of Common Stock in the name of the undersigned or in such other name as is specified below:

(Name)

(Address)

3. The undersigned represents that the aforesaid shares of Common Stock are being acquired for the account of the undersigned for investment and not with a view to, or for resale in connection with, the distribution thereof and that the undersigned has no present intention of distributing or reselling such shares.

4. The Purchaser is an "accredited investor" as defined in Securities and Exchange Commission Rule 501(a) issued pursuant to the Securities Act of 1933, as amended.

5. The undersigned represents and warrants that the undersigned has no present intention to bring any claim of any kind, whether in arbitration, litigation or any other forum, including specifically any claims for breach of the Settlement Agreement and Mutual Release dated as of August 21, 1996 between the Holder and the Company (the "Settlement"), against the Company, Sevin Rosen or any of the entities identified in paragraph 10 of the Settlement.

EXHIBIT 10.11

THIS WARRANT AND THE SECURITIES PURCHASABLE HEREUNDER HAVE BEEN ACQUIRED FOR INVESTMENT AND HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR UNDER THE SECURITIES LAWS OF ANY STATE OR OTHER JURISDICTION, AND MAY NOT BE OFFERED, SOLD, OR TRANSFERRED IN THE ABSENCE OF REGISTRATION OR UNLESS AN EXEMPTION FROM REGISTRATION IS AVAILABLE AND THE COMPANY RECEIVES AN OPINION OF COUNSEL SATISFACTORY TO IT TO SUCH EFFECT.

CIENA CORPORATION

WARRANT TO PURCHASE COMMON STOCK

This certifies that, for the sum of $150.00, the receipt of which is hereby acknowledged, William K. Woodruff & Co., Incorporated or its registered assigns pursuant to Paragraph 10(b) hereof ("Holder") is entitled to subscribe for and purchase up to 15,000 shares (subject to adjustment as described herein) of fully paid and nonassessable Common Stock of CIENA Corporation, a Delaware corporation (the "Company"), upon exercise of this Warrant and subject to the provisions and upon the terms and conditions hereinafter set forth.

As used herein, the term "Common Stock" shall mean the Company's presently authorized Common Stock and any securities into which such Common Stock may hereafter be exchanged.

1. TERM.

This Warrant is exercisable, in whole or in part, at any time beginning August 22, 1997 until 5:00 P.M. New York City time on August 21, 2001, provided, however, that if at any time Holder or any of Holder's affiliates (including without limitation, William K. Woodruff, III) brings a claim or claims of any kind, whether in arbitration, litigation or any other forum, including specifically claims brought after conclusion of an IPO by the Company for breach of the Settlement Agreement and Mutual Release dated as of August 21, 1996 between Holder and the Company (the "Settlement"), against the Company, Sevin Rosen or any of the entities identified in paragraph 10 of the Settlement, this Warrant, to the extent unexercised, shall be null and void. Notwithstanding anything herein to the contrary, the Company shall use reasonable efforts to mail to the original Holder, by certified mail, return receipt requested, notice of the expiration date of this Warrant, no later than 15 days prior to the expiration date, but the failure of the Company to send or the Holder to receive such notice shall not affect the expiration hereof.

2. WARRANT PRICE.

The purchase price payable for each share of Common Stock deliverable upon exercise of this Warrant (the "Warrant Price") is $20.00 per share, subject to adjustment as described in Section 5 hereof.

3. METHOD OF EXERCISE; PAYMENT; ISSUANCE OF NEW WARRANT.

(a) Subject to Paragraph 1 hereof, the purchase right represented by this Warrant may be exercised by the Holder hereof, in whole or in part, by the surrender of this Warrant (with the Notice of Exercise form attached hereto as Exhibit 1 duly executed) at the principal office of the Company and by the payment to the Company of an amount equal to the then applicable Warrant Price per share multiplied by the number of shares then being purchased. The Warrant Price shall be paid in cash, by wire transfer or by check.

(b) In lieu of delivering the Warrant Price as set forth in subparagraph (a), the Holder may exercise this Warrant by conversion, in whole or in part, into shares of Common Stock, by instructing the Company in writing ("Notice of Conversion") to deliver to the Holder (without payment by the Holder of any Warrant Price or of any other cash or consideration) that number of shares of Common Stock equal to the quotient obtained by dividing:

(i) the value of this Warrant at the time the conversion right is exercised (determined by subtracting the aggregate Warrant Price in effect immediately prior to the exercise of the conversion right from the aggregate current market price (as determined in accordance with Paragraph 5(f) hereof) of the shares of Common Stock issuable upon exercise of this Warrant immediately prior to the exercise of the conversion right) by

(ii) the current market price (as determined in accordance with Paragraph 5(e) hereof) of one share of Common Stock immediately prior to the exercise of the conversion right,

and multiplying the quotient so obtained by a fraction equal to the portion of this Warrant which the Holder desires to exercise.

The Notice of Conversion may be given by circling the appropriate option in the Notice of Exercise attached to this Warrant.

(c) Each exercise of this Warrant shall be deemed to have been effected immediately prior to the close of business on the business day on which this Warrant shall have been surrendered to the Company, and at such time, the person or persons in whose name or names any certificate or certificates for shares of Common Stock (or other securities) shall be issuable upon such exercise, shall be deemed to have become the holder or holders of record thereof.

(d) In the event of any exercise of the rights represented by this Warrant, certificates for the shares of stock so purchased shall be delivered to the Holder hereof (or the transferee designated in the Notice of Exercise) within a reasonable time (but not later than three (3) business days after the date of such exercise) and, unless this Warrant has been fully exercised or expired, a new Warrant representing the portion of the shares, if any, with respect to which this Warrant shall not then have been exercised shall also be issued to the Holder hereof within such reasonable time.

4. STOCK FULLY PAID; RESERVATION OF SHARES.

All Common Stock which may be issued upon the exercise of the rights represented by this Warrant will, upon issuance, be fully paid and nonassessable, and free from all taxes, liens and charges with respect to the issue thereof. During the period within which the rights represented by this Warrant may be exercised, the Company will at all times have authorized, and reserved for the purpose of the issue upon exercise of this Warrant, a sufficient number of shares of its Common Stock to provide for the exercise of this Warrant in full.

5. ADJUSTMENT OF WARRANT PRICE AND NUMBER OF SHARES.

The kind of securities purchasable upon the exercise of this Warrant and the Warrant Price shall be subject to adjustment from time to time upon the occurrence of certain events as follows:

(a) Reclassification, Consolidation or Merger. In case of any reclassification or change of outstanding securities of the class issuable upon exercise of this Warrant (other than a change in par value, or from par value to no par value, or as a result of a subdivision or combination), or in case of any consolidation or merger of the Company with or into another corporation, (other than a merger (i) with another corporation in which the Company is the surviving corporation and which does not result in any reclassification or change of outstanding securities issuable upon exercise of this Warrant or (ii) a merger in which the Company is not the surviving corporation and holders of equity securities of the Company as a result of such merger receive more than 50% of the equity securities of the surviving corporation), or in case of any sale of all or substantially all of the assets of the Company, or in case of a share exchange in which 80% or more of the outstanding capital stock of the Company is exchanged for capital stock of another corporation, any of which transactions shall be referred to hereinafter as a "Corporate Transaction," the Company or such successor or purchasing company or entity, as the case may be, shall execute with the Holder of this Warrant an agreement pursuant to which the Holder of the Warrant shall have the right thereafter to purchase upon exercise of the Warrant the kind and amount of shares, and/or other securities and property that the Holder of the Warrant would have owned or have been entitled to receive after the happening of such Corporate Transaction had the Warrant been exercised immediately prior to such action. The agreement referred to in this subparagraph (a) shall provide for adjustments which shall be as nearly equivalent as

may be practicable to the adjustments provided for in this Paragraph 5. The provisions of this subparagraph (a) shall similarly apply to successive Corporate Transactions.

(b) Subdivision or Combination of Shares. If the Company at any time while this Warrant remains outstanding and unexpired shall subdivide or combine its Common Stock, the Warrant Price shall be proportionately decreased in the case of a subdivision or increased in the case of a combination.

(c) Stock Dividends. If the Company at any time while this Warrant is outstanding and unexpired shall pay a dividend with respect to Common Stock payable in, or make any other distribution with respect to Common Stock (except any distribution provided for in the foregoing subparagraph (a) or (b)), of Common Stock, then the Warrant Price shall be adjusted, from and after the date of determination of shareholders entitled to receive such dividend or distribution, to that price determined by multiplying the Warrant Price in effect immediately prior to such date of determination by a fraction (a) the numerator of which shall be the total number of shares of Common Stock outstanding immediately prior to such dividend or distribution and (b) the denominator of which shall be the total number of shares of Common Stock outstanding immediately after such dividend or distribution.

(d) Adjustment of Number of Shares. Upon each adjustment in the Warrant Price, the number of shares of Common Stock purchasable hereunder shall be adjusted, to the nearest whole share, to the product obtained by multiplying the number of shares purchasable immediately prior to such adjustment in the Warrant Price by a fraction, the numerator of which shall be the Warrant Price immediately prior to such adjustment and the denominator of which shall be the Warrant Price immediately thereafter.

(e) Current Market Price. For the purpose of any computation under this Warrant, the "current market price" per share of Common Stock on any date shall be deemed to be the average of the daily Closing Prices of the shares of Common Stock for the thirty (30) consecutive Trading Days preceding the applicable date. The "Closing Price" for each day shall be (i) the last reported sale price regular way or, in case no such sale takes place on such date, the average of the closing bid and asked quotations regular way, in either case on the New York Stock Exchange, or, if the Common Stock is not listed or admitted to trading on such exchange, on the principal national securities exchange on which the Common Stock is listed or admitted to trading; or (ii) if the Common Stock is not listed or admitted to trading on any national securities exchange, the last reported sale price regular way or, in case no such sale takes place on such day, the average of the closing bid and asked quotations regular way, in either case on the National Market System of the National Association of Securities Dealers, Inc. ("NASD"); or (iii) if not authorized for trading or quotation on such system, the average of the highest reported bid and lowest reported asked quotations as furnished by the NASD or similar organization if the NASD is no longer reporting such information; or (iv) if no such prices or quotations are available, the fair market value of the Common Stock as determined by good faith action of the Board of

Directors of the Company (whose determination shall be conclusive). A "Trading Day" shall be any day that the principal national securities exchange on which the Common Stock listed or admitted to trading is open for the transaction of business or, if not so listed or admitted, that the New York Stock Exchange is open for the transaction of business.

(f) Adjustment for De Minimis Change. No adjustment in the Warrant Price shall be required unless such adjustment would require an increase or decrease of at least $0.05 in such price; provided, however, that any adjustments which by reason of this subparagraph (f) are not required to be made shall be carried forward and taken into account in any subsequent adjustment required to be made hereunder.

6. NOTICE OF ADJUSTMENTS.

Whenever any Warrant Price shall be adjusted pursuant to Paragraph 5 hereof, the Company shall make a certificate signed by its chief financial officer setting forth, in reasonable detail, the event requiring the adjustment, the amount of the adjustment, the method by which such adjustment was calculated, and the Warrant Price or Prices after giving effect to such adjustment, and shall cause copies of such certificate to be mailed (by registered mail, return receipt requested, postage prepaid) to the Holder of this Warrant at the address specified in Paragraph 10(d) hereof or at any address provided to the Company in writing by the Holder of this Warrant.

7. FRACTIONAL SHARES.

No fractional shares of Common Stock will be issued in connection with any exercise hereunder, but in lieu of such fractional shares the Company shall make a cash payment upon the basis of the Warrant Price then in effect and the fair market value of a full share as determined for this purpose by the Company's Board of Directors.

8. COMPLIANCE WITH SECURITIES ACT; DISPOSITION OF SHARES OF COMMON STOCK.

The Holder of this Warrant, by acceptance hereof, agrees that this Warrant and the shares of Common Stock to be issued upon exercise hereof are being acquired for investment and that it will not offer, sell or otherwise dispose of this Warrant or any shares of Common Stock to be issued upon exercise hereof except under circumstances which will not result in a violation of the Securities Act of 1933, as amended (the "Act") and will provide to the Company upon its request an opinion of counsel satisfactory to the Company as to the exemption from the Act and applicable state securities laws applicable to such offer, sale or disposition. Upon exercise of this Warrant, the Holder hereof shall, if requested by the Company, confirm in writing, in a form satisfactory to the Company, that the shares of Common Stock so purchased are being acquired for investment and not with a view toward distribution or resale. This

Warrant and all shares of Common Stock issued upon exercise of this Warrant (unless registered under the Act) shall be stamped or imprinted with a legend substantially in the following form as well as any additional legends required by applicable securities laws or stockholders' agreements and similar agreements encumbering such shares:

> "THIS WARRANT AND THE SECURITIES PURCHASABLE HEREUNDER HAVE BEEN ACQUIRED FOR INVESTMENT AND HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR UNDER THE SECURITIES LAWS OF ANY STATE OR OTHER JURISDICTION, AND MAY NOT BE OFFERED, SOLD, OR TRANSFERRED IN THE ABSENCE OF REGISTRATION OR UNLESS AN EXEMPTION FROM REGISTRATION IS AVAILABLE AND THE COMPANY RECEIVES AN OPINION OF COUNSEL SATISFACTORY TO IT TO SUCH EFFECT."

The Holder represents and warrants to the Company that it is an "accredited investor" as defined in Securities and Exchange Commission Rule 501 promulgated under the Act.

9. PIGGY-BACK REGISTRATION RIGHTS.

(a) Piggy Back Registrations. If at any time after an initial public offering by the Company of its securities, the Company proposes to make a registered public offering of any of its securities under the Securities Act of 1933 (whether to be sold by the Company or by one or more third parties), the Company agrees on the first such occasion, to give written notice of the proposed registration to Holder, not less than 15 days prior to the proposed filing date of the registration statement, and at the written request of Holder delivered in writing to the Company within 15 days after the receipt of said notice; the Company agrees, subject to the provisions of this Section 9, to include in the registration statement and offering, and in any underwriting of the offering; all shares of Common Stock as may have been designated in the Holder's request.

(b) Underwriter Discretion. If a registration in which the Holder has the right to participate pursuant to this Section 9 is an underwritten registration on behalf of the Company, and the managing underwriters advise the Company, that in their opinion, the number of securities requested to be included in the registration exceeds the number which can be sold in the offering, the Company shall allocate the number of shares to be included in the registration statement as follows: (i) first, all of the securities of the Company proposed to be sold by the Company, (ii) second, stockholders with piggy-back registration rights in existence as of the date hereof; and (iii) third, the Common Stock requested to be sold by Holder and all other requesting stockholders reduced, pro rata, in accordance with the percentage interests in the Company held by each of them.

(c) Information Required. The Company shall have no obligation to include shares of Common Stock owned by Holder in a registration statement pursuant to this Section 9, unless and until the Holder shall have furnished the Company with all information and statements about or pertaining to Holder in the reasonable detail and on a timely basis as is reasonably deemed by the Company to be necessary or appropriate with respect to the preparation of the registration statement.

(d) Hold-back. In the event that the Company effects an underwritten public offering of any security, the Holder agrees, if requested by the managing underwriters, not to effect any public sale or distribution, including any sale pursuant to Rule 144 under the Securities Act of 1933, of any Common Stock (except as part of the underwritten offering) during the 180-day period commencing with the effective date of the registration statement for the offering.

(e) Expenses. If, pursuant to Section 9 hereof, shares of Common Stock owned by any Holder are included in a registration statement, the Holder shall pay all transfer taxes, if any, relating to the sale of its shares, the fees and expenses of its own counsel, and its pro rata portion of any underwriting discounts or commissions or the equivalent thereof. The Company agrees to pay all expenses incident to the registration including all registration and filing fees, fees and expenses of compliance with securities or blue sky laws, underwriting discounts, fees and expenses (other than the Holder's pro rata portion of any underwriting discounts or commissions or the equivalent thereof), printing expenses, messenger and delivery expenses, and fees and expenses of counsel for the Company and all independent certified public accountants and other persons retained by the Company.

(f) Indemnification. In the event that any share of Common Stock owned by a Holder are sold by means of a registration statement pursuant to this Section 9, the Company agrees to indemnify and hold harmless the Holder, each of its officers and directors, and each person, if any, who controls or may control the Holder within the meaning of the Act (the Holder, its officers and directors., and any other persons being hereinafter referred to individually as an "Indemnified Person" and collectively as "Indemnified Persons") from and against all demands, claims, actions or causes of action, assessments, losses, damages, liabilities, costs, and expenses, including, without limitation, interest, penalties, and reasonable attorneys' fees and disbursements, asserted against, resulting to, imposed upon or incurred by the Indemnified Person, directly or indirectly (hereinafter referred to in this Section 9 or, the singular as a "claim" and in the plural as "claims"), based upon, arising out of or resulting from any untrue statement of a material fact obtained in the registration statement or any omission to state therein a material fact necessary to make the statement made therein, in the light of the circumstances under which they were made, not misleading, except insofar as the claim is based upon, rises out of or results from information furnished to the Company in writing by the Holder for use in connection with the registration statement. The Holder agrees to indemnify and. hold harmless the Company, its officers and directors, and each person, if any, who controls or may control the Company within the meaning of the Act (the Company, it's officers and

directors, and any other persons also being hereinafter referred to individually as an "Indemnified Person" and collectively as "Indemnified Persons") from and against all claims based upon, arising out of or resulting from any untrue statement of a material fact contained in the registration statement or any omission to state therein a material fact necessary in order to make the statement made therein, in the light of the circumstances under which they were made, not misleading, to the extent that the claim is based upon, arises out of or results from information furnished to the Company in writing by the Holder for use in connection with the registration statement. Promptly after actually receiving definitive notice of any claim in respect of which an Indemnified Person may seek indemnification under this Section 9, the Indemnified Person shall submit written notice thereof to either the Company or the Holder, as the case may be (sometimes being hereinafter referred to as an "Indemnifying Person"). The omission of the Indemnified Person to so notify the Indemnifying Person of any claim shall not relieve the Indemnifying Person from any liability it may have hereunder except to the extent that (a) the liability was caused or increased by the omission, or (b) the ability of the Indemnifying Person to reduce the liability was materially adversely affected by the omission. In addition, the omission of the Indemnified Person so to notify the Indemnifying Person of any claim shall not relieve the Indemnifying Person from any liability it may have otherwise than hereunder. The Indemnifying Person shall have the right to undertake, by counsel or representatives of its own choosing, the defense, compromise or settlement (without admitting liability of the Indemnified Person) of and the claim asserted, the defense, compromise or settlement to be undertaken at the expense and risk of the Indemnifying Person, and the Indemnified Person shall have the right to engage separate counsel, at its own expense, whom counsel for the Indemnifying Person shall keep informed and consult with in a reasonable manner. In the event the Indemnifying Person shall elect not to undertake the defense by its own representatives, the Indemnifying Person shall give prompt written notice of the election to the Indemnified Person, and the Indemnified Person shall undertake the defense, compromise or settlement (without admitting liability of the Indemnified Person) thereof on behalf of and for the account and risk of the Indemnifying Person by counsel or other representatives designated by the Indemnified Person. In the event that any claim shall arise out of a transaction or cover any period or periods wherein the Company and the Holder shall each be liable hereunder for part of the liability or obligation arising therefrom, then the parties shall, each choosing its own counsel and bearing its own expenses, defend the claim, and no settlement or compromise of the claim may be made without the joint consent or approval of the Company and the Holder. Notwithstanding the foregoing, no Indemnifying Person shall be obligated hereunder with respect to amounts paid in settlement of any claim if the settlement is effected without the consent of the Indemnifying Person (which consent shall not be unreasonably withheld).

10. MISCELLANEOUS.

(a) No Rights as Stockholder. No Holder of the Warrant or Warrants shall be entitled to vote or receive dividends or be deemed the Holder of Common Stock or any other securities of the Company which may at any time be issuable on the

exercise hereof for any purpose, nor shall anything contained herein be construed to confer upon the Holder of this Warrant, as such, any of the rights of a stockholder of the Company or any right to vote for the election of directors or upon any matter submitted to stockholders at any meeting thereof, or to give or withhold consent to any corporate action (whether upon any recapitalization, issuance of stock, reclassification of stock, change of par value or change of stock to no par value, consolidation, merger, conveyance, or otherwise) or to receive notice of meetings, or to receive dividends or subscription rights or otherwise until the Warrant or Warrants shall have been exercised and the shares purchasable upon the exercise hereof shall have become deliverable, as provided herein.

(b) Exchange, Transfer and Replacement of Warrant. Subject to Paragraph 8 hereof, the Holder may transfer or assign this Warrant, in whole but not in part and from time to time. Upon the surrender of the Warrant, properly endorsed, for registration of transfer or for exchange at the principal office of the Company, the Company at its expense will execute and deliver to or upon the order of the Holder thereof a new Warrant of like tenor, in the name of such Holder or as such Holder (upon payment by such Holder of any applicable transfer taxes) may direct, calling on the face thereof for the number of shares of Common Stock called for on the face of the Warrant. On receipt of evidence reasonably satisfactory to the Company of the loss, theft, destruction, or mutilation of this Warrant and, in the case of loss, theft or destruction, on delivery of any indemnity agreement or bond reasonably satisfactory in form and amount to the Company or, in the case of mutilation, on surrender and cancellation of this Warrant, the Company, at its expense, will execute and deliver, in lieu of this Warrant, a new Warrant of like tenor.

(c) Amendments. Neither the Warrant nor any term hereof may be changed, waived, discharged or terminated without the prior written consent of the Holder.

(d) Notice. Any notice given to either party under this Agreement shall be deemed to be given three (3) days after mailing, postage prepaid, addressed to such party at the address as such party may provide to the other.

(e) No Impairment. The Company will not, by amendment of its Certificate of Incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms to be observed or performed hereunder by the Company but will at all times in good faith assist in the carrying out of all the provisions of this Warrant.

(f) Governing Law. This Warrant shall be governed by and construed under the laws of the State of Maryland.

Date: August 21, 1996

CIENA CORPORATION

By: /s/ PATRICK H. NETTLES

Name: Patrick H. Nettles
Title: Chief Executive Officer

RECEIVED BY
WILLIAM K. WOODRUFF & CO. INCORPORATED

By: /s/ WILLIAM K. WOODRUFF

EXHIBIT 1

NOTICE OF EXERCISE

TO: CIENA CORPORATION

1. The undersigned hereby elects to acquire _____ shares of Common Stock of CIENA Corporation pursuant to the terms of the attached Warrant, and [CIRCLE EITHER (A) OR (B)]

(a) tenders herewith payment of the purchase price of such shares in full or

(b) elects to exercise its right of conversion set forth in Paragraph 3(b) of the attached Warrant.

2. Please issue a certificate or certificates representing said shares of Common Stock in the name of the undersigned or in such other name as is specified below:

(Name)

(Address)

3. The undersigned represents that the aforesaid shares of Common Stock are being acquired for the account of the undersigned for investment and not with a view to, or for resale in connection with, the distribution thereof and that the undersigned has no present intention of distributing or reselling such shares.

4. The Purchaser is an "accredited investor" as defined in Securities and Exchange Commission Rule 501(a) issued pursuant to the Securities Act of 1933, as amended.

5. The undersigned represents and warrants that the undersigned has no present intention to bring any claim of any kind, whether in arbitration, litigation or any other forum, including specifically any claims for breach of the Settlement Agreement and Mutual Release dated as of August 21, 1996 between the Holder and the Company (the "Settlement"), against the Company, Sevin Rosen or any of the entities identified in paragraph 10 of the Settlement.

EXHIBIT 10.12

HYDRALITE INCORPORATED
2068 COUNTRY CLUB DRIVE
DOYLESTOWN, PENNSYLVANIA 18901

April 9, 1994

Dr. Patrick Nettles
432 Rinconada Court
Los Altos, CA 94022

Re: Employment Agreement

Dear Dr. Nettles:

We refer to the Preferred Stock Purchase Agreement dated concurrently herewith (the "Purchase Agreement") among Hydralite Incorporated (the "Company"), the investors named therein and, as to certain provisions thereof, David Huber and you.

This will confirm our understanding as to the terms of your employment by the Company in connection with the closing (the "Closing") of the transactions contemplated by the Purchase Agreement:

1. Positions. You will be employed as the President and Chief Executive Officer of the Company.

2. Compensation. Your initial base salary shall be at the annual rate of $135,000, subject to increase at the discretion of the Board of Directors of the Company, and will be payable in accordance with the Company's policies for its senior executives.

3. Benefits. The Company will use its best efforts to cause the Board of Directors to adopt promptly a benefits and bonus package for the Company's key employees, including you, as determined in good faith by the Board.

4. Severance. (a) In the event that the Company shall terminate you as an employee other than for "cause" (as such term is hereinafter defined), you will be entitled to receive an amount equal to your monthly base salary as of the date of such termination, payable monthly until the earlier to occur of (i) six months from the date of termination and

(ii) your commencing employment, or a substantially full-time consulting position, with another person or entity other than the Company. You will also be entitled to be continue to receive all medical and life insurance benefits that you were receiving at the time of such termination, for such period.

(b) If you are terminated for cause, you shall receive only your base salary owing to you through the date of termination and shall not be entitled to any additional payments from the Company.

(c) For purposes of this agreement, the term "cause" shall mean (i) an act of gross misconduct you in connection with the performance of your duties hereunder; or (ii) the commission by you of a felony, as evidenced by a felony conviction; or (iii) the commission by you of any act of fraud, misappropriation of funds or embezzlement in connection with your employment hereunder.

5. Release. You agree that, in consideration of the severance payment to be made to you under paragraph 4(a) of this letter agreement, you will execute the general release annexed hereto as Annex A, which you understand is a condition to your receiving such payment.

6. Miscellaneous. You expressly acknowledge that you are an employee-at-will of the Company.

(a) This agreement sets forth the entire agreement and understanding of the parties with respect to the subject matter hereof, and there are no other terms or agreements with respect to your employment by the Company.

(b) This letter agreement will be governed by, and construed and enforced in accordance with, the internal laws of the State of Delaware, without regard to principles of conflicts of law.

Please acknowledge your understanding of, and agreement with, the foregoing by signing your name in the space indicated below, whereupon this letter agreement will become a binding agreement upon the parties.

Very truly yours,

HYDRALITE INCORPORATED

By: /s/ DAVID R. HUBER

Name: David R. Huber

Title: President

Agreed to and acknowledged as of
the date first written above:

/s/ PATRICK H. NETTLES
- ---
Patrick Nettles

EXHIBIT 10.13

HYDRALITE INCORPORATED
2068 COUNTRY CLUB DRIVE
DOYLESTOWN, PENNSYLVANIA 18901

April 9, 1994

Dr. David Huber
2068 Country Club Drive
Doylestown, PA 18901

Re: Employment Agreement

Dear Dr. Huber:

We refer to the Preferred Stock Purchase Agreement dated concurrently herewith (the "Purchase Agreement") among Hydralite Incorporated (the "Company"), the investors named therein and, as to certain provisions thereof, Patrick Nettles and you.

This will confirm our understanding as to the terms of your employment by the Company in connection with the closing (the "Closing") of the transactions contemplated by the Purchase Agreement:

1. Positions. You will be employed as the Vice President and Chief Technical Officer of the Company.

2. Salary. Your initial base salary shall be at the annual rate of $135,000, subject to increase at the discretion of the Board of Directors of the Company, and will be payable in accordance with the Company's policies for its senior executives.

3. Benefits. The Company will use its best efforts to cause the Board of Directors to adopt promptly a benefits and bonus package for the Company's key employees, including you, as determined in good faith by the Board.

4. Severance. (a) In the event that the Company shall terminate you as an employee other than for "cause" (as such term is hereinafter defined), you will be entitled to receive an amount equal to your monthly base salary as of the date of such termination, payable monthly until the earlier to occur of (i) six months from the date of termination and

(ii) your commencing employment, or a substantially full-time consulting position, with another person or entity other than the Company. You will also be entitled to be continue to receive all medical and life insurance benefits that you were receiving at the time of such termination, for such period.

(b) If you are terminated for cause, you shall only receive your base salary owing to you through the date of termination and shall not be entitled to any additional payments from the Company.

(c) For purposes of this agreement, the term "cause" shall mean (i) an act of gross misconduct you in connection with the performance of your duties hereunder; or (ii) the commission by you of a felony, as evidenced by a felony conviction; or (iii) the commission by you of any act of fraud, misappropriation of funds or embezzlement in connection with your employment hereunder.

5. Release. You agree that, in consideration of the severance payment to be made to you under paragraph 4(a) of this letter agreement, you will execute the general release annexed hereto as Annex A, which you understand is a condition to your receiving such payment.

6. Miscellaneous. (a) You expressly acknowledge that you are an employee-at-will of the Company.

(b) This agreement sets forth the entire agreement and understanding of the parties with respect to the subject matter hereof, and there are no other terms or agreements with respect to your employment by the Company.

(c) This letter agreement will be governed by, and construed and enforced in accordance with, the internal laws of the State of Delaware, without regard to principles of conflicts of law.

Please acknowledge your understanding of, and agreement with, the foregoing by signing your name in the space indicated below, whereupon this letter agreement will become a binding agreement upon the parties.

Very truly yours,

HYDRALITE INCORPORATED

By: /s/ PATRICK H. NETTLES
Name: Patrick H. Nettles
Title: Chief Executive Officer

Agreed to and acknowledged as of
the date first written above:

/s/ DAVID HUBER
David Huber

EXHIBIT 10.14

LEASE AGREEMENT

between

AETNA LIFE INSURANCE COMPANY
(Landlord)

and

CIENA CORPORATION
(Tenant)

Airport Square
Anne Arundel County, MD

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LEASE AGREEMENT

THIS LEASE AGREEMENT ("Lease") is made this 1 day of November, 1996, by and between the AETNA LIFE INSURANCE COMPANY (the "Landlord") and CIENA CORPORATION (the "Tenant"), a Delaware corporation.

WITNESSETH, that for good and valuable consideration, the Landlord hereby leases to the Tenant, and the Tenant hereby leases from the Landlord, an agreed-upon amount of 96,566 rentable square feet of space shown on Exhibit A hereto (the "Premises"), comprising all of the rentable space in the office building (the "Building") which, together with 408 parking spaces adjacent to such Building, landscaping and other improvements, are shown on Exhibit B hereto and located at 920 Elkridge Landing Road in Anne Arundel County, Maryland (collectively the "Property"), all upon the following terms and conditions:

ARTICLE I - TERM

Section 1.01 Length. This Lease shall be for a term (the "Term") which begins on that date (the "Commencement Date") which is the earlier of(i) March 1, 1997 (the "Target Date"), or (ii) 150 days after the first date on which the Tenant commences construction of the Space Improvements to the Premises as described in Section 5.01 below, subject to Section 5.01(A)(3) below. The Term shall expire on that date which is 10 years after such Commencement Date (the "Expiration Date"). In the event that the Tenant enters into occupancy of the Premises prior to the Commencement Date for any purpose, then all terms of this Lease shall apply to such occupancy, except that Tenant shall not be obligated to pay Base Rent or Real Estate Taxes (defined herein) for such period, and the Tenant's rental obligations shall be limited to the payment of any electricity or other utility charges incurred with respect to the Building and allocable to such period prior to the Commencement Date. In addition, to the extent that Tenant occupies the Premises prior to the Commencement Date for the purpose of conducting business therein, Tenant shall be obligated to pay the costs of snow removal, building repairs and landscaping, on-site maintenance and operations personnel, and electricity and other utilities used in connection with the common areas of the Building. All such utility and other costs for the period prior to the Commencement Date shall be paid by Tenant as Additional Rent (defined herein).

Section 1.02 Confirmation. Landlord shall, within 30 days after the commencement of the Term, confirm to Tenant in writing the actual dates of the Commencement Date and the Expiration Date. In the event that Tenant disagrees with such dates as stated in the confirmation notice from Landlord,

Tenant shall, within 15 days after Landlord's notice, notify Landlord in writing as to Tenant's objections. If Tenant fails to so notify Landlord of any objection within this 15 day period, the dates set forth in the Landlord's notice shall govern for purposes of this Lease. If Tenant does notify Landlord of an objection within this 15 day period, the parties shall attempt to resolve the disagreement within 21 days after the Tenant's notice of objection. In the event that the parties are unable to agree within this 21 day period, then either party shall have the right to have the applicable dates determined by arbitration by giving written notice to the other before expiration of the 21 day period (an "Arbitration Notice"). If neither party delivers an Arbitration Notice before expiration of the 21 day period, then the dates set forth in the Landlord's initial notice shall govern for purposes of this Lease. If one of the parties does deliver an Arbitration Notice within the 21 day period, then Landlord and Tenant shall designate an independent party with experience in adjudicating at least one arbitration case (the "Arbiter"). The Arbiter shall conduct such hearings and investigations as he or she may deem appropriate but, in all events, reach a decision binding on the parties within 30 days after being designated. Furthermore, in the case of any such dispute regarding the Commencement Date and Expiration Date, Tenant shall not withhold payments of rent or other charges hereunder, and any Base Rent paid but ultimately attributable to the period before the actual Commencement Date as determined by the Arbiter shall be applied toward the next installment of Base Rent due hereunder. Landlord and Tenant shall divide evenly the fees of the Arbiter incurred during the foregoing procedures.

Section 1.03 Options to Renew. Tenant shall have two successive options to renew the Term of the Lease commencing upon its expiration for an additional period of 5 years each (each a "Renewal Term," which shall be deemed to be part of the Term), subject to the following terms:

(A) Tenant's options to renew shall apply to the entire Premises and not any lesser portion thereof.

(B) In order to exercise each such option to renew the Lease, Tenant must give Landlord written notice of its election to renew not earlier than 365 days and not later than 330 days before the expiration of the then-current Term. If the applicable option is exercised in accordance with the terms of this section, the Renewal Term shall be under all of the same terms and conditions as are contained in the Lease, except that the Base Rent applicable during the Renewal Term shall be at the then-prevailing market rate of rent and all other charges for comparable office space in the area of the Baltimore-Washington International Airport, taking into account any and all factors (e.g., condition of space and improvements, parking and other facilities, location of the Building, length of term, Tenant's needs as a large user of space, etc.). If Tenant exercises the applicable option by the

time required above, then Landlord shall notify Tenant in writing of the market rate of Base Rent to apply during the Renewal Term, as determined by real estate brokers or other professionals selected by Landlord, within 15 days after Tenant's notice of exercise. Landlord shall accompany such notice with backup information as to the analysis on which such determination of the market rate is based.

(C) With respect to either of the foregoing options to renew, if Tenant does not accept Landlord's determination of the market rate of Base Rent contained in the Landlord's notice, then Tenant shall notify Landlord of this fact in writing within 15 days after the Landlord's notice. If Tenant so notifies Landlord within this 15 day period, then the parties shall attempt to resolve their differences regarding the Landlord's figure and agree upon the market rate of Base Rent within 30 days after the Tenant's notice of non-acceptance. In the event that the parties cannot agree upon the market rate within this 30 day period, then the Tenant shall have the right, upon written notice to Landlord given prior to the expiration of such 30 day period, to either (1) rescind the exercise of the applicable option, in which case the option shall be null and void, or (2) elect to have the market rate determined by arbitration as described in subsection (D) below. If the Tenant fails to notify the Landlord that it does not accept the Landlord's determination of the market rate within the period of 15 days after the Landlord's initial notice as described above, or if the Tenant does so notify the Landlord but Tenant does not either rescind the option or elect to have the market rate determined by arbitration within the 30 day period described above (and the parties are unable to agree upon the market rate in this period), then the figure for the market rate set forth in the Landlord's initial notice to the Tenant shall govern for the Renewal Term.

(D) If with respect to either of the options described above, Tenant elects to have the market rate of Base Rent to apply during the Renewal Period determined by arbitration, the market rate of Base Rent shall be established by a panel of 3 licensed real estate brokers, each of whom shall have a minimum of 7 years of experience in the commercial real estate brokerage business in the region in which the Building is located. One such broker shall be selected by Landlord within 7 days after Tenant's election of arbitration, one such broker shall be selected by Tenant within the same 7 day period, and the third such broker shall be selected by the first two within 7 days after the first two are so selected. Each broker, within 21 days after the third broker is selected, shall submit his or her determination of the market rate of Base Rent, which shall be based on the criteria described in subsection (B) of this section above, and the average of the two closest determinations shall be binding on the parties for purposes of calculating Base Rent during the Renewal Period. Landlord and Tenant shall each pay

any fee of the broker selected by it, and they shall share equally the payment of any fee of the third broker.

(E) If Tenant fails to give notice exercising either option to renew by the date required herein, or if at the time Tenant exercises either such option or at the beginning of the applicable Renewal Term there is an uncured Event of Default under this Lease, or if this Lease is assigned by Tenant or the Premises sublet in whole or in part to any third party which is not a parent, subsidiary or other affiliate of Tenant, then Tenant's right and option to renew shall be automatically terminated and of no further force or effect.

Section 1.04 Surrender. The Tenant shall at the expiration of the Term or any earlier termination of this Lease (a) promptly surrender to the Landlord possession of the Premises, including any fixtures or other improvements which under the provisions of this Lease are property of the Landlord, all in good order and repair (ordinary wear and tear and damage by casualty or condemnation excepted) and broom clean, (b) remove therefrom the Tenant's signs, goods and effects and any machinery, trade fixtures and equipment used in conducting the Tenant's trade or business and not owned by the Landlord, and (c) repair any damage to the Premises or the Building caused by such removal.

Section 1.05 Holding Over. Upon the Expiration Date, this Lease shall become a month-to-month tenancy, terminable upon 30 days' prior written notice by either party, for up to 3 months following the Expiration Date. Any occupancy of the Premises after the Expiration Date shall be subject to all of the same terms and conditions as are contained in this Lease, except that the rental payable for up to the first three months of any such occupancy shall be equal to the amount of all Rent which was last in effect during the Term and thereafter equal to one and one-half times the amount of all Rent which was last in effect during the Term. Nothing in the foregoing shall be deemed in any way to limit or impair the Landlord's right to immediately evict the Tenant or exercise its other rights and remedies under the provisions of this Lease or applicable law on account of any occupancy of the Premises past the period provided in this Lease, including the collection of consequential and other damages, on account of the Tenant's occupancy of the Premises without having obtained Landlord's prior consent.

ARTICLE II - RENT

Section 2.01 Base Rent. Tenant shall pay a minimum annual rental in each one-year period during the Term hereof which shall be referred to hereinafter as "Base Rent." Base Rent shall be calculated and increased for each such year as follows:

(1) Base Rent for the 1st one-year period in the Lease Term shall be the sum of $1,221,559.90, representing $12.65 per rentable square foot of the Premises.

(2) Base Rent for the 2nd one-year period in the Lease Term shall be the sum of $1,245,701.40, representing $12.90 per rentable square foot of the Premises.

(3) Base Rent for the 3rd one-year period in the Lease Term shall be the sum of $1,269,842.90, representing $13.15 per rentable square foot of the Premises.

(4) Base Rent for the 4th one-year period in the Lease Term shall be the sum of $1,293,984.40, representing $13.40 per rentable square foot of the Premises.

(5) Base Rent for the 5th one-year period in the Lease Term shall be the sum of $1,318,125.90, representing $13.65 per rentable square foot of the Premises.

(6) Base Rent for the 6th one-year period in the Lease Term shall be the sum of$1,414,691.90, representing $14.65 per rentable square foot of the Premises.

(7) Base Rent for the 7th one-year period in the Lease Term shall be the sum of $1,438,833.40, representing $14.90 per rentable square foot of the Premises.

(8) Base Rent for the 8th one-year period in the Lease Term shall be the sum of$1,462,974.90, representing $15.15 per rentable square foot of the Premises.

(9) Base Rent for the 9th one-year period in the Lease Term shall be the sum of~1,487,1 16.40, representing $15.40 per rentable square foot of the Premises.

(10) Base Rent for the 10th one-year period in the Lease Term shall be the sum of$1,51 1,257.90, representing $15.65 per rentable square foot of the Premises.

Section 2.02 Real Estate Taxes. Commencing on July l, 1998, Tenant shall pay to Landlord in each year of the Term the amount, if any, by which the Real Estate Taxes (defined below) applicable to the Property in each such year exceeds the Base Real Estate Taxes (defined below). The term "Real Estate Taxes" shall be construed to mean any and all real property taxes, assessments, sewer rates, ad valorem charges, rents and charges, front foot

benefit charges, all other governmental impositions in the nature of any of the foregoing (but only to the extent attributable to the unexpired Term of this Lease), and all costs and expenses (including attorneys' fees and costs of court or other proceedings) incurred in contesting property tax assessments or any other such governmental impositions. The "Base Real Estate Taxes" shall be the Real Estate Taxes imposed in connection with the Building and the Property and applicable in the first year following execution of this Lease during which the Building is assessed taking into account full (or near-full) occupancy, which year is expected to be the 7/1/97-6/30/98 tax/fiscal year. Tenant shall not be entitled to any credit or rebate in the event Real Estate Taxes during any one year in the Term are lower than the Base Real Estate Taxes. Upon request of Tenant, Landlord shall appeal any new assessment of the Building for real estate tax purposes or, in the event Landlord declines to file such an appeal, permit Tenant to conduct such an appeal through its own counsel or other representatives at Tenant's expense. Tenant shall be entitled to participate in any appeal which is conducted by Landlord. Any refunds of Real Estate Taxes garnered in an appeal, to the extent representing taxes previously paid by Tenant as Additional Rent, shall be paid to Tenant.

Section 2.03 Operating Expenses. Commencing on January l, 1998, Tenant shall pay to Landlord in each year of the Term the amount by which the Operating Expenses (defined below) for each such year exceed the Base Operating Expenses (defined below). "Operating Expenses" shall mean all expenses, costs and disbursements of every kind and nature incurred in connection with the ownership, management, maintenance, repair and operation of the Building and Property, including but not limited to the following: (l) cost of wages and salaries of all employees engaged in the operation and maintenance of the Building and surrounding grounds and common areas, including but not limited to payroll taxes, insurance and benefits, provided that such amounts shall be prorated to the extent any such employees work on projects other than the Property; (2) cost of all supplies and materials used in the operation, maintenance and repair of the Building and all other portions of the Property; (3) cost of water and sewer service to the Building; (4) costs incurred under all maintenance and service agreements for the Building, including but not limited to access control, energy management services, window cleaning, elevator maintenance and landscaping; (5) cost of insurance relating to all of such property, including but not limited to the cost of casualty and liability insurance; (6) cost of repairs and general maintenance to the Building; (7) all property management fees and expenses; (8) out-of-pocket cost of audit and accounting services, if any, incurred in the calculation and billing of Additional Rent; (9) the costs of any improvements required or made necessary by law or changes in law first enacted after the date of this Lease, provided that capital expenditures for any such costs are amortized in accordance with generally

accepted accounting principles ("GAAP") at such rates as may have been paid by Landlord on funds borrowed for the purpose of constructing such capital improvements or, if no such funds were borrowed, at such reasonable rates as are not in conflict with GAAP; and (10) cost of any capital improvements made to the Building that, in Landlord's reasonable judgment, will reduce other operating expenses or increase energy efficiency, provided such costs are amortized in accordance with GAAP at such rates as may have been paid by Landlord on funds borrowed for the purpose of constructing such capital improvements or, if no such funds were borrowed, at such reasonable rates as are not in conflict with GAAP, and further provided that the amount charged in any one year shall not exceed the Landlord's estimate of the savings to be achieved. For purposes of this provision, Operating Expenses shall not include (a) the cost of capital improvements (except as expressly provided above), (b) the costs of tenant improvements within tenant spaces, (c) ground rent or debt service, (d) depreciation, (e) the cost of electricity and any other utility which Tenant is obligated to pay pursuant to Section 6.02 below, (f) the cost of janitorial and any other service which Tenant is obligated to provide and pay in its entirety, (g) income, excess profits, franchise or other taxes imposed on or measured by the income of Landlord from the Building, (h) any cost for which Landlord is reimbursed by proceeds of insurance, condemnation award, service contract refund, credit or warranty, (i) any testing, remediation or other cost incurred in connection with the storage, use, placement or other handling of Hazardous Materials (defined herein) at the Property by Landlord at any time or by any other party if prior to the date hereof, (j)any fines or penalties imposed upon Landlord due to any violation of laws which is the fault of Landlord, (k) costs and expenses associated with the operation of the business of the legal entity or entities which constitute the Landlord (as opposed to operation of the Building), or (l) if property management services are provided by an affiliate of the Landlord, then any compensation to such party which is in excess of the fees which would be reached through arms- length bargaining. The "Base Operating Expenses" shall be the Operating Expenses applicable during the calendar year 1997. Tenant shall not be entitled to any credit or rebate in the event Operating Expenses in any one year during the Term are lower than the Base Operating Expenses.

Section 2.04 When Due and Payable.

(A) All rental obligations set forth in the foregoing provisions and elsewhere in this Lease, except for Base Rent, shall be referred to hereinafter as "Additional Rent." All Base Rent and Additional Rent are sometimes hereinafter together referred to as "Rent."

(B) The Base Rent for each year (or part thereof) during the Term shall be due and payable in 12 consecutive, equal monthly

installments, in advance, on the first day of each calendar month during the Term, provided that the installment of Rent for the first full calendar month of the Term shall be due upon execution of this Lease.

(C) Tenant shall pay all Additional Rent within 30 days after being billed therefor by Landlord. However, Landlord may, at its discretion, (a) make a reasonable estimate of the Additional Rent which may become due for any year in the Term, (b) require the Tenant to pay to the Landlord such Additional Rent in equal installments at the time and in the manner that the Tenant is required hereunder to pay monthly installments of Base Rent, and (c) at the Landlord's reasonable discretion, increase or decrease during such year the amount initially estimated for such year, all by giving the Tenant written notice thereof. In such event, the Landlord shall cause the actual amount of such Additional Rent to be calculated within 120 days after the end of each such year, and the Tenant or the Landlord shall within 30 days pay to the other the amount of any deficiency or overpayment, whichever the case may be.

(D) Landlord shall have the right to apply any payment of Rent by Tenant to any amounts outstanding in any order in Landlord's sole discretion. Acceptance by Landlord of any partial payment of Rent shall not be deemed a waiver or satisfaction of the Tenant's obligation to pay all remaining amounts of Rent hereunder, which shall remain due in their entirety according to the terms of this Lease.

Section 2.05 Proration. All items of Rent shall be prorated for any month during the Term which is not a full calendar month or in which two different rental rates are applicable. If only part of any calendar year falls within the Term, the amount computed as Additional Rent for such calendar year under the foregoing provisions of this section shall be appropriately prorated, but the expiration of the Term before the end of a calendar year shall not limit the Tenant's obligation hereunder to pay the prorated portion of Additional Rent applicable to that portion of such calendar year falling within the Term.

Section 2.06 Late Penalties. Each such payment of Rent shall be made promptly when due, without any demand, deduction or setoff whatsoever, at the place directed by Landlord. Any payment of Rent not made within 3 days after the date due shall bear interest at the rate of 12% per annum from the due date until paid. Additionally, any payment of Rent not paid within 10 days of when due shall be considered delinquent and subject to a late payment charge, for each occurrence of delinquency, of 5% of the amount overdue and payable. This late payment charge shall be in addition to the interest provided for above and shall be due and payable with the next succeeding Rent payment. Notwithstanding the foregoing, no interest or late charge shall be imposed with respect to the first delinquency in each calendar

year unless such delinquency continues for a period of 10 days after written notice from Landlord given in accordance with the provisions for the giving of notices hereunder. The obligation to pay Rent for the periods in the Term of this Lease shall survive termination of this Lease.

Section 2.07 Security Deposit. Upon signing this Lease, Tenant shall submit to Landlord a cash payment in the amount of $397,384.82, which shall be retained by the Landlord as a security deposit securing the Tenant's payment of Rent and performance of all of its other obligations under the provisions of this Lease. On the occurrence of an Event of Default (as defined herein), the Landlord shall be entitled, at its sole discretion, to apply any or all of such sum in payment of any Rent then due and unpaid, any expense incurred by the Landlord in curing any such default, and/or any damages incurred by the Landlord by reason of such default (including but not limited to attorneys' fees), in which event Tenant shall immediately restore the amount so applied. However, the foregoing shall not serve in any event to limit the rights, remedies and damages accruing to Landlord under Article XIV or any other provision of this Lease on account of an Event of Default by Tenant. The security deposit shall not be applied to payments of Rent hereunder, except that portions of the security deposit which are not then applied on account of a default by Tenant may be credited to Rent as follows: (l) an amount of $97,895.19 shall be applied to the monthly installment of Base Rent for the 1st month of the Term, (2) an amount of $99,829.88 shall be applied to the monthly installment of Base Rent for the 24th month of the Term, (3) an amount of $101,764.56 shall be applied to the monthly installment of Base Rent for the 36th month of the Term. Such security deposit shall not bear interest while being held by the Landlord hereunder, except that the amounts referenced in clauses (2) and (3) of the immediately preceding sentence shall be held in a separate, interest bearing account at a bank selected by Tenant (and subject to Landlord's reasonable approval) until applied in accordance with this paragraph, with the Tenant paid any interest thereon concurrent with such application, but with the Landlord making no warranties or assurances as to the amount of interest which will accrue. Any amount of the security deposit remaining at the end of the Term and not applied pursuant to the foregoing provisions shall be returned to Tenant.

ARTICLE III - USE OF PREMISES

Section 3.01 Use. The Tenant shall use the Premises as a business office, including research, development and optical/electronic laboratory functions (which may include passive optical component design, development and production), subject to all applicable zoning and other laws and title covenants, and for no other purposes.

Section 3.02 Laws. Landlord hereby represents to Tenant that (a) the Building is located in a W-1 (light industrial) district for purposes of zoning designation by Anne Arundel County, Maryland, and (b) to Landlord's knowledge, the Building is not in violation of any title covenants applicable to the Building. Landlord shall be responsible for the compliance of all portions of the Property exterior to the Building, the roof and structural supports of the Building, and all common areas at the Building (i.e., the building lobby, entrances and exits, elevators, elevator lobbies and restrooms) with any and all federal, state and local laws, ordinances and regulations, including but not limited to the Americans With Disabilities Act, zoning laws and title covenants, which are applicable thereto, and Landlord shall make any changes or improvements to the portions of the Property exterior to the Building and the common areas of the Building which are required by any such laws. Tenant shall comply with any and all federal, state and local laws, ordinances and regulations, including but not limited to the Americans With Disabilities Act, zoning laws and title covenants, which are applicable to the Premises, to the Tenant's use of the Premises or to Tenant's use of any common areas of the Property, and Tenant shall make any changes or improvements to the Premises which are required by any such laws, subject to Section 5.03 hereof.

Section 3.03 Common Areas. The Landlord hereby grants to the Tenant a non-exclusive license to use (a) all elevators, lobbies, restrooms and any other common areas of the Building, and (b) all parking facilities and other portions of the grounds on which the Building is located which are manifestly designed and intended for common use by the occupants of the Building, for pedestrian ingress and egress to and from the Premises and for vehicular ingress and egress to and from the parking facilities. Such license shall be exercised in common with the Landlord and other tenants (if any) and their respective employees and invitees and in accordance with the reasonable Rules and Regulations promulgated from time to time pursuant to the provisions of Article XI.

ARTICLE IV - INSURANCE/INDEMNIFICATION

Section 4.01 Tenant's Insurance. The Tenant shall procure and maintain, at its expense and throughout the Term, the following insurance:

(a) Commercial general liability insurance which (l) insures against claims for bodily injury, personal injury, advertising injury and property damage arising from the use, occupancy or maintenance of the Premises or any other portion of the Property by Tenant or any of its agents, employees, contractors, invitees and licensees, (2) insures without exclusion damage or injury arising from heat, smoke or fumes from a hostile fire, (3) has limits of not less than (i) $1,000,000 per occurrence, (ii) $2,000,000

general aggregate per location, (iii) $2,000,000 products and completed operations aggregate, (iv) $1,000,000 for personal and advertising injury liability, (v) $50,000 for fire damage legal liability, and (vi) $5,000 for medical payments, which minimum limits may be increased if recommended by Landlord's consultants or other insurance professionals (but not more frequently than once in any three year period), (4) includes blanket contractual liability and broad form property damage liability coverage, and (5) contains a standard separation of insureds provision;

(b) Business auto liability insurance which insures against bodily injury and property damage claims arising out of ownership, use or maintenance of any hired and non- owned auto with a combined single limit per accident of not less than $1,000,000;

(c) Worker's compensation in statutory limits and employer's liability insurance with limits of not less than $100,000 for each accident, $100,000 for each employee for bodily injury by disease, and $500,000 policy limit for bodily injury by disease;

(d) Umbrella excess liability insurance, in addition to and in excess of the commercial general liability, business auto liability and employer's liability insurance described above, which insures against claims for bodily injury, personal injury, advertising injury and property damage and having limits of not less than (i) $5,000,000 per occurrence, and (ii) $5,000,000 for the annual aggregate; and

(e) All-risk property insurance covering all of Tenant's personal property, inventory, equipment, fixtures, alterations and improvements at the Premises up to the replacement value of such property.

Each liability insurance policy described above (except employer's liability policies) shall name Landlord, Landlord's agent and advisor, Landlord's property manager, and any Mortgagees (defined in Section 12.01 below), and expressly including any trustees, directors, officers, employees or agents of any such entities, all as additional insureds. All such policies shall (i) be issued by insurers licensed to do business in the state in which the Property is located, (ii) be issued by insurers with a current rating of "A-" "VIII" or better in Best's Insurance Reports, (iii) be primary without right of contribution from any of Landlord's insurance, (iv) be written on an occurrence (and not claims-made) basis, and (v) be uncancellable without at least 30 days' prior written notice to the Landlord and any Mortgagee. At least 15 days before the Commencement Date (or, if earlier, the date Tenant first enters into the Premises for any reason), Tenant shall deliver to the Landlord certificates of insurance satisfactory to Landlord for each such policy required above. Within 10 days after any such policy expires, Tenant

shall deliver to the Landlord a certificate of renewal evidencing replacement of the policy. The limits of insurance required by this Lease or as otherwise carried by Tenant shall not limit the liability of Tenant or relieve Tenant of any obligations under this Lease, except to the extent provided in any waiver of subrogation contained in this Lease. Tenant shall have sole responsibility for payment of all deductibles.

Section 4.02 Landlord's Insurance. The Landlord shall maintain throughout the Term all-risk or fire and extended coverage insurance upon the Building in an amount equal to the full replacement value thereof (or, in lieu thereof and if Landlord is an insurance entity, a specified plan of self-insurance). If provided by independent entity, such policy shall (i) be issued by an insurer licensed to do business in the state in which the Property is located, (ii) be issued by an insurer with a current rating of "A-" "VIII" or better in Best's Insurance Reports, and (iii) be written on an occurrence (and not claims-made) basis. The premiums for such insurance for 1997 and beyond and of each endorsement thereto shall be deemed to be part of the Operating Expenses for purposes of Section 2.03 hereof. Furthermore, Tenant shall pay, as Additional Rent and as billed by Landlord, the entire amount of any increase in premiums for any insurance obtained by Landlord which occurs solely due to the particular use of the Premises by Tenant.

Section 4.03 Waiver of Subrogation. Notwithstanding anything to the contrary in this Lease, Landlord and Tenant each waives all rights to recovery, claims or causes of action against the other and the other's agents, trustees, officers, directors and employees on account of any loss or damage which may occur to the Premises, the Property or any improvements thereto or to any personal property of such party to the extent such loss or damage is caused by a peril which is required to be insured against under this Lease, regardless of the cause or origin (including negligence of the other party). Landlord and Tenant each covenants to the other that, to the fullest extent permitted by law, no insurer shall hold any right of subrogation against the other party. Tenant covenants to Landlord that all policies of insurance maintained by Tenant respecting property damage shall permit such waiver of subrogation. Landlord covenants to Tenant that all policies of insurance maintained by Landlord permit such waiver of subrogation.

Section 4.04 Indemnification. Tenant hereby agrees to indemnify and hold Landlord and Landlord's agents and advisors harmless from and against any cost, damage, claim, liability or expense (including attorney's fees) incurred by or claimed against Landlord, directly or indirectly, as a result of or in any way arising from Tenant's use and occupancy of the Premises, except that which arises due to the negligence or intentional misconduct of the Landlord or its employees or agents. Furthermore, Tenant hereby releases and absolves Landlord from any liability for theft, damage or other

loss which is caused by any third party which is not the Landlord in connection with any furniture, fixtures, machinery, equipment, inventory or other personal property of any kind belonging to Tenant or to any of its employees, agents, invitees or licensees.

ARTICLE V - IMPROVEMENTS TO PREMISES

Section 5.01 Initial Improvements.

(A) Landlord shall make certain improvements at the Building as follows:

(l) Landlord shall (a) renovate, repair or replace (as necessary) any damaged or deteriorated structural, mechanical, electrical and plumbing systems in the Building, including without limitation the lobby/atrium, elevators, restrooms, exits and exitways, and other common areas, to a good working order and condition, and (b) bring such structural, mechanical, electrical and plumbing systems into full compliance with all fire, life safety and handicap codes of all federal, state and local authorities having jurisdiction over the Building and Property. The Landlord will repair or replace (as necessary) the base building mechanical systems (i.e., the rooftop compressors and condensers of the HVAC system at the Building, the air handlers of the HVAC system at the Building, and the electric baseboard heating system), excluding ductwork distribution and any load requirements in excess of the base building service. Such improvements by Landlord will include replacement of defective or damaged glass, roof repairs (as needed), improvements to the parking lot (subject to seasonal conditions), and initial landscaping. In addition, within 30 days after the date hereof Landlord shall demolish interior partitions sufficient for the Tenant to construct the Space Improvements described in subsection (B) of this section below. All of the foregoing work shall be referred to hereinafter as the "Landlord's Work."

(2) Landlord shall pay any and all costs of the Landlord's Work.

(3) Landlord shall use commercially reasonable efforts to complete the Landlord's Work on or before the Target Date set forth in Section 1.01 hereof, but Landlord shall have no liability to the Tenant hereunder if prevented from doing so due to strike or other labor troubles, governmental restrictions, failure or shortage of utility service, national or local emergency, accident, flood, fire or other casualty, adverse weather condition, other act of God, or any other cause beyond the Landlord's reasonable control. In such event, the Commencement Date and Expiration Date shall be postponed for a period equaling the length of such delay. However, if any delay in completion of the Landlord's Work is caused by Tenant, then Tenant shall commence all

of its obligations hereunder (including the payments of Rent), and all terms herein shall be effective and binding, on that date reasonably calculated by Landlord or its contractor as the date on which Landlord would have substantially completed the Landlord's Work if not for such delay.

(4) Landlord's Work shall be in compliance with any and all federal, state and local laws, ordinances and regulations, including but not limited to the Americans With Disabilities Act and building codes of Anne Arundel County.

(B) Tenant shall make certain improvements to the Premises in order to prepare the Premises for occupancy by Tenant (the "Space Improvements"), all to be paid for as provided in subsection (C) of this section below. Such Space Improvements shall be designed and constructed in accordance with the following procedures:

(1) Tenant shall promptly after execution of this Lease engage an architect to prepare plans and specifications of the Space Improvements for Landlord's review and approval. Such plans and specifications shall be submitted to Landlord within 30 days after the date hereof, and Landlord shall review and either approve or notify Tenant of proposed changes thereto within 10 days after receiving such plans. Landlord agrees to not unreasonably withhold its approval of Tenant's plans and specifications, and Tenant agrees to make any changes to such plans and specifications reasonably requested by Landlord. However, with respect to any alterations to the Building exterior proposed by Tenant, Landlord shall have the right in its sole and absolute subjective discretion to require modifications or, in the absence thereof, withhold consent on the basis of aesthetic considerations.

(2) Promptly after the plans and specifications have been finalized, Tenant shall solicit bids and enter into written contracts with a contractor or contractors for the construction of such improvements and with other professionals for appropriate services in connection therewith. The contractor(s) and professional(s) so engaged by Tenant shall be subject to Landlord's prior written approval, which shall not be unreasonably withheld. Additionally, each of Tenant's contract(s) with contractor(s) shall provide for, at minimum, a retainage or holdback of 10% of the total cost of the contract until 75% completion of the work, and 5% of the total cost of the contract thereafter, and shall require dual obligee surety bond(s) guaranteeing full payment and performance of the contract.

(3) Prior to commencing construction, Tenant shall obtain all building and other permits or licenses required by law for the Space Improvements, and promptly after completion of such work (provided

that Landlord has completed the Landlord's Work), Tenant shall procure a certificate of occupancy for the Premises from the applicable governmental authorities.

(4) All such construction shall be supervised and, if necessary, managed by Landlord through its representative(s), the cost of which services shall be paid for as provided in subsection (C) of this provision below. Tenant shall at all times permit Landlord and its representative(s) to inspect the Premises and the Tenant's improvement work during construction.

(5) The Space Improvements shall be in compliance with any and all federal, state and local laws, ordinances and regulations, including but not limited to the Americans With Disabilities Act and building codes of Anne Arundel County.

(6) As stated in Section 1.01 hereof, Tenant and its agents and contractors shall have the right to enter the Premises prior to the Commencement Date for such construction purposes, provided that prior to any such entry Tenant shall have obtained the insurance required under Article IV hereof, and its contractors shall have obtained such liability, workmen's compensation and other insurance as is reasonably acceptable to Landlord. However, any delays in Tenant's completion of such improvements beyond the Target Date set forth in Section 1.01 shall not delay the Commencement Date, which shall be determined as set forth in Section 1.01.

(C) All costs and expenses of designing and constructing the Space Improvements described in subsection (B) above shall be paid as follows:

(1) Landlord shall provide and pay an allowance (the "Allowance") of $20.10 per square foot of the Premises towards (i) the costs of designing the Space Improvements and preparing plans and specifications therefor, and (ii) the costs of constructing the Space Improvements, including but not limited to all fees, costs and expenses paid under construction contracts and subcontracts, a supervision and management fee of $0.40 per rentable square foot of the Premises, costs and expenses, the costs of materials, supplies, permits and other items, and any other out-of-pocket expenditures incurred in any connection with such construction. Such Allowance shall not be paid for the Landlord's Work or for any other costs or purposes. Landlord represents to Tenant that Landlord has sufficient funds or credit available to pay the Allowance in its entirety.

(2) Tenant shall pay any and all costs of designing and constructing the Space Improvements which are in excess of the Allowance.

(3) Landlord shall disburse the Allowance in installments to pay for completed work, and directly to the professionals, contractors and other parties performing work on the Space Improvements, upon presentation for each disbursement of (i) a requisition substantially in the form of AlA Requisition Forms G702 and G703, including a description of all completed work for which payment is requested, the amount requested with a breakdown by each trade comprising the work, and the percentage of the entire project completed after taking into account all such work, (ii) approval by Landlord's construction manager of the requisition, (iii) conditional lien waivers from all parties for whom such payment is requested releasing all liens which may arise on account of the work performed by such parties to the date of the request for payment, and (iv) unconditional lien waivers covering all work up to and including the immediately preceding payment. Each disbursement of a portion of the Allowance shall be made within 21 days after presentation of the required items. With respect to each contract or subcontract item comprising part of the Space Improvements, a retainage of 10% shall be withheld from the applicable disbursements until such contract or subcontract item is 75% complete, at which time the retainage with respect to such item shall be reduced to 5%, with the retainage to be fully paid and disbursed upon (i) completion of the Space Improvements as required by the applicable contract(s), (ii) delivery of unconditional lien waivers as described above for all work comprising the improvements, and (iii) issuance of a certificate of occupancy or other applicable approval by the local authorities permitting occupancy of the Premises by Tenant for business (unless any delay in issuance of the certificate of occupancy is solely due to the failure of the Landlord to complete the Landlord's Work, in which event this item (iii) shall not apply).

Section 5.02 Acceptance. Except for the Landlord's Work which is to be completed as is described in Section 5.01(A) above, Tenant acknowledges that it shall be leasing the Premises hereunder "as-is" without warranty or representation of any kind except as may be expressly stated in this Lease.

Section 5.03 Tenant's Alterations. The Tenant shall not make any alteration, addition or improvement to the Premises, whether structural or nonstructural and including any signs or other items which may be visible from the exterior of the Premises (but not including any interior cosmetic or decorative alterations), without the Landlord's prior written consent, which shall not be unreasonably withheld. Tenant shall provide such drawings, plans and specifications as are requested by Landlord in reviewing any such proposed improvements. Landlord agrees to respond to any request for approval within 15 days after receipt of all plans and information relevant thereto; however, Landlord shall have the right to place conditions upon the granting of its approval of any alteration or improvement, including but not limited to requirements that the work be performed only by bonded

contractors or that Landlord itself perform the work with the Tenant to reimburse Landlord's out-of-pocket costs of the alteration or improvement. If the Landlord consents to any such proposed alteration, sign, addition or improvement, it shall be made at the Tenant's sole expense (and the Tenant shall hold the Landlord harmless from any cost incurred on account thereof), and at such time and in such manner as to not unreasonably interfere with the use and enjoyment of the remainder of the Property by any other tenant (if any). If Landlord requires that Landlord itself perform the work, the requisite contract(s) shall be based on competitive bidding by contractors reasonably acceptable to Tenant. All such alterations, signs and improvements shall comply in all respects with any and all applicable federal, state and local laws, ordinances and regulations, including but not limited to the Americans With Disabilities Act and regulations promulgated thereunder, as well as any applicable zoning laws and title covenants. Furthermore, Tenant shall indemnify Landlord from all damages, losses or liability arising from such alterations or improvements or the construction thereof by Tenant or by any other party other than Landlord.

Section 5.04 Mechanics' Liens. The Tenant shall (a) within 15 days after notice thereof, bond or have released any mechanics', materialman's or other lien filed or claimed against any or all of the Premises, the Building, or any other property owned or leased by the Landlord by reason of labor or materials provided for the Tenant or any of its contractors or subcontractors, or otherwise arising out of the Tenant's use or occupancy of the Premises, and (b) defend, indemnify and hold harmless the Landlord against and from any and all liability or expense (including but not limited to attorneys' fees) incurred by the Landlord on account of any such lien or claim.

Section 5.05 Fixtures. Any and all improvements, repairs, alterations or other property affixed or attached to the Premises or Building by the Landlord or the Tenant shall, immediately on the completion of their installation, become the Landlord's property without payment therefor by the Landlord, except that any furniture, appliances and office equipment installed by the Tenant and used in the conduct of the Tenant's trade or business (rather than to service the Premises or any of the remainder of the Building or the Property) shall remain the Tenant's property.

ARTICLE VI - MAINTENANCE AND SERVICES

Section 6.01 Ordinary Services. Landlord shall make heating and air-conditioning for the comfortable use and occupancy of the Premises available 24 hours per day, 365 days per year. In addition, Landlord shall make available (a) electricity and water suitable for the use of the Premises in accordance with the provisions of Section 3.01, and (b) automatic elevator service within the Building. Any repairs or replacements necessary for the foregoing

services shall be made during business hours unless after-hours work is required in order to minimize disruption to the Tenant's business. Tenant shall have access to the Premises 24 hours a day, 365 days per year.

Section 6.02 Services and Utility Payments. Tenant shall pay directly to the supplier all costs and charges for all electricity which is consumed at the Building.

Section 6.03 Excessive Use. The Tenant shall not, without first obtaining the Landlord's written consent thereto, install within the Premises any electrical machinery, appliances or equipment which uses electrical current in excess of that which is standard for the Building. Landlord shall not unreasonably withhold its consent but may require dedicated lines or other protection against electrical overload.

Section 6.04 Maintenance by Tenant. The Tenant shall at all times and at its own expense maintain the interior of the Premises in good, clean and safe repair and condition, ordinary wear and tear and damage by casualty or condemnation excepted. In addition, Tenant shall be responsible for (i) regular interior window washing, cleaning, vacuuming and other janitorial services and supplies in connection with the Building, and (ii) the collecting and removing of trash and debris from the Building to sealed containers.

Section 6.05 Maintenance by Landlord. The Landlord shall keep in good order and repair (a) the roof and other structural portions of the exterior of the Building, including exterior window washing not less than twice per year, (b) the lobbies, restrooms and other common areas of the Building, (c) the base building heating, ventilating, air-conditioning, plumbing and electrical facilities, and (d) the parking areas at the Property.

Section 6.06 Interruption. The Landlord shall have no liability to the Tenant on account of any failure, modification or interruption of electricity, water or other utility or HVAC or other service, but in the event of interruption Landlord shall use its best efforts to provide for the resumption of such service to the extent the same is within Landlord's control. Notwithstanding anything herein to the contrary, if the interruption in any service continues for a period of 5 days due to the fault of Landlord, and the Premises are rendered untenantable thereby, then all Rent shall abate thereafter until the applicable service is restored.

ARTICLE VII - RIGHT OF ENTRY

Section 7.01 Right of Entry. Landlord and its agents and contractors shall be entitled to enter the Premises (a) at any time to inspect the Premises, (b) at any time to exhibit the Premises to any existing or prospective purchaser or mortgagee thereof, (c) at any time to make any

alteration, improvement or repair to the Building or the Premises which Landlord is obligated to make hereunder, (d) at any time for any other purpose relating to the operation or maintenance of the Property, or (e) during the last 9 months of the Term to exhibit the Premises to any prospective tenant, all provided that the Landlord shall (1) give the Tenant at least 24 hours' prior notice of its intention to enter the Premises (unless doing so is impractical or unreasonable because of emergency), and (2) use reasonable efforts to avoid interfering with the Tenant's use and enjoyment thereof. Tenant shall have the right to lock off and secure the elevators and stairwells which service all floors on which Tenant occupies 100% of the rentable space, provided that Tenant shall at no time violate any applicable county fire and safety regulations, including any such regulations which require emergency access to the space, and further provided that Landlord is given keys, security card(s) or another appropriate method of access.

ARTICLE VIII - CASUALTIES

Section 8.01 General. If the Premises or Building are damaged by fire or other casualty during the Term, then the following shall apply:

(A) The Landlord shall restore the Premises or Building with reasonable promptness, taking into account the time required by the Landlord to effect a settlement with, and to procure any insurance proceeds from, any insurer against such casualty, to substantially the same condition as existed immediately before such casualty. Landlord may temporarily enter and possess any or all of the Premises for such purpose. The Landlord shall not be obligated to repair, restore or replace any fixture, improvement, alteration, furniture or other property owned or installed by the Tenant.

(B) The times for commencement and completion of any such restoration shall be extended for the period of any delay arising due to force majeure causes beyond the Landlord's control. If the Landlord undertakes to restore the Premises or Building, but such restoration cannot be accomplished within 210 days after the date of casualty, as determined by estimate of Landlord upon such casualty, then Tenant may terminate this lease by giving written notice thereof to the Landlord within 15 days after receipt of such estimate from Landlord.

(C) From the time of such casualty to the completion of restoration as described above, Tenant's rental obligations shall be abated proportionately from that portion of the Premises which is rendered untenantable as a result of the casualty. However, if more than 75% of the Premises are rendered untenantable by such casualty, then, at Tenant's option, the entire Building shall be deemed untenantable, and such rent

abatement shall apply to the entire Building (except with respect to any space actually used by Tenant).

Section 8.02 Substantial Destruction. Anything contained in the foregoing provisions of this section to the contrary notwithstanding:

(A) If during the Term the Building is so damaged by fire or other casualty that (a) either the Premises or the Building are rendered substantially unfit for occupancy, or (b) the Building is damaged to the extent that the Landlord elects to demolish the Building, or if any mortgagee or lender requires that any material portion or all of the insurance proceeds issued on account thereof be used to retire any material portion or all of the debt secured by its mortgage, then in any such case the Landlord may elect to terminate this Lease as of the date of such casualty by giving written notice thereof to the Tenant within 60 days after the date of such casualty; and

(B) In such event, (1) the Tenant shall pay to the Landlord the Base Rent and any Additional Rent payable by the Tenant hereunder and accrued through the date of such casualty, (2) the Landlord shall repay to the Tenant any and all prepaid Rent for periods beyond such casualty, and (3) the Landlord may enter upon and repossess the Premises 30 days after notice to Tenant.

Section 8.03 Tenant's Negligence. Subject to the provisions of Section 4.03 hereof, if any such damage to the Premises, the Building or Property are caused by or result from the negligent or intentional act or omission of the Tenant or any of its employees, contractors, agents, invitees or licensees, then (a) the Rent shall not be abated or apportioned as aforesaid, and (b) the Tenant shall pay to the Landlord upon demand, as Additional Rent, if and only to the extent not paid by insurance, the cost of (i) any repairs and restoration made or to be made as a result of such damage, or (ii) (if the Landlord elects not to restore the Building) any damage or loss which the Landlord incurs as a result of such damage.

ARTICLE IX - CONDEMNATION

Section 9.01 Right to Award. If any or all of the Premises are taken by the exercise of any power of eminent domain or are conveyed to or at the direction of any governmental entity under a threat of any such taking (each of which a "Condemnation"), the Landlord shall be entitled to collect from the condemning authority thereunder the entire amount of any award or consideration for such conveyance, without deduction therefrom for any leasehold or other estate held by the Tenant under this Lease. The Landlord shall be entitled to conduct any condemnation proceeding and any settlement connected therewith free of interference from the Tenant, and the Tenant

hereby waives any right which it has to participate therein. However, the Tenant may seek, in a separate proceeding, a separate award on account of any damages or costs incurred by the Tenant as a result of any such Condemnation.

Section 9.02 Effect of Condemnation. If (a) all of the Premises are covered by a Condemnation, or (b) any part of the Premises is covered by a Condemnation and the remainder is insufficient for the reasonable operation of the Tenant's business, or (c) any of the Building is covered by a Condemnation and, in the Landlord's reasonable opinion, it would be impractical to restore the remainder thereof, or (d) any of the rest of the Property is covered by a Condemnation and, in the Landlord's reasonable opinion, it would be impractical to continue to operate the remainder of the Property thereafter, then, in any such event, the Term shall terminate on the date on which possession of the property covered by such Condemnation is taken by the condemning authority thereunder, and all Rent (including any Additional Rent and other charges payable hereunder) shall be apportioned and paid to such date. If there is a Condemnation and the Term does not terminate pursuant to the foregoing provisions of this subsection, the operation and effect of this Lease shall be unaffected by such Condemnation, except that the Base Rent shall be reduced in proportion to the square footage of floor area, if any, of the Premises covered by such Condemnation.

Section 9.03 Interruption. If there is a Condemnation, the Landlord shall have no liability to the Tenant on account of any (a) interruption of the Tenant's business upon the Premises, (b) diminution in the Tenant's ability to use the Premises, or (c) other injury or damage sustained by the Tenant as a result of such Condemnation.

ARTICLE X - ASSIGNMENT/SUBLETTING

Section 10.01 Actions Covered. Any assignment by Tenant of this Lease or its rights hereunder, any subletting of the Premises and any license, mortgage, pledge or other transfer of any part of the Premises or any of Tenant's interests therein or under this Lease shall all be referred to hereinafter as a "Transfer." Furthermore, the sale, assignment or other transfer of any direct or indirect controlling interest in the Tenant (if a corporation), the sale, assignment or other transfer of any general partnership interest in Tenant (if a partnership), the sale of substantially all of Tenant's assets, and the merger or consolidation of Tenant into another organization, after which Tenant shall not be the surviving corporation or partnership, shall each be considered a "Transfer" for the purposes of this Lease.

Section 10.02 Restrictions. Tenant shall not Transfer this Lease or the Premises without first obtaining the Landlord's prior written consent thereto, which consent shall not be unreasonably withheld. In the event that Tenant proposes any Transfer, Tenant shall notify Landlord in writing at least 30 days before the date on which the Transfer is to be effective and, as included with such notice, furnish Landlord with (i) the name of the entity receiving such Transfer (the "Transferee"), (ii) a detailed description of the business of the Transferee, (iii) financial statements of the Transferee prepared in accordance with GAAP applied on a consistent basis, which shall be audited if audited statements are available, (iii) all written agreements governing the Transfer, and (iv) any other information reasonably requested by the Landlord with respect to the Transfer or the Transferee. In addition, Tenant shall reimburse to Landlord its legal fees and any other out-of-pocket expenses incurred in connection with the review and processing of such documentation, up to an amount of $1,500. Landlord shall respond to Tenant's request for approval or disapproval of the Transfer within 20 days after Landlord receives the request and all documents and information required above. Notwithstanding the foregoing, Landlord's consent shall not be required for any Transfer to an entity which is a parent, subsidiary or other affiliate of Landlord or to any corporation which has, at the time of the Transfer, a stockholder's equity equal to the stockholder's equity of the Tenant at the same point in time (as calculated in accordance with GAAP), provided that Tenant furnishes Landlord with the information regarding such Transfer which is required above for all Transfers.

Section 10.03 Liability to Landlord. Tenant hereby agrees that notwithstanding anything in this Lease to the contrary, and regardless of whether or not Landlord's consent is required hereunder, no Transfer shall be valid or effective unless and until the Transferee agrees in a written document, in form and substance reasonably satisfactory to Landlord, that the Transferee shall (1) in the case of a subletting of any part of the Premises, observe and perform all duties, obligations and liabilities of the Tenant under the terms of this Lease as such terms relate to the space subleased, or (2) in the case of all other Transfers, observe and perform all duties, obligations and liabilities of the Tenant under the terms of this Lease. In addition, no Transfer of any kind, regardless of whether or not Landlord's consent thereto is required hereunder, shall serve to relieve or release the Tenant in any way from full and direct liability for the timely performance of all of the Tenant's duties and obligations under this Lease.

Section 10.04 Excess Rents. In the event that Tenant effects any Transfer to a third party entity which is not affiliated with Tenant and at any time receives rent and/or other consideration on a periodic basis which exceeds that which Tenant is obligated to pay to Landlord hereunder, Tenant shall pay to Landlord 50% of such excess rent or other consideration, after

recovering the leasing commissions, tenant improvement costs and any other out-of-pocket costs of consummating such Transfer, when and as received by Tenant.

Section 10.05 Landlord's Transfers. Landlord shall have the unrestricted right to assign or transfer its interest in this Lease to purchasers of the Building, to holders of mortgages or deeds of trust on the Building, or to any other party, and upon the assumption by any such party of the obligations of Landlord hereunder, Landlord shall be released from all duties, obligations and liabilities arising hereunder after the assignment or transfer becomes effective. Landlord shall endeavor to give Tenant 30 days' prior notice of such assignment or transfer.

ARTICLE XI - RULES & REGULATIONS

Section 11.01 Landlord's Rules. The Landlord shall have the right to impose and subsequently modify, from time to time, reasonable rules and regulations (hereinafter referred to as the "Rules and Regulations") having uniform applicability to all tenants of the Building (subject to the provisions of their respective leases) and governing their use and enjoyment of the Building and the remainder of the Property. The Tenant and its agents, employees, invitees and licensees shall comply with such Rules and Regulations after receiving notice thereof. A copy of the Rules and Regulations in effect on the date hereof is attached hereto as Exhibit C.

ARTICLE XII - MORTGAGE LENDERS

Section 12.01 Subordination. This Lease shall be subject and subordinate to the lien, operation and effect of each mortgage, deed of trust, ground lease and/or other similar instrument covering any or all of the Premises or the Property, and each renewal, modification or extension thereof (each of which referred to as a "Mortgage"), all automatically and without the necessity of any further action by either party hereto, provided, however, that in the event the beneficiary or ground lessor under any such Mortgage (referred to as a "Mortgagee") succeeds to the interest of Landlord hereunder through foreclosure or otherwise, such Mortgagee shall honor this Lease and not disturb Tenant in its possession of the Premises except upon an Event of Default (defined in Section 14.01 below). In addition, Tenant shall attorn to any such Mortgagee and agrees that such Mortgagee shall not be liable to Tenant for any defaults by Landlord under this Lease or for any other event occurring prior to such Mortgagee's succeeding to the interest of Landlord hereunder. Upon request of either party hereto, the parties shall use commercially reasonable efforts to obtain from any Mortgagee a separate written agreement setting forth the foregoing rights of subordination, non-

disturbance and attornment. Landlord represents to Tenant that as of the date hereof, the Property is not subject to any debt.

Section 12.02 Written Agreement. The Tenant shall, within 10 days after request by the Landlord or any Mortgagee, execute, acknowledge and deliver such further instrument as is requested by Landlord or any Mortgagee to acknowledge the rights of the parties described in Section 12.01 above and providing such other information and certifications as is reasonably requested. Any Mortgagee may at any time subordinate the lien of its Mortgage to the operation and effect of this Lease without obtaining the Tenant's consent thereto, in which event this Lease shall be deemed to be senior to such Mortgage without regard to their respective dates of execution, delivery and/or recordation among the land records of the jurisdiction in which the Property is located.

Section 12.03 Estoppel Certificate. Landlord and Tenant shall each, from time to time within 10 business days after request by the other (or any Mortgagee), execute, acknowledge and deliver (or, at the Landlord's request, to any existing or prospective purchaser, assignee or Mortgagee) a written certification (a) that this Lease is unmodified and in full force and effect (or, if there has been any modification, stating the nature of such modification), (b) as to the dates to which the Base Rent and any Additional Rent and other charges arising hereunder have been paid, (c) as to the amount of any prepaid Rent or any credit due to the Tenant hereunder, (d) that the Tenant has accepted possession of the Premises and all improvements thereto are as required hereunder, and the date on which the Term commenced, (e) as to whether, to the best knowledge, information and belief of the party executing the certificate, the Landlord or the Tenant is then in default in performing any of its obligations hereunder (and, if so, specifying the nature of each such default), and (f) as to any other fact or condition reasonably requested. Any such certificate may be relied upon by the Landlord and any such other party to whom the certificate is directed.

ARTICLE XIII - ENVIRONMENTAL COVENANTS

Section 13.01 Definition. For purposes of this Lease, the term "Hazardous Substances" means (i) any "hazardous waste" as defined by the Resource Conservation and Recovery Act of 1976 (42 U.S.C. Section 6901 et. seq.), as amended from time to time, and regulations promulgated thereunder, (ii) any "hazardous substance" as defined by the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (42 U.S.C. Section 9601 et. seq.), as amended from time to time, and regulations promulgated thereunder, (iii) any "oil, petroleum products, and their by-products" as defined by the Maryland Environment Code Ann. Section 411(3)(I), as amended from time to time, and regulations promulgated thereunder, (iv) any

"controlled hazardous substance" or "hazardous substance" as defined by the Maryland Environment Code Ann., Title 7, subtitle 2, as amended from time to time, and regulations promulgated thereunder, (v) any "infectious waste" as defined by the Maryland Environment Code Ann. Section 9-227, as amended from time to time, and regulations promulgated thereunder, (vi) any explosives, flammable substances, radioactive materials, asbestos in any form, paint containing lead, materials containing urea formaldehyde, polychlorinated biphenyls, or any other hazardous, toxic or dangerous substances, wastes or materials, and (vii) any other substance which by any federal, state or local law or regulation requires special use, storage, handling or disposal.

Section 13.02 Prohibitions. Tenant hereby covenants and agrees as follows:

(A) In the event Tenant plans to store, use or otherwise handle any Hazardous Substances at the Premises, Tenant shall notify Landlord in writing with a description of the relevant substance, the nature of the activity to be undertaken, Tenant's plans for proper securing and disposal of the substance, and any other information requested by Landlord.

(B) Any storage, use, disposal or other handling of Hazardous Substances shall be conducted strictly in accordance with any and all federal, state and local laws and regulations applicable thereto. Tenant shall obtain and maintain in full force and effect at all times any licenses, permits or other approvals for such activities.

(C) Upon request of Landlord, Tenant shall provide copies of all documentation verifying the legal and authorized nature of the Tenant's handling of the Hazardous Substance and any other records held by Tenant with respect thereto.

(D) At all times, Tenant shall permit the Landlord or its representatives to monitor the compliance by Tenant with all applicable laws and regulations through inspections, testing or other methods.

(E) Tenant shall take any and all steps to protect the value and marketability of the Property, which steps shall include the proper securing of any Hazardous Substances legally handled at the Premises by Tenant, the safe handling of such Substances, and the immediate remediation of the consequences following any accident or other adverse circumstances.

Section 13.03 Inspection. Landlord, in addition to its other rights under this Lease, may enter upon the Premises at any time for the purposes of inspecting to determine whether the Premises or the environment have

become contaminated with Hazardous Substances. In the event Landlord discovers the existence of any such contamination due to fault or other act of Tenant or its agents, employees, invitees or licensees, Tenant shall reimburse Landlord upon demand for the costs of such inspection, sampling and analysis.

Section 13.04 Indemnification. Without limiting the above, Tenant shall indemnify and hold harmless Landlord from and against any and all claims, losses, liabilities, damages, costs and expenses, including without limitation attorneys' fees and the costs of any required or necessary repair, cleanup or detoxification, arising out of or in any way connected with the existence, use, manufacture, storage or disposal of Hazardous Substances by Tenant or its employees, agents, invitees, licensees or contractors on, under or about the Premises, the Building or the Property. The indemnity obligations of Tenant under this clause shall survive any termination of this Lease.

Section 13.05 Representation. Except as may be disclosed in the Environmental Property Evaluation of Airport Square III dated March 6, 1996 prepared by Environmental Management Group, Landlord hereby represents to Tenant that to the best of Landlord's knowledge, as of the date hereof, the Premises do not contain any Hazardous Substances requiring remediation under applicable law. Landlord shall indemnify and hold harmless Tenant from and against any and all claims, judgments, losses, liabilities, damages, costs and expenses, including without limitation attorney's fees and the costs of any required or necessary repair, cleanup or detoxication, arising out of or in any way connected with the existence, use, manufacture, storage or disposal of Hazardous Substances on, under or about the Premises, the Building or the Property by Landlord, provided, however, that the foregoing indemnification shall not apply to any claims, judgments, losses, liabilities, damages, costs or expenses attributable to Hazardous Substances to the extent that Tenant has contributed to or exacerbated the condition or quantity of such Hazardous Substances or any damage or injury resulting therefrom. Landlord shall also indemnify and hold harmless Tenant from and against any and all judgments and reasonable defense costs in connection with any lawsuit or administrative enforcement action brought against Tenant by a governmental agency or authority or private party (other than a Tenant Affiliate) seeking remediation or contribution towards the cost of remediation of Hazardous Substances placed in or at the Premises by any person or entity (other than Landlord, Tenant or a Tenant Affiliate) prior to the entry onto the Property of Tenant or any of its employees, agents, invitees, licensees or contractors, provided, however, that the forgoing indemnification shall not' apply to any "judgments or reasonable defense costs attributable to Hazardous Substances where, in violation of any provision of this Lease including, without limitation, any provision of this Article XIII, Tenant has contributed to or exacerbated the condition or

quantity of such Hazardous Substances or any damage or injury resulting therefrom. Landlord shall have the right to conduct the defense of Tenant against any asserted liability within the scope of Landlord's indemnifications with an attorney of Landlord's choice. As used in this Section 13.05, the term "Tenant Affiliate" shall mean and include any affiliate, agent, employee, contractor, licensee or invitee of Tenant or of any affiliate of Tenant. As used in the preceding sentence, the term "affiliate" shall mean any person or entity which, either directly or indirectly, owns or controls, is owned or controlled by, or is under common ownership or control with, Tenant. The indemnify obligations of Landlord under this Section 13.05 shall survive any termination of this Lease.

ARTICLE XIV - DEFAULT AND REMEDIES

Section 14.01 Defaults. As used in the provisions of this Lease, each of the following events shall constitute, and is hereinafter referred to as, an "Event of Default":

(A) If the Tenant fails to (1) pay any Rent or any other sum which it is obligated to pay by any provision of this Lease, when and as due and payable hereunder, or (2) perform any of its other obligations under the provisions of this Lease; or

(B) If the Tenant or any guarantor of this Lease (1) applies for or consents to the appointment of a receiver, trustee or liquidator of the Tenant or of all or a substantial part of its assets, (2) is subject to a petition in bankruptcy or admits in writing its inability to pay its debts as they come due, (3) makes an assignment for the benefit of its creditors, (4) files a petition or an answer seeking a reorganization or an arrangement with creditors, or seeks to take advantage of any insolvency law, (5) performs any other act of bankruptcy, or (6) files an answer admitting the material allegations of a petition filed against the Tenant in any bankruptcy, reorganization or insolvency proceeding.

Section 14.02 Grace Period. Anything contained in the provisions of this article to the contrary notwithstanding, on the occurrence of an Event of Default, the Landlord shall not exercise any right or remedy which it holds under any provision of this Lease or applicable law unless and until:

(A) The Landlord has given written notice thereof to the Tenant, and

(B) The Tenant has failed, (l) if such Event of Default consists of a failure to pay money, to pay all of such money within 5 days after such notice, or (2) if such Event of Default consists of something other than a failure to pay money, to fully cure such Event of Default within 15

days after such notice or, if such Event of Default cannot be cured within 15 days and Tenant commences to cure same within 15 days, to proceed diligently with efforts to cure such Event of Default and to fully cure same within 60 days; all provided, that

(C) No such notice shall be required, and the Tenant shall be entitled to no such grace period, (1) if the same Event of Default occurs more than twice during any 12 month period, or (2) in the case of any Event of Default enumerated in the provisions of subsection (B) in Section 14.01 above.

Section 14.03 Remedies. Upon the occurrence of any Event of Default, the Landlord may (subject to Section 14.02 above) take any or all of the following actions:

(A) Sell at public or private sale all or any part of the fixtures, equipment, inventory and other tangible personal property belonging to Tenant (but not any intangible personal property or any confidential business records) in which the Landlord has a lien by grant from Tenant, statute or otherwise, at which sale Landlord shall have the right to become the purchaser upon being the highest bidder, and apply the proceeds of such sale, first, to the payment of all costs and expenses of seizing and storing such property and conducting the sale (including all attorneys' fees), second, toward the payment of any indebtedness, including (without limitation) that for Rent, which may be or may become due from Tenant to Landlord, and, third, to pay Tenant any surplus remaining after all indebtedness of Tenant to Landlord including expenses has been fully paid;

(B) Perform on behalf of and at the expense of Tenant any obligation of Tenant under this Lease which Tenant has failed to perform, with prior notice to Tenant, the total cost of which by Landlord, together with interest thereon at the rate of 18% per annum from the date of such expenditure, shall be deemed Additional Rent and shall be payable by Tenant to Landlord upon demand;

(C) With or without terminating this Lease and the tenancy created hereby, reenter the Premises with or without court action or summary proceedings, remove Tenant and all other persons and property from the Premises, and store any such property in a public warehouse or elsewhere at the costs of and for the account of Tenant, all without resort to legal process and without Landlord being deemed guilty of trespass or becoming liable for any loss or damage occasioned thereby;

(D) With or without terminating this Lease, and from time to time, make such improvements, alterations and repairs as may be necessary in order to relet the Premises, and relet the Premises or any part thereof upon such term or terms (which may be for a term extending beyond

the term of this Lease) at such rental or rentals and upon such other terms and conditions (which may include concessions, free rent and/or improvements) as Landlord in its sole discretion may deem advisable; and, upon each such reletting, all rentals received by Landlord shall be applied, first, to the payment of any indebtedness other than Rent due hereunder from Tenant to Landlord, second, to the payment of all costs and expenses of such reletting (including but not limited to brokerage fees, reasonable attorneys' fees and costs of improvements, alterations and repairs attributable to the unexpired Term of this Lease), third, to the payment of all Rent due and unpaid hereunder, and the balance, if any, shall be held by Landlord and applied in payment of future rent as the same may become due and payable hereunder;

(E) Enforce any provision of the Lease or any other agreement between the parties by injunction, temporary restraining order or other similar equitable remedy; and/or

(F) Exercise any other legal or equitable right or remedy which it may have by law or otherwise.

No reentry or taking possession of the Premises by Landlord shall be construed as an election on its part to terminate this Lease unless a written notice of such intention be given to Tenant or unless the termination thereof be decreed by a court of competent jurisdiction. Notwithstanding that Landlord may have re-leased the Premises without termination, Landlord may at anytime thereafter elect to terminate this Lease for any previous default. If the Premises or any part thereof is re-leased, Landlord shall not be liable for, nor shall Tenant's obligations hereunder be diminished by reason of, any failure by Landlord to relet the Premises or any failure by Landlord to collect any rent due upon such reletting. No action taken by the Landlord under the provisions of this section shall operate as a waiver of any right which the Landlord would otherwise have against the Tenant for the Rent hereby reserved or otherwise, and the Tenant shall at all times remain responsible to the Landlord for any loss and/or damage suffered by the Landlord by reason of any Event of Default. However, nothing in this Lease shall restrict or prohibit Tenant from taking any legal action of any kind to protect its rights available by virtue of this Lease or applicable law, all of which rights are reserved by Tenant in all respects.

Section 14.04 Damages. Upon any Event of Default, Tenant shall remain liable to the Landlord for the following amounts: (a) any Rent of any kind whatsoever which may have become due with respect to the period in the Term which has already expired, (b) all Rent which becomes due during the remainder of the Term, (c) all costs, fees and expenses incurred by Landlord in leasing the Premises to others from time to time, including but not limited

to leasing commissions, construction and other build-out costs, design and permitting costs and the like, and (e) all costs, fees and expenses incurred by Landlord in pursuit of its remedies hereunder, including but not limited to attorneys' fees and court costs. All such amounts shall be due and payable immediately upon demand by Landlord and shall bear interest at 18% per annum until paid. Furthermore, at Landlord's option, Tenant shall be obligated to pay, in lieu of item (b) above in this Section 14.04, an amount (the "Substitute Amount") which is equal to (i) the present value of all Rent which would become due during the remainder of the Term, including all Additional Rent which shall be deemed to continue and increase over such remainder of the Term at the average rate of increase occurring over the then-expired portion of the Term, with such present value to be determined by discounting at an annual rate of interest which is equal to the bond- equivalent yield for the most recent auction of U.S. Treasury Bills with a 1-year maturity, minus (ii) the fair market rental value of the Premises for the remainder of the Term, as determined by independent real estate professional selected by Landlord. Tenant and Landlord acknowledge and agree that payment to Landlord of the foregoing Substitute Amount a reasonable forecast of the actual damages which will be suffered by Landlord in case of an Event of Default by Tenant, which actual damages are otherwise difficult or impossible to ascertain, and therefore such payment constitutes liquidated damages and not a penalty. Any suit or action brought by Landlord to collect any such liquidated damages shall not in any manner prejudice any other rights or remedies of Landlord hereunder.

Section 14.05 Landlord's Lien. Tenant hereby grants to Landlord an express first and prior contract lien and security interest on all fixtures, equipment, inventory and other property (except for intangible personal property, such as patents and trademarks) owned by Tenant which may be placed in the Premises or affixed or attached thereto and also upon all proceeds of any insurance which may be issued on account of damage to any such property. All exemption laws are hereby waived in favor of said lien and security interest benefiting Landlord. This lien and security interest is given in addition to any statutory lien benefiting Landlord and shall be cumulative thereto or alternative thereto as elected by Landlord at any time. Landlord shall, in addition to all of its rights under the Lease, also have all of the rights and remedies of a secured party under the Uniform Commercial Code of the state in which the Premises are located. Notwithstanding the foregoing, the foregoing lien and security interest shall be automatically subject and subordinate to any lien and security interest granted by Tenant in order to secure the repayment of loans made to Tenant. Landlord shall, upon request, execute and deliver any separate agreement reasonably requested in order to provide evidence of such subordination.

Section 14.06 Waiver of Jury Trial. All parties hereto, both the Landlord and Tenant as principals and any guarantors, hereby release and waive any and all rights provided by law to a trial by jury in any court or other legal proceeding initiated to enforce the terms of this Lease, involving any such parties, or connected in any other manner with this Lease.

ARTICLE XV - QUIET ENJOYMENT

Section 15.01 Covenant. Landlord hereby covenants that the Tenant, on paying the Rent and performing the covenants set forth herein, shall peaceably and quietly hold and enjoy throughout the Term the Premises and such rights as the Tenant may hold hereunder with respect to the remainder of the Property.

ARTICLE XVI - NOTICES

Section 16.01 Notices. Any notice, demand or other communication to be provided hereunder to a party hereto shall be (a) in writing, (b) deemed to have been given (i) three (3) days after being sent in the United States mails, postage prepaid and certified, return receipt requested, (ii) one day after being sent by overnight courier, or (iii) immediately upon its actual delivery, and (c) addressed to the Premises and to the attention of Vice President and General Counsel if directed to the Tenant, or addressed to c/o Allegis Realty Investors, 242 Trumbull Street, Hartford, CN, Attn: Asset Manager - Airport Square, if directed to the Landlord.

ARTICLE XVII - GENERAL

Section 17.01 Entire Agreement. This Lease represents the entire agreement between the parties hereto as to the subject matter hereof and supersedes all prior written or oral negotiations, representations, warranties, statements or agreements between the parties hereto as to the same.

Section 17.02 Amendment. This Lease may be amended by and only by a written instrument executed and delivered by each party hereto.

Section 17.03 Applicable Law. This Lease shall be given effect and construed by application of the law of the state in which the Property is located.

Section 17.04 Waiver. Neither the Landlord nor the Tenant shall be deemed to have waived the exercise of any right which it holds hereunder unless such waiver is made expressly and in writing, and no delay or omission by either such party in exercising any such right shall be deemed to be a waiver of its future exercise. No such waiver as to any instance

involving the exercise of any such right shall be deemed a waiver as to any other such instance or any other such right.

Section 17.05 Time of Essence. Time shall be of the essence of this Lease.

Section 17.06 Headings. The headings of the articles, subsections, paragraphs and subparagraphs hereof are provided herein only for convenience of reference and shall not be considered in construing their contents.

Section 17.07 Severability. No determination by any court, governmental body or otherwise that any provision of this lease or any amendment hereof is invalid or unenforceable in any instance shall affect the validity or enforceability of any other such provision or such provision in any circumstance not controlled by such determination. Each such provision shall be valid and enforceable to the fullest extent allowed by, and shall be construed wherever possible as being consistent with, applicable law.

Section 17.08 Successors and Assigns. This Lease shall be fully binding upon the parties hereto and each of their respective successors and assigns. Whenever two or more parties constitute the Tenant, all such parties shall be jointly and severally liable for performing the Tenant's obligations hereunder.

Section 17.09 Commissions. Each party hereto hereby represents and warrants to the other that in connection with the leasing of the Premises hereunder, the party so representing and warranting has not dealt with any real estate broker, agent or finder, except for W.C. Pinkard & Co. and its cooperating broker, Casey & Associates (the "Broker"). Each party hereto shall indemnify the other against any inaccuracy in such party's representation. Landlord hereby agrees that it shall pay a commission to the Broker according to a separate agreement. The parties acknowledge and agree that the Broker shall be a third party beneficiary of the foregoing covenants.

Section 17.10 Recordation. This Lease may not be recorded among the land records or among any other public records, without the Landlord's prior written consent.

Section 17.11 Perpetuities. If the rule against perpetuities would invalidate this Lease or any portion hereof, or would limit the time during which this Lease shall be effective, due to the potential failure of an interest in property created herein to vest within a particular time, then notwithstanding anything to the contrary herein, each such interest in property must vest, if at all, before the passing of 21 years from the date of

this Lease, or this Lease shall become null and void upon the expiration of such 21 year period and the parties shall have no further liability hereunder.

Section 17.12 Liability Limitation. Landlord's maximum liability hereunder shall be limited to the value of Landlord's equity interest in the Building. Any liability of Landlord hereunder shall be without recourse to any trustee, director, officer, employee, representative, asset manager, investment advisor or agent of Landlord, all of whom shall have no personal liability in any connection with this Lease.

Section 17.13 Authority. Each party, as well as any entities and/or individuals executing this Lease on behalf of such party, represents and warrants to the other that the execution, delivery and performance of this Lease have been duly authorized by all required corporate, partnership or other action on the part of such party, and this Lease constitutes the valid and binding obligation of such party enforceable against such party in accordance with its terms.

Section 17.14 Exhibits. Each exhibit, addendum or other attachment hereto is hereby made a part of this Lease having the full force of all other provisions herein.

IN WITNESS WHEREOF, each party hereto has executed this Lease under seal on the day and year written first above.

LANDLORD:	AETNA LIFE INSURANCE COMPANY By: Aliegis Realty Investors LLC Its: Investment Advisor and Agent
/s/ BILL NIKOLIS - ---------- Witness	By: /s/ JAMES M. FISHMAN Name: James M. Fishman Title: Senior Vice President
TENANT:	CIENA CORPORATION
/s/ ERIC GEORGATOS - ---------- Witness	By: /s/ JOSEPH R. CHINNICI Name: Joseph R. Chinnici Title: Chief Financial Officer

JOINDER

The undersigned, Trustee pursuant to Trust Agreement dated March 28, 1996, the beneficiary of which is the Landlord named in the foregoing Lease, joins hereinbelow to subject its interest in the Property, as title owner of the Property, to the Lease, but not for the purpose of creating any obligations or liability for such Trustee thereunder.

TRUSTEE: THE TITLE GUARANTEE COMPANY

/s/ GAIL M. MARIGELS
- ----------
Witness

By: /s/ CATHERINE S. JENKINS
Name: Catherine S. Jenkins
Title: Assistant VP

EXHIBIT 10.15

MERCANTILE-SAFE DEPOSIT & TRUST COMPANY

REVOLVING NOTE
(COMMERCIAL)

$15,000,000.00 November 25, 1996

In this Note, the Bank named above is hereinafter referred to as "Bank." The Undersigned means each and all who sign below, whether one or more than one, and their obligations hereunder are joint and several.

On or before November 25, 1997, the Undersigned promised to pay to the order of Bank $15,000,000.00 (Fifteen Million U.S. Dollars), or so much thereof as Bank in its discretion has advanced or readvanced and is outstanding hereunder (being herein called "Principal Sum"), with interest as stated below on the Principal Sum. Bank has established a revolving line of credit for Undersigned from which Undersigned, subject to Bank's consent, may obtain one more loans from time to time, with the aggregate unpaid Principal Sum of such loans actually advanced and remaining unpaid not to exceed the face amount of this Note. Advances and readvances hereunder remaining unpaid from time to time shall bear interest each day until paid at a daily periodic rate corresponding to an annual percentage rate equal to -0- percent above Mercantile's Prime Rate (being herein called the "Index"). The daily periodic interest rate will increase or decrease as the Index increases or decreases. Where Bank's Prime Rate is used as the Index, the "Prime Rate" is one of several rates set by Bank from time to time as an interest rate base for borrowings. Bank may lend at rates above and below the Prime Rate. Interest shall be due and payable monthly.

If Maker fails to pay any amount within 15 days after the date on which it is due, Maker agrees to pay a late charge of the greater of $2 or 5% of the delinquent amount. All payments will be applied in any manner we choose except as otherwise required by applicable law. Generally, payments are applied first to interest due; second to principal due, third to late charges; fourth to any remaining interest and finally to the remaining principal.

Maker covenants to provide Bank such financial information as Bank may request from time to time and authorizes Bank to make all inquiries it deems necessary to verify the accuracy of the information provided, to protect and maintain its assets in good condition and repair, free of all liens and encumbrances, to keep its assets insured against loss by fire, theft and other casualties as required by Bank in such amounts and by carriers satisfactory to Bank, not to dispose of any assets except in the ordinary course of business, and to pay all taxes and assessments when due.

Advances and readvances hereunder may be prepaid in whole or in part. The fact that the balance hereunder may be reduced to zero from time to time will not affect the continuing validity of this Note, and the balance may be increased to the face amount of the Note after such reductions to zero. Bank in its discretion may make an advance which causes the principal balance to exceed the face amount of the Note and such excess shall be paid by the Undersigned upon demand with interest as provided above.

Each of the following events shall constitute a default hereunder; (a) the breach of any representation in or the failure of any Obligor (which term shall include each Maker, endorser, surety and guarantor of any of the Liabilities) to perform any covenant or agreement under any of the Liabilities (which term shall include all obligations under this Note, and any renewals, extensions or modifications thereof, and all other obligations of any kind of Maker to Bank and to any other party to the extent of Bank's interest therein, now or hereafter existing, including liabilities to Bank of Maker as a member of any partnership or other group and whether incurred by Maker as principal or otherwise); (b) the death of any Obligor; (c) the filing of any petition under the Federal Bankruptcy Code or any similar Federal or state statute, by or against Obligor; (d) an application or the appointment of a receiver for, the making of a general assignment for the Benefit of Creditors by, or the insolvency of an Obligor; (e) commencement of any proceeding under any Federal or state statute or rule providing for the relief of debtors, composition of creditors, arrangement, reorganization, receivership liquidation or any similar event by or against any Obligor; (f) the entry of a judgment against any Obligor; (g) the issuing of any attachment or garnishment, or the filing of any lien, against any property of any Obligor; (h) the suspension by any Obligor of the transaction of such Obligor's usual business; (i) the merger or consolidation of any corporate Obligor with any other corporation or the transfer, disposition or encumbrance of all or a substantial part of the assets of any Obligor; (j) if any Obligor misinformed or failed to inform Bank as to any matter which the Bank deems material to a Liability; (k) the determination by an officer of Bank that an adverse change has occurred in the financial condition of any Obligor from the condition of such Obligor as heretofore most recently disclosed to Bank by a financial statement or in any other manner. If this Note is payable upon demand may be made whether or not an event has occurred.

To secure payment of the Liabilities, Bank is hereby granted a lien and security interest in all property of any Obligor held now or hereafter by Bank in any capacity and upon the occurrence of any default hereunder Bank shall have the right , immediately and without further action by it, to set-off against any of the Liabilities, all such property, and Bank shall be deemed to have exercised such right of set-off and to have made a charge against such property immediately upon the

occurrence of such default even though such charge is made or entered subsequently on the books of Bank.

A delay by Bank in exercising any right or remedy shall not constitute a waiver. A waiver of a default, right or remedy shall not constitute a waiver of a subsequent default, right or remedy. A single or partial exercise of a right or remedy shall not preclude or constitute a waiver of any unexercised right or remedy. Bank will not waive a default by accepting partial payment of any amount due. All rights and remedies hereunder and under applicable laws shall be cumulative. Every obligation of each Obligor is joint and several. Bank may exercise its rights against Collateral or an Obligor without first having recourse against any other collateral or Obligor.

Whenever any Obligor shall be in default hereunder, Bank at its option (1) may cure the default at Maker's expense; (2) may refuse to make further advances; (3) may declare any of the Liabilities immediately due and payable; and (4) may exercise any or all rights and remedies available to it under the Liabilities and applicable law.

Maker covenants to pay on demand, with interest until paid in full at the rate imposed upon principal herein, all expenses incurred by Bank, including legal fees, to cure any default herein, to enforce any provision of the Liabilities or to exercise any right or remedy.

Each Obligor waives presentment, notice of dishonor, protest and all other demands and notices in connection with any of the Liabilities and with respect to any collateral and waives any right to trial by jury and further agrees that the courts of the State of Maryland shall have personal jurisdiction over it in any legal proceedings with respect to any of the Liabilities. Each Obligor without further notice assents to all extensions of the time of payment of any Liability or any other indulgence or modification of a Liability, to any substitution, exchange or release of collateral and to the addition or release of any Obligor, whether or not done for consideration, all without in any way affecting its obligation. Bank may unjustifiably and without reservation of rights impair any Obligor's recourse against another obligor or collateral. Except when invalid or unenforceable by statute or otherwise, each and every Obligor authorizes any attorney designated by Bank to confess judgment in any Court of Record and authorizes Bank to instruct the clerk of any Court of Record to confess judgment against such Obligor at any time after this Note is due by its terms or upon default, for the unpaid balance of this Note and interest payable thereon, together with court costs and all other amounts payable to Bank pursuant hereto, including an attorney's fees of 15% of the total sum due, provided, however, that any lien arising from such confession of judgment shall not without further proceedings, apply or attach to any real property as described in section 12-401(i) of the Maryland Secondary Mortgage Loan Law as the same may be amended from time to time unless this is a loan to a corporation or a commercial loan in excess of $75,000.00.

The Undersigned hereby authorizes the Bank to accept instructions by telephone from any of the Undersigned or a duly authorized representative of the Undersigned to make advances or receive a repayment hereunder. All advances made hereunder shall be credited to the Undersigned's deposit account with the Bank. The Undersigned agrees that the actual crediting of the sum of money so borrowed to the Undersigned's deposit account shall constitute conclusive evidence that the advance was made, and the failure of the Bank to forward to the Undersigned an advice of credit shall not affect the obligation of the Borrower to repay such advance.

This Note contains the full agreement of the parties and may be modified only by a writing executed by the party to be charged.

This Note is executed and delivered the date above written as an instrument under Seal, specifically intending it to be a specialty and shall be governed by the Laws of the State of Maryland.

CORPORATION OR PARTNERSHIPS SIGN BELOW		INDIVIDUALS SIGN BELOW	
Ciena Corporation	(SEAL)		(SEAL)
By Joseph R. Chinni, CFO	(SEAL)		(SEAL)
By Andrew C. Patrick Treasurer	(SEAL)		(SEAL)

GUARANTY

In consideration of the loan or forebearance evidenced by the foregoing Note, the undersigned (jointly and severally) absolutely and unconditionally guarantees to Bank and every subsequent holder of the Note (irrespective of its genuineness, validity, regularity or enforceability or any other circumstance) the prompt payment of the Note when due according to its terms, which are incorporated herein, and as they maybe modified subsequently by any extension or renewal, in whole or in part, any change in the interest rate or other term, or the exchange, assignment, extension, waiver, modification or surrender of any related right or security; and Bank and every subsequent holder of the Note at its option may proceed in the first instance against the undersigned to collect any obligation covered by this Guaranty, without first proceeding against any Collateral and other Obligor.

Any debt of Borrower to the Undersigned, nor or hereafter existing, is and shall be subordinated to the indebtedness and liability herein guaranteed. The Undersigned agrees not to assert any right, directly or by subrogation, against the Borrower or any assets securing payment of the indebtedness or liability herein guaranteed, so long as this Guaranty is outstanding.

Executed and delivered on the date of the foregoing Note under Seal and specifically intending this to be a specialty, governed by the laws of the State of Maryland.

CORPORATIONS OR PARTNERSHIPS SIGN BELOW	INDIVIDUALS SIGN BELOW
(SEAL)	(SEAL)
- ----------	----------
Name of Corporation of Partnership	
By (SEAL)	(SEAL)
----------	----------
By (SEAL)	(SEAL)
----------	----------

MERCANTILE-SAFE DEPOSIT & TRUST COMPANY

BUSINESS LOAN AGREEMENT

11/25/96

(Date)

THIS BUSINESS LOAN AGREEMENT (this "Agreement") is made in favor of the above named Bank (the "Bank") by the undersigned (the "Obligor", whether one or more than one), witnesseth:

In consideration of loans, credits and other financial accommodations made or to be made or continue to the Obligor by the Bank of any kind and nature whatsoever, including, without limitation, such indebtedness, liabilities and obligations of the Obligor to the Bank which are direct, indirect, contingent, primary, secondary, alone, jointly with others, due, to become due, future advances, now existing, hereafter created, principal, interest, expense payments, liquidation costs, and attorney's fees and expenses (collectively, the "Obligations") pursuant to the terms, conditions and provisions of any note, security agreement, pledge agreement, guaranty agreement, mortgage, deed of trust, loan agreement, hypothecation agreement, indemnity agreement, letter of credit application, assignment, or any other document previously, simultaneously or hereafter executed and delivered by the Obligor or any other persons, singly or jointly with another person or persons, evidencing, securing, guarantying or in connection with any of the Obligations (collectively, the "Loan Documents"), the Obligor agrees (jointly and severally if more than one) with the Bank as follows:

1. Representations and Warranties. The Obligor hereby makes the following representations and warranties to the Bank, each of which shall be deemed repeated and confirmed as of the date any of the Obligations are created:

1.01. Good Standing. The Obligor is a Corporation duly organized and existing, in good standing, under the laws of the State of Delaware and has the power to own its property and to carry on its business and is in good standing in each jurisdiction in which the transaction of its business makes such qualifications necessary.

1.02. Authority. The Obligor has full power and authority to enter into this Agreement, to incur the Obligations, to execute and deliver the Loan Documents to which it is a party and to perform and comply with the terms, conditions and agreements set forth herein and therein, all of which have been duly authorized by all proper and necessary actions of the Obligor.

1.03. Binding Agreement. This Agreement constitutes, and each of the other Loan Documents constitutes or will constitute when issued and delivered for value received, the valid and legally binding obligation of the Obligor in accordance with its respective terms.

1.04. Litigation. There are no proceedings pending or threatened before any court or administrative agency which will materially adversely affect the financial condition or operations of the Obligor. (See attached Schedule A)

1.05. No Conflicting Agreements. There are no provisions of the Obligor's articles of co-partnership, charter, bylaws or any agreement binding on the Obligor or affecting its property, which would conflict with or in any way prevent the execution, delivery, or carrying out of the terms of this Agreement or any of the Loan Documents.

1.06. Financial Condition. The Obligor's financial statement dated September 30, 1996, were prepared in accordance with generally accepted accounting principles consistently applied and fairly and accurately present the condition of the Obligor as of their date and the results of its operations for the period then ended. There has been no material adverse change in the condition of the Obligor or the results of its operations since the date of such financial statements.

1.07. Information. All information contained in any financial statement, application, schedule, report or any other document given by the Obligor or by any other person in connection with the Obligations or with any of the Loan Documents is in all respects true and accurate and the Obligor or such other person has not omitted to state any material fact or any fact necessary to make such information not misleading.

1.08. Assets. The Obligor has good and merchantable title to all of its assets and properties and there are no liens, security interests or other encumbrances outstanding against any of these assets and properties except those disclosed by the Obligor in writing to the Bank immediately prior to the date or this Agreement.

1.09. Place(s) of Business. The Obligor has disclosed to the Bank in writing immediately prior to the date of this Agreement the address of each of its places of business.

1.10. Taxes. All taxes, assessments and governmental charges and liens imposed upon the Obligor and its properties, operations and income (collectively, the "Taxes") have been paid and discharged prior to the date when any interest or penalty would accrue for the nonpayment thereof, except for those Taxes disclosed to the Bank in writing immediately prior to the date of this Agreement.

2. Affirmative Covenants. Until payments in full of all of the Obligations, the Obligor will:

2.01. Financial Statements. Maintain at all times a system of accounting satisfactory to the Bank and will furnish to the Bank at such time or times as specified by the Bank such financial statements as may be required by the Bank.

2.02. Information. Furnish to he Bank promptly at any time and from time to time such information concerning the operations, business, affairs and financial condition of the Obligor as the Bank may request.

2.03. Inspection. Permit representatives of the Bank to inspect and make copies of the books, records and properties of the Obligor or relating to the Obligor at any reasonable time, wherever such books, records and properties are maintained or located.

2.04. Management. Maintain the current management of the Obligor or other management reasonably satisfactory to the Bank and will notify the Bank promptly of any management change.

2.05 Life Insurance. Maintain at all times life insurance with a responsible insurance company on the lives of the following persons: N/A in the following amounts NA and with assignment of proceeds of such life insurance to the Bank pursuant to written assignment in form and content satisfactory to the Bank.

2.06. Litigation. Promptly notify the Bank of any litigation instituted or threatened against the Obligor and the entry of any judgment or lien against the Obligor or any of its assets and property where the claims against the Obligor or its assets and property exceed $250,000.

2.07. Insurance. Maintain insurance with responsible insurance companies on such of its assets and properties, in such amounts and against such risks as is satisfactory in the Bank, and furnish to the Bank promptly upon request certificates evidencing such insurance.

2.08. Adverse Debt. Promptly notify Bank of any additional debt incurred.

2.09. Existence. Maintain its existence in good standing in each jurisdiction where the Obligor does business.

2.10. Profitability. Be profitable in each calendar month.

2.11. Quick Ratio. Maintain at all times a Quick Ratio of 1.25 to 1. Quick Ratio for this purpose shall mean cash and accounts receivable divided by all current liabilities.

2.12. Taxes. Except to the extent that the validity or amount thereof is being contested in good faith and by appropriate proceedings, pay and discharge all Taxes prior to the date when any interest or penalty would accrue for the non-payment thereof.

2.13. Proceeds of Obligation. Use the proceeds of any of the Obligations advanced to the Obligor on and after the date hereof only for the purpose(s) specified in writing to the Bank.

3. Negative Covenants. Until payment in full of all of the Obligations, the Obligor will not, without the prior written consent of the Bank:

3.01. Capital Structure. Alter or amend its capital structure or dissolve, merge or consolidate with or into any other person or make any investment in or acquire any interest in or a substantial portion of the assets of any other person.

3.02. Dividends and Similar Events. Purchase, redeem or otherwise retire any shares of its capital stock, voluntarily prepay, acquire or anticipate any sinking fund requirement of any indebtedness or pay any cash dividends.

3.03. Indebtedness. Incur any indebtedness for money borrowed likely to impair Bank's ability to collect the debt.

3.04. Loans. Make any loans, advances to, or guaranty any loans or advances to, any person, except that Obligor may purchase or acquire prime commercial paper or certificates of deposit in United States commercial banks with assets of not less than $1 billion, obligations of the

United States government or any agency thereof, obligations of the State of Maryland, and obligations guaranteed by the United States government or the State of Maryland. Advances to stockholders and/or affiliates are permitted but may not exceed $50,000.00 in aggregate.

3.05. Negative Pledge. Mortgage, pledge or otherwise encumber or permit any lien, security interest or other encumbrance including purchase money liens whether under conditional or installment sales arrangements or otherwise, to arise upon any of its assets or properties excepting security interests and liens granted to the Bank or liens for Taxes not yet due or which are being contested in good faith by appropriate proceedings.

3.06. Sale of Assets. Sell, lease or dispose of any assets and property outside of the ordinary course of business.

3.07. Lease Obligations. Enter into any new leases of real or personal property with annual lease payments totaling over $600,000.00.

3.08. Capital Expenditures. Make capital expenditures in excess of $40,000,000.00, during any twelve (12) month period.

4. Default. The occurrence of any one or more of the following events shall constitute a default under this Agreement:

4.01. Failure to Pay. The failure of the Obligor to pay any of the Obligations as and when due and payable (whether by acceleration, declaration, extension or otherwise);

4.02. Covenants and Agreements. The failure of the Obligor to perform, observe or comply with any of the covenants of this Agreement;

4.03. Information, Representations and Warranties. If any information furnished or representation or warranty made or given by the Obligor herein or furnished in connection with any of the Obligations shall prove untrue in any material respect;

4.04. Default under Loan Documents. The occurrence of a default under any of the Loan Documents;

4.05. Default on Other Obligations. The occurrence of any event which would permit the acceleration of the maturity of any note, loan or other agreement between the Obligor and any person other than the Bank.

4.06. Bankruptcy. The filing of any petition under the Bankruptcy Act or any similar Federal or State statute by or against the Obligor, or the failure of the Obligor generally to pay its debts as such debts become due;

4.07 Insolvency. An application for the appointment of a receiver for, the making of a general assignment for the benefit of creditors by, or the insolvency of, the Obligor.

4.08. Adverse Change of Financial Condition. The determination in good faith by the Bank that a material adverse change has occurred in the financial condition of the Obligor from the condition set forth in the most recent financial statement of the Obligor furnished by the Obligor to the Bank before the execution of this agreement, or from the financial condition of the Obligor as heretofore most recently disclosed to the Bank in any other manner, or

4.09. Prospect of Payment. The determination in good faith by the Bank that the prospect of payment of any of the Obligations when due and payable is impaired for any reason.

5. Rights and Remedies Upon Default. In the event of a default hereunder, the Bank may, at its option, and without notice to the Obligor, declare the unpaid balance of all or any part of the Obligations to be immediately due and payable. In this event, the Bank may exercise any rights and remedies available to it under any of the Loan Documents and under applicable laws, and the Bank is authorized to offset and apply to all or any part of the Obligations, all moneys, credits and other property of any nature whatsoever of the Obligor now or at any time hereafter in the possession of, in transit to or from, under the control or custody of, or on deposit with, the Bank in any capacity whatsoever, including, without limitation, any balance of any deposit account and any credits with the Bank.

The Obligor shall reimburse and pay on demand all costs and expenses, including, without limitation, attorney's fees and expenses, incurred by or on behalf of the Bank in collecting the Obligations. All of such costs and expenses shall bear interest at a per annum rate of interest equal to the then highest rate of interest charged on the principal of any of the Obligations plus 1% per annum from the date of payment until repaid in full.

6. Remedies Cumulative. Each right, power and remedy of the Bank as provided for in this Agreement or in the Loan Documents now or hereafter existing at law or in equity or by statute or otherwise shall be cumulative and concurrent and shall be in addition to every other right, power or remedy provided for in this Agreement or in the Loan Documents or now or hereafter existing at law or in equity or by statute otherwise, and the exercise or beginning of the exercise by the Bank of any one or more of such rights, powers or remedies shall not preclude the simultaneous or later exercise by the Bank of any or all such other rights, powers or remedies.

7. Waiver. No failure or delay by the Bank to insist upon the strict performance of any term, condition, covenant or agreement of this Agreement or of the Loan Documents, or to exercise any right, power or remedy consequent upon a breach thereof, shall constitute a waiver of any such term, condition, covenant or agreement or of any such breach, or preclude the Bank from exercising any such right, power or remedy at any later time or times. By accepting payment after the due date of any of the Obligations, the Bank shall not be deemed to have waived the right either to require prompt payment when due of all other Obligations, or to declare a default for failure to effect such payment of any such other Obligations.

8. Miscellaneous. The paragraph headings of this Agreement are for convenience only, and shall not limit or otherwise affect any of the terms hereof. Neither this Agreement nor any term, condition, covenant or agreement hereof may be changed, waived, discharged or terminated orally, but only by an instrument in writing signed by the party against whom enforcement of the change, waiver, discharge or termination is sought. This Agreement shall be governed by the laws of the State of Maryland and shall be binding upon the personal representatives, successors and assigns of the Obligor and shall inure to the benefit of the successors and assigns of the Bank. Unless otherwise provided herein, all accounting terms used herein shall be defined and applied on a consistent basis in accordance with generally accepted accounting principals. As used herein, the singular number shall include the plural, the plural the singular and the use of the masculine, feminine or neuter gender shall include all genders, as the context may require, and the term "person" shall include an individual, a corporation, an association, a partnership, a trust and an organization. The term "Obligations" as used herein shall not include any loans to a noncorporate Obligor which is not a "commercial loan" (as defined by Section 12-101(c) of the Commercial Law Article of the Annotated Code of Maryland) in excess of $15,000.

The signature(s) and seal(s) of the Obligor(s) is/are subscribed to this Agreement as a sealed instrument the day and year written above.

Ciena Corporation

Obligor's Name

By /s/ JOSEPH R. CHINNICI CFO & VP FINANCE

Signature and title

/s/ ANDREW C. PETRICK TREASURER, CONTROLLER

CONSENT OF INDEPENDENT ACCOUNTANTS

We hereby consent to the use in the Prospectus constituting part of this Registration Statement on Form S-1 of our report dated November 27, 1996, except as to the stock split, share authorizations and registration statement authorization described in Note 14 which is as of December 10, 1996, relating to the financial statements of CIENA Corporation, which appears in such Prospectus. We also consent to the reference to us under the heading "Experts" in such Prospectus.

PRICE WATERHOUSE LLP

Falls Church, VA
December 10, 1996

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THIS SCHEDULE CONTAINS SUMMARY FINANCIAL INFORMATION EXTRACTED FROM CIENA CORPORATION'S FINANCIAL STATEMENTS AS OF AND FOR THE FISCAL YEAR ENDED OCTOBER 31, 1996 AND IS QUALIFIED IN ITS ENTIRETY BY REFERENCE TO SUCH FINANCIAL STATEMENTS.

1,000

YEAR
OCT-31-1996
NOV-01-1995
OCT-31-1996
22,557
0
16,759
0
13,228
55,012
11,863
1,388
67,301
19,156
2,673
40,404
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132
4,838
26,897
54,838
54,838
21,844
21,844
16,607
0
296
16,968
2,250
14,718
0
0
0
14,718
0
0