

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

FORM 10-K

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended September 30, 2000

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission File Number: 0-22175

EMCORE Corporation  
(Exact name of registrant as specified in its charter)

NEW JERSEY 22-2746503  
(State or other jurisdiction of (I.R.S. Employer Identification No.)  
incorporation or organization)

145 Belmont Drive, Somerset, NJ 08873  
(Address of principal executive offices) (zip code)

Registrant's telephone number,  
including area code: (732) 271-9090  
Securities registered pursuant to  
Section 12(b) of the Act: None  
Securities registered pursuant to  
Section 12(g) of the Act: Common Stock, No Par Value

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes  No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

The aggregate market value of common stock held by non-affiliates of the registrant as of December 1, 2000 was approximately \$651,884,111 (based on the closing sale price of \$35.3125 per share).

The number of shares outstanding of the registrant's no par value common stock as of December 1, 2000 was 34,012,909.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive Proxy Statement for the 2001 Annual Meeting of Shareholders (to be filed with the Securities and Exchange Commission on or before January 28, 2001) are incorporated by reference in Part III of this Form 10-K.

EMCORE Corporation

FORM 10-K

For the fiscal year ended September 30, 2000

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## PART I

### Item 1. Business

#### Company Overview

EMCORE Corporation, a New Jersey Corporation, designs, develops and manufactures compound semiconductor materials and is a leading developer and manufacturer of the tools and manufacturing processes used to fabricate compound semiconductor wafers and devices. Established in 1986, EMCORE offers a comprehensive portfolio of compound semiconductor products for the rapidly expanding broadband and wireless communications and solid state lighting markets. EMCORE's product philosophy embodies state of the art technology, material science expertise and a shared vision of our customers' goals and objectives to be leaders and pioneers in the rapidly growing world of compound semiconductors. EMCORE's product line features: optical components for high-speed data and telecommunications; solar cells for global satellite communications; electronic materials for high bandwidth communications systems, such as Internet access and wireless telephones; MOCVD tools for the growth of GaAs, AlGaAs, InP, InGaP, InGaAsP, GaN, InGaN, AlGaN, and SiC epitaxial materials used in numerous applications, including data and telecommunications modules, cellular telephones, solar cells and high brightness LEDs. Our customers include Agilent Technologies Ltd., AMP, Inc., Anadigics Inc., Corning, Inc., General Motors Corp., Hewlett Packard Co., Honeywell Int'l Inc., Boeing-Spectrolab, JDS Uniphase Corp., Loral Space & Communications Ltd., Lucent Technologies, Inc., Motorola, Inc., Nortel Networks Corp., Siemens AG's Osram GmbH subsidiary, TriQuint Semiconductor, Inc. and more than a dozen of the largest electronics manufacturers in Japan. For further information about EMCORE, visit <http://www.emcore.com>.

#### Industry Overview

Recent advances in information technologies have created a growing need for efficient, high-performance electronic systems that operate at very high frequencies, have increased storage capacity, computational and display capabilities and can be produced cost-effectively in commercial volumes. In the past, electronic systems manufacturers have relied on advances in silicon semiconductor technology to meet many of these demands. However, the newest generation of high-performance electronic and optoelectronic applications require certain functions that are generally not achievable using silicon-based components.

Compound semiconductors have emerged as an enabling technology to meet the complex requirements of today's advanced information systems. Many compound semiconductor materials have unique physical properties that allow electrons to move at least four times faster than through silicon-based devices. Advantages of compound semiconductor devices over silicon devices include:

- o higher operating speeds;
- o lower power consumption;
- o reduced noise and distortion; and
- o light emitting and detecting optoelectronic properties.

Compound semiconductor devices can be used to perform individual functions as discrete devices, such as VCSELs, RF materials, solar cells, HB LEDs and MR sensors. Compound semiconductor devices can also be combined into integrated circuits, such as transmitters, receivers and alphanumeric displays. Although compound semiconductors are more expensive to manufacture than silicon-based devices, electronics manufacturers are increasingly integrating compound semiconductor devices into their products in order to achieve higher performance in applications targeted for a wide variety of markets. These include satellite communications, data communications, telecommunications, wireless communications, consumer and automotive electronics, computers and peripherals, and lighting.

The following factors have resulted in an increased demand for compound semiconductor products and systems that enable electronic systems manufacturers to reach the market faster with large volumes of high-performance products and applications:

- o widespread deployment of fiber optic networks and the increasing use of optical systems within these networks;
- o launch of new wireless services and wireless high-speed data systems;
- o rapid build-out of satellite communications systems;
- o increasing use of infrared emitters and optical detectors in computer systems;
- o emergence of advanced consumer electronics applications, such as DVDs and flat panel displays;
- o increasing use of high-performance electronic devices in automobiles; and
- o anticipated conversion to HB LEDs from incandescent, halogen and compact fluorescent lighting.

The following chart summarizes the principal markets, examples of applications for compound semiconductor devices, products incorporating these devices and certain benefits and characteristics of these devices.

Market	Representative Applications	Products	Benefits/Characteristics
Data communications	High-speed fiber optic networks and optical links (including Gigabit Ethernet, asynchronous transfer mode or ATM, and FibreChannel networks)	VCSEL components and arrays HB LEDs Lasers RF materials	Increased network capacity Increased data transmission speeds Increased bandwidth
Wireless Communication	Cellular telephones Pagers PCS handsets Direct broadcast systems	HB LEDs RF materials	Improved display visibility Improved signal to noise performance Lower power consumption Increased network capacity Reduced network congestion Extended battery life
Telecommunications	High capacity fiber optic trunk lines	VCSEL components and arrays Lasers RF materials	Increased data transmission speeds Increased bandwidth
Satellite Communications	Power modules for satellites Satellite to ground communication	Solar cells RF materials	Radiation tolerance Conversion of more light to power than silicon Reduced launch costs Increased bandwidth
Lighting	Flat panel displays Solid state lighting Outdoor signage and display Digital readout signals	HB LEDs Miniature lamps	Lower power consumption Longer life
Automotive electronics	Engine sensors Dashboard displays Indicator lights Antilock brake systems	MR sensors HB LEDs	Reduced weight Lower power consumption Lower emissions
Computers and Peripherals	Local area networks Chip-to-chip and board-to-board optical links	VCSEL components and arrays Transceivers	Increased data transmission speeds Increased bandwidth
Consumer electronics	DVDs CD-Roms Telephones Radios Calculators	HB LEDs VCSEL components and arrays Integrated circuits Lasers	Improved display visibility High-speed data transmission Low power requirements

#### Compound Semiconductor Process Technology

Compound semiconductors are composed of two or more elements and usually consist of a metal such as gallium, aluminum or indium and a non-metal such as arsenic, phosphorous or nitrogen. The resulting compounds include gallium arsenide, indium phosphide, gallium nitride, indium antimonide and indium aluminum phosphide. The performance characteristics of compound semiconductors are dependent on the composition of these compounds. Many of the unique properties of compound semiconductor devices are achieved by the layering of different compound semiconductor materials in the same device. This layered structure creates an optimal configuration to permit the emission or detection of light and the detection of magnetic fields.

Accordingly, the composition and properties of each layer and the control of the layering process, or epitaxy, are fundamental to the performance of advanced electronic and optoelectronic compound semiconductor devices. The variation of thickness and composition of layers determines the intensity and color of the light emitted or detected and the efficiency of power conversion. The ability to vary the intensity, color and efficiency of light generation and detection enables compound semiconductor devices to be used in a broad range of advanced information systems.

Compound semiconductor device manufacturers predominantly use four different methods to deposit compound materials: (i) molecular beam epitaxy; (ii) vapor phase epitaxy; (iii) liquid phase epitaxy; and (iv) metal organic chemical vapor deposition ("MOCVD"). The use of molecular beam epitaxy technology can yield wafers having high thickness uniformity. Compound semiconductor materials fabricated using vapor phase epitaxy or liquid phase epitaxy technologies often have high electronic and optical properties. However, due to the nature of the underlying processes, none of these methods can be easily scaled up to high volume production, which is necessary for the commercial viability of compound semiconductor devices. All of these four methods used to manufacture compound semiconductor devices pose technical, training and safety challenges that are not present in the manufacture of silicon devices. The production systems typically require expensive reactant materials, use of certain toxic chemicals and tight control over numerous manufacturing parameters. The key differences between MOCVD and the three other methods are that compound semiconductor wafers fabricated using MOCVD generally possess a better combination of uniformity and optical and electronic properties and are easier to produce in high volumes than wafers manufactured by the three more traditional methods. Currently, MOCVD technology is being used to manufacture a broad range of compound semiconductor devices.

Historically, manufacturers that use compound semiconductor devices in

their products have met research, pilot production and capacity needs with in-house systems and technologies. However, as the need for the production of commercial volumes of high-performance compound semiconductor devices and the variety of these devices increase, manufacturers are often unable to meet these requirements using in-house solutions. In response to these growing demands for higher volumes of a broad range of higher performance devices, manufacturers are increasingly turning to outside vendors to meet their needs for compound semiconductor wafers and devices.

#### The EMCORE Solution

EMCORE provides a broad range of compound semiconductor products and services intended to meet its customers' diverse technology requirements. EMCORE has developed extensive materials science expertise, process technology and MOCVD production systems to address its customers' needs and believes that its proprietary TurboDisc(R) deposition technology makes possible one of the most cost-effective production processes for the commercial volume manufacture of high-performance compound semiconductor wafers and devices. This platform technology provides the basis for the production of various types of compound semiconductor wafers and devices and enables EMCORE to address the critical need of manufacturers to cost-effectively get to the market faster with high volumes of new and improved high-performance products. EMCORE's compound semiconductor products and services include:

- o materials and process development;
- o design and development of devices;
- o MOCVD production systems; and
- o manufacture of wafers and devices in high volumes.

Customers can take advantage of EMCORE's vertically integrated approach by purchasing custom-designed wafers and devices from EMCORE, or they can manufacture their own devices in-house using a TurboDisc production system configured to their specific needs.

#### Strategy

EMCORE's objective is to capitalize on its position in MOCVD process technology and production systems to become the leading supplier of compound semiconductor wafers, devices and production systems. The key elements of EMCORE's strategy include:

**Apply Core Technology Across Multiple Applications.** EMCORE continually leverages its proprietary core technology to develop compound semiconductor products for multiple applications in a variety of markets. These activities include developing new products for targeted applications as well as expanding existing products into new applications. For example, EMCORE's array transceiver program is being expanded to meet customer demands for a new transponder product. Other existing products, which EMCORE intends to introduce in new applications, include VCSELs for communications products and HB LEDs for broader lighting applications;

**Target High Growth Market Opportunities.** EMCORE's strategy is to target high growth market opportunities where performance characteristics and high volume production efficiencies can give compound semiconductors a competitive advantage over other devices. Historically, while technologically superior, compound semiconductors have not been widely deployed because they are more expensive to manufacture than silicon-based semiconductors and other existing solutions. EMCORE believes that as compound semiconductor production costs are reduced, new customers will be compelled to use these products because of their higher performance characteristics. For example, EMCORE has reduced the average cost of compound semiconductor solar cells to the point where customers are replacing silicon-based solar cells because of the compound semiconductor solar cells' higher overall efficiency, better end-of-life performance and lower weight;

**Partner with Key Industry Participants.** EMCORE seeks to identify and develop long-term relationships with leading companies in targeted industries. EMCORE develops these relationships in a number of ways that include long-term, high-volume supply agreements, joint ventures, an acquisition and other arrangements. For example, EMCORE entered into a joint venture with General Electric Lighting for the development and marketing of white light and colored HB LED products for automotive, traffic, flat panel display and other lighting applications. EMCORE has also signed a Joint Development Manufacturing and Marketing Agreement with JDS Uniphase for the joint development, manufacture and marketing of a family of array transceivers for cost effective, high bandwidth optical networking products. EMCORE intends to actively seek similar strategic relationships with other key customers and industry participants in order to further expand its technological and production base; and

**Continue Investment to Maintain Technology Leadership.** Through substantial investment in research and development, EMCORE seeks to expand its leadership position in compound semiconductor production systems, wafers and devices. EMCORE works with its customers to identify specific performance criteria and uses this information to enhance the performance of its production systems and to further expand its process and materials science expertise, including the development of new low-cost, high-volume wafers and devices for its customers. In addition, EMCORE's development efforts are focused on continually lowering the production costs of its products.

#### Products

##### Production Systems

EMCORE is a leading supplier of MOCVD compound semiconductor production systems, with more than 300 systems shipped as of September 30, 2000. EMCORE believes that its TurboDisc production systems offer significant ownership advantages over competing systems and that the high throughput capabilities of its TurboDisc production systems make possible superior reproducibility of

thickness, composition, electronic properties and layer accuracy required for electronic and optoelectronic devices. Each system can be customized for the customer's throughput, wafer size and process chemistry requirements. EMCORE's production systems also achieve a high degree of reliability with an average time available for production, based on customer data, of approximately 95%.

EMCORE believes its TurboDisc production systems enable the lowest cost of ownership for the manufacture of compound semiconductor materials. The major components of the cost of ownership include yield, throughput, direct costs and capital costs. Yield primarily relates to material uniformity, which is a function of the precision of the physical and chemical processes by which atomic layers are deposited. Throughput, the volume of wafers produced per unit of time, includes both the time required for a process cycle and the handling time between process steps. Direct costs include consumables used in manufacturing and processing and the clean room space required for the equipment. Capital costs include the cost of acquisition and installation of the process equipment.

EMCORE's proprietary TurboDisc technology utilizes a unique high speed rotating disk in a stainless steel growth chamber with integrated vacuum-compatible loading chambers. To produce a wafer, a bare substrate, such as gallium arsenide, sapphire or germanium, is placed on a wafer carrier in the TurboDisc growth chamber and subjected to high temperatures. Based on a predetermined formula, metal organic gases are released into the growth chamber. These gases decompose on the hot, rapidly spinning wafer. Semiconductor materials are then deposited on the substrate in a highly uniform manner. The resulting wafer thus carries one or more ultra-thin layers of compound semiconductor material such as gallium arsenide, gallium nitride or indium aluminum phosphide. The TurboDisc technology not only produces uniformity of deposition across the wafer, but also offers flexibility for diverse applications with improved material results and increased production rates. The unique precision control of reactant gas flow in the TurboDisc technology platform allows users to scale easily from research to commercial volumes with substantially reduced time and effort. Upon removal from the growth chamber, the wafer is transferred to a device processing facility for various steps such as photolithography, etching, masking, metallization and dicing. Upon completion of these steps, the devices are then sent for packaging and incorporation in the customer's product.

EMCORE's next generation of TurboDisc products are being designed to provide a number of innovations including:

- o new reactor design to improve efficiency;
- o cassette-to-cassette wafer handling to increase automation;
- o digital control system to reduce noise;
- o real-time process control and data acquisition on WindowsNT platform;
- o modular component design to ease outsourcing and upgrading; and
- o improved temperature control.

#### Wafers and Devices

Since its inception, EMCORE has worked closely with its customers to design and develop process technology and material science expertise for use in production systems for its customers' end-use applications. EMCORE has leveraged its process and materials science knowledge base to manufacture a broad range of compound semiconductor wafers and devices such as VCSELs, RF materials, solar cells, HB LEDs and MR sensors.

Within most of these product lines, EMCORE has established strategic relationships through joint ventures, long-term supply agreements and an acquisition. A summary of these relationships is found below:

PRODUCTS AND STRATEGIC RELATIONSHIPS

Product Line	Company	Nature of Relationship	Application
Vertical cavity surface-emitting lasers (VCSELS)	JDS Uniphase	Joint Development Manufacturing and Marketing Agreement	Array transceivers Array transponders
	Agilent	Long-term supply agreement	Gigarray(R) VCSEL arrays for use in parallel optical transceivers
Radio frequency (RF) materials	Motorola Anadigics	Long-term supply agreement	Digital wireless, fiber optic and cellular applications
Solar cells	Space Systems/ Loral	Long-term supply agreement	Solar panels in communications satellite powered systems
	Lockheed Martin Missiles and Space	Strategic partner	
High-brightness light-emitting diodes (HB LEDs)	General Electric Lighting	GELcore joint venture for the development, marketing and distribution of white light and colored HB LED products	Traffic lights Miniature lamps Automotive lighting Flat panel displays
	Uniroyal Technology Corporation	Uniroyal Optoelectronics joint venture for the manufacture of HB LED wafers and package-ready devices	Other lighting applications
Magneto resistive (MR) sensors	General Motors Corporation	Long-term supply agreement	Cam and crank shaft sensors

VCSELS

Vertical cavity surface-emitting lasers ("VCSELS") are semiconductor lasers that emit light in a cylindrical beam. VCSELS offer significant advantages over traditional laser diodes used in fiber optic communications, including:

- o greater control over beam size and wavelength;
- o reduced manufacturing complexity and packaging costs;
- o lower power consumption; and
- o higher frequency performance.

Leading electronic systems manufacturers are integrating VCSELS into a broad array of end-market applications including Internet access, digital cross-connect telecommunications switches, DVD, and fiber optic switching and routing, such as Gigabit Ethernet.

In December 1997, EMCORE acquired MicroOptical Devices, Inc. ("MODE"), a development stage company primarily dedicated to the research and development of enabling VCSEL technologies. In February 1998, EMCORE announced Gigalase(R), its first commercial high speed VCSEL laser operating at 1.25 Gbps. In December 1998, EMCORE announced its second VCSEL product, Gigarray(R), a VCSEL array. In March 2000, EMCORE debuted the industry's first commercial 2.5 Gbps 850nm oxide VCSEL, the Gigalase(R) with OxideGuide(TM), and in August 2000 announced the availability of its first 850 nm 1x4 and 1x12 Oxide VCSEL arrays and its high speed gallium arsenide (GaAs) photodetector arrays. The 1x4 array is capable of up to 10 Gbps transmission speeds, while the 1x12 has a transmission speed of 30Gbps. EMCORE's photodetector arrays operate up to speeds of 3.125Gbps and provide the efficiency required for high speed data transmission.

In January 2000, EMCORE entered into a three-year supply agreement with Agilent, a leading supplier of fiber optic transceivers and integrated circuits for infrastructure products for the Internet. Under this agreement, EMCORE will manufacture Gigarray(R) VCSEL arrays for use in parallel optical transceivers. The initial purchase order under the agreement is contingent upon EMCORE's development of a component that meets Agilent's specifications. EMCORE began shipping commercial product in December 2000.

In June 2000, EMCORE signed a Joint Development Manufacturing and Marketing Agreement with JDS Uniphase for the joint development, manufacture and marketing of a family of array transceivers for the Very Short Reach OC-192 and related markets. Recent industry forecasts indicate that the market opportunity for high-speed optical transceivers, including 2.5 gigabit per channel arrays and 10 gigabit serial devices will exceed \$3.4 billion by the year 2004. EMCORE has completed alpha testing and began shipping prototype array transceivers in December 2000.

RF Materials

Radio frequency ("RF") materials are compound semiconductor materials that transmit and receive communications. Compound semiconductor RF materials have a broader bandwidth and superior performance at higher frequencies than silicon-based materials. EMCORE currently produces 4-inch and 6-inch InGaP HBT and pHEMT materials that are used by its wireless customers for power amplifiers for GSM, TDMA, and CDMA multiband wireless handsets. InGaP HBT materials provide higher linearity, higher power added efficiency as well as greater reliability

than first generation AlGaAs HBT technologies, and have become the technology of choice for next generation HBT-based power amplifiers for wireless handsets. In addition, recent developments and transfers to production of enhancement mode pHEMT technologies have demonstrated their continued competitiveness for handset applications.

EMCORE is also exploring opportunities to market RF materials to its fiber optic customers for use in high speed digital components for OC-48 and OC-192 fiber optic communication and to its power satellite customers for satellite communication applications. EMCORE believes that its ability to produce high volumes of RF materials at a low cost will facilitate their adoption in new applications and products.

In May 2000, EMCORE signed an agreement with Motorola to meet their requirements for epitaxial tools, wireless electronic materials and technology. This relationship includes supplying Motorola with epitaxial process technology and multiple MOCVD production tools, as well as purchase orders for electronic device epitaxial wafers. Motorola also announced that EMCORE was awarded their Standard Supplier Designation, making EMCORE the only qualified supplier of MOCVD tools for Motorola's compound semiconductor factories.

In October 2000 EMCORE received a \$10.7 million order from Anadigics to supply 6-inch GaAs HBT and pHEMT wafers for their fiber optic and wireless communications devices. Anadigics will be using EMCORE's materials for power amplifiers for GSM, TDMA and CDMA multi-band wireless handsets and for high-speed digital components for OC-192 data communication applications.

#### Solar Cells

Compound semiconductor solar cells are used to power satellites because they are more resistant to radiation levels in space and convert substantially more light to power, therefore weigh less per unit of power than silicon-based solar cells. These characteristics increase satellite life, increase payload capacity and reduce launch costs. In fiscal 2000, EMCORE announced the manufacture and shipment of the world's highest efficiency dual-junction solar cell for satellite applications. EMCORE also announced the production of high-efficiency triple junction solar cells with a minimum average efficiency of 26%. EMCORE began shipping the triple junction solar cells in December 2000. EMCORE is currently involved in several solar cell projects:

- o EMCORE's solar cells were selected for use on two Space Technology Research Vehicles (STRV 1c&1d). These microsattellites are scheduled to be launched in November, 2001 by Arianspace. EMCORE's solar cells have been selected for two European communication satellite programs scheduled for launch in 2002. Additionally, EMCORE's solar cells are being used for two Japanese scientific programs sponsored by the National Space Development Agency of Japan (NASDA);
- o EMCORE is also working with TRW, Boeing and Lockheed to identify programs suitable for our high efficiency solar cells;
- o In April 2000, EMCORE signed a Memorandum of Understanding with Angewandte Solarenergie-ASE GmbH to provide solar cell material for use in the manufacture of their solar cells. Under this agreement, EMCORE will provide Epi processing and other services;
- o In November 1999, EMCORE entered into a Technical Assistance Agreement with Loral and Mitsubishi Electric Corporation;
- o In November 1998, EMCORE signed a long-term supply agreement with Space Systems/Loral, a wholly owned subsidiary of Loral Space & Communications. Under this agreement, EMCORE supplies compound semiconductor high efficiency gallium arsenide solar cells for Loral's satellites. To date, EMCORE has received purchase orders from Space Systems/Loral that total \$32.3 million and services this agreement at our new facility in Albuquerque, New Mexico;
- o In November 1998, EMCORE received a \$2.2 million contract under the U.S. Air Force's Broad Agency Announcement Program for the development of high-efficiency advanced solar cells; and
- o In September 1998, EMCORE entered into an agreement with Lockheed Martin Missiles and Space, a strategic business unit of Lockheed Martin Corporation, to provide technical management and support of a Cooperative Research and Development Agreement between Lockheed Martin and Sandia National Laboratory for the advancement and commercialization of a new compound semiconductor high efficiency solar cell. Pursuant to this strategic agreement, (1) Lockheed Martin will grant EMCORE a sub-license for all related intellectual property developed on behalf of or in conjunction with Lockheed Martin and (2) EMCORE and Lockheed Martin will jointly qualify and validate the high efficiency solar cells for operational satellite use.

#### HB LEDs

High-brightness light-emitting diodes ("HB LEDs") are solid state compound semiconductor devices that emit light. The global demand for HB LEDs is experiencing rapid growth because HB LEDs have a long useful life, consume approximately 10% of the power consumed by incandescent or halogen lighting and improve display visibility. In February 1998, EMCORE and Uniroyal Technology Corporation formed Uniroyal Optoelectronics, a joint venture to manufacture, sell and distribute HB LED wafers and package-ready devices.

In May 1999, EMCORE and General Electric Lighting formed GELcore, a joint venture to develop and market HB LED lighting products. General Electric Lighting and EMCORE have agreed that this joint venture will be the exclusive vehicle for each party's participation in solid state lighting. GELcore combines EMCORE's materials science expertise, process technology and compound

semiconductor production systems with General Electric Lighting's brand name recognition and extensive marketing and distribution capabilities. GELcore's long-term goal is to develop products to replace traditional lighting. In September 2000, GELcore acquired Ecolux, Inc. adding LED-signaling products to its growing line of LED products.

#### MR Sensors

Magneto resistive ("MR") sensors are compound semiconductor devices that possess sensing capabilities. MR sensors improve vehicle performance through more accurate control of engine and crank shaft timing, which allows for improved spark plug efficiency and reduced emissions. In January 1997, EMCORE initiated shipments of compound semiconductor MR sensors using technology licensed to EMCORE from General Motors. This license allows EMCORE to manufacture and sell products to anyone using this technology. As of September 30, 2000, EMCORE has delivered over 10.7 million devices to General Motors Powertrain for crank and cam speed and position sensing applications for 5 different engine builds under 20 different vehicle platforms.

#### Customers

EMCORE's rapidly expanding customer base includes many of the largest semiconductor, telecommunications, consumer goods and computer manufacturing companies in the world. A number of EMCORE's customers are listed below. In addition, EMCORE has sold its products to more than a dozen of the largest electronics manufacturers in Japan.

Agilent Technologies	IBM	Philips AG
AMP Incorporated	JDS Uniphase	Rockwell International
Anadigics	L.M. Ericsson AB	Siemens AG - Osram
Boeing-Spectrolab	Loral Space and Communications	Texas Instruments
Corning	Lucent Technologies	Thomson CSF
General Motors	Motorola	TriQuint Semiconductor
Hewlett Packard	Nortel Networks	
Honeywell	Northrop Grumman	

EMCORE has a comprehensive total quality management program with special emphasis on total customer satisfaction. EMCORE seeks to encourage active customer involvement with the design and operation of its production systems. To accomplish this, EMCORE conducts user group meetings among its customers in Asia, Europe and North America. At annual meetings, EMCORE's customers provide valuable feedback on key operations, process oriented services, problems and recommendations to help improve EMCORE products. This direct customer feedback has enabled EMCORE to constantly update and improve the design of its systems and processes. Changes that affect the reliability and capabilities of EMCORE's systems are embodied in new designs to enable current and future customers to utilize systems which EMCORE believes are high quality and cost-efficient.

#### Marketing and Sales

EMCORE markets and sells its wafers, devices and systems through its direct sales force in North America, Europe, Taiwan and through representatives and distributors elsewhere in Asia. To market and service its products in China, Japan and Singapore, EMCORE relies on a single marketing, distribution and service provider, Hakuto Co., Ltd. EMCORE's agreements with Hakuto expire in March 2008. Hakuto has exclusive distribution rights for certain EMCORE products in Japan. Hakuto has marketed and serviced EMCORE's products since 1988, is a minority shareholder in EMCORE and the President of Hakuto is a member of EMCORE's Board of Directors. In August 1999, EMCORE entered into a two-year distribution agreement with DI Systems to market and service EMCORE's products in South Korea. EMCORE has sales offices in California and Taiwan, ROC in order to efficiently service EMCORE's rapidly expanding customer base in these areas.

EMCORE's sales and marketing, senior management and technical staff work closely with existing and potential customers to provide compound semiconductor products that meet their customers' needs. EMCORE seeks to match a customer's requirements to an existing design or a modification of a standard design, such as a change in platform or process design. When necessary, EMCORE will work with the customer to develop the appropriate design process and to configure and manufacture the production system to meet the customer's needs. Also, EMCORE will produce samples to demonstrate conformance to the customer's specifications. For production systems, the period of time from the initial contact with the customer to the customer's placement of an order is typically two to nine months or longer. EMCORE's sales cycle for wafers and devices usually runs three to nine months, during which time EMCORE develops the formula of elements necessary to meet the customer's specifications and qualifies the materials which may also require the delivery of samples. EMCORE believes that the marketing, management and engineering support involved in this process is beneficial in developing competitive differentiation and long-term relationships with its customers.

#### Service and Support

EMCORE maintains a worldwide service and support network responsible for on-site maintenance and process monitoring on either a contractual or time-and-materials basis. Customers may purchase annual service contracts under which EMCORE is required to maintain an inventory of replacement parts and to service the equipment upon the customer's request. EMCORE also sells replacement parts from inventory to meet customer needs. EMCORE pursues a program of system upgrades for customers to increase the performance of older systems. EMCORE generally does not offer extended payment terms to its customers and generally adheres to a warranty policy of one year. Consistent with industry practice, EMCORE maintains an inventory of components for servicing systems in the field and it believes that its inventory is sufficient to satisfy foreseeable short-term customer requirements. EMCORE has a warehouse depot in Taiwan to

provide improved service to its Asian customers.

#### Research and Development

To maintain and improve its competitive position, EMCORE's research and development efforts are focused on designing new proprietary processes and products, improving the performance of existing systems, wafers and devices and reducing costs in the product manufacturing process. EMCORE has dedicated 29 TurboDisc systems for both research and production that are capable of processing virtually all compound semiconductor materials. The research and development staff utilizes x-ray, optical and electrical characterization equipment which provide instant data allowing for shortened development cycles and rapid customer response. EMCORE expects that it will continue to expend substantial resources on research and development.

EMCORE also competes for research and development funds. In view of the high cost of development, EMCORE solicits research contracts that provide opportunities to enhance its core technology base or promote the commercialization of targeted products. EMCORE is also positioned to market technology and process development expertise directly to customers who require it for their own product development efforts.

#### Intellectual Property and Licensing

EMCORE's success and competitive position for production systems, wafers and devices depend significantly on its ability to maintain trade secrets and other intellectual property protections. Our strategy is to rely on both trade secrets and patents. A "trade secret" is information that has value to the extent it is not generally known, not readily ascertainable by others through legitimate means and protected in a way that maintains its secrecy. Reliance on trade secrets is only an effective business practice insofar as trade secrets remain undisclosed and a proprietary product or process is not reverse engineered or independently developed. In order to protect its trade secrets, EMCORE takes certain measures to ensure their secrecy, such as executing non-disclosure agreements with its employees, joint venture partners, customers and suppliers. EMCORE also has an aggressive program to actively patent all areas of its technology.

To date, EMCORE has been issued twelve (12) U.S. patents and others are either pending (20 patent applications filed) or under in-house review (40 disclosures and draft patent applications). These U.S. patents will expire between 2005 and 2013. None of these U.S. patents claim any material aspects of current or planned commercial versions of EMCORE's systems, wafers or devices. EMCORE only relies on trade secrets to protect its intellectual property when it believes publishing patents would make it easier for others to reverse engineer EMCORE's proprietary processes.

EMCORE is a licensee of certain VCSEL technology and associated patent rights owned by Sandia Corporation. The Sandia license grants EMCORE:

- o non-exclusive rights to develop, manufacture and sell products containing Sandia VCSEL technologies under five U.S. patents that expire between 2007 and 2015; and
- o non-exclusive rights to employ a proprietary oxidation fabrication method in the manufacture of VCSEL products under a sixth U.S. patent that expires in 2014. EMCORE's success and competitive position as a producer of VCSEL products depends on the continuation of its rights under the Sandia license, the scope and duration of those rights and the ability of Sandia to protect its proprietary interests in the underlying technology and patents.

In 1992, EMCORE received a royalty bearing, non-exclusive license under a patent held by Rockwell International Corporation which relates to an aspect of the manufacturing process used by its TurboDisc systems. In October 1996, EMCORE initiated discussions with Rockwell to receive additional licenses to permit EMCORE to use this technology to manufacture and sell compound semiconductor wafers and devices. In November 1996, EMCORE suspended these negotiations because of litigation surrounding the validity of the Rockwell patent. EMCORE also ceased making royalty payments to Rockwell under the license during the pendency of the litigation. In January 1999, the case was settled and a judgment was entered in favor of Rockwell. As a result, EMCORE may be required to pay royalties to Rockwell for certain of its past sales of wafers and devices to its customers who did not hold licenses directly from Rockwell. Management has reviewed and assessed its likely royalty obligations and believes that it has the appropriate amounts reserved at both September 30, 1999 and 2000. If EMCORE is required to pay Rockwell amounts in excess of its reserves, its business, financial condition and results of operations could be materially and adversely affected.

#### Environmental Regulations

EMCORE is subject to federal, state and local laws and regulations concerning the use, storage, handling, generation, treatment, emission, release, discharge and disposal of certain materials used in its research and development and production operations, as well as laws and regulations concerning environmental remediation and employee health and safety. The production of wafers and devices involves the use of certain hazardous raw materials, including, but not limited to, ammonia, phosphine and arsene. If EMCORE's control systems are unsuccessful in preventing release of these or other hazardous materials, EMCORE could experience a substantial interruption of operations. EMCORE has retained an environmental consultant to advise it in complying with applicable environmental and health and safety laws and regulations, and believes that it is currently, and in the past has been, in compliance with all such laws and regulations.

#### Backlog

As of September 30, 2000, EMCORE had an order backlog of \$125.0 million,

scheduled to be shipped through September 30, 2001. This represented an increase of \$81.9 million or 190% since September 30, 1999. This increase primarily relates to increased production systems bookings, orders for solar cells from Loral and epitaxial wafers from Motorola. EMCORE only includes in backlog customer purchase orders that have been accepted by EMCORE and for which shipment dates have been assigned within the 12 months to follow and research contracts that are in process or awarded. Wafer and device agreements extending longer than one year in duration are included in backlog only for the ensuing 12 months. EMCORE receives partial advance payments or irrevocable letters of credit on most production system orders. EMCORE recognizes revenue from the sale of its systems and materials upon shipment. For research contracts with the U.S. government and commercial enterprises with durations greater than six months, EMCORE recognizes revenue to the extent of costs incurred plus a portion of estimated gross profit, as stipulated in such contracts, based on contract performance.

#### Manufacturing

EMCORE's manufacturing operations are located at EMCORE's headquarters in Somerset, New Jersey and in Albuquerque, New Mexico and include systems engineering and production, wafer fabrication and design and production of devices. Many of EMCORE's manufacturing operations are computer monitored or controlled to enhance reliability and yield. EMCORE manufactures its own systems and outsources some components and sub-assemblies, but performs all final system integration, assembly and testing. EMCORE fabricates wafers and devices at its facilities in Somerset, New Jersey and Albuquerque, New Mexico and has a combined clean room area totaling approximately 41,000 square feet. EMCORE's joint venture with Uniroyal Technology Corporation manufactures HB LED wafers and package-ready devices at its Tampa, Florida manufacturing facility. In May 1998, EMCORE received ISO 9001 and QS 9002 quality certifications for its Somerset, New Jersey facility. In November 1999, EMCORE received ISO 9001 quality certification for its newly completed solar cell facility in Albuquerque, New Mexico. In September 2000, EMCORE received ISO 9001 quality certification for its new Array Transceiver Division in Albuquerque, New Mexico. In December 2000, EMCORE received ISO 9001 quality certification for its VCSEL facility in Albuquerque, New Mexico.

Outside contractors and suppliers are used to supply raw materials and standard components and to assemble portions of end systems from EMCORE specifications. EMCORE depends on sole, or a limited number of, suppliers of components and raw materials. EMCORE generally purchases these single or limited source products through standard purchase orders. EMCORE also seeks to maintain ongoing communications with its suppliers to guard against interruptions in supply and has, to date, generally been able to obtain sufficient supplies in a timely manner. EMCORE maintains inventories it believes are sufficient to meet its near term needs. EMCORE implemented a vendor program through which it inspects quality and reviews suppliers and prices in order to standardize purchasing efficiencies and design requirements to maintain as low a cost of sales as possible. However, operating results could be materially and adversely affected by a stoppage or delay of supply, receipt of defective parts or contaminated materials, and increase in the pricing of such parts or EMCORE's inability to obtain reduced pricing from its suppliers in response to competitive pressures.

#### Competition

The markets in which EMCORE competes are highly competitive. EMCORE competes with several companies for sales of MOCVD systems including Aixtron GmbH and Nippon-Sanso K.K. Ltd. The primary competitors for EMCORE's wafer foundry include Epitaxial Products Inc., Hitachi-Cable, Kopin Corporation and Quantum Epitaxial Designs, Inc. EMCORE's principal competitors for sales of VCSEL-related products include Honeywell, Inc. and Mitel Corporation. The principal competitors for MR sensors are Honeywell, Inc., Matsushita Electric Industrial Co. Ltd., Siemens AG Osterreich, Electrotechnik and Asahi Kasei Electronic Co., Ltd.. The principal competitors for HB LEDs and EMCORE's joint ventures with Uniroyal Technology Corporation and General Electric Lighting include the Phillips Electronics and Hewlett Packard Company joint venture, Siemens AG's Osram GmbH subsidiary, Nichia Chemical Industries and Toshiba Corporation. EMCORE also faces competition from manufacturers that implement in-house systems for their own use. In addition, EMCORE competes with many research institutions and universities for research contract funding. EMCORE also sells its products to current competitors and companies with the capability of becoming competitors. As the markets for EMCORE's products grow, new competitors are likely to emerge and present competitors may increase their market share.

EMCORE believes that the primary competitive factors in the markets in which EMCORE's products compete are yield, throughput, performance, breadth of product line, customer satisfaction, customer commitment to competing technologies and, in the case of production systems, capital and direct costs and size of installed base. Competitors may develop enhancements to or future generations of competitive products that offer superior price and performance factors. EMCORE believes that in order to remain competitive, it must invest significant financial resources in developing new product features and enhancements and in maintaining customer satisfaction worldwide.

#### Employees

At September 30, 2000, EMCORE had 625 employees, including 328 employees in manufacturing operations, 185 employees in research and development and 112 employees in sales and general administration. This represents an increase of 257 employees or 70% from September 30, 1999. None of EMCORE's employees are covered by a collective bargaining agreement. EMCORE considers its relationship with its employees to be good.

#### Risk Factors

Our Rapid Growth Places A Strain on Our Resources.

We are experiencing rapid growth, having added a significant number of new employees within the last year. We have also expanded our manufacturing facilities in Albuquerque, New Mexico and in Somerset, New Jersey. This growth has placed and will continue to place a significant strain on our management, financial, sales and other employees and on our internal systems and controls. If we are unable to effectively manage multiple facilities and multiple joint ventures in geographically distant locations, our business, financial condition and results of operations will be materially and adversely affected. We are also in the process of installing new manufacturing software for all of our facilities and are evaluating replacing our accounting and purchasing systems. Most of the new manufacturing software is customized to our particular business and manufacturing processes. It will take time and require evaluation to eliminate any of the malfunctions in the software and to train personnel to use the new software. In this transition we may experience delays in production, cost overruns and disruptions in our operations.

We Expect To Continue to Incur Operating Losses.

We started operations in 1984 and as of September 30, 2000 had an accumulated deficit of \$108.9 million. We incurred net losses of \$36.4 million in fiscal 1998, \$22.7 million in fiscal 1999 and \$25.5 million in fiscal 2000. We expect to continue to incur losses. To support our growth, we have increased our expense levels and our investments in inventory and capital equipment. As a result, we will need to significantly increase revenues and profit margins to become and stay profitable. If our sales and profit margins do not increase to support the higher levels of operating expenses and if our new product offerings are not successful, our business, financial condition and results of operations will be materially and adversely affected.

Since The Technology In The Compound Semiconductor Industry Rapidly Changes, We Must Continually Improve Existing Products, Design And Sell New Products And Manage The Costs Of Research And Development In Order To Effectively Compete.

We compete in markets characterized by rapid technological change, evolving industry standards and continuous improvements in products. Due to constant changes in these markets, our future success depends on our ability to improve our manufacturing processes, tools and products. For example, our TurboDisc production systems must remain competitive on the basis of cost of ownership and process performance. To remain competitive we must continually introduce manufacturing tools with higher capacity and better production yields.

We have recently introduced a number of new products, and, in connection with recent joint ventures and internal development, we will be introducing additional new products in the near future. The commercialization of new products involves substantial expenditures in research and development, production and marketing. We may be unable to successfully design or manufacture these new products and may have difficulty penetrating new markets. In addition, many of our new products are being incorporated into our customers' new products for new applications, such as high-speed computer networks.

Because it is generally not possible to predict the amount of time required and the costs involved in achieving certain research, development and engineering objectives, actual development costs may exceed budgeted amounts and estimated product development schedules may be extended. Our business, financial condition and results of operations may be materially and adversely affected if:

- o we are unable to improve our existing products on a timely basis;
- o our new products are not introduced on a timely basis;
- o we incur budget overruns or delays in our research and development efforts; or
- o our new products experience reliability or quality problems.

Fluctuations In Our Quarterly Operating Results May Negatively Impact Our Stock Price.

Our revenues and operating results may vary significantly from quarter to quarter due to a number of factors particular to EMCORE and the compound semiconductor industry. Not all of these factors are in our control. These factors include:

- o the volume and timing of orders for our products, particularly TurboDisc systems, which have an average selling price in excess of \$1 million;
- o the timing of our announcements and introduction of new products and of similar announcements by our competitors;
- o downturns in the market for our customers' products;
- o regional economic conditions, particularly in Asia where we derive a significant portion of our revenues; and
- o price volatility in the compound semiconductor industry.

These factors may cause our operating results for future periods to be below the expectations of analysts and investors. This may cause a decline in the price of our common stock.

Our Joint Venture Partners, Who Have Control Of These Ventures, May Make Decisions That We Do Not Agree With And That Adversely Affect Our Net Income.

We do not have a majority interest in our joint ventures with Uniroyal Technology Corporation or General Electric Lighting. These joint ventures are governed by a board of managers with representatives from both the strategic partner and us. Many fundamental decisions must be approved by both parties to the joint venture, which means we will be unable to direct the operation and direction of these joint ventures without the agreement of our joint venture

partners. If we are unable to agree on important issues with a joint venture partner, the business of that joint venture may be delayed or interrupted, which may, in turn, materially and adversely affect our business, financial condition and results of operations.

We have devoted and will be required to continue to devote significant funds and technologies to our joint ventures to develop and enhance their products. In addition, our joint ventures will require that some of our employees devote much of their time to joint venture projects. This will place a strain on our management, scientific, financial and sales employees. If our joint ventures are unsuccessful in developing and marketing their products, our business, financial condition and results of operations may be materially and adversely affected.

General Electric Lighting and EMCORE have agreed that our joint venture will be the sole vehicle for each party's participation in the solid state lighting market. General Electric Lighting and EMCORE have also agreed to several limitations during the life of the venture and thereafter relating to use that each of us can make of the joint venture's technology. One consequence of these limitations is that in certain circumstances, such as a material default by us, we would not be permitted to use the joint venture's technology to compete against General Electric Lighting in the solid state lighting market.

Since A Large Percentage of Our Revenues Are  
from Foreign Sales, Certain Export Risks May\  
Disproportionately Affect Our Revenues.

Sales to customers located outside the United States accounted for approximately 39.1% of our revenues in fiscal 1998, 52.6% of our revenues in fiscal 1999 and 38.6% of our revenues in fiscal 2000. Sales to customers in Asia represent the majority of our international sales. We believe that international sales will continue to account for a significant percentage of our revenues. Because of this, the following export risks may disproportionately affect our revenues:

- o political and economic instability may inhibit export of our systems and devices and limit potential customers' access to U.S. dollars;
- o shipping and installation costs of our systems may increase;
- o we may experience difficulties in the timeliness of collection of foreign accounts receivable and be forced to write off receivables from foreign customers;
- o a strong dollar may make our systems less attractive to foreign purchasers who may decide to postpone making such capital expenditures;
- o tariffs and other barriers may make our systems and devices less cost competitive;
- o we may have difficulty in staffing and managing our international operations;
- o the laws of certain foreign countries may not adequately protect our trade secrets and intellectual property; and
- o potentially adverse tax consequences to our customers may make our systems and devices not cost-competitive.

We Will Lose Sales If We Are Unable To Obtain  
Government Authorization To Export Our Products.

Exports of our products to certain destinations, such as the People's Republic of China, Malaysia and Taiwan, may require pre-shipment authorization from U.S. export control authorities, including the U.S. Departments of Commerce and State. Authorization may be conditioned on end-use restrictions. On certain occasions, we have been denied authorization, particularly with respect to the People's Republic of China. Failure to receive these authorizations may materially and adversely affect our revenues and in turn our business, financial condition and results of operations from international sales. Additionally, export jurisdiction relating to exports of satellites and associated components has not been definitively settled. Such exports may in the future require a license from the Department of State. This may cause delays in shipping solar cells abroad. Delays in receiving export licenses for solar cells may materially and adversely affect our revenues and in turn our business, financial condition and results of operations.

Our Products Are Difficult To Manufacture And  
Small Manufacturing Defects Can Adversely Affect  
Our Production Yields And Our Operating Results.

The manufacture of our TurboDisc systems is a highly complex and precise process. We increasingly outsource the fabrication of certain components and sub-assemblies of our systems, often to sole source suppliers or a limited number of suppliers. We have experienced occasional delays in obtaining components and subassemblies because the manufacturing process for these items is very complex and requires long lead times. The revenues derived from sales of our TurboDisc systems will be materially and adversely affected if we are unable to obtain a high quality, reliable and timely supply of these components and subassemblies. In addition, any reduction in the precision of these components will result in sub-standard end products and will cause delays and interruptions in our production cycle.

We manufacture all of our wafers and devices in our manufacturing facilities and our joint venture with Uniroyal Technology Corporation plans to manufacture HB LED wafers and package-ready devices at its facility. Minute impurities, difficulties in the production process, defects in the layering of the devices' constituent compounds, wafer breakage or other factors can cause a substantial percentage of wafers and devices to be rejected or numerous devices on each wafer to be non-functional. These factors can result in lower than expected production yields, which would delay product shipments and may materially and adversely affect our operating results. Because the majority of our costs of manufacture are relatively fixed, the number of shippable devices

per wafer for a given product is critical to our financial results. Additionally, because we manufacture all of our products at our facilities in Somerset, New Jersey and Albuquerque, New Mexico, and our joint venture with Uniroyal Technology Corporation will manufacture HB LED wafers and package-ready devices at its sole facility in Tampa, Florida, any interruption in manufacturing resulting from fire, natural disaster, equipment failures or otherwise would materially and adversely affect our business, financial condition and results of operations.

We Face Lengthy Sales and Qualifications Cycles  
for Our Products and, In Many Cases, Must Invest  
A Substantial Amount of Time and Funds Before  
We Receive Orders.

Sales of our TurboDisc systems primarily depend upon the decision of a prospective customer to increase its manufacturing capacity, which typically involves a significant capital commitment by the customer. Customers usually place orders with us on average two to nine months after our initial contact with them. We often experience delays in obtaining system sales orders while customers evaluate and receive internal approvals for the purchase of these systems. These delays may include the time necessary to plan, design or complete a new or expanded compound semiconductor fabrication facility. Due to these factors, we expend substantial funds and sales, marketing and management efforts to sell our compound semiconductor production systems. These expenditures and efforts may not result in sales.

In order to expand our materials production capabilities, we have dedicated a number of our TurboDisc systems to the manufacture of wafers and devices. Several of our products are currently being tested to determine whether they meet customer or industry specifications. During this qualification period, we invest significant resources and dedicate substantial production capacity to the manufacture of these new products, prior to any commitment to purchase by the prospective customer and without generating significant revenues from the qualification process. If we are unable to meet these specifications or do not receive sufficient orders to profitably use the dedicated production capacity, our business, financial condition and results of operations would be materially and adversely affected.

Industry Demand For Skilled Employees, Particularly  
Scientific And Technical Personnel With Compound  
Semiconductor Experience, Exceeds The Number Of  
Skilled Personnel Available.

Our future success depends, in part, on our ability to attract and retain certain key personnel, including scientific, operational and management personnel. We anticipate that we will need to hire additional skilled personnel to continue to expand all areas of our business. The competition for attracting and retaining these employees, especially scientists, is intense. Because of this intense competition for these skilled employees, we may be unable to retain our existing personnel or attract additional qualified employees in the future. If we are unable to retain our skilled employees and attract additional qualified employees to keep up with our expansion, our business, financial condition and results of operations will be materially and adversely affected.

Protecting Our Trade Secrets And Obtaining Patent  
Protection Is Critical To Our Ability To Effectively  
Compete For Business.

Our success and competitive position depend on protecting our trade secrets and other intellectual property. Our strategy is to rely both on trade secrets and patents to protect our manufacturing and sales processes and products, but reliance on trade secrets is only an effective business practice insofar as trade secrets remain undisclosed and a proprietary product or process is not reverse engineered or independently developed. We take certain measures to protect our trade secrets, including executing non-disclosure agreements with our employees, joint venture partners, customers and suppliers. If parties breach these agreements or the measures we take are not properly implemented, we may not have an adequate remedy. Disclosure of our trade secrets or reverse engineering of our proprietary products, processes or devices could materially and adversely affect our business, financial condition and results of operations.

Although we currently hold 12 U.S. patents, these patents do not protect any material aspects of the current or planned commercial versions of our systems, wafers or devices. We are actively pursuing patents on some of our recent inventions, but these patents may not be issued. Even if these patents are issued, they may be challenged, invalidated or circumvented. In addition, the laws of certain other countries may not protect our intellectual property to the same extent as U.S. laws.

We May Require Licenses To Continue To Manufacture  
And Sell Certain Of Our Compound Semiconductor  
Wafers And Devices, The Expense Of Which May  
Adversely Affect Our Results Of Operations.

The compound semiconductor, optoelectronics, and fiberoptic communications industries are characterized by frequent litigation regarding patent and other intellectual property rights. From time to time we have received and may receive in the future, notice of claims of infringement of other parties' proprietary rights and licensing offers to commercialize third party patent rights. Although we are not currently involved in any litigations relating to our intellectual property, we cannot assure that:

- o infringement claims (or claims for indemnification resulting from infringement claims) will not be asserted against us,
- o future assertions will not result in an injunction against the sale of infringing products or otherwise significantly impair our business and

results of operations; or

- o we will not be required to obtain licenses, the expense of which may adversely affect our results of operations and profitability.

In October 1999, we were contacted by Rockwell International Corporation regarding whether EMCORE required additional licenses from Rockwell to continue to manufacture and sell MOCVD wafers and devices to customers who do not hold licenses from Rockwell International Corporation. Since that time we have been in discussions with Rockwell regarding the necessity and cost of obtaining such a license. Although the patent to which Rockwell referred expired in January 2000, we may be required to pay additional royalties for certain of our past sales of wafers and devices to customers. If we are required to pay significant royalties in connection with these sales, our business, financial condition and results of operations may be materially and adversely affected.

Interruptions In Our Business And A Significant Loss Of Sales To Asia May Result If Our Primary Asian Distributor Fails To Effectively Market And Service Our Products.

We rely on a single marketing, distribution and service provider, Hakuto Co. Ltd. to market and service many of our products in Japan, China and Singapore. Hakuto is one of our shareholders and Hakuto's president is a member of our Board of Directors. We have distributorship agreements with Hakuto which expire in March 2008 and give Hakuto exclusive distribution rights for certain of our products in Japan. Hakuto's failure to effectively market and service our products or termination of our relationship with Hakuto could result in significant delays or interruption in our marketing and service programs in Asia. This could materially and adversely affect our business, financial condition and results of operations.

Our Management's Stock Ownership Gives Them The Power To Control Business Affairs And Prevent A Takeover That Could Be Beneficial To Unaffiliated Shareholders.

Certain members of our management, specifically Thomas J. Russell, Chairman of our Board, Reuben F. Richards, President, Chief Executive Officer and a director, and Robert Louis-Dreyfus, a director, are former members of Jesup & Lamont Merchant Partners, L.L.C. They collectively beneficially own more than 20% of our common stock. Accordingly, such persons will continue to hold sufficient voting power to control our business and affairs for the foreseeable future. This concentration of ownership may also have the effect of delaying, deferring or preventing a change in control of our company, which could have a material adverse effect on our stock price.

Unsuccessful Control Of The Hazardous Raw Materials Used In Our Manufacturing Process Could Result In Costly Remediation Fees, Penalties Or Damages Under Environmental And Safety Regulations.

The production of wafers and devices involves the use of certain hazardous raw materials, including, but not limited to, ammonia, phosphine and arsine. If our control systems are unsuccessful in preventing a release of these materials into the environment or other adverse environmental conditions occur, we could experience interruptions in our operations and incur substantial remediation and other costs. Failure to comply with environmental and health and safety laws and regulations may materially and adversely affect our business, financial condition and results of operations.

Our Business Or Our Stock Price Could Be Adversely Affected By Issuance Of Preferred Stock.

Our board of directors is authorized to issue up to 5,882,352 shares of preferred stock with such dividend rates, liquidation preferences, voting rights, redemption and conversion terms and privileges as our board of directors, in its sole discretion, may determine. The issuance of shares of preferred stock may result in a decrease in the value or market price of our common stock, or our board of directors could use the preferred stock to delay or discourage hostile bids for control of us in which shareholders may receive premiums for their common stock or to make the possible sale of the company or the removal of our management more difficult. The issuance of shares of preferred stock could adversely affect the voting and other rights of the holders of common stock.

Certain Provisions Of New Jersey Law And Our Charter May Make A Takeover Of Our Company Difficult Even If Such Takeover Could Be Beneficial To Some Of Our Shareholders.

New Jersey law and our certificate of incorporation, as amended, contain certain provisions that could delay or prevent a takeover attempt that our shareholders may consider in their best interests. Our board of directors is divided into three classes. Directors are elected to serve staggered three-year terms and are not subject to removal except for cause by the vote of the holders of at least 80% of our capital stock. In addition, approval by the holders of 80% of our voting stock is required for certain business combinations unless these transactions meet certain fair price criteria and procedural requirements or are approved by two-thirds of our continuing directors. We may in the future adopt other measures that may have the effect of delaying or discouraging an unsolicited takeover, even if the takeover were at a premium price or favored by a majority of unaffiliated shareholders. Certain of these measures may be adopted without any further vote or action by our shareholders.

The Price Of Our Common Stock Has Fluctuated Widely In The Last Year And May Fluctuate Widely In The Future.

Our common stock is traded on the NASDAQ National Market, which has experienced and may continue to experience significant price and volume fluctuations that could adversely affect the market price of our common stock without regard to our operating performance. In addition, we believe that factors such as quarterly fluctuations in financial results, earnings below analysts' estimates, and financial performance and other activities of other publicly traded companies in the semiconductor industry could cause the price of our common stock to fluctuate substantially. In addition, in recent periods, our common stock, the stock market in general, and the market for shares of small capitalization and semiconductor industry-related stocks in particular, have experienced extreme price fluctuations which have often been unrelated to the operating performance of affected companies. Any similar fluctuations in the future could adversely affect the market price of our common stock.

Our stock price has fluctuated widely in the last year and may fluctuate widely in the future. Since September 30, 1999, our stock price has been as high as \$86.50 per share and as low as \$6.03 per share. Volatility in the price of our common stock may be caused by other factors outside of our control and may be unrelated or disproportionate to our operating results.

#### Forward-Looking Statements

Statements contained in this Annual Report on Form 10-K which are not historical facts are forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended. A forward-looking statement may contain words such as "plans," "hopes," "believes," "estimates," "will continue to be," "will be," "continue to," "expect to," "anticipate that," "to be" or "can impact."

Management cautions that forward-looking statements are subject to risks and uncertainties that could cause our actual results to differ materially from those projected in such forward-looking statements.

Further, our future business, financial condition and results of operations could differ materially from those anticipated by such forward-looking statements and are subject to risks and uncertainties including the risks set forth above. Moreover, neither any other person nor we assumes responsibility for the accuracy and completeness of the forward-looking statements. We are under no duty to update any of the forward-looking statements after the date of this Annual Report on Form 10-K to conform such statements to actual results or to changes in our expectations.

#### Item 2. Properties

In July 2000, EMCORE announced that it completed its second phase of expansion at its Somerset, NJ manufacturing facility and had moved its corporate offices to a new facility located nearby. The expansion of the Somerset, NJ manufacturing facility significantly increases production capacity for EMCORE's existing photonics, RF materials, devices and MOCVD production tool lines; and enables EMCORE to develop new product lines and meet the requirements of a rapidly expanding customer base. Earlier in the year, EMCORE completed the first phase expansion of its RF materials division which doubled production capacity to meet market demand for its InGaP HBT and pHEMT products used in fiber optic and wireless communication devices. The second phase of the expansion added another 7,000 square feet of space which increases the electronic material production capability by nearly 400%. The expansion accommodates the addition of up to ten new Enterprise Electronic Materials MOCVD production tools, engineered and manufactured by EMCORE, for the high volume production of pHEMTs and HBTs. This will bring the total number of materials-related production tools in operation at Somerset, NJ to eighteen, whereby 733,000 four-inch wafers or 305,000 six-inch wafers can be produced annually. The facility expansion also more than doubles EMCORE's characterization capabilities to ensure the unrestricted flow of high quality epitaxial materials. The second-phase expansion also increases the manufacturing capacity of EMCORE's electronic device division and MOCVD tool division. The electronic device division of EMCORE has been expanded to augment EMCORE's capability to produce photo-detectors for high-speed array transceivers. EMCORE is in the process of purchasing this manufacturing building and an additional 140,000 square foot building in the area to keep production in pace with the high demand for its products. With the additional space, EMCORE's capital equipment division, which manufactures market leading MOCVD tools, will have the capacity to triple the amount of production tools manufactured per year.

In July 2000, EMCORE also announced plans to significantly expand its Sandia Technology Park site, located in Albuquerque, New Mexico, into a campus environment that will house EMCORE's solar cell, optical components and networking products. Scheduled for completion by January 2001, this expanded facility will triple the cleanroom manufacturing capacity of the plant to meet increased product demand, EMCORE's expanding customer base and new product lines. EMCORE has already purchased an additional two acres west of the site and completed the build out of the remaining unoccupied portion of the existing EMCORE facility adding an additional 36,000 square feet to the existing 50,000-square-foot facility. Construction of a new 36,000 square foot, 2-story building has started and is expected to be completed by January 2001. This will allow for one integrated manufacturing site for EMCORE's component module and photovoltaic operations.

The existing 50,000 square foot facility in Albuquerque, New Mexico was completed in October 1998, where 50% of the plant is occupied by EMCORE's PhotoVoltaic division for the manufacture of advanced dual and triple junction solar cells for satellite applications. EMCORE's MicroOptical Device (MODE) division provides the building blocks for high-speed telecom and data communications, including the Internet infrastructure, by designing and manufacturing reliable and efficient high-speed laser components, subassemblies, and modules. The expansion of these operations at a newly constructed, state of the art facility will be paramount to the future development of industry leading technologies for the communications industry.

The following chart contains certain information regarding each of EMCORE's principal facilities. Each of these facilities contains office space, marketing and sales, and research and development space. EMCORE also leases office space in Santa Clara, California and Hsinchu, Taiwan. In addition to EMCORE's facilities, Uniroyal Optoelectronics, a joint venture between EMCORE and Uniroyal Technology Corporation, leases a 77,000 square foot office and manufacturing facility in Tampa, Florida; 44,000 square feet is currently in use and the remaining unoccupied portion of 33,000 square feet is expected to be completed by July 2001.

Location	Function	Sq. Feet	Terms
Somerset, New Jersey	Headquarters	40,000	Lease Expires in 2005 (1)
	Manufacturing building for RF materials, MR sensors and MOCVD production systems	80,000	Lease Expires in 2005 (1)
Albuquerque, New Mexico	Manufacturing building for solar cells and VCSELS	86,000	Owned by EMCORE
	Manufacturing buildings for VCSELS and array transceivers (MODE)	37,000	Leases Expire in 2001 and 2002 (1)

(1) All leases have the option to be renewed by EMCORE, subject to cost of living adjustments.

#### Item 3. Legal Proceedings

EMCORE is not aware of any pending or threatened litigation against it that could have a material adverse effect on its business, financial condition and results of operations.

#### Item 4. Submission of matters to a vote of security holders

Not applicable.

#### PART II.

#### Item 5. Market for the Registrant's Common Equity and Related Shareholder Matters

EMCORE's common stock is traded on the NASDAQ National Market and is quoted under the symbol "EMKR." The following table sets forth the quarterly high and low sale prices for EMCORE's common stock during the three most recent fiscal years. Stock prices have been adjusted to reflect a two-for-one (2:1) common stock split that was effective on September 18, 2000.

Fiscal Year Ended September 30, 1998	High	Low
First Quarter.....	\$11.6880	\$ 7.7500
Second Quarter.....	\$ 9.8130	\$ 5.5000
Third Quarter .....	\$ 8.3750	\$ 4.5000
Fourth Quarter .....	\$ 6.7500	\$ 3.0000
Fiscal Year Ended September 30, 1999		
First Quarter.....	\$ 9.1880	\$ 3.6250
Second Quarter.....	\$14.3750	\$ 6.9380
Third Quarter .....	\$11.5000	\$ 6.4380
Fourth Quarter .....	\$12.5000	\$ 5.6250
Fiscal Year Ended September 30, 2000		
First Quarter.....	\$19.6250	\$ 6.0310
Second Quarter.....	\$86.5000	\$15.3130
Third Quarter .....	\$61.0000	\$20.0000
Fourth Quarter .....	\$62.5000	\$28.5630
Fiscal Year Ended September 30, 2001		
First Quarter (through December 1, 2000).....	\$37.8125	\$33.5000

The reported closing sale price of EMCORE's common stock on December 1, 2000 was \$35.3125 per share. As of December 1, 2000, EMCORE had approximately 2,697 shareholders of record.

EMCORE has never declared or paid dividends on its common stock since its formation. EMCORE currently does not intend to pay dividends on its common stock in the foreseeable future so that it may reinvest its earnings in its business. The payment of dividends, if any, in the future will be at the discretion of the Board of Directors.

#### Recent Sales of Unregistered Securities

In 1999, EMCORE's Chairman personally guaranteed EMCORE's bank facility and extended a line of credit to EMCORE. In recognition of these services, the Board of Directors granted a warrant for 600,000 shares (adjusted for the 2:1 stock split in September 2000) of common stock to the Chairman. The warrant was immediately exercisable at \$6.4700 per share and issued in March 2000. EMCORE believes the issuance of the warrant was exempt from registration pursuant to Section 4(2) of the Securities Act of 1933, as amended.

#### Item 6. Selected Financial Data

The following selected consolidated financial data for the five most recent fiscal years ended September 30, 2000 of EMCORE is qualified by reference to and should be read in conjunction with the Financial Statements and the Notes thereto, and Management's Discussion and Analysis of Financial Condition and Results of Operations included elsewhere in this document. The Statement of Operations data set forth below with respect to fiscal years 1998, 1999 and 2000 and the Balance Sheet data as of September 30, 1999 and 2000 are derived from EMCORE's audited financial statements included elsewhere in this document. The Statement of Income data for fiscal years 1996 and 1997 and the Balance Sheet

data as of September 30, 1996, 1997 and 1998 are derived from audited financial statements not included herein. All share amounts have been restated to reflect EMCORE's two-for-one (2:1) common stock split that was effective on September 18, 2000.

On December 5, 1997, EMCORE acquired MODE in a stock transaction accounted for under the purchase method of accounting for a purchase price of \$32.8 million. In connection with this transaction, EMCORE recorded a non-recurring, non-cash charge of \$19.5 million for acquired in-process research and development, which affects the comparability of EMCORE's operating results and financial condition.

(in thousands, except per share amounts)	For the Fiscal Years Ended September 30,				
	1996	1997	1998	1999	2000
Statements of Operations data					
Revenue.....	\$27,779	\$47,752	\$43,760	\$58,341	\$104,506
Cost of revenues.....	18,607	30,094	24,676	33,158	61,301
Gross profit.....	9,172	17,658	19,084	25,183	43,205
Operating expenses:					
Selling, general and administrative.....	6,524	9,346	14,082	14,433	21,993
Goodwill amortization.....	-	-	3,638	4,393	4,392
Research and development:					
Recurring.....	5,401	9,001	16,495	20,713	32,689
One-time acquired in-process.....	-	-	19,516	-	-
Total operating expenses.....	11,925	18,347	53,731	39,539	59,074
Operating loss.....	(2,753)	(689)	(34,647)	(14,356)	(15,869)
Stated interest expense (income), net...	297	520	973	866	(4,492)
Imputed warrant interest expense.....	126	3,988	601	1,136	843
Equity in net loss of unconsolidated affiliates.....	-	-	198	4,997	13,265
Total other expenses.....	423	4,508	1,772	6,999	9,616
Loss before income taxes and extra-ordinary item.....	(3,176)	(5,197)	(36,419)	(21,355)	(25,485)
Provision for income taxes.....	-	137	-	-	-
Loss before extraordinary item.....	(3,176)	(5,334)	(36,419)	(21,355)	(25,485)
Extraordinary item.....	-	285	-	1,334	-
Net loss.....	\$ (3,176)	\$ (5,619)	\$ (36,419)	\$ (22,689)	\$ (25,485)
Per share data					
Weighted average shares used in calculating per share data.....	5,988	9,338	17,550	21,180	31,156
Loss per basic and diluted shares before extraordinary item.....	\$ (0.53)	\$ (0.57)	\$ (2.08)	\$ (1.03)	\$ (0.82)
Net loss per basic and diluted shares.....	\$ (0.53)	\$ (0.60)	\$ (2.08)	\$ (1.09)	\$ (0.82)

	As of September 30,				
	1996	1997	1998	1999	2000
Balance Sheet data					
Cash, cash equivalents and marketable securities.....	\$ 1,367	\$ 3,653	\$ 4,456	\$ 7,165	\$101,745
Working capital (deficiency).....	1,151	12,156	(2,017)	20,690	111,587
Total assets.....	20,434	39,463	73,220	99,611	243,902
Long-term liabilities.....	8,947	7,577	26,514	9,038	1,295
Redeemable convertible preferred stock.....	-	-	-	14,193	-
Shareholders' equity.....	522	21,831	19,580	61,623	199,322

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

Overview

EMCORE, an ISO 9001 certified manufacturer, designs, develops and manufactures compound semiconductor materials and is a leading developer and manufacturer of the tools and manufacturing processes used to fabricate compound semiconductor wafers and devices. EMCORE's vertically-integrated product offering allows it to provide a complete compound semiconductor solution to its customers. EMCORE assists its customers with device design, process development and optimal configuration of TurboDisc production systems.

EMCORE recognizes revenue upon shipment. Systems-related revenues include sales of EMCORE's TurboDisc production systems as well as components and services. The book-to-ship time period on systems is approximately six to nine months, and the average selling price is in excess of \$1.0 million. For systems, EMCORE incurs certain installation and warranty costs subsequent to shipment which are estimated and accrued at the time the sale is recognized. Materials-related revenues include wafers, devices and process development technology. The materials sales cycle is generally shorter than systems-related sales and average selling prices vary significantly based on the products and services provided.

In order to facilitate the development and manufacture of new products in targeted growth areas, EMCORE has established a number of strategic relationships through joint ventures, long-term supply agreements and an acquisition. The most significant strategic relationships are summarized below:

- o In June 2000, EMCORE and JDS Uniphase executed a Joint Development Manufacturing and Marketing Agreement (the "Agreement"). Under the Agreement, EMCORE and JDS Uniphase will jointly develop, manufacture and market a family of fiber optic array transceivers based on EMCORE's laser technology that facilitate light to logic (electronic signal in/modulated light signal out) for fiber optic communications products used in switches, routers and computer backplanes for OC-192, OC-768 and other proprietary network designs. EMCORE will manufacture VCSEL arrays and design gigabit speed control circuits, photodetectors, optical links and other components. JDS Uniphase will handle all marketing, worldwide sales, application support, customer service and distribution functions and will assist EMCORE with technical support for the optical packaging and testing for the products. The initial product to be developed and commercialized under the Agreement with JDS Uniphase will be an array transceiver with twelve channels each operating at 1.25 Gigabits/second, yielding a compact, high speed data link. These products are designed to make possible short distance links between dense wavelength division multiplexing systems (DWDM), high-speed routers and SONET (long-haul telecommunications) equipment. Recent industry forecasts indicate that the market opportunity for high-speed optical transceivers, including 2.5 gigabit per channel arrays and 10 gigabit serial devices will exceed \$3.4 billion by the year 2004. EMCORE has completed alpha testing and began shipping prototype array transceivers in December 2000;
- o In May 2000, EMCORE signed an agreement with Motorola to meet their requirements for epitaxial tools, wireless electronic materials and technology. This relationship includes supplying Motorola with epitaxial process technology and multiple MOCVD production tools, as well as purchase orders for electronic device epitaxial wafers. Motorola also announced that EMCORE was awarded their Standard Supplier Designation, making EMCORE the only qualified supplier of MOCVD tools for Motorola's compound semiconductor factories;
- o In January 2000, EMCORE entered into a three-year supply agreement with Agilent, a leading supplier of fiber optic transceivers and integrated circuits for infrastructure products for the Internet. Under this agreement, EMCORE will manufacture Gigarray(R) VCSEL arrays for use in parallel optical transceivers. The initial purchase order under the agreement is contingent upon EMCORE's development of a component that meets Agilent's specifications. EMCORE began shipping commercial product in December 2000;
- o In May 1999, EMCORE and General Electric Lighting formed GELcore, a joint venture to develop and market HB LED lighting products. General Electric Lighting and EMCORE have agreed that this joint venture will be the exclusive vehicle for each party's participation in solid state lighting. GELcore seeks to combine EMCORE's materials science expertise, process technology and compound semiconductor production systems with General Electric Lighting's brand name recognition and

extensive marketing and distribution capabilities. GELcore's long-term goal is to develop products to replace traditional lighting. EMCORE has invested \$17.5 million in GELcore and has seconded various employees to the joint venture to assist in the development of products. In September 2000, GELcore acquired Ecolux, Inc. adding LED-signaling products to GELcore's growing line of LED products;

- o In November 1998, EMCORE signed a long-term supply agreement with Space Systems/Loral, a wholly owned subsidiary of Loral Space & Communications. Under this agreement, EMCORE supplies compound semiconductor high-efficiency gallium arsenide solar cells for Loral's satellites. To date, EMCORE has received purchase orders from Space Systems/Loral that total \$19.5 million and services this agreement at EMCORE's new facility in Albuquerque, New Mexico;
- o In March 1997, EMCORE and a wholly owned subsidiary of Uniroyal Technology Corporation formed Uniroyal Optoelectronics LLC, a joint venture, to manufacture, sell and distribute HB LED wafers and package-ready devices. This joint venture commenced operations in July 1998. EMCORE has invested over \$17.6 million in Uniroyal Optoelectronics and has seconded various employees to the joint venture to assist in the development of products; and
- o In December 1997, EMCORE acquired MicroOptical Devices, Inc. ("MODE") in a stock transaction accounted for under the purchase method of accounting for a purchase price of \$32.8 million. This acquisition allowed EMCORE to expand its technology base into the data communications and telecommunications markets. MODE, a development stage company, constituted a significant and strategic investment for EMCORE to acquire and gain access to MODE's in-process research and development of micro-optical technology. As part of this acquisition, EMCORE recorded goodwill of approximately \$13.2 million, which is being charged against operations over a three-year period, impacting financial results through December 2000. MODE's operations are located in Albuquerque, New Mexico.

Because EMCORE does not have a controlling economic and voting interest in the General Electric Lighting and Uniroyal Technology joint ventures, EMCORE accounts for these joint ventures under the equity method of accounting and, as such, our share of profits and losses are included below the operating income line in our Statements of Operations.

EMCORE has generated a significant portion of its sales to customers outside the United States. In fiscal years 1998, 1999 and 2000, international sales constituted 39.1%, 52.6% and 38.6%, respectively, of revenues. EMCORE anticipates that international sales will continue to account for a significant portion of revenues. Historically, EMCORE has received substantially all payments for products and services in U.S. dollars and therefore EMCORE does not currently anticipate that fluctuations in any currency will have a material effect on its financial condition or results of operations.

The following chart contains a breakdown of EMCORE's worldwide revenues by geographic region.

(in thousands)	For the fiscal years ended September 30,					
	1998		1999		2000	
	Revenue	% of revenue	Revenue	% of revenue	Revenue	% of revenue
	-----	-----	-----	-----	-----	-----
Region:						
North America	\$26,648	61%	\$27,698	48%	\$64,174	62%
Asia	15,527	35%	28,211	48%	34,656	33%
Europe	1,585	4%	2,432	4%	5,676	5%
<hr/>						
TOTAL	\$43,760	100%	\$58,341	100%	\$104,506	100%
	=====	====	=====	====	=====	====

As of September 30, 2000, EMCORE had an order backlog of \$125.0 million scheduled to be shipped through September 30, 2001. This represents an increase of \$81.9 million or 190.0% since September 30, 1999. Year-end backlog also compares favorably to the sequential backlogs reported at June 30, 2000, March 31, 2000 and December 31, 1999 of \$105.0 million, \$84.0 million and \$46.6 million, respectively. EMCORE includes in backlog only customer purchase orders that have been accepted by EMCORE and for which shipment dates have been assigned within the 12 months to follow and research contracts that are in process or awarded. Wafer and device agreements extending longer than one year in duration are included in backlog only for the ensuing 12 months. EMCORE receives partial advance payments or irrevocable letters of credit on most production system orders.

EMCORE has two reportable operating segments: the systems-related business unit and the materials-related business unit. The systems-related business unit designs, develops and manufactures tools and manufacturing processes used to fabricate compound semiconductor wafer and devices. This business unit assists our customers with device design, process development and optimal configuration of TurboDisc production systems. Revenues for the systems-related business unit consist of sales of EMCORE's TurboDisc production systems as well as spare parts and services related to these systems. The materials-related business unit designs, develops and manufactures compound semiconductor materials. Revenues for the materials-related business unit include sales of semiconductor wafers, devices, packaged devices, modules and process development technology. EMCORE's vertically-integrated product offering allows it to provide a complete compound semiconductor solution to its customers. The segments reported are the segments of EMCORE for which separate financial information is available and for which gross profit amounts are evaluated regularly by executive management in deciding

how to allocate resources and in assessing performance. EMCORE does not allocate assets or operating expenses to the individual operating segments. There are no intercompany sales transactions between the two operating segments.

## Results of Operations

The following table sets forth the condensed consolidated Statement of Operations data of EMCORE expressed as a percentage of total revenues for the fiscal years ended September 30, 1998, 1999 and 2000:

### Statement of Operations Data:

	Fiscal Years Ended September 30,		
	1998	1999	2000
Revenues.....	100.0%	100.0%	100.0%
Cost of revenues.....	56.4%	56.8%	58.7%
Gross profit.....	43.6%	43.2%	41.3%
Operating expenses:			
Selling, general and administrative.....	32.2%	24.7%	21.0%
Goodwill amortization.....	8.3%	7.5%	4.2%
Research and development:			
Recurring.....	37.7%	35.5%	31.3%
One-time acquired in-process.....	44.6%	-	-
Total operating expenses.....	122.8%	67.7%	56.5%
Operating loss.....	(79.2%)	(24.5%)	(15.2%)
Stated interest expense (income), net....	2.2%	1.5%	(4.3%)
Imputed warrant interest expense.....	1.4%	1.9%	0.8%
Equity in net loss of unconsolidated affiliates.....	0.4%	8.6%	12.7%
Total other expenses.....	4.0%	12.0%	9.2%
Loss before extraordinary item.....	(83.2%)	(36.6%)	(24.4%)
Extraordinary item.....	-	2.3%	-
Net loss.....	(83.2%)	(38.9%)	(24.4%)

### Comparison of Fiscal Years Ended September 30, 1999 and 2000

**Revenues.** EMCORE's revenues increased 79.1% or \$46.2 million from \$58.3 million for the fiscal year ended September 30, 1999 to \$104.5 million for the fiscal year ended September 30, 2000. This increase in revenues was attributable to both systems- and materials-related product lines. Systems-related revenues increased 47.9% or \$21.3 million from \$44.5 million to \$65.8 million. The number of MOCVD production systems shipped increased 51.6% from 31 in fiscal year 1999 to 47 in fiscal year 2000. Management expects system shipments to increase over 85% in fiscal year 2001 to approximately 75 MOCVD systems. Materials-related revenues increased 179.3% or \$24.9 million from \$13.9 million to \$38.7 million. This revenue growth was primarily related to sales of solar cells and sales of pHEMT and HBT epitaxial wafers to wireless communication companies, which increased 1,760.6% and 802.0%, respectively, from the prior year. As a percentage of revenues, systems- and materials-related revenues accounted for 76.2% and 23.8%, respectively, for the fiscal year ended September 30, 1999 and improved to 63.0% and 37.0%, respectively, for the fiscal year ended September 30, 2000. EMCORE expects the product mix between systems and materials to continue to approach 50% as other new products are introduced and production of commercial volumes of these materials commences. International sales accounted for 52.6% of revenues for the fiscal year ended September 30, 1999 and 38.6% of revenues for the fiscal year ended September 30, 2000. The increase in domestic sales is a direct result of significant materials-related design wins at several large U.S. semiconductor and telecommunication companies.

**Gross Profit.** EMCORE's gross profit increased 71.6% or \$18.0 million from \$25.2 million for the fiscal year ended September 30, 1999 to \$43.2 million for the fiscal year ended September 30, 2000. Gross profit earned on systems-related revenues increased 56.0% or \$10.0 million from \$18.0 million to \$28.0 million. This increase is due primarily to the rise in production system sales, discussed above, as well as, improved manufacturing efficiencies. Component and service related revenues continue to increase as EMCORE's production system installed base approaches 300 MOCVD systems. Gross profit earned on materials-related revenues increased 110.2% or \$8.0 million from \$7.2 million to \$15.2 million. Management expects gross profits on materials-related sales to increase significantly due to recent yield improvements on manufacturing processes and based upon expected increased production output due to EMCORE's strong order backlog of material-related products.

**Selling, General and Administrative.** Selling, general and administrative expenses increased by 52.4% or \$7.6 million from \$14.4 million for the fiscal year ended September 30, 1999 to \$22.0 million for the fiscal year ended September 30, 2000. A significant portion of the increase was due to headcount increases in marketing and sales personnel to support domestic and foreign markets and other administrative headcount additions to sustain internal support. As a percentage of revenue, selling, general and administrative expenses decreased from 24.7% for the fiscal year ended September 30, 1999 to 21.0% for the fiscal year ended September 30, 2000.

**Goodwill Amortization.** Goodwill of \$13.2 million was recorded in connection with our acquisition of MODE in December 1997. EMCORE recognized \$4.4 million of goodwill amortization for the fiscal years ended September 30, 1999 and 2000, each reflecting a full year of amortization. As of September 30, 2000, EMCORE

had approximately \$0.7 million of net goodwill remaining, which will be fully amortized by December 2000.

**Research and Development.** Recurring research and development expenses increased 57.8% or \$12.0 million from \$20.7 million in the fiscal year ended September 30, 1999 to \$32.7 million in the fiscal year ended September 30, 2000. As a percentage of revenue, recurring research and development expenses decreased from 35.5% for the fiscal year ended September 30, 1999 to 31.3% for the fiscal year ended September 30, 2000. During the quarter ended September 30, 2000, EMCORE incurred \$7.0 million of additional research and development expenses in connection with EMCORE's array transceiver program, manufacturing process development and transponder development, which are being designed under an agreement with JDS Uniphase. In addition, EMCORE accelerated certain fiber optic and wireless programs to meet customer driven market windows. To maintain growth and to continue to pursue market leadership in materials science technology, management expects to continue to invest a significant amount of its resources in research and development. In fiscal year 2001, management expects research and development expenses to increase approximately 25%, but continue to decrease as a percentage of revenues.

**Interest Income/Expense.** For the fiscal year ended September 30, 2000, net interest changed \$5.4 million from net interest expense of \$0.9 million to net interest income of \$4.5 million. In March 2000, EMCORE completed the issuance of an additional 2.0 million common stock shares (adjusted for 2:1 stock split) through a public offering, which resulted in proceeds of \$127.5 million, net of issuance costs. A portion of the proceeds was used to repay all outstanding bank loans, thereby reducing interest expense and generating interest income on the retained proceeds. Higher interest rates in fiscal year 2000 also contributed to increased interest income.

**Imputed warrant interest expense, non-cash.** In 1999, EMCORE's Chairman personally guaranteed EMCORE's bank facility and extended a line of credit to EMCORE. In recognition of these services during 2000, the Board of Directors granted a warrant for 600,000 shares (adjusted for the 2:1 stock split in September 2000) of common stock to the Chairman. The warrant was immediately exercisable at \$6.47 per share. As the warrant related to past services, the fair value was charged as an expense in the Statement of Operations. EMCORE assigned a fair value of \$689,000 to the warrants, which was based upon EMCORE's application of the Black-Scholes option-pricing model. The consequent expense was charged to "imputed warrant interest expense, non-cash."

**Equity in unconsolidated affiliates.** Because EMCORE does not have a controlling economic and voting interest in its joint ventures, EMCORE accounts for these joint ventures under the equity method of accounting. For the fiscal year ended September 30, 1999, EMCORE incurred a net loss of \$2.2 million related to the Uniroyal joint venture and a \$2.5 million net loss related to the GELcore joint venture. For the fiscal year ended September 30, 2000, EMCORE incurred a net loss of \$7.8 million related to the Uniroyal joint venture and a \$5.4 million net loss related to the GELcore joint venture.

**Income Taxes.** As a result of its losses, EMCORE did not incur any income tax expense in both fiscal years 1999 and 2000. As of September 30, 2000, the Company has net operating loss carryforwards for tax purposes of approximately \$44.0 million that expire in the years 2003 through 2020. The Company believes that the consummation of certain equity transactions and a significant change in the ownership during fiscal years 1995, 1998 and 1999 have constituted a change in control under Section 382 of the Internal Revenue Code ("IRC"). Due to the change in control, the Company's ability to use its federal net operating loss carryovers and federal research credit carryovers to offset future income and income taxes, respectively, are subject to annual limitations under IRC Sections 382 and 383.

#### Comparison of Fiscal Years Ended September 30, 1998 and 1999

**Revenues.** EMCORE's revenues increased 33.3% from \$43.8 million for the fiscal year ended September 30, 1998 to \$58.3 million for the fiscal year ended September 30, 1999. The revenue increase was attributable to increased revenues in the systems-related product lines. Revenues from systems-related sales and materials-related sales were \$26.3 million and \$17.4 million, respectively, for the fiscal year ended September 30, 1998 and \$44.5 million and \$13.9 million, respectively, for the fiscal year ended September 30, 1999. As a percentage of revenues, systems- and materials-related revenues accounted for 60.2% and 39.8%, respectively, for the fiscal year ended September 30, 1998 and 76.2% and 23.8%, respectively, for the fiscal year ended September 30, 1999. International sales accounted for 39.1% of revenues for the fiscal year ended September 30, 1998 and 52.5% of revenues for the fiscal year ended September 30, 1999.

**Gross Profit.** EMCORE's gross profit increased 32.0% from \$19.1 million for the fiscal year ended September 30, 1998 to \$25.2 million for the fiscal year ended September 30, 1999. As a percentage of revenue, gross profit decreased slightly from 43.6% of revenue for the fiscal year ended September 30, 1998 to 43.2% of revenue for the fiscal year ended September 30, 1999. During the first half of fiscal year 1999, EMCORE sold three compound semiconductor production systems for approximately \$5.3 million to a joint venture in which it has a 49% minority interest. EMCORE deferred \$1.3 million of gross profit on such sales. Such deferred gross profit is being recognized ratably over the assigned life of the production systems purchased by the joint venture.

**Selling, General and Administrative.** Selling, general and administrative expenses increased by 2.5% from \$14.1 million for the fiscal year ended September 30, 1998 to \$14.4 million for the fiscal year ended September 30, 1999. As a percentage of revenue, selling, general and administrative expenses decreased from 32.2% for the fiscal year ended September 30, 1998 to 24.7% for the fiscal year ended September 30, 1999.

**Goodwill Amortization.** Goodwill of \$13.2 million was recorded in connection with our acquisition of MODE on December 5, 1997. EMCORE recognized approximately \$4.4 million of goodwill amortization for the fiscal year ended

September 30, 1999, reflecting a full year of amortization. As of September 30, 1999, EMCORE had approximately \$5.1 million of net goodwill remaining, which will be fully amortized by December 2000.

Research and Development. Recurring research and development expenses increased 25.6% from \$16.5 million in the fiscal year ended September 30, 1998 to \$20.7 million in the fiscal year ended September 30, 1999. As a percentage of revenue, recurring research and development expenses decreased from 37.7% for the fiscal year ended September 30, 1998 to 35.5% for the fiscal year ended September 30, 1999. The increase in research and development spending was primarily attributable to EMCORE's acquisition of MODE, the startup of our new Albuquerque, New Mexico facility and increased staffing and equipment costs necessary to enhance current products and develop new product offerings. Products introduced or under development include HB LEDs, high efficiency solar cells, new generation TurboDisc production systems, VCSELs, RF materials and other optoelectronic devices. In fiscal year 1998, EMCORE recognized a \$19.5 million one-time charge for acquired in-process research and development relating to the purchase of MODE.

Other Expenses. During fiscal year 1996, EMCORE issued 5,151,766 detachable warrants along with subordinated notes to certain of its existing shareholders. EMCORE subsequently assigned a value to these detachable warrants issued using the Black-Scholes option-pricing model. EMCORE recorded the subordinated notes at a carrying value that is subject to periodic accretions, using the interest method. In June 1998, EMCORE issued 569,368 warrants to its Chairman and its Chief Executive Officer for providing a guarantee in connection with an \$8.0 million 18-month credit facility with First Union National Bank entered into in 1998. EMCORE also assigned a value to these warrants using the Black-Scholes option-pricing model. The consequent expense of the subordinated note accretion and warrant value amortization is charged to "Imputed warrant interest expense, non-cash" and equaled approximately \$601,000 and \$950,000 for the fiscal years ended September 30, 1998 and 1999, respectively. The subordinated notes and the 18-month credit facility were repaid using a portion of the proceeds from the public offering, which was completed in June 1999.

In order to fund its initial capital contribution for GELcore, EMCORE borrowed \$7.8 million from General Electric in the form of a convertible subordinated debenture (the "Debenture"), with an interest rate of 4.75% and a May 2006 maturity date. This Debenture was converted to common stock in March 2000. In connection with this funding of EMCORE's initial capital contribution, General Electric received 564,020 warrants to purchase common stock at \$11.44 per share. These warrants, which were to expire in 2006, were exercised in March 2000. EMCORE had assigned a value to these warrants using the Black-Scholes option-pricing model. The warrant value of \$2.6 million was included in other assets and was being amortized over seven years. The consequent expense of the warrant amortization was charged to "Imputed warrant interest expense, non-cash" and equaled approximately \$186,000 for the fiscal year ended September 30, 1999.

For the fiscal year ended September 30, 1999, stated interest expense, net decreased by \$107,000 to \$866,000. On June 15, 1999, EMCORE completed the issuance of an additional 6.0 million common stock shares through a public offering, which resulted in proceeds of \$52.0 million, net of issuance costs. A significant portion of those proceeds was used to repay all outstanding bank loans and subordinated notes.

Because EMCORE does not have a controlling economic and voting interest in the Uniroyal Technology, Union Miniere and General Electric Lighting joint ventures, EMCORE accounts for these joint ventures under the equity method of accounting. For the fiscal year ended September 30, 1998, EMCORE incurred a net loss of \$198,000 related to the Uniroyal joint venture. For the fiscal year ended September 30, 1999, EMCORE incurred a net loss of \$2.2 million related to the Uniroyal joint venture, a \$2.5 million net loss related to the GELcore joint venture and a \$297,000 net loss related to the UMcore joint venture.

Income Taxes. As a result of its losses, EMCORE did not incur any income tax expense in both fiscal years 1998 and 1999. As of September 30, 1999, EMCORE has net operating loss carryforwards for tax purposes of approximately \$24.0 million, which expire in the years 2003 through 2019. EMCORE believes that the consummation of certain equity transactions and a significant change in the ownership during fiscal years 1995, 1998 and 1999 has constituted a change in control under Section 382 of the Internal Revenue Code. Due to the change in control, EMCORE's ability to use its federal net operating loss carryovers and federal research credit carryovers to offset future income and income taxes, respectively, are subject to annual limitations under Sections 382 and 383 of the Internal Revenue Code.

Extraordinary Item. On June 15, 1999, EMCORE repaid its outstanding bank loans using a portion of the proceeds from the public offering. EMCORE also used a portion of the net proceeds to repurchase its outstanding 6.0% subordinated notes due 2001. The early extinguishment of debt resulted in an extraordinary charge of \$1.3 million or \$0.07 per share in fiscal year 1999 that consisted of \$867,000 related to the discount on prepayment of the subordinated notes and \$467,000 related to the write-off of related deferred financing costs.

#### Quarterly Results of Operations

The following tables present EMCORE's unaudited results of operations expressed in dollars and as a percentage of revenues for the eight most recently ended fiscal quarters. EMCORE believes that all necessary adjustments, consisting only of normal recurring adjustments, have been included in the amounts below to present fairly the selected quarterly information when read in conjunction with the consolidated financial statements and notes included elsewhere in this document. EMCORE's results from operations may vary substantially from quarter to quarter. Accordingly, the operating results for a quarter are not necessarily indicative of results for any subsequent quarter or for the full year.

(in thousands)	Dec. 31, 1998	Mar. 31, 1999	June 30, 1999	Sept. 30, 1999	Dec. 31, 1999	Mar. 31, 2000	Jun. 30, 2000	Sept. 30, 2000
Revenues.....	\$10,125	\$16,072	\$17,667	\$14,477	\$16,501	\$23,925	\$30,023	\$34,057
Cost of revenues.....	6,016	9,203	9,853	8,086	9,778	13,989	17,537	19,997
Gross profit.....	4,109	6,869	7,814	6,391	6,723	9,936	12,486	14,060
Operating expenses:								
Selling, general & administrative...	3,144	3,225	3,650	4,414	4,724	5,271	5,919	6,079
Goodwill amortization.....	1,099	1,098	1,098	1,098	1,098	1,098	1,098	1,098
Research & development.....	5,924	4,348	4,959	5,482	4,708	4,662	5,984	17,335
Total operating expenses.....	10,167	8,671	9,707	10,994	10,530	11,031	13,001	24,512
Operating loss.....	(6,058)	(1,802)	(1,893)	(4,603)	(3,807)	(1,095)	(515)	(10,452)
Stated interest expense/ (income), net.....	230	463	290	(117)	(78)	(615)	(1,951)	(1,848)
Imputed warrant interest expense, non-cash.....	316	317	410	93	163	680	-	-
Equity in net loss of unconsolidated affiliates.....	276	1,395	1,311	2,015	2,766	3,047	2,896	4,556
Total other expenses.....	822	2,175	2,011	1,991	2,851	3,112	945	2,708
Loss before income taxes.....	(6,880)	(3,977)	(3,904)	(6,594)	(6,658)	(4,207)	(1,460)	(13,160)
Provision for income taxes.....	-	-	-	-	-	-	-	-
Loss before extraordinary item.....	(6,880)	(3,977)	(3,904)	(6,594)	(6,658)	(4,207)	(1,460)	(13,160)
Extraordinary loss.....	-	-	1,334	-	-	-	-	-
Net loss.....	\$ (6,880)	\$ (3,977)	\$ (5,238)	\$ (6,594)	\$ (6,658)	\$ (4,207)	\$ (1,460)	\$ (13,160)

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	Dec. 31, 1998	Mar. 31, 1999	June 30, 1999	Sept. 30, 1999	Dec. 31, 1999	Mar. 31, 2000	Jun. 30, 2000	Sept. 30, 2000
Revenues.....	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Cost of revenues.....	59.4	57.3	55.8	55.9	59.3	58.5	58.4	58.7
Gross profit.....	40.6	42.7	44.2	44.1	40.7	41.5	41.6	41.3
Operating expenses:								
Selling, general & administrative.....	31.0	20.1	20.7	30.5	28.6	22.0	19.7	17.8
Goodwill amortization.....	10.9	6.8	6.2	7.6	6.7	4.6	3.7	3.2
Research & development.....	58.5	27.0	28.1	37.9	28.5	19.5	19.9	50.9
Total operating expenses.....	100.4	53.9	55.0	76.0	63.8	46.1	43.3	72.0
Operating loss.....	(59.8)	(11.2)	(10.8)	(31.9)	(23.1)	(4.6)	(1.7)	(30.7)
Stated interest expense/ (income), net.....	2.3	2.9	1.6	(0.8)	(0.5)	(2.6)	(6.5)	(5.4)
Imputed warrant interest expense, non-cash.....	3.1	2.0	2.3	0.6	1.0	2.8	-	-
Equity in net loss of unconsolidated affiliates.....	2.7	8.6	7.4	13.9	16.8	12.7	9.6	13.4
Total other expenses.....	8.1	13.5	11.3	13.7	17.3	13.0	3.1	8.0
Loss before income taxes.....	(67.9)	(24.7)	(22.1)	(45.6)	(40.3)	(17.6)	(4.9)	(38.6)
Provision for income taxes.....	-	-	-	-	-	-	-	-
Loss before extraordinary item.....	(67.9)	(24.7)	(22.1)	(45.6)	(40.3)	(17.6)	(4.9)	(38.6)
Extraordinary loss.....	-	-	7.6	-	-	-	-	-
Net loss.....	(67.9)%	(24.7)%	(29.7)%	(45.6)%	(40.3)%	(17.6)%	(4.9)%	(38.6)%

EMCORE has experienced and expects to continue to experience significant fluctuations in quarterly results. Factors which have had an influence on and may continue to influence EMCORE's operating results in a particular quarter include, but are not limited to, the timing of receipt of orders, cancellation, rescheduling or delay in product shipment or supply deliveries, product mix, competitive pricing pressures, EMCORE's ability to design, manufacture and ship products on a cost effective and timely basis, including the ability of EMCORE to achieve and maintain acceptable production yields for wafers and devices, regional economic conditions and the announcement and introduction of new products by EMCORE and by its competitors. The timing of sales of EMCORE's TurboDisc production systems may cause substantial fluctuations in quarterly operating results due to the substantially higher per unit price of these products relative to EMCORE's other products. If the compound semiconductor industry experiences downturns or slowdowns, EMCORE's business, financial condition and results of operations may be materially and adversely affected.

#### Liquidity And Capital Resources

EMCORE has funded operations to date through sales of equity, bank borrowings, subordinated debt and revenues from product sales. In June 1999, EMCORE completed a secondary public offering and raised approximately \$52.0 million, net of issuance costs. In March 2000, EMCORE completed an additional public offering and raised approximately \$127.5 million, net of issuance costs. As of September 30, 2000, EMCORE had working capital of approximately \$111.6 million, including \$101.7 million in cash, cash equivalents and marketable securities.

Operating activities generated \$7.6 million in fiscal year 2000, an increase of \$22.8 million when compared to prior year's net cash used by operations of \$15.2 million. For the quarter ended September 30, 2000, EMCORE experienced its second consecutive quarter of significant positive cash flow from operating activities. The increase in cash for the year ended was primarily due to increases in customer deposits, EMCORE's equity in net loss of unconsolidated affiliates and non-cash depreciation and amortization expense. These amounts were partially offset by EMCORE's net loss and increases in both inventory and accounts receivable. Net cash used for investment activities amounted to \$104.6 million, which represents an increase of 234.7 or \$73.3 million from the prior year. In fiscal year 2000, EMCORE's capital expenditures totaled \$33.8 million which was used primarily for capacity expansion at both New Jersey and New Mexico's manufacturing facilities. EMCORE quadrupled its production capacity for GaInP HBTs and pHEMTs to meet wireless and fiber optic market demands. EMCORE's net investment in marketable securities totaled \$50.9 million. During fiscal year 2000, EMCORE invested \$20.0 million in its joint ventures, \$8.4 million into GELcore and \$11.6 million into UOE. Net cash provided by financing activities for the fiscal year ended September 30, 2000 amounted to approximately \$140.7 million, primarily from the sale of 2.0 million common stock shares to the public which resulted in proceeds of \$127.5 million, net of issuance costs.

In March 1997, EMCORE entered into a \$10.0 million loan agreement with its bank (the "Loan Agreement") that had an interest rate equal to the prime rate plus 50 basis points. In December 1999, EMCORE's Loan Agreement was extended through January 31, 2001. The Loan Agreement's financial covenants were modified under the third amendment, and management believes that EMCORE will be able to

comply with such requirements. EMCORE was in compliance with all covenants and no amounts were outstanding under this facility at September 30, 2000.

EMCORE's planned capital expenditures are expected to total approximately \$50.0 million during fiscal year 2001. EMCORE is currently engaged in construction activities relating to a new 36,000 square foot, 2-story building at the Sandia Technology Park site, in Albuquerque, New Mexico and completion of the third and final stages of expansion at the Somerset, NJ, manufacturing facilities. The 2001 expansion in Somerset, NJ involves an expected \$12.0 million purchase of two buildings to be used for manufacturing of RF materials, devices and MOCVD production tools. Capital spending in fiscal year 2001 also includes upgrading manufacturing facilities, continued investment in analytical and diagnostic research and development equipment, upgrading and purchasing computer equipment and the manufacture of TurboDisc MOCVD production systems for production of materials-related products.

EMCORE believes that its current liquidity, together with available credit, should be sufficient to meet its cash needs for working capital through fiscal year 2001. However, if the available credit facilities, cash generated from operations and cash on hand are not sufficient to satisfy EMCORE's liquidity requirements, EMCORE will seek to obtain additional equity or debt financing. Additional funding may not be available when needed or on terms acceptable to EMCORE. If EMCORE is required to raise additional financing and if adequate funds are not available or not available on acceptable terms, the ability to continue to fund expansion, develop and enhance products and services, or otherwise respond to competitive pressures will be severely limited. Such a limitation could have a material adverse effect on EMCORE's business, financial condition or operations.

In 1992, EMCORE received a royalty bearing, non-exclusive license under a patent held by Rockwell International Corporation which relates to an aspect of the manufacturing process used by its TurboDisc systems. In October 1996, EMCORE initiated discussions with Rockwell to receive additional licenses to permit EMCORE to use this technology to manufacture and sell compound semiconductor wafers and devices. In November 1996, EMCORE suspended these negotiations because of litigation surrounding the validity of the Rockwell patent. EMCORE also ceased making royalty payments to Rockwell under the license during the pendency of the litigation. In January 1999, the case was settled and a judgment was entered in favor of Rockwell. As a result, EMCORE may be required to pay royalties to Rockwell for certain of its past sales of wafers and devices to its customers who did not hold licenses directly from Rockwell. Management has reviewed and assessed its likely royalty obligations and believes that it has the appropriate amounts reserved at September 30, 2000. If EMCORE is required to pay Rockwell amounts in excess of its reserves, its business, financial condition and results of operations could be materially and adversely affected.

#### Recent Accounting Pronouncements

In June 1998, the Financial Accounting Standards Board ("FASB") issued Statement of Financial Accounting Standards ("SFAS") No. 133, "Accounting for Derivative Instruments and Hedging Activities." This statement establishes accounting and reporting standards for derivative instruments and requires recognition of all derivatives as assets or liabilities in the statement of financial position and measurement of these instruments at fair value. The statement, as amended, is effective for fiscal years beginning after June 15, 2000. EMCORE will be required to adopt this standard, as amended, in its fiscal year ending September 30, 2001. Management believes that adopting this statement will not have a material impact on the financial position, results of operations or cash flows of EMCORE.

In December 1999, the Securities and Exchange Commission ("SEC") issued Staff Accounting Bulletin No. 101. ("SAB 101") "Revenue Recognition in Financial Statements," which provides guidance on the recognition, presentation, and disclosure of revenue in financial statements filed with the SEC. SAB 101 outlines the basic criteria that must be met to recognize revenue and provides guidance for disclosures related to revenue recognition policies. The Company will adopt SAB 101 by the fourth quarter of fiscal year 2001 and is currently determining the impact such adoption will have on its consolidated financial statements.

#### Item 7A. Quantitative and Qualitative Disclosures About Market Risk

During fiscal year 2000, EMCORE invested some of the proceeds from its March 2000 public offering into high-grade corporate debt, commercial paper, government securities and other investments at fixed interest rates that vary by security. No other material changes in market risk were identified.

During fiscal year 2000, EMCORE repaid all outstanding bank term loans. EMCORE has no debt outstanding as of September 30, 2000.

## Item 8. Financial Statements and Supplementary Data

EMCORE CORPORATION  
CONSOLIDATED BALANCE SHEETS  
As of September 30, 1999 and 2000  
(in thousands, except share data)

ASSETS	1999	2000
Current assets:		
Cash and cash equivalents.....	\$ 7,165	\$50,849
Marketable securities.....	-	50,896
Accounts receivable, net of allowance for doubtful accounts of \$563 and \$1,065 at September 30, 1999 and 2000, respectively.....	11,423	18,240
Accounts receivable - related parties.....	2,480	2,334
Inventories, net.....	13,990	30,724
Prepaid expenses and other current assets.....	389	1,829
	-----	-----
Total current assets.....	35,447	154,872
Property, plant and equipment, net.....	46,282	69,701
Goodwill, net.....	5,126	734
Investments in unconsolidated affiliates.....	9,496	17,015
Other assets, net.....	3,260	1,580
	-----	-----
Total assets.....	\$99,611	\$243,902
	=====	=====
LIABILITIES and SHAREHOLDERS' EQUITY		
Current liabilities:		
Accounts payable.....	\$ 5,359	\$ 16,512
Accrued expenses.....	4,173	6,083
Advanced billings.....	4,350	20,278
Capitalized lease obligation - current.....	713	72
Other current liabilities.....	162	340
	-----	-----
Total current liabilities.....	14,757	43,285
Convertible subordinated debenture.....	7,800	-
Capitalized lease obligation, net of current portion.....	141	75
Other liabilities.....	1,097	1,220
	-----	-----
Total liabilities.....	23,795	44,580
	-----	-----
Commitments and contingencies		
Mandatorily redeemable convertible preferred stock, 1,030,000 shares issued and outstanding at September 30, 1999.....	14,193	-
Shareholders' equity:		
Preferred stock, \$0.0001 par, 5,882,353 shares authorized.....	-	-
Common stock, no par value, 100,000,000 shares authorized, 26,707,614 shares issued and outstanding at September 30, 1999; 33,974,698 shares issued and 33,968,426 outstanding at September 30, 2000.....	152,426	314,780
Accumulated deficit.....	(83,256)	(108,864)
Notes receivable.....	(7,547)	(6,355)
Treasury stock.....	-	(239)
	-----	-----
Total shareholders' equity.....	61,623	199,322
	-----	-----
Total shareholders' equity and mandatorily redeemable preferred stock.....	75,816	199,322
	-----	-----
Total liabilities, shareholders' equity and mandatorily redeemable preferred stock.....	\$ 99,611	\$243,902
	=====	=====

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

EMCORE CORPORATION  
CONSOLIDATED STATEMENTS OF OPERATIONS  
For the years ended September 30, 1998, 1999 and 2000  
(in thousands, except per share data)

	1998	1999	2000
Revenues:			
Systems-related.....	\$ 26,324	\$44,477	\$65,788
Materials-related.....	17,436	13,864	38,718
	-----	-----	-----
Total revenues.....	43,760	58,341	104,506
Cost of revenues:			
Systems-related.....	15,942	26,522	37,775
Materials-related.....	8,734	6,636	23,526
	-----	-----	-----
Total cost of revenues.....	24,676	33,158	61,301
	-----	-----	-----
Gross profit.....	19,084	25,183	43,205
Operating expenses:			
Selling, general and administrative.....	14,082	14,433	21,993
Goodwill amortization.....	3,638	4,393	4,392
Research and development - recurring.....	16,495	20,713	32,689
Research and development - one time acquired in-process, non-cash.....	19,516	-	-
	-----	-----	-----
Total operating expenses.....	53,731	39,539	59,074
	-----	-----	-----
Operating loss.....	(34,647)	(14,356)	(15,869)
Other (income) expense:			
Interest income.....	(448)	(751)	(4,834)
Interest expense.....	1,421	1,617	342
Imputed warrant interest expense, non-cash....	601	1,136	843
Equity in net loss of unconsolidated affiliates.....	198	4,997	13,265
	-----	-----	-----
Total other expenses.....	1,772	6,999	9,616
Loss before extraordinary item.....	(36,419)	(21,355)	(25,485)
Extraordinary item - loss on early extinguishment of debt.....	-	1,334	-
	-----	-----	-----
Net loss.....	\$ (36,419)	\$ (22,689)	\$ (25,485)
	=====	=====	=====
Per share data:			
Weighted average basic and diluted shares outstanding used in per share data calculations.....	17,550	21,180	31,156
	-----	-----	-----
Loss per basic and diluted share before extraordinary item.....	\$ (2.08)	\$ (1.03)	\$ (0.82)
	=====	=====	=====
Net loss per basic and diluted share.....	\$ (2.08)	\$ (1.09)	\$ (0.82)
	=====	=====	=====

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

EMCORE CORPORATION  
CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY  
As of September 30, 1998, 1999 and 2000

(in thousands)

	Common Stock		Accumulated Deficit	Shareholders' Notes Receivable	Treasury Stock	Total Shareholders' Equity
	Shares	Amount				
Balance at September 30, 1997.....	12,001	\$ 45,817	\$ (23,777)	\$ (209)	-	\$21,831
Issuance of common stock purchase warrants.....		1,310				1,310
Issuance of common stock on exercise of warrants in exchange for note receivable.....	3,656	7,458		(7,458)		-
Issuance of common stock and common stock purchase options and warrants in connec- tion with the acquisition of MODE.....	2,924	32,329				32,329
Stock option exercise.....	72	83				83
Stock purchase warrant exercise.....	11	23				23
Issuance of common stock on exercise of warrants in exchange for subordinated notes....	35	72				72
Compensatory stock issuance.....	53	351				351
Net loss.....			(36,419)			(36,419)
Balance at September 30, 1998.....	18,752	\$87,443	\$ (60,196)	\$ (7,667)	-	\$19,580
Preferred stock dividends.....			(319)			(319)
Accretion of redeemable preferred stock to redemption value.....			(52)			(52)
Issuance of common stock purchase warrants.....		2,596				2,596
Issuance of common stock from public offering, net of issuance cost of \$5,000.....	6,000	52,000				52,000
Stock option exercise.....	220	376				376
Stock purchase warrant exercise.....	643	2,450				2,450
Conversion of mandatorily redeemable convertible preferred stock into common stock.....	1,040	7,125				7,125
Redemptions of shareholders' notes receivable....				120		120
Compensatory stock issuance.....	53	436				436
Net loss.....			(22,689)			(22,689)
Balance at September 30, 1999.....	26,708	\$152,426	\$ (83,256)	\$ (7,547)	-	\$61,623
Preferred stock dividends.....			(83)			(83)
Accretion of redeemable preferred stock to redemption value.....			(40)			(40)
Issuance of common stock purchase warrants.....		689				689
Issuance of non-qualified stock options to equity investee.....		835				835
Issuance of common stock from public offering, net of issuance cost of \$8,500.....	2,000	127,500				127,500
Stock option exercise.....	506	2,197				2,197
Stock purchase warrant exercise.....	1,996	10,874				10,874
Conversion of mandatorily redeemable con- vertible preferred stock into common stock....	2,060	14,193				14,193
Purchase of treasury stock.....	(6)				(239)	(239)
Redemptions of shareholders' notes receivable....				1,192		1,192
Compensatory stock issuance.....	23	566				566
Conversion of convertible subordinated notes into common stock.....	682	5,500				5,500
Net loss.....			(25,485)			(25,485)

Balance at September 30, 2000.....	33,969	\$314,780	\$(108,864)	\$(6,355)	\$(239)	\$199,322
	=====					

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

EMCORE CORPORATION  
CONSOLIDATED STATEMENTS OF CASH FLOWS  
For the years ended September 30, 1998, 1999 and 2000  
(in thousands)

	1998	1999	2000
Cash flows from operating activities:			
Net loss.....	\$(36,419)	\$(22,689)	\$(25,485)
Adjustments to reconcile net loss to net cash provided by (used for) operating activities:			
Acquired in-process research and development, non-cash.....	19,516	-	-
Depreciation and amortization.....	8,767	11,575	14,955
Provision for doubtful accounts.....	1,118	390	780
Provision for inventory valuation.....	120	40	313
Deferred gain on sale to unconsolidated affiliate.....	-	1,259	301
Non-cash charges on warrant issuances..	601	1,136	843
Extraordinary loss on early extinguishment of debt.....	-	1,335	-
Equity in net loss of unconsolidated affiliates.....	198	4,997	13,265
Compensatory stock issuance.....	351	436	566
Change in assets and liabilities:			
Accounts receivable - trade.....	2	(4,375)	(7,597)
Accounts receivable - related parties.....	2,000	(1,980)	146
Inventories.....	(5,243)	(1,585)	(17,047)
Prepaid expenses and other current assets.....	(64)	(140)	(1,440)
Other assets.....	(624)	(69)	(983)
Accounts payable.....	7,950	(6,664)	11,153
Accrued expenses.....	(970)	(24)	1,910
Advanced billings.....	1,182	1,170	15,928
Unearned service revenue.....	(72)	(53)	-
	-----		
Total adjustments.....	34,832	7,448	33,093
	-----		
Net cash and cash equivalents (used for) provided by operating activities..	(1,587)	(15,241)	7,608
Cash flows from investing activities:			
Purchase of property, plant, and equipment.....	(22,132)	(17,110)	(33,755)
Acquisition, cash acquired.....	193	-	-
Investments in marketable securities, net.....	-	-	(50,896)
Investments in unconsolidated affiliates.....	(490)	(14,203)	(19,949)
(Funding) payments of restricted cash.....	250	62	-
	-----		
Net cash and cash equivalents used for investing activities.....	(22,179)	(31,251)	(104,600)
Cash flows from financing activities:			
Proceeds from public stock offering, net of issuance cost of \$8,500.....	-	-	127,500
Proceeds from preferred stock offering, net of issuance cost of \$500.....	-	21,200	-
Proceeds from public stock offering, net of issuance cost of \$5,000.....	-	52,000	-
Proceeds under convertible subordinated debenture.....	-	7,800	-
Proceeds (payments) under bank loans.....	17,950	(17,950)	-
Proceeds (payments) under notes payable - related party.....	7,000	(7,000)	-
Payments on demand note facility and subordinated debt.....	-	(8,563)	-
Proceeds from exercise of stock purchase warrants.....	23	2,164	10,874
Proceeds from exercise of stock options.....	83	376	2,197
Payments on capital lease obligations.....	(487)	(573)	(715)
Purchase of treasury stock.....	-	-	(239)
Dividends paid on preferred stock.....	-	(253)	(133)
Proceeds from shareholders' notes receivable.....	-	-	1,192
	-----		
Net cash and cash equivalents provided by financing activities.....	24,569	49,201	140,676
	-----		
Net increase in cash and cash equivalents.....	803	2,709	43,684
Cash and cash equivalents, beginning of year.....	3,653	4,456	7,165
	-----		
Cash and cash equivalents, end of			

year.....	\$ 4,456	\$ 7,165	\$ 50,849
Supplemental disclosures of cash flow information:			
Cash paid for interest.....	\$ 1,347	\$ 1,739	\$ 351
Non-cash Investing and Financing Activities:			
Common stock issued on the exercise of warrants in exchange for subordinated notes.....	72	-	7,800
Issuance of common stock on the exercise of warrants in exchange for notes receivable.....	7,458	-	-
Issuance of common stock, common stock purchase options and warrants in connection with the acquisition of MicroOptical Devices, Inc.....	32,329	-	-
Conversion of mandatorily redeemable convertible preferred stock to common stock.....	-	7,280	14,420

Reference is made to Note 8 - Debt Facilities - for disclosure relating to certain non-cash warrant issuance. Reference is made to Note 11 - Stockholders' Equity - for disclosure relating to certain non-cash equity transactions.

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

As of September 30, 1999 and 2000 and  
for the years ended September 30, 1998, 1999 and 2000

NOTE 1. Description of Business

EMCORE Corporation (the "Company"), a New Jersey Corporation, designs, develops and manufactures compound semiconductor materials and is a leading developer and manufacturer of the tools and manufacturing processes used to fabricate compound semiconductor wafers and devices. EMCORE's products and technology enable its customers, both in the United States and internationally, to manufacture commercial volumes of high-performance electronic devices using compound semiconductors. EMCORE has recently established a number of strategic relationships through joint ventures, long-term supply agreements and an acquisition in order to facilitate the development and manufacture of new products in targeted growth markets. EMCORE's products are used for a wide variety of applications in the communications (satellite, data, telecommunications and wireless), consumer and automotive electronics, computers and peripherals, and lighting markets. The Company offers its customers a complete, vertically integrated solution for the design, development and production of compound semiconductor wafers and devices.

NOTE 2. Summary of Significant Accounting Policies

**Principles of Consolidation.** The consolidated financial statements include the accounts of the Company and its wholly owned subsidiary. The equity method of accounting is used for unconsolidated affiliates where the Company exercises significant influence, generally when ownership is at least 20% and not more than 50%. All intercompany accounts and transactions are eliminated upon consolidation. Prior period balances have been reclassified to conform to the current period financial statement presentation.

**Cash and Cash Equivalents.** The Company considers all highly liquid short-term investments purchased with an original maturity of three months or less to be cash equivalents.

**Marketable Securities.** The Company accounts for its investment in marketable securities as available for sale securities in accordance with the provisions of SFAS No. 115, "Accounting for Certain Investments in Debt and Equity Securities." Unrealized gains and losses for these securities are excluded from earnings and reported net of tax as a separate component of shareholders' equity. Realized gains and losses on sales of investments, as determined on a specific identification basis, are included in the consolidated statements of operations. Fair values are determined by reference to market prices for securities as quoted based on publicly traded exchanges. At September 30, 2000, the Company's available for sale marketable securities were comprised of debt securities. The fair value of these debt securities at September 30, 2000 approximated cost. At September 30, 2000, the Company's available for sale debt securities were comprised of \$25.4 million of U.S. government debt securities, \$13.3 million of corporate debt securities, \$11.2 million of municipal bonds and \$1.0 million of other debt securities. The contractual maturities for all available for sale debt securities will occur during fiscal 2001. The Company did not record any realized gains or losses on sales of available-for-sale debt securities during fiscal 2000.

**Inventories.** Inventories are stated at the lower of cost or market with cost being determined using the first-in, first-out (FIFO) method. Reserves are established for slow moving or obsolete inventory based upon historical and anticipated usage.

**Property, Plant and Equipment.** Property, plant and equipment are stated at cost. Significant renewals and betterments are capitalized. Maintenance and repairs, which do not extend the useful lives of the respective assets, are expensed. Depreciation is recorded using the straight-line method over the estimated useful lives of the applicable assets, which range from three to forty years. Leasehold improvements are amortized using the straight-line method over the term of the related leases or the estimated useful lives of the improvements, whichever is less. Depreciation expense includes the amortization of capital lease assets. When assets are retired or otherwise disposed of, the assets and related accumulated depreciation accounts are adjusted accordingly, and any resulting gain or loss is recorded in current operations.

**Long-Lived Assets.** The carrying amount of long-lived assets are reviewed on a regular basis for the existence of facts or circumstances, both internally and externally, that suggest impairment. To date no such impairment has been indicated. The Company determines if the carrying amount of a long-lived asset is impaired based on anticipated undiscounted cash flows before interest. In the event of an impairment, a loss is recognized based on the amount by which the carrying amount exceeds fair value of the asset. Fair value is determined primarily using the anticipated cash flows before interest, discounted at a rate commensurate with the risk involved.

**Other Assets.** Included in other assets are various deferred costs and warrant valuation costs. The deferred costs are primarily related to obtaining product patents that enhance and maintain the Company's intellectual property position. These patent costs are being amortized on a straight-line basis over five years or the remaining life of the patent, whichever is less. Total patent amortization expense amounted to approximately \$79,000, \$143,000 and \$219,000 for the years ended September 30, 1998, 1999 and 2000, respectively. In May 1999, EMCORE issued 564,020 common stock purchase warrants to General Electric for financing EMCORE's initial capital contribution in the GELcore joint venture through the issuance of a \$7.8 million convertible subordinated debenture. The warrants were assigned a value of \$2.6 million using the Black-Scholes option

pricing model and were included in other assets as a deferred financing cost. The asset was being amortized over the life of the subordinated debenture. In March 2000, General Electric converted the subordinated debenture into 681,968 shares of common stock. In conjunction with recording the conversion, the unamortized warrant value of approximately \$2.3 million was charged against common stock as an equity issuance cost. Amortization expense related to these warrants, recorded as imputed warrant interest expense, amounted to \$186,000 and \$154,000 for the years ended September 30, 1999 and 2000, respectively.

Goodwill. Goodwill is amortized using the straight-line method over three years. The Company, as applicable, evaluates whether there has been a permanent impairment in the value of goodwill. Any impairment would be recognized when the sum of expected undiscounted cash flows derived from the acquired business is less than its carrying value.

Income Taxes. The Company recognizes deferred taxes by the asset and liability method of accounting for income taxes. Under the asset and liability method, deferred income taxes are recognized for differences between the financial statement and tax bases of assets and liabilities at enacted statutory tax rates in effect for the years in which the differences are expected to reverse. The effect on deferred taxes of a change in tax rates is recognized in income in the period that includes the enactment date. In addition, valuation allowances are established when necessary to reduce deferred tax assets to the amounts expected to be realized. The primary sources of temporary differences are depreciation and amortization of intangible assets.

Revenue and Cost Recognition - Systems- and Materials-related Revenues. Revenue from systems sales is recognized upon shipment, when title passes to the customer. Subsequent to product shipment, the Company incurs certain installation costs at the customer's facility and warranty costs that are estimated and accrued at the time the sale is recognized. Materials and service revenues are recognized when goods are shipped or services are rendered to the customer. Service revenue under contracts with specified service terms is recognized as earned over the service period in accordance with the terms of the applicable contract. Costs in connection with the procurement of the contracts are charged to expense as incurred.

Revenue and Cost Recognition - Contract Revenue. The Company's research contracts require the development or evaluation of new materials applications and have a duration of six to thirty-six months. For research contracts with the U.S. Government and commercial enterprises with a duration greater than six months, the Company recognizes revenue to the extent of costs incurred plus the estimated gross profit as stipulated in such contracts, based upon contract performance. Contracts with a duration of six months or less are accounted for on the completed contract method. A contract is considered complete when all costs, except insignificant items, have been incurred, and the research reporting requirements to the customer have been met. Contract costs include all direct material and labor costs and those indirect costs related to contract performance, such as indirect labor, supplies, tools, repairs and depreciation costs, as well as coverage of certain general and administrative costs. Provisions for estimated losses on uncompleted contracts are made in the period in which such losses are determined. Revenues from contracts amounted to approximately \$438,000, \$1.4 million and \$2.5 million for the years ended September 30, 1998, 1999 and 2000, respectively.

Research and Development. Research and development costs are charged to expense as incurred.

Fair Value of Financial Instruments. The Company estimates the fair value of its financial instruments based upon discounted cash flow analyses using the Company's incremental borrowing rate on similar instruments as the discount rate. As of September 30, 1999 and 2000, the carrying values of the Company's cash, cash equivalents, marketable securities, accounts receivables and accounts payable as reflected on the Company's accompanying balance sheet approximates fair value.

Use of Estimates. The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements. Estimates also affect the reported amounts of revenues and expenses during the reporting period. Actual results may differ from those estimates. The Company's most significant estimates relate to accounts receivable and inventory valuation reserves, warranty and installation accruals and the valuation of long-lived assets.

Concentration of Credit Risk. Financial instruments, which may subject the Company to a concentration of credit risk, consist primarily of cash equivalents, marketable securities and accounts receivable. Marketable securities consist primarily of high-grade corporate debt, commercial paper, government securities and other investments at interest rates that vary by security. The Company's cash equivalents consist primarily of money market funds. The Company has maintained cash balances with certain financial institutions in excess of the \$100,000 insured limit of the Federal Deposit Insurance Corporation. The Company performs ongoing credit evaluations of its customers' financial condition and generally requires no collateral from its customers. To reduce credit risk and to fund manufacturing costs, the Company requires periodic prepayments or irrevocable letters of credit on most production system orders. The Company maintains reserves for potential credit losses based upon the credit risk of specified customers, historical trends and other information. The Company's credit losses generally have not exceeded its expectations. Although such losses have been within management's expectations to date, there can be no assurance that such reserves will continue to be adequate.

#### Recent Financial Accounting Pronouncements

In June 1998, the FASB issued SFAS No.133, Accounting for Derivatives Instruments and Hedging Activities. This statement establishes accounting and

reporting standards for derivative instruments and requires recognition of all derivatives as assets or liabilities in the statement of financial position and measurement of these instruments at fair value. The statement, as amended, is effective for fiscal years beginning after June 15, 2000. The Company is required to adopt this standard, as amended, effective January 1, 2001. Management believes that adopting this statement will not have a material impact on the financial position, results of operations, or cash flows of the Company.

In December 1999, the Securities and Exchange Commission ("SEC") issued Staff Accounting Bulletin No. 101. ("SAB 101") "Revenue Recognition in Financial Statements," which provides guidance on the recognition, presentation, and disclosure of revenue in financial statements filed with the SEC. SAB 101 outlines the basic criteria that must be met to recognize revenue and provides guidance for disclosures related to revenue recognition policies. The Company will adopt SAB 101 by the fourth quarter of fiscal year 2001 and is currently determining the impact such adoption will have on its consolidated financial statements.

#### NOTE 3. Earnings Per Share

The Company accounts for earnings per share under the provision of Statement of Financial Accounting Standards No. 128 "Earnings per Share." Basic earnings per common share was calculated by dividing net loss by the weighted average number of common stock shares outstanding during the period. The effect of outstanding common stock purchase options and warrants, the number of shares available to be issued upon the conversion of the Company's Series I Preferred Stock and the number of shares to be issued upon conversion of the convertible subordinated debenture have been excluded from the earnings per share calculation since the effect of such securities is anti-dilutive. The following table reconciles the number of shares utilized in the earnings per share calculations.

	For the fiscal years ended September 30,		
(in thousands, except per share data)	1998	1999	2000
Loss before extraordinary item.....	(\$36,419)	(\$21,355)	(\$25,485)
Extraordinary item, loss on early retirement of debt.....	-	1,334	-
Net loss.....	(\$36,419)	(\$22,689)	(\$25,485)
Preferred stock dividends.....	-	319	83
Periodic accretion of preferred stock to redemption value.....	-	52	40
Net loss attributable to common shareholders.....	(\$36,419)	(\$23,060)	(\$25,607)
Weighted average of outstanding common shares - basic.....	17,550	21,180	31,156
Effect of dilutive securities:			
Stock option and warrants.....	-	-	-
Preferred stocks.....	-	-	-
Convertible subordinated debenture.....	-	-	-
Weighted average of outstanding common shares - diluted.....	17,550	21,180	31,156
Loss per basic and diluted share before extraordinary item..	(\$2.08)	(\$1.03)	(\$0.82)
Net loss per basic and diluted share.....	(\$2.08)	(\$1.09)	(\$0.82)

#### NOTE 4. Joint Ventures

In May 1999, General Electric Lighting and the Company formed GELcore, a joint venture to develop and market High Brightness Light-Emitting Diode ("HB LED") lighting products. General Electric Lighting and the Company have agreed that this joint venture will be the exclusive vehicle for each party's participation in solid state lighting. Under the terms of the joint venture agreement, the Company has a 49% non-controlling interest in the GELcore venture and accounts for its investment under the equity method of accounting. In fiscal year 2000, the Company invested an additional \$9.7 million in this venture and recognized a loss of \$5.4 which has been recorded as a component of other income and expense. As of September 30, 2000, the Company's net investment in this joint venture amounted to \$9.6 million.

In March 1997, the Company and a subsidiary of Uniroyal Technology Corporation formed Uniroyal Optoelectronics LLC, a joint venture, to manufacture, sell and distribute HB LED wafers and package-ready devices. Under the terms of the joint venture agreement, the Company has a 49% non-controlling interest in this joint venture and accounts for its investment under the equity method of accounting. In fiscal year 2000, the Company invested an additional \$11.6 million in this venture and recognized a loss of \$7.8 million which has been recorded as a component of other income and expense. As of September 30, 2000, the Company's net investment in this joint venture amounted to \$7.5 million.

#### NOTE 5. Inventories

The components of inventories consisted of the following:

(in thousands)	As of September 30,	
	1999	2000
Raw materials	\$ 9,146	\$19,594

Work-in-process	3,620	8,831
Finished goods	1,224	2,299
	-----	-----
Total	\$13,990	\$30,724
	=====	=====

NOTE 6. Property, Plant and Equipment

Major classes of property and equipment are summarized below:

(in thousands)	As of September 30,	
	1999	2000
Land	\$ 1,029	\$ 1,502
Building	9,179	16,427
Equipment	41,225	56,216
Furniture and fixtures	4,880	7,373
Leasehold improvements	10,764	17,472
Property and equipment under capital lease	2,164	2,171
	-----	-----
	69,241	101,161
Less: accumulated depreciation and amortization	(22,959)	(31,460)
	-----	-----
Total	\$46,282	\$69,701
	=====	=====

At September 30, 2000, minimum future lease payments due under the capital leases are as follows:

(in thousands)	
Period ending:	
September 30, 2001	\$95
September 30, 2002	43
September 30, 2003	17
September 30, 2004	7
September 30, 2005	1
	-----
Total minimum lease payments	163
Less: amount representing interest (imputed interest rate of 14.4%)	(16)
	-----
Net minimum lease payments	147
Less: current portion	72
	-----
Long-term portion	\$75
	=====

Depreciation on owned property and equipment amounted to approximately \$4.7 million, \$6.6 million and \$8.0 million for the years ended September 30, 1998, 1999 and 2000, respectively. Accumulated amortization on assets accounted under capital leases amounted to approximately \$834,000 and \$1.3 million as of September 30, 1999 and 2000, respectively.

Included in equipment are twenty-seven systems and twenty-nine systems with a combined net book value of approximately \$15.6 million and \$21.0 million at September 30, 1999 and 2000, respectively. Such systems are utilized for the production of compound semiconductor wafers and package-ready devices for sale to third parties, systems demonstration purposes, system sales support, in-house materials applications, internal research and contract research funded by third parties.

NOTE 7. Accrued Expenses

Accrued expenses consisted of the following:

(in thousands)	As of September 30,	
	1999	2000
Salary and other compensation costs....	\$1,631	\$2,614
Installation and warranty costs.....	929	1,277
Other.....	1,613	2,192
	-----	-----
Total	\$4,173	\$6,083
	=====	=====

NOTE 8. Debt Facilities

Convertible Subordinated Debenture

In May 1999, in connection with the GELcore venture, General Electric funded the Company's initial capital contribution of \$7.8 million in GELcore. The funding was in the form of a subordinated debenture (the "Debenture") with an interest rate of 4.75%. The Debenture was to mature in 2006 and was convertible into common stock of the Company at the conversion price of \$11.44 or 681,968 shares. In addition, General Electric also received 564,020 warrants to purchase common stock at \$11.44 per share. These warrants are exercisable at any time and expire in 2006. These warrants were valued using Black Scholes model, resulting in a valuation of \$2.6 million, which was included in other assets as a deferred financing cost. The asset was being amortized over the life of the Debenture. In March 2000, General Electric converted the subordinated debenture into 681,968 shares of common stock. In conjunction with recording the conversion, the unamortized warrant value of approximately \$2.3 million was charged against common stock as an equity issuance cost.

Bank Loans

In March 1997, EMCORE entered into a \$10.0 million loan agreement with its bank (the "Loan Agreement") that had an interest rate equal to the prime rate plus 50 basis points. In December 1999, EMCORE's Loan Agreement was extended through January 31, 2001. The Loan Agreement's financial covenants were modified under this amendment, and management believes that EMCORE will be able to comply with such requirements. EMCORE was in compliance with all covenants and no amounts were outstanding under this facility at September 30, 2000.

Extraordinary Items:

On June 15, 1999, the Company repaid its outstanding bank loans using a portion of the proceeds from its June 1999 public offering. The Company also used a portion of the net proceeds to repurchase its outstanding 6.0% subordinated notes due 2001. The early extinguishment of debt resulted in an extraordinary charge of \$1.3 million or \$0.06 per share in fiscal year 1999 that consisted of the following:

(in thousands)

Extraordinary items:	
Discount on prepayment of 6% subordinated notes due 2001.....	\$ 867
Write-off of related deferred financing costs.....	467
	-----
Net extraordinary loss.....	\$1,334
	=====

NOTE 9. Commitments and Contingencies

The Company leases its main manufacturing facility of 80,000 square feet under an operation lease expiring in 2005. The Company leases certain equipment under non-cancelable operating leases. Facility and equipment rent expense under such leases amounted to approximately \$637,000, \$761,000 and \$921,000 for the years ended September 30, 1998, 1999 and 2000, respectively.

Future minimum rental payments under the Company's non-cancelable operating leases with an initial or remaining term of one year or more as of September 30, 2000 are as follows:

(in thousands)

Period ending:	Operating
	-----
September 30, 2001	\$570
September 30, 2002	280
September 30, 2003	276
September 30, 2004	92
September 30, 2005	-
	-----
Total minimum lease payments	\$1,218
	-----

In 1992, EMCORE received a royalty bearing, non-exclusive license under a patent held by Rockwell International Corporation which relates to an aspect of the manufacturing process used by its TurboDisc systems. In October 1996, EMCORE initiated discussions with Rockwell to receive additional licenses to permit EMCORE to use this technology to manufacture and sell compound semiconductor wafers and devices. In November 1996, EMCORE suspended these negotiations because of litigation surrounding the validity of the Rockwell patent. EMCORE also ceased making royalty payments to Rockwell under the license during the pendency of the litigation. In January 1999, the case was settled and a judgment was entered in favor of Rockwell. As a result, EMCORE may be required to pay royalties to Rockwell for certain of its past sales of wafers and devices to its customers who did not hold licenses directly from Rockwell. Management has reviewed and assessed its likely royalty obligations and believes that it has the appropriate amounts reserved at both September 30, 1999 and 2000. If EMCORE is required to pay Rockwell amounts in excess of its reserves, its business, financial condition and results of operations could be materially and adversely affected.

The Company is from time to time involved in litigation incidental to the conduct of its business. Management and its counsel believe that such pending litigation will not have a material adverse effect on the Company's results of operations, cash flows or financial condition.

NOTE 10. Income Taxes

The Company accounts for its income taxes under the provisions of Statement of Financial Accounting Standards No. 109 ("SFAS 109"), "Accounting for Income Taxes." Under the asset and liability method of SFAS 109, deferred tax assets and liabilities are recognized for the estimated future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates in effect for the year in which those temporary differences are expected to be recovered or settled. Under SFAS 109, the effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date.

The principal differences between the U.S. statutory and effective income tax rates were as follows:

	For the years ended September 30,		
	1998	1999	2000
US statutory income tax benefit rate	(34.0)%	(34.0)%	(34.0)%
State rate, net of federal benefit	(5.9)%	(5.9)%	(5.9)%

Acquired in-process research and development	18.2%	-	-
Change in valuation allowance	19.8%	35.0%	33.9%
Non-deductible amortization	3.4%	4.8%	6.0%
Other	(1.5)%	0.1%	-
Effective tax rate	-	-	-

As a result of its losses, the Company did not incur any income tax expense during the years ended September 30, 1998, 1999 and 2000. The components of the Company's net deferred taxes were as follows:

(in thousands)	For the years ended September 30,	
	1999	2000
Deferred tax assets:		
Federal net operating loss carryforwards	\$11,800	\$13,557
Research credit carryforwards (state and federal)	1,554	2,937
Inventory reserves	133	179
Accounts receivable reserves	191	362
Fixed assets	2,325	-
Interest	386	287
Accrued installation reserve	146	177
Accrued warranty reserve	157	256
State net operating loss carryforwards	1,336	2,268
Other	569	158
Valuation reserve - federal	(15,430)	(13,455)
Valuation reserve - state	(2,936)	(4,263)
Total deferred tax assets	231	2,463
Deferred tax liabilities:		
Fixed assets and intangibles	(231)	(2,463)
Net deferred taxes	\$ -	\$ -

The Company has established a valuation reserve as it has not determined that it is more likely than not that the net deferred tax asset is realizable, based upon the Company's past earnings history.

As of September 30, 2000, the Company has net operating loss carryforwards for tax purposes of approximately \$44.0 million that expire in the years 2003 through 2020. The Company believes that the consummation of certain equity transactions and a significant change in the ownership during fiscal years 1995, 1998 and 1999 have constituted a change in control under Section 382 of the Internal Revenue Code ("IRC"). Due to the change in control, the Company's ability to use its federal net operating loss carryovers and federal research credit carryovers to offset future income and income taxes, respectively, are subject to annual limitations under IRC Sections 382 and 383.

#### NOTE 11. Stockholders' Equity

**Preferred Stock:** The Company's certificate of incorporation authorizes the Board of Directors to issue up to 5,882,352 shares of preferred stock of the Company upon such terms and conditions having such rights, privileges and preferences as the Board of Directors may determine.

**Public Offerings:** On June 15, 1999, the Company completed the issuance of an additional 6.0 million common stock shares through a public offering, which resulted in proceeds of \$52.0 million, net of issuance costs of \$5.0 million. On January 19, 2000, the Company filed a shelf registration statement (the "Shelf Registration Statement") with the Securities and Exchange Commission to offer from time to time up to 4.0 million shares of common stock. The Shelf Registration Statement became effective on February 4, 2000. On March 1, 2000, the Company completed the issuance of 2.0 million common stock shares under the Shelf Registration Statement that resulted in proceeds of \$127.5 million, net of issuance costs of \$8.5 million. A portion of the proceeds was used to repay all outstanding bank indebtedness. The majority of the funds will be used to expand manufacturing capacity for new data communications and wireless products, to fund additional investments in the Company's joint ventures and for other general corporate purposes.

**Private Placement Offering:** On November 30, 1998, the Company sold an aggregate of 1,550,000 shares of Series I Redeemable Convertible Preferred Stock (the "Series I Preferred Stock") for aggregate consideration of \$21.7 million before deducting costs and expenses, which amounted to approximately \$500,000. The Series I Preferred Stock was recorded net of issuance costs. The excess of the preference amount over the carrying value was being accreted by periodic charges to accumulated deficit. The Series I Preferred Stock carried a dividend of 2% per annum that was charged to accumulated deficit. In June 1999, 520,000 shares of the Series I Preferred Stock were converted into common stock. During the six-month period ended March 31, 2000, the remaining 1,030,000 shares of the Series I Preferred Stock were converted into common stock.

**Common Stock:** In February 1999, an amendment to the Certificate of Incorporation increased the number of no par value common stock shares that the Company is authorized to issue to 50,000,000 million shares. The Certificate of Incorporation was amended, effective December 22, 2000, to effect a two-for-one (2:1) split of the common stock. As a result, as of the effective date of the amendment, the Certificate of Incorporation authorizes the Company to issue up to 100,000,000 shares of common stock, with no par value. The amendment did not change the number of authorized shares or other provisions relating to the preferred stock. All references in these financial statements to common stock and per share data have been adjusted to reflect the common stock split that was effective on September 18, 2000.

**Future Issuances:** At September 30, 2000, the Company has reserved a total

of 6,712,968 shares of its common stock for future issuances as follows:

	Number of shares
For exercise of outstanding warrants to purchase common stock	2,407,430
For exercise of outstanding common stock options	3,770,676
For future common stock option awards	34,862
For future issuances to employees under the Employee Stock Purchase Plan	500,000
	-----
Total reserved	6,712,968
	-----

NOTE 12. Stock Options and Warrants

All share amounts have been restated to reflect EMCORE's two-for-one (2:1) common stock split that was effective on September 18, 2000.

Stock Option Plan. As of September 30, 2000, the Company's Amended and Restated Incentive and Non-Statutory Stock Option Plan (the "Option Plan") has authorized the grant of options for up to 4,194,118 shares of the Company's common stock. As of September 30, 2000, 34,862 options were available for issuance under the Company's Option Plan. Certain options under the Option Plan are intended to qualify as incentive stock options pursuant to Section 422A of the Internal Revenue Code.

During fiscal 2000, options with respect to 1,858,602 were granted pursuant to the Company's option plan at exercise prices ranging from \$7.00 to \$60.00 per share.

Stock options generally vest over three to five years and are exercisable over a ten-year period. As of September 30, 1998, 1999 and 2000, options with respect to 481,863, 554,439 and 1,581,805 were exercisable, respectively.

The following table summarizes the activity under the Option Plan:

	Shares	Weighted Average Exercise Price
Outstanding as of September 30, 1997	950,944	\$3.24
Assumed in MODE acquisition	401,956	0.25
Granted	1,230,612	6.67
Exercised	(71,618)	1.17
Cancelled	(86,442)	5.11
	-----	----
Outstanding as of September 30, 1998	2,425,452	\$4.48
Granted	661,590	6.87
Exercised	(220,144)	1.71
Cancelled	(254,872)	4.67
	-----	----
Outstanding as of September 30, 1999	2,612,026	\$5.30
Granted	1,858,602	22.04
Exercised	(506,256)	4.36
Cancelled	(193,696)	8.01
	-----	----
Outstanding as of September 30, 2000	3,770,676	\$13.54
	=====	=====

At September 30, 2000, stock options outstanding were as follows:

Exercise Prices	Options Outstanding	Weighted Average Remaining Contractual Life (Years)	Exercisable Options	Weighted Average Exercise Price
< \$1.00	142,554	7.18	142,554	\$0.23
\$1 < to <= \$5	340,788	5.55	274,426	2.10
\$5 < to <= \$10	1,549,058	7.68	675,012	6.43
\$10 < to <= \$20	165,500	8.35	36,800	11.00
\$20 < to <= \$30	1,381,676	9.52	453,013	22.02
> \$30	191,100	9.74	-	42.31

In connection with the Company's acquisition of MODE in December 1997, we assumed 402,000 common stock purchase options with exercise prices ranging from \$0.21 to \$0.30. The MODE options have a term of 10 years from the date of grant, with such options expiring at various dates through July 31, 2007. The options vest, with continued service, over a four-year period; 25% in year one and 75% equally over the remaining 36 months. As of September 30, 2000, there are 142,554 options outstanding at a weighted average exercise price of \$0.23.

The following table summarizes the activity of options assumed in the MODE acquisition:

	Shares	Weighted Average Exercise Price
Outstanding as of September 30, 1997	--	-
Assumed in MODE acquisition	401,956	\$0.25

Exercised	(31,780)	0.26
Cancelled	(15,528)	0.28
	-----	-----
Outstanding as of September 30, 1998	354,648	\$0.25
Exercised	(105,598)	0.27
Cancelled	(56,058)	0.28
	-----	-----
Outstanding as of September 30, 1999	192,992	\$0.23
Exercised	(49,772)	0.25
Cancelled	(666)	0.29
	-----	-----
Outstanding as of September 30, 2000	142,554	\$0.23
	=====	=====

In October 1995, the Financial Accounting Standards Board issued SFAS No. 123, "Accounting for Stock Based Compensation" ("SFAS 123"). SFAS 123 establishes financial and reporting standards for stock based compensation plans. The Company has adopted the disclosure only provisions of this standard and has elected to continue to apply the provision of Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees". Had the Company elected to recognize compensation expense for stock options based on the fair value at the grant dates of awards, net loss and net loss per share would have been as follows:

(in thousands)	For the fiscal years ended September 30,		
	1998	1999	2000
Loss before extraordinary item			
As reported	\$36,419	\$21,354	\$25,485
Pro forma	\$37,038	\$22,648	\$29,843
Loss per basic and diluted share before extraordinary item			
As reported			
Pro forma	\$(2.08)	\$(1.03)	\$(0.82)
Pro forma	\$(2.11)	\$(1.09)	\$(0.96)
Net loss			
As reported	\$36,419	\$22,689	\$25,485
Pro forma	\$37,038	\$23,983	\$29,843
Net loss per basic and diluted share			
As reported	\$(2.08)	\$(1.09)	\$(0.82)
Pro forma	\$(2.11)	\$(1.15)	\$(0.96)

The weighted average fair value of the Company's stock options was calculated using Black-Scholes with the following weighted-average assumptions used for grants: no dividend yield; expected volatility of 60% for fiscal year 1998, 76% for fiscal year 1999 and 100% for fiscal year 2000; a risk-free interest rate of 5.6%, 5.8% and 5.9% for fiscal years 1998, 1999 and 2000, respectively; and expected lives of 5 years. The weighted average fair value of options granted during the years ended September 30, 1998, 1999 and 2000 were \$7.50, \$9.05 and \$17.90 per share, respectively. Stock options granted by the Company prior to its initial public offering were valued using the minimum value method under FASB No. 123.

Warrants. Set forth below is a summary of the Company's outstanding warrants at September 30, 2000:

Underlying Security	Exercise Price	Warrants	Expiration Date
Common Stock (1)	\$2.04	44,250	May 1, 2001
Common Stock (2)	\$2.16	14,796	August 21, 2006
Common Stock (3)	\$5.10	1,892,890	September 1, 2001
Common Stock (4)	\$5.69	455,494	May 1, 2001
		-----	
		2,407,430	
		=====	

- (1) issued in connection with EMCORE's May 1996 Subordinated note issuance.
- (2) issued in connection with EMCORE's December 1997 acquisition of MicroOptical Devices, Inc.
- (3) issued in connection with EMCORE's September 1996 subordinated debt issuance and October 1996 debt guarantee.
- (4) issued in connection with EMCORE's June 1998 bank loan agreement.

#### NOTE 13. Related Parties

In December 1997, the Company and a wholly owned subsidiary of Uniroyal Technology Corporation formed Uniroyal Optoelectronics LLC, a joint venture, to manufacture, sell and distribute High Brightness (HB) LED wafers and package-ready devices (see Note 4). During the fiscal year ended September 30, 1999, EMCORE sold three compound semiconductor production systems to the venture totaling \$5.3 million in revenues. During the fiscal year ended September 30, 2000, EMCORE sold two compound semiconductor production systems to the venture totaling \$2.7 million in revenues. As of September 30, 2000, EMCORE had a remaining deferred gross profit of approximately \$1.6 million on such sales to the extent of its ownership interest. Such deferred gross profits will be recognized ratably over the assigned life of the production systems purchased by the joint venture. During the years ended September 30, 1999 and 2000, sales made to the joint venture approximated \$5.9 million and \$3.9 million, respectively. As of September 30, 1999 and 2000, the Company had an outstanding related party receivable of \$1.8 and \$0.6 million, respectively.

In May 1999, EMCORE and General Electric Lighting formed GELcore, a joint venture to develop and market HB LED lighting products. As of September 30, 1999 and 2000, the Company had an outstanding related party receivable of \$0.7 million and \$1.8 million, respectively.

The President of Hakuto Co. Ltd. ("Hakuto"), the Company's Asian distributor, is a member of the Company's Board of Directors and Hakuto is a minority shareholder of the Company. During the years ended September 30, 1999 and 2000, sales made through Hakuto approximated \$10.2 million and \$12.4 million, respectively.

In 1999, the Company's Chairman personally guaranteed the Company's bank facility and extended a line of credit to the Company. In recognition of these services during 2000, the Company's Board of Directors granted a warrant for 600,000 shares of common stock to the Chairman. The warrant was immediately exercisable at \$6.47 per share. The warrant was issued in 2000, and as it related to past services, the fair value was charged as an expense in the

Statement of Operations. The Company assigned a fair value of \$689,000 to the warrants, which was based upon the Company's application of the Black-Scholes option-pricing model. The consequent expense was charged to "Imputed warrant interest expense, non-cash."

NOTE 14. Segment Data and Related Information

EMCORE has two reportable operating segments: the systems-related business unit and the materials-related business unit. The systems-related business unit designs, develops and manufactures tools and manufacturing processes used to fabricate compound semiconductor wafer and devices. Revenues for the systems-related business unit consists of sales of EMCORE's TurboDisc production systems as well as spare parts and services. Our systems-related business unit assists our customers with device design, process development and optimal configuration of TurboDisc production systems. The materials-related business unit designs, develops and manufactures compound semiconductor materials. Revenues for the materials-related business unit include sales of semiconductor wafers, devices and process development technology. EMCORE's vertically-integrated product offering allows it to provide a complete compound semiconductor solution to its customers.

The segments reported below are the segments of the Company for which separate financial information is available and for which gross profit amounts are evaluated regularly by executive management in deciding how to allocate resources and in assessing performance. The accounting policies of the operating segments are the same as those described in the summary of accounting policies (see Note 2). The Company does not allocate assets or operating expenses to the individual operating segments. There are no intercompany sales transactions between the two operating segments.

The Company's reportable operating segments are business units that offer different products. The reportable segments are each managed separately because they manufacture and distribute distinct products and services.

Information about reported segment gross profit is as follows:

(in thousands)

	1998	1999	2000
<b>Revenues:</b>			
Systems-related.....	\$26,324	\$44,477	\$65,788
Materials-related.....	17,436	13,864	38,718
	-----		
Total revenues.....	43,760	58,341	104,506
<b>Cost of sales:</b>			
Systems-related.....	15,942	26,522	37,775
Materials-related.....	8,734	6,636	23,526
	-----		
Total cost of sales.....	24,676	33,158	61,301
<b>Gross profit:</b>			
Systems-related.....	10,382	17,955	28,013
Materials-related.....	8,702	7,228	15,192
	-----		
Total gross profit.....	\$19,084	\$25,183	\$43,205
<b>Gross margin:</b>			
Systems-related.....	39.4%	40.4%	42.6%
Materials-related.....	49.9%	52.1%	39.2%
	-----		
Total gross margin.....	43.6%	43.2%	41.3%

EMCORE has generated a significant portion of its sales to customers outside the United States. In fiscal 1998, 1999 and 2000, international sales constituted 39.1%, 52.6% and 38.6%, respectively, of revenues. EMCORE anticipates that international sales will continue to account for a significant portion of revenues. Historically, EMCORE has received substantially all payments for products and services in U.S. dollars and therefore EMCORE does not anticipate that fluctuations in any currency will have a material effect on its financial condition or results of operations.

The following chart contains a breakdown of EMCORE's worldwide revenues by geographic region.

(in thousands)	For the fiscal years ended September 30,				2000	
	1998		1999			
	Revenue	% of revenue	Revenue	% of revenue	Revenue	% of revenue
Region:						
North America	\$26,648	61%	\$27,698	48%	\$64,174	62%
Asia	15,527	35%	28,211	48%	34,656	33%
Europe	1,585	4%	2,432	4%	5,676	5%
TOTAL	\$43,760	100%	\$58,341	100%	\$104,506	100%

All long-lived assets are located in the North America region. Significant sales in the Asia region are predominately made in Japan and Taiwan. Sales to customers that accounted for at least 10% of total EMCORE revenues are outlined below. In fiscal year 1999, no individual customer had sales equal to or in excess of 10% of total fiscal year 1999 revenues.

	For the fiscal years ended September 30,		
	1998	1999	2000
Customer A	17.3%	-	-
Customer B	12.8%	-	-
Customer C	-	-	14.0%
Customer D	-	-	12.5%

NOTE 15. Employee Benefits

The Company has a savings plan (the "Savings Plan") that qualifies as a deferred salary arrangement under Section 401(k) of the Internal Revenue Code. Under the Savings Plan, participating employees may defer a portion of their pretax earnings, up to the Internal Revenue Service annual contribution limit. Effective August 1, 1997, the Company began contributing to the Savings Plan. All employer contributions are made in the Company's common stock. For the years ended September 30, 1998, 1999 and 2000, the Company contributed approximately \$252,000, \$376,000 and \$527,000, respectively to the Savings Plan.

The Company adopted an Employee Stock Purchase Plan (the "Purchase Plan") on February 16, 2000. The Purchase Plan provides employees of the Company with an opportunity to purchase common stock through payroll deductions. The purchase price is set at 85% of the lower of the fair market value of common stock at the beginning of the participation period, the first Trading Day on or after January 1st, or at the end of the participation period, the last Trading Day on or before December 31st of such year. The beginning of the first participation period began on April 1, 2000. Contributions are limited to 10% of an employee's compensation. The participation periods have a 12-month duration, with new participation periods beginning in January of each year. The Board of Directors has reserved 1,000,000 shares of common stock for issuance under the Purchase Plan. As of September 30, 2000, no shares of common stock had yet been purchased under the Purchase Plan.

NOTE 16. Quarterly Financial Data (Unaudited)

(in thousands except per share data)

	Revenues	Operating Loss	Net Loss	Net Loss Per Share
Fiscal Year 1998:				
December 31, 1997.....	\$12,357	\$ (19,717) *	\$ (19,883) *	\$ (1.41) *
March 31, 1998.....	13,808	(615)	(778)	(0.04)
June 30, 1998.....	9,074	(7,955)	(8,260)	(0.44)
September 30, 1998.....	8,521	(6,359)	(7,498)	(0.40)
Fiscal Year 1999:				
December 31, 1998.....	\$10,125	\$ (6,058)	\$ (6,880)	\$ (0.37)
March 31, 1999.....	16,072	(1,802)	(3,977)	(0.22)
June 30, 1999.....	17,667	(1,893)	(5,238)	(0.26)
September 30, 1999.....	14,477	(4,603)	(6,594)	(0.25)
Fiscal Year 2000:				
December 31, 1999.....	\$16,501	\$ (3,807)	\$ (6,658)	\$ (0.25)
March 31, 2000.....	23,925	(1,095)	(4,207)	(0.14)
June 30, 2000.....	30,023	(515)	(1,460)	(0.04)
September 30, 2000.....	34,057	(10,452)	(13,160)	(0.39)

\* includes \$19.5 million one-time acquired in-process, non-cash research and development.

All share amounts have been restated to reflect EMCORE's two-for-one (2:1) common stock split that was effective on September 18, 2000.

INDEPENDENT AUDITORS' REPORT

To the Board of Directors and  
Shareholders of EMCORE Corporation  
Somerset, New Jersey

We have audited the accompanying consolidated balance sheets of EMCORE Corporation (the "Company") as of September 30, 1999 and 2000, and the related consolidated statements of operations, shareholders' equity and cash flows for each of the three years in the period ended September 30, 2000. Our audits also included the financial statement schedule listed in the Index at Item 14(a)(2). These financial statements and the financial statement schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on the financial statements and financial statement schedule based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards 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. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of EMCORE Corporation as of September 30, 1999 and 2000, and the results of its operations and its cash flows for each of the three years in the period ended September 30, 2000 in conformity with accounting principles generally accepted in the United States of America. Also, in our opinion, such financial statement schedule, when considered in relation to the basic consolidated financials statements taken as a whole, presents fairly in all material respects the information set forth therein.

DELOITTE & TOUCHE LLP

Parsippany, New Jersey  
November 15, 2000

Statement of Management Responsibility for Financial Statements

To the Shareholders of  
EMCORE Corporation:

Management has prepared and is responsible for the consolidated financial statements and related information in the Annual Report. The financial statements, which include amounts based on judgment, have been prepared in conformity with generally accepted accounting principles consistently applied.

Management has developed, and continues to strengthen, a system of internal accounting and other controls for the Company. Management believes these controls provide reasonable assurance that assets are safeguarded from loss or unauthorized use and that the Company's financial records are a reliable basis for preparing the financial statements. Underlying the concept of reasonable assurance is the premise that the cost of control should not exceed the benefit derived.

The Board of Directors, through its audit committee, is responsible for reviewing and monitoring the Company's financial reporting and accounting practices. The audit committee meets regularly with management and independent accountants - both separately and together. The independent accountants have free access to the audit committee to review the results of their audits, the adequacy of internal accounting controls and the quality of financial reporting.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

Not applicable.

PART III

Item 10. Directors and Executive Officers of the Registrant

The information required by this item is incorporated herein by reference to EMCORE's 2000 Proxy Statement, which will be filed on or before January 28, 2001.

Item 11. Executive Compensation

The information required by this item is incorporated herein by reference to EMCORE's 2000 Proxy Statement, which will be filed on or before January 28, 2001.

Item 12. Security Ownership of Certain Beneficial Owners and Management

The information required by this item is incorporated herein by reference to EMCORE's 2000 Proxy Statement, which will be filed on or before January 28, 2001.

Item 13. Certain Relationships and Related Transactions

The information required by this term is incorporated herein by reference to EMCORE's 2000 Proxy Statement, which will be filed on or before January 28, 2001.

PART IV

Item 14. Exhibits, Financial Statement Schedules, and Reports on Form 8-K

14(a) (1) Financial Statements

Page  
Reference

Included in Part II, Item 8 of this report:

Consolidated Balance Sheets as of September 30, 1999 and 2000

Consolidated Statements of Operations for the years ended September 30, 1998, 1999 and 2000

Consolidated Statements of Shareholders' Equity for the years ended September 30, 1998, 1999 and 2000

Consolidated Statements of Cash Flows for the years ended September 30, 1998, 1999 and 2000

Notes to Financial Statements

Independent Auditors' Report

14(a) (2) Financial Statement Schedule

Located immediately following the signature page of this report:

Schedule I - UNIROYAL OPTOELECTRONICS, LLC - Financial Statements as of October 1, 2000 and September 26, 1999, for the Fiscal Years Ended October 1, 2000 and September 26, 1999, for the Period February 20, 1998 (date of incorporation) to September 27, 1998 and for the Period February 20, 1998 (date of incorporation) to October 1, 2000 and Independent Auditors' Report

Schedule II - Valuation and qualifying accounts and reserves

Other schedules have been omitted since they are either not required or not applicable.

14(a) (3) Exhibits

Exhibit No. Description

3.1 Restated Certificate of Incorporation, dated December 21, 2000.\*

3.2 Amended By-Laws, as amended December 6, 2000.\*

4.1 Specimen certificate for shares of common stock (incorporated by reference to Exhibit 4.1 to Amendment No. 3 to the 1997 S-1).

4.2 Form of \$11.375 Warrant (incorporated by reference to Exhibit 4.2 to EMCORE's filing on Form 10-K, dated December 29, 1998).

10.1 1995 Incentive and Non-Statutory Stock Option Plan (incorporated by reference to Exhibit 10.1 to Amendment No. 1 to the 1997 S-1).

10.2 1996 Amendment to Option Plan (incorporated by reference to Exhibit 10.2 to Amendment No. 1 to the 1997 S-1).

10.3 Specimen Incentive Stock Option Agreement (incorporated by reference to Exhibit 10.3 to Amendment No. 1 to the 1997 S-1).

10.4 Second Amended and Restated Distribution Agreement dated as of March 31, 1998 between EMCORE and Hakuto (incorporated by reference to Exhibit 10.4 to EMCORE's filing on Form 10-K/A, dated May 17, 1999).

Confidential Statement has been requested by EMCORE for portions of this document. Such portions are indicated by "[\*]" .

- 10.5 Amendment to Lease for premises at 394 Elizabeth Avenue, Somerset, New Jersey 08873 (incorporated by reference to Exhibit 10.5 to Amendment No. 1 to the 1997 S-1).
- 10.6 Registration Rights Agreement relating to September 1996 warrant issuance (incorporated by reference to Exhibit 10.6 to Amendment No. 1 to the 1997 S-1).
- 10.7 Registration Rights Agreement relating to December 1996 warrant issuance (incorporated by reference to Exhibit 10.7 to Amendment No. 1 to the 1997 S-1).
- 10.8 Form of 6% Subordinated Note Due May 1, 2001 (incorporated by reference to Exhibit 10.8 to Amendment No. 1 to the 1997 S-1).
- 10.9 Form of 6% Subordinated Note Due September 1, 2001 (incorporated by reference to Exhibit 10.9 to Amendment No. 1 to the 1997 S-1).
- 10.10 Form of \$4.08 Warrant (incorporated by reference to Exhibit 10.10 to Amendment No. 1 to the 1997 S-1).
- 10.11 Form of \$10.20 Warrant (incorporated by reference to Exhibit 10.12 to Amendment No. 1 to the 1997 S-1).
- 10.12 Consulting Agreement dated December 6, 1996 between EMCORE and Norman E. Schumaker (incorporated by reference to Exhibit 10.14 to Amendment No. 1 to the 1997 S-1).
- 10.13 Purchase Order issued to EMCORE by General Motors Corporation on November 17, 1996. (incorporated by reference to Exhibit 10.15 to Amendment No. 1 to the 1997 S-1). Confidential treatment has been requested by EMCORE with respect to portions of this document. Such portions are indicated by "[\*]" .
- 10.14 Acquisition Agreement, dated as of December 5, 1997, between EMCORE and MicroOptical Devices, Inc. (incorporated by reference to Exhibit 2 to EMCORE's filing on Form 8-K, dated December 22, 1997).
- 10.15 Purchase Agreement, dated November 30, 1998, by and between EMCORE, Hakuto UMI and UTC (incorporated by reference to Exhibit 10.15 to EMCORE's filing on Form 10-K, dated December 29, 1998).
- 10.16 Registration Rights Agreement, dated November 30, 1998 by and between EMCORE, Hakuto, UMI and UTC (incorporated by reference to Exhibit 10.16 to EMCORE's filing on Form 10-K, dated December 29, 1998).
- 10.17 Long Term Purchase Agreement dated November 24, 1998 by and between EMCORE and Space Systems/Loral, Inc. (incorporated by reference to Exhibit 10.17 to EMCORE's filing on Form 10-K/A, dated May 17, 1999). Confidential treatment has been requested by EMCORE for portions of this document. Such portions are indicated by "[\*]" .
- 10.18 Note Purchase Agreement dated as of May 26, 1999 by and between EMCORE and GE Capital Equity Investments, Inc. (incorporated by reference to Exhibit 10.18 to Amendment No. 2 to the 1998 S-3 filed on June 9, 1999).
- 10.19 Registration Rights Agreement dated as of May 26, 1999 by and between EMCORE and GE Capital Equity Investments, Inc. (incorporated by reference to Exhibit 10.19 to Amendment No. 2 to the 1998 S-3 filed on June 9, 1999).
- 10.20 \$22.875 Warrant issued to General Electric Company (incorporated by reference to Exhibit 10.20 to Amendment No. 2 to the 1998 S-3 filed on June 9, 1999).
- 10.21 Transaction Agreement dated January 20, 1999 between General Electric Company and EMCORE (incorporated by reference to Exhibit 10.1 to EMCORE's filing on Form 10-Q/A, dated May 17, 1999). Confidential treatment has been requested by EMCORE for portions of this document. Such portions are indicated by "[\*]" .
- 10.22 Third Amendment to Revolving Loan and Security Agreement, dated as of December 1, 1999 between EMCORE and First Union National Bank (incorporated by reference to Exhibit 10.22 to EMCORE's filing on Form 10-K, dated December 29, 1999).
- 10.23 Joint Development, Manufacturing and Marketing Agreement for High Speed Array Transceivers dated June 16, 2000 between JDS Uniphase Corporation and EMCORE Corporation. Confidential treatment has been requested by EMCORE for portions of this document. Such portions are indicated by "{redact}".\*
- 21 Subsidiaries of the registrant.\*
- 23.1 Consent of Deloitte & Touche LLP.\*
- 23.2 Consent of Deloitte & Touche LLP.\*
- 27 Financial Data Schedule.\*

SIGNATURES

Pursuant to the requirements of the Securities Act, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the Township of Somerset, State of New Jersey, on December 28, 2000.

EMCORE CORPORATION

BY /s/ REUBEN F. RICHARDS, JR.

-----  
Name: Reuben F. Richards, Jr.  
TITLE: President and Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report on Form 10-K has been signed below by the following persons on behalf of EMCORE Corporation in the capacities indicated, on December 28, 2000.

Signature	Title
/s/ THOMAS J. RUSSELL ----- Thomas J. Russell	Chairman of the Board and Director
/s/ REUBEN F. RICHARDS, JR. ----- Reuben F. Richards, Jr.	President, Chief Executive Officer and Director (Principal Executive Officer)
/s/ THOMAS G. WERTHAN ----- Thomas G. Werthan	Vice President, Chief Financial Officer and Director (Principal Accounting and Financial Officer)
/s/ RICHARD A. STALL ----- Richard A. Stall	Director
/s/ ROBERT LOUIS-DREYFUS ----- Robert Louis-Dreyfus	Director
/s/ HUGH H. FENWICK ----- Hugh H. Fenwick	Director
/s/ SHIGEO TAKAYAMA ----- Shigeo Takayama	Director
/s/ CHARLES T. SCOTT ----- Charles T. Scott	Director
/s/ JOHN HOGAN ----- John Hogan	Director

UNIROYAL OPTOELECTRONICS, LLC  
(A Development Stage Company)

Financial Statements as of October 1, 2000 and September 26, 1999, for the Fiscal Years Ended October 1, 2000 and September 26, 1999, for the Period February 20, 1998 (date of incorporation) to September 27, 1998 and for the Period February 20, 1998 (date of incorporation) to October 1, 2000 and Independent Auditors' Report.

INDEPENDENT AUDITORS' REPORT

To the Board of Directors and Shareholders of  
Uniroyal Optoelectronics, LLC:

We have audited the accompanying balance sheets of Uniroyal Optoelectronics, LLC (a development stage company, (the "Company") as of October 1, 2000 and September 26, 1999, the related statements of operations and of cash flows for the years ended October 1, 2000 and September 26, 1999, for the period February 28, 1998 (date of incorporation) to September 27, 1998, and for the period February 20, 1998 (date of incorporation) to October 1, 2000, and the related statements of changes in members' equity for the years ended October 1, 2000 and September 26, 1999, and for the period February 20, 1998 (date of incorporation) to September 27, 1998. 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 in accordance with auditing standards generally accepted in the United States of America. Those standards 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. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such financial statements present fairly, in all material respects, the financial position of the Company as of October 1, 2000 and September 26, 1999, and the results of its operations and its cash flows for the years ended October 1, 2000 and September 26, 1999, for the period February 20, 1998 (date of incorporation) to September 27, 1998, and for the period February 20, 1998 (date of incorporation) to October 1, 2000, in conformity with accounting principles generally accepted in the United States of America.

The Company is in the development stage at October 1, 2000. As discussed in Note 1 to the financial statements, successful completion of the Company's development program and, ultimately, the attainment of profitable operations is dependent upon future events, including maintaining adequate financing to fulfill its development activities and achieving a level of sales adequate to support the Company's cost structure.

Deloitte and Touche LLP  
Certified Public Accountants

Tampa, Florida  
December 5, 2000

UNIROYAL OPTOELECTRONICS, LLC  
(A Development Stage Company)  
BALANCE SHEETS  
(In thousands)

	October 1, 2000	September 26, 1999
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 470	\$ 456
Trade accounts receivable	91	12
Inventories (Note 3)	2,028	448
Prepaid expenses and other current assets	304	90
Due from affiliate (Note 8)	1,233	-
	-----	-----
Total current assets	4,126	1,006
Property, plant and equipment - net (Note 4)	30,748	21,434
Deposits	29	34
	-----	-----
<b>TOTAL ASSETS</b>	<b>\$ 34,903</b>	<b>\$ 22,474</b>
	=====	=====
<b>LIABILITIES AND MEMBERS' EQUITY</b>		
Current liabilities:		
Current obligations under capital leases (Note 5)	\$ 3,807	\$ 3,345
Trade accounts payable	2,479	1,026
Accrued expenses:		
Compensation and benefits	241	244
Due to affiliate (Note 8)	-	1,345
Other	135	52
	-----	-----
Total current liabilities	6,662	6,012
Long-term obligations under capital leases (Note 5)	13,322	14,839
	-----	-----
<b>Total liabilities</b>	<b>19,984</b>	<b>20,851</b>
	-----	-----
Commitments and contingencies (Note 7)		
Members' equity (Note 6):		
Capital contributions	35,956	6,500
Deficit accumulated during the development stage	(21,037)	(4,877)
	-----	-----
Total members' equity	14,919	1,623
	-----	-----
<b>TOTAL LIABILITIES AND MEMBERS' EQUITY</b>	<b>\$ 34,903</b>	<b>\$ 22,474</b>
	=====	=====

See notes to financial statements.

UNIROYAL OPTOELECTRONICS, LLC  
(A Development Stage Company)  
STATEMENTS OF OPERATIONS  
(In thousands)

	Fiscal Year Ended		For the Period February 20, 1998 (date of incorporation) to	
	October 1, 2000	September 26, 1999	September 27, 1998	October 1, 2000
Net sales	\$ 1,805	\$ 485	\$ -	\$ 2,290
Costs and expenses:				
Costs of goods sold	1,744	435	-	2,179
Selling and administrative	12,667	4,345	397	17,409
Depreciation	2,305	210	1	2,516
	-----	-----	-----	-----
Loss before interest	(14,911)	(4,505)	(398)	(19,814)
Interest (expense) income - net	(1,249)	33	(7)	(1,223)
	-----	-----	-----	-----
Net loss	\$ (16,160)	\$ (4,472)	\$ (405)	\$ (21,037)
	=====	=====	=====	=====

See notes to financial statements.

UNIROYAL OPTOELECTRONICS, LLC  
(A Development Stage Company)  
STATEMENTS OF CHANGES IN MEMBERS' EQUITY  
(In thousands)

	Uniroyal Optoelectronics, Inc.	Emcore Corporation	Members' Equity
Balance at February 20, 1998	\$ -	\$ -	\$ -
Capital contributions	510	490	1,000
Net loss	(207)	(198)	(405)
	-----	-----	-----
Balance at September 27, 1998	303	292	595
Capital contributions	-	5,500	5,500
Net loss	(2,281)	(2,191)	(4,472)
	-----	-----	-----
Balance at September 26, 1999	(1,978)	3,601	1,623
Capital contributions	17,828	11,628	29,456
Net loss	(8,242)	(7,918)	(16,160)
	-----	-----	-----
Balance at October 1, 2000	\$ 7,608	\$ 7,311	\$ 14,919
	=====	=====	=====

See notes to financial statements.

UNIROYAL OPTOELECTRONICS, LLC  
(A Development Stage Company)  
STATEMENTS OF CASH FLOWS  
(In thousands)

	Fiscal Year Ended		For the Period February 20, 1998	
	October 1, 2000	September 26, 1999	(date of incorporation) to September 27, 1998	October 1, 2000
<b>OPERATING ACTIVITIES:</b>				
Net loss	\$ (16,160)	\$ (4,472)	\$ (405)	\$ (21,037)
Adjustments to reconcile net loss to net cash used in operating activities:				
Depreciation	2,305	210	1	2,516
Loss on disposal of fixed assets	118	-	-	118
Changes in assets and liabilities:				
Increase in trade accounts receivable	(79)	(12)	-	(91)
Increase in inventories	(1,580)	(448)	-	(2,028)
(Increase) decrease in prepaid expenses and deposits	(98)	1,705	(1,829)	(222)
Increase in trade accounts payable	1,453	853	173	2,479
Increase in accrued expenses	80	284	12	376
(Decrease) increase in due to affiliates	(2,578)	(553)	1,898	(1,233)
Net cash used in operating activities	<u>(16,539)</u>	<u>(2,433)</u>	<u>(150)</u>	<u>(19,122)</u>
<b>INVESTING ACTIVITIES:</b>				
Purchases of property, plant and equipment	(9,358)	(1,105)	(293)	(10,756)
Proceeds from sale of fixed assets	110	-	-	110
Net cash used in investing activities	<u>(9,248)</u>	<u>(1,105)</u>	<u>(293)</u>	<u>(10,646)</u>
<b>FINANCING ACTIVITIES:</b>				
Capital contributions	29,456	5,500	1,000	35,956
Repayments of capital leases	(3,655)	(2,063)	-	(5,718)
Net cash provided by financing activities	<u>25,801</u>	<u>3,437</u>	<u>1,000</u>	<u>30,238</u>
Net increase (decrease) in cash and cash equivalents	14	(101)	557	470
Cash and cash equivalents at beginning of period	456	557	-	-
Cash and cash equivalents at end of period	<u>\$ 470</u>	<u>\$ 456</u>	<u>\$ 557</u>	<u>\$ 470</u>

Supplemental Disclosures:

Interest payments (net of capitalized interest) were approximately \$1,344,000 for the year ended October 1, 2000. There were no payments of interest expense (net of capitalized interest) for the year ended September 26, 1999 or for the period February 20, 1998 (date of incorporation) to September 27, 1998.

Purchases of property, plant and equipment and financing activities for the fiscal years ended October 1, 2000 and September 26, 1999 do not include \$2,600,000 and \$18,450,000, respectively, related to property acquired under capitalized leases. There were no purchases of property, plant and equipment under capitalized leases during the period February 20, 1998 (date of incorporation) to September 27, 1998.

See notes to financial statements.

UNIROYAL OPTOELECTRONICS, LLC  
(A Development Stage Company)  
NOTES TO FINANCIAL STATEMENTS For the  
Fiscal Years Ended October 1, 2000 and September 26,  
1999,  
for the Period February 20, 1998 (date of incorporation)  
to September 27, 1998 and for the Period  
February 20, 1998 (date of incorporation) to October 1, 2000

1. THE COMPANY

Uniroyal Optoelectronics, LLC (the "Company") is in the development stage. The Company will ultimately engage in the production of wafers for high brightness light emitting diodes (LEDs) and package-ready dies for use in the lighting, signage and transportation industries. The Company anticipates commercial production at its newly constructed Tampa, Florida facility during the first half of Fiscal 2001.

On February 20, 1998, the Company was organized as a State of Delaware limited liability corporation. The Company operates under a joint venture agreement between Optoelectronics, Inc. (wholly-owned subsidiary of Uniroyal Technology Corporation ("UTC")) (51% owner), and Emcore Corporation ("Emcore") (49% owner).

The Company is subject to the risks and difficulties experienced by any new business such as obtaining adequate capital or financing, limited operating history, competition and lack of distribution channels. The Company's operations to date have been conducted primarily for the purpose of financial planning, raising capital, acquiring property, plant, equipment and other operating assets, recruiting and training personnel, developing markets and starting up production. The Company's success is dependent upon its ability to maintain adequate financing to fulfill its development activities and to achieve a level of sales adequate to support the Company's cost structure. Financial support from one or both owners will continue as necessary to meet the financial obligations of the Company.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Fiscal Year End

The Company's fiscal year ends on the Sunday following the last Friday in September. The dates on which the fiscal year ended for the fiscal years since inception were October 1, 2000 ("Fiscal 2000"), September 26, 1999 ("Fiscal 1999") and September 27, 1998 ("Fiscal 1998").

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Cash and Cash Equivalents

Cash and cash equivalents include all highly liquid investments purchased with an original maturity of three months or less.

Financial Instruments

The carrying value of all current assets and liabilities approximates the fair value because of their short-term nature. The fair values of the Company's capital lease obligations approximate their carrying value due to interest rates which are comparable to current market rates.

Trade Accounts Receivable

The Company grants credit to its customers generally in the form of short-term trade accounts receivable. The creditworthiness of customers is evaluated prior to the sale of inventory. There are no significant concentrations of credit risk to the Company.

Inventories

Inventories are stated at the lower of cost or market. Cost is determined using standard costs (which approximate actual costs) for raw materials and supplies.

Property, Plant and Equipment

Property, plant and equipment are stated at cost. The cost of property, plant and equipment held under capital leases is equal to the lower of the net present value of the minimum lease payments or the fair value of the leased assets at the inception of the lease. Depreciation is computed under the straight-line method based on the cost and estimated useful lives of the related assets including assets held under capital leases. Interest costs applicable to the construction of the Tampa, Florida facility have been capitalized to the cost of the related assets. Interest capitalized during Fiscal 2000 and Fiscal 1999 approximated \$287,000 and \$791,000, respectively.

Start-up Costs

The Company follows the American Institute of Certified Public Accountant Statement of Position 98-5, Reporting Costs of Start-Up Activities. This statement requires that the cost of start-up activities and organizational costs be expensed as incurred.

#### Income Taxes

The limited liability corporation is considered a partnership for Federal and State income tax purposes. Accordingly, the equity owners account for their pro rata share of the Company's income, deductions and credits in their separate tax returns. As a result, income tax expenses, assets and liabilities are not recognized in the financial statements of the Company.

#### New Accounting Pronouncements

In June 1998, the Financial Accounting Standards Board ("FASB") issued SFAS No. 133, Accounting for Derivative Instruments and Hedging Activities. SFAS No. 133 establishes accounting and reporting standards for derivative instruments and hedging activities. It requires that an entity recognize all derivatives as either assets or liabilities in the statement of financial position and measure those instruments at fair value. The accounting for changes in the fair value of a derivative (that is, gains and losses) depends upon the intended use of the derivative and resulting designation. In July 1999, FASB issued SFAS No. 137, Accounting for Derivative Instruments and Hedging Activities - Deferral of the Effective Date of SFAS No. 133, which postponed the effective date of SFAS No. 133 for one year. SFAS No. 133 will now be effective for the Company beginning in Fiscal 2001. In June 2000, FASB issued SFAS No. 138, Accounting for Certain Derivative Instruments and Certain Hedging Activities, an amendment to SFAS No. 133. The Company currently does not anticipate there will be a material impact on the results of operations or financial position upon adoption of SFAS No. 133 as amended by SFAS No. 138.

### 3. INVENTORIES

Inventories consist of raw materials and supplies at October 1, 2000 and September 26, 1999 at a value of \$2,028,000 and \$448,000, respectively. There was no inventory at September 27, 1998.

### 4. PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment consist of the following (in thousands):

	Estimated Useful Lives	October 1, 2000	September 26, 1999
Buildings and leasehold improvements	3-20 years	\$ 5,854	\$ 5,544
Machinery, equipment and office furnishings	3-15 years	24,515	5,503
Construction in progress		2,842	10,598
		-----	-----
		33,211	21,645
Accumulated depreciation		(2,463)	(211)
		-----	-----
Total		\$ 30,748	\$ 21,434
		=====	=====

### 1. OBLIGATIONS UNDER CAPITAL LEASES

During both Fiscal 2000 and Fiscal 1999, the Company entered into non-cancelable capital lease agreements for certain leasehold improvements, machinery and equipment. Future minimum capital lease obligations during subsequent fiscal years ending in September are as follows (in thousands):

#### Fiscal Year

2001	\$ 5,141
2002	5,428
2003	5,428
2004	4,125
2005	220
	-----
Total minimum lease payments	20,342
Less imputed interest at 8.5% - 9.6%	(3,213)
	-----
Present value of minimum capital lease payments	17,129
Current portion	3,807
	-----
Long-term obligations under capital leases	\$ 13,322
	=====

Interest incurred (including capitalized interest) totaled approximately \$1,580,000, \$791,000 and \$11,000 for Fiscal 2000, Fiscal 1999 and Fiscal 1998, respectively.

UTC has guaranteed all of the above capital lease obligations.

The Company's property held under capitalized leases included in property, plant and equipment (Note 4) consisted of the following (in thousands):

	October 1, 2000	September 26, 1999
Leasehold improvements	\$ 5,429	\$ 5,426
Machinery, equipment and office furnishings	18,249	5,066
Construction in progress	-	9,755
	-----	-----
	23,678	20,247
Less accumulated amortization	(2,117)	(181)
	-----	-----
Total	\$21,561	\$20,066
	=====	=====

1. MEMBERS' EQUITY

The members of the Company include Uniroyal Optoelectronics, Inc. and Emcore Corporation. Initial capital contributions to the Company included \$510,000 from Uniroyal Optoelectronics, Inc. and \$490,000 from Emcore and were made in July 1998. In Fiscal 1999, Emcore made additional capital contributions to the Company of \$5,500,000. During Fiscal 2000, Uniroyal Optoelectronics, Inc. contributed \$17,828,000 in cash while Emcore contributed an additional \$11,628,000 in cash. As of year end, accumulated capital contributions totaled \$18,338,000, or 51%, for Uniroyal Optoelectronics, Inc. and \$17,618,000, or 49%, for Emcore.

Earnings and losses are allocated to the members in amounts equivalent to their ownership percentages.

2. COMMITMENTS AND CONTINGENCIES

Leases

The Company leases equipment and warehouse and office space under various lease agreements, certain of which are subject to escalations based upon increases in specified operating expenses or increases in the Consumer Price Index. The approximate future minimum rentals under non-cancelable operating leases during subsequent fiscal years ending in September are as follows (in thousands):

Fiscal Year	
2001	\$ 382
2002	391
2003	401
2004	395
2005	393
Subsequent years	1,174
	-----
Total	\$3,136
	=====

Rent expense was approximately \$399,000, \$370,000 and \$56,000 for Fiscal 2000, Fiscal 1999 and Fiscal 1998, respectively.

1. RELATED PARTY TRANSACTIONS

UTC

The Company is party to an administrative agreement with UTC, in which UTC will provide management, legal, accounting, tax, information systems, treasury, human resource, risk management, environmental and all other support services that may be necessary for the operations of the Company. The management fee to the Company is calculated as the greater of \$25,000 per month or 3.5% of monthly net sales. Fees under this agreement approximated \$300,000, \$300,000 and \$50,000 for Fiscal 2000, Fiscal 1999 and Fiscal 1998, respectively.

The Company's employees participate in health and welfare benefit plans administered by UTC. Costs for these plans are charged to the Company based upon various methods including actual cost per employee, headcount allocations and ratios of compensation expense. Expenses included in the statements of operations were approximately \$284,000, \$51,000 and \$5,000 for Fiscal 2000, Fiscal 1999 and Fiscal 1998, respectively.

UTC administers all of the insurance programs for the Company. Costs of these programs are allocated to the Company based on various factors including percentage of assets, employee base and sales and historical loss experience. Included in the statements of operations for Fiscal 2000 and Fiscal 1999 were approximately \$96,000 and \$31,000, respectively, of such costs. No insurance charges were allocated to the Company in Fiscal 1998.

UTC provides a savings plan under Section 401(k) of the Internal Revenue Code. The savings plan allows all eligible employees to defer up to 15% of their income on a pre-tax basis through contributions to the savings plan. For every dollar an employee contributes, UTC may contribute an amount equal to 25% of each participant's before-tax obligation up to 6% of the participant's compensation. Such employee compensation may be made in cash or in UTC common stock. The expenses allocated to the Company by UTC pertaining to this savings plan were approximately \$635,000, \$11,000 and \$1,000 for Fiscal 2000, Fiscal 1999 and Fiscal 1998, respectively.

Included in due from affiliate as of October 1, 2000 is a capital contribution of approximately \$1,849,000 made in cash by UTC on October 3, 2000. Amount is partially offset by charges from UTC relating to benefit plans, property insurance programs and UTC administration fees.

Included in due to affiliate as of September 26, 1999, are amounts due UTC for items paid on behalf of the Company of approximately \$963,000, amounts due UTC for the UTC administrative agreement of approximately \$300,000, and charges from UTC relating to the benefit plans, property insurance programs and savings plans totaling approximately \$82,000.

Emcore

Under a supply agreement dated July 31, 1998, Emcore will provide product for the Company as required until the Company's facility in Tampa, Florida is ready for commercial production. During Fiscal 2000, approximately \$1,600,000 of the Company's net sales were for products supplied by Emcore

at a cost of approximately \$1,600,000. During Fiscal 1999, approximately \$479,000 of the Company's net sales were for products supplied by Emcore at an approximate cost of \$428,000. There were no sales in Fiscal 1998.

During Fiscal 2000, the Company purchased approximately \$1,444,000 of inventory from Emcore for use in testing and completing the Company's manufacturing processes. Corresponding purchases totaled approximately \$125,000 for Fiscal 1999. Also during Fiscal 2000, the Company spent approximately \$4,612,000 for MOCVD epitaxy reactors and approximately \$289,000 for machine parts and supplies purchased from Emcore. There were no such expenditures during Fiscal 1999 or Fiscal 1998.

During Fiscal 2000, Emcore provided technical and administrative services to the Company at a cost of approximately \$207,000. Similar services provided in Fiscal 1999 totaled approximately \$311,000. There were no such services provided by Emcore in Fiscal 1998.

At October 1, 2000, approximately \$110,000 of net payables to Emcore is included in accounts payable in connection with Emcore inventory provided to the Company. This corresponding amount at September 26, 1999 was approximately \$110,000.

## Schedule II

EMCORE CORPORATION  
Valuation and Qualifying Accounts and Reserves  
For the years ended September 30, 1998, 1999 and 2000

	Balance at Beginning of Period	Additions Charged to Costs and Expenses	Write-offs (Deductions)	Balance at End of Period
Allowance for Doubtful Accounts				
-----				
For the year ended September 30, 1998	\$697,000	\$1,118,000	\$(1,204,000)	\$611,000
For the year ended September 30, 1999	611,000	390,000	(438,000)	563,000
For the year ended September 30, 2000	563,000	780,000	(278,000)	1,065,000

RESTATED  
CERTIFICATE OF INCORPORATION  
OF EMCORE CORPORATION

Reuben F. Richards, Jr., being over the age of eighteen and acting as a duly authorized officer of Emcore Corporation and by virtue of the provisions of the New Jersey Business Corporation Act, Title 14A of the Revised Statutes of the State of New Jersey, hereby certifies that the Restated Certificate of Incorporation of Emcore Corporation is as follows:

FIRST: The name of the Corporation is:

EMCORE Corporation

SECOND: The purpose for which this Corporation is organized is to engage in any activity within the purposes for which corporations may be organized under the New Jersey Business Corporation Act.

THIRD: The registered office of the Corporation is:

145 Belmont Drive  
Somerset, NJ 08873

and the name of the corporation's registered agent at such address is:

Thomas G. Werthan

FOURTH: The total number of shares of Capital Stock of the Corporation shall be 105,882,352 shares of which:

A. Of the Capital Stock, 100,000,000 shares shall consist of Common Stock which shall be entitled to one vote per share of all matters which holders of the Common Stock shall be entitled to vote on.

B. Of the Capital Stock, 5,882,352 shares shall consist of Preferred Stock which may be divided into such classes and such series as shall be established from time to time by resolutions of the Board of Directors and filed as an amendment to this Certificate of Incorporation, without any requirement of vote or class vote of shareholders. The Board of Directors shall have the right and power to establish and designate in any such Class or Series Resolution such priorities, powers, preferences and relative, participating, optional or other special rights and qualifications, limitations and restrictions as it shall determine.

FIFTH: A. The Board of Directors presently consists of nine (9) persons and the names and addresses of the persons who currently serve on the Board of Directors are as follows:

Name	Address
Reuben F. Richards, Jr.	145 Belmont Drive Somerset, NJ 08873
Thomas G. Werthan	145 Belmont Drive Somerset, NJ 08873
Richard A. Stall	145 Belmont Drive Somerset, NJ 08873
Thomas J. Russell	Two North Tamiami Trail Sarasota, Florida 34236
Robert Louis-Dreyfus	c/o Harborstone Capital 152 West 57th Street, 21st Floor New York, NY 10019
Hugh H. Fenwick	400 Mendham Road Bernardsville, NJ 07924
John J. Hogan	c/o Harborstone Capital 152 West 57th Street, 21st Floor New York, N.Y. 10019
Shigeo Takayama	1-1-13 Shinjuku Shinjuku, Tokyo 160 Japan
Charles Scott	c/o Cordiant PLC 83-89 Whitfield Street London, W1A-4XA United Kingdom

B. The number of directors constituting the entire Board of Directors shall be not less than six nor more than twelve as fixed from time to time by the vote of not less than 66 2/3% of the entire Board of Directors; provided, however, that the number of directors shall not be reduced so as to shorten the term of any director at the time in office, and provided further, that the number of directors constituting the entire Board of Directors shall be nine unless and until otherwise fixed by the vote of not less than 66 2/3% of the entire Board of Directors. The phrase "66 2/3% of the entire Board of Directors" as used in this Restated Certificate of Incorporation shall be deemed to refer to 66 2/3% of the number of directors constituting the Board of Directors as provided in or pursuant to this Section B of this Article Fifth, without regard to any vacancies then existing.

C. At the 1999 Annual Meeting of Shareholders, the Board of Directors shall be divided into three classes, as nearly equal in number as the then total

number of directors constituting the entire Board of Directors permits, the first class to expire at the 2002 Annual Meeting of Shareholders, the term of office of the second class to expire at the 2001 Annual Meeting of Shareholders and the term of office of the third class to expire at the 2000 Annual Meeting of Shareholders. Commencing with the 2000 Annual Meeting of Shareholders, the directors elected at an annual meeting of shareholders to succeed those whose terms then expire shall be identified as being directors of the same class as the directors whom they succeed, and each of them shall hold office until the third succeeding annual meeting of shareholders and until such director's successor is elected and has qualified. Any vacancies in the Board of Directors for any reason and any created directorships resulting from any increase in the number of directors may be filled by the vote of not less than 66 2/3% of the members of the Board of Directors then in office, although less than a quorum, and any directors so chosen shall hold office until the next election, of the class for which such directors shall have been chosen and until their successors shall be elected and qualified. No decrease in the number of directors shall shorten the term of any incumbent director. Notwithstanding the foregoing, and except as otherwise required by law, whenever the holders of any one or more series of Preferred Stock shall have the right, voting separately as a class, to elect one or more directors of the Corporation, the then authorized number of directors shall be increased by the number of directors so to be elected, and the terms of the director or directors elected by such holders shall expire at the next succeeding annual meeting of shareholders.

D. Notwithstanding any other provisions of this Restated Certificate of Incorporation or the By-Laws of the Corporation (and notwithstanding the fact that some lesser percentage may be specified by law, this Restated Certificate of Incorporation or the Corporation or the By-Laws of the Corporation), any director or the entire Board of Directors of the Corporation may be removed at any time, but only for cause and only by the affirmative vote of the holders of 80% or more of the outstanding shares of Capital Stock of the Corporation entitled to vote generally in the election of directors (considered for this purpose as one class) cast at a meeting of the shareholders called for that purpose. Notwithstanding the foregoing, and except as otherwise required by law, whenever the holders of any one or more series of Preferred Stock shall have the right, voting separately as a class, to elect one or more directors of the Corporation, the provisions of this Section D of this Article Fifth shall not apply with respect to the director or directors elected by such holders of Preferred Stock.

E. Notwithstanding any other provisions of this Restated Certificate of Incorporation or the By-Laws of the Corporation (and notwithstanding the fact that some lesser percentage may be specified by law, this Restated Certificate of Incorporation or the By-Laws of the Corporation), the affirmative vote of the holders of 80% or more of the outstanding shares of Capital Stock of the Corporation entitled to vote generally in the election of directors (considered for this purpose as one class) shall be required to amend, alter, change or repeal this Article Fifth.

SIXTH: Neither a Director nor an Officer shall be liable to the Corporation or its shareholders for damages for breach of any duty owed to the Corporation or its shareholders, except that this provision shall not relieve a Director or an Officer from liability for any breach of duty based upon an act or omission (a) in breach of such person's duty of loyalty to the Corporation or its shareholders; (b) not in good faith or involving a knowing violation of law; or (c) resulting in the receipt of such person of an improper personal benefit.

SEVENTH: Intentionally Left Blank.

EIGHTH: The Board of Directors by a vote of a majority of the entire Board may lend money to, guarantee any obligation of or otherwise assist any officer or employee of the Corporation who is also a director provided that such loan shall be adequately secured and no such loan, guarantee or other assistance shall be made unless there shall be an appropriate business purpose.

NINTH: The Corporation shall indemnify every officer and director of the Corporation to the full extent permitted by law.

TENTH: A. In addition to any affirmative vote required by law or this Restated Certificate of Incorporation or the By-Laws of the Corporation, and except as otherwise expressly provided in Section B of this Article Tenth, a Business Combination shall require the affirmative vote of not less than eighty percent (80%) of the votes entitled to be cast by the holders of all then outstanding shares of Voting Stock (as hereinafter defined), voting together as a single class. Such affirmative vote shall be required notwithstanding the fact that no vote may be required, or that a lesser percentage or separate class vote may be specified, by law or in any agreement with any national securities exchange or otherwise.

B. The provisions of Section A of this Article Tenth shall not be applicable to any particular Business Combination, and such Business Combination shall require only such affirmative vote, if any, as is required by law or by any other provision of this Restated Certificate of Incorporation or the By-Laws of the Corporation, or any agreement with any national securities exchange, if all of the conditions specified in either of the following paragraphs (1) or (2) are met:

(1) The Business Combination shall have been approved by two-thirds of the Continuing Directors (as hereinafter defined), whether such approval is made prior to or subsequent to the acquisition of beneficial ownership of the Voting Stock that caused the Interested Stockholder (as hereinafter defined) to become an Interested Stockholder.

(2) All of the following conditions shall have been met:

(a) The aggregate amount of cash and the Fair Market Value (as hereinafter defined) as of the date of the consummation of the Business Combination of consideration other than cash to be received

per share by holders of Common Stock in such Business Combination shall be at least equal to the highest amount determined under clauses (i) and (ii) below:

(i) (if applicable) the highest per share price (including any brokerage commissions, transfer taxes and soliciting dealers' fees) offered or paid by or on behalf of the Interested Stockholder for shares of Common Stock within the two-year period immediately prior to the first public announcement of the proposed Business Combination (the "Announcement Date") or in the transaction in which the Interested Stockholder became an Interested Stockholder (the "Determination Date"), whichever is higher;

(ii) the Fair Market Value per share of Common Stock on the Announcement Date or on the Determination Date, whichever is higher; and

All per share prices shall be adjusted to reflect any intervening stock splits, stock dividends, recapitalizations, combination of shares or similar events.

(b) The aggregate amount of cash and the Fair Market Value as of the date of the consummation of the Business Combination of consideration other than cash to be received per share by holders of shares of any class or series of outstanding Capital Stock (as hereinafter defined), other than Common Stock, shall be at least equal to the highest amount determined under clauses (i), (ii) and (iii) below:

(i) (if applicable) the highest per share price (including any brokerage commissions, transfer taxes and soliciting dealers' fees) offered or paid by or on behalf of the Interested Stockholder for any share of such class or series of Capital Stock in connection with the acquisition by the Interested Stockholder of beneficial ownership of shares of such class or series of Capital Stock within the two-year period immediately prior to the Announcement Date or in the transaction in which the Interested Stockholder became an Interested Stockholder, whichever is higher;

(ii) the Fair Market Value per share of such class or series of Capital Stock on the Announcement Date or on the Determination Date, whichever is higher; and

(iii) (if applicable) the highest preferential amount per share to which the holders of shares of such class or series of Capital Stock would be entitled in the event of any voluntary or involuntary liquidation, dissolution or winding up of the affairs of the Corporation regardless of whether the Business Combination to be consummated constitutes such an event.

All per share prices shall be adjusted to reflect any intervening stock splits, stock dividends, recapitalizations, combination of shares or similar events. The provisions of this sub-paragraph (2)(b) shall be required to be met with respect to every class or series of outstanding Capital Stock, other than Common Stock, whether or not the Interested Stockholder has previously acquired beneficial ownership of any shares of a particular class or series of Capital Stock.

(c) The consideration to be received by holders of a particular class or series of outstanding Capital Stock shall be in cash or in the same form as previously had been paid by or on behalf of the Interested Stockholder in connection with its direct or indirect acquisition of beneficial ownership of shares of such class or series of Capital Stock. If the consideration so paid for shares of any class or series of Capital Stock varied as to form, the form of consideration for such class or series of Capital Stock shall be either cash or the form used to acquire beneficial ownership of the largest number of shares of such class or series of Capital Stock previously acquired by the Interested Stockholder.

(d) After such Interested Stockholder has become an Interested Stockholder and prior to the consummation of such Business Combination:

(i) except as approved by a majority of the Continuing Directors, there shall have been no failure to declare and pay at the regular date therefor any dividends (whether or not cumulative) payable in accordance with the terms of any outstanding Capital Stock;

(ii) there shall have been no reduction in the annual rate of dividends paid on the Common Stock (except as necessary to reflect any stock split, stock dividend or subdivision of the Common Stock), except as approved by a majority of the Continuing Directors;

(iii) there shall have been an increase in the annual rate of dividends paid on the Common Stock as necessary to reflect any reclassification (including any reverse stock split), recapitalization, reorganization or any similar transaction that has the effect of reducing the number of shares of Common Stock, unless the failure so to increase such annual rate is approved by a majority of the Continuing Directors; and

(iv) such Interested Stockholder shall not have become the beneficial owner of any additional shares of Capital Stock except

as part of the transaction that results in such Interested Stockholder becoming an Interested Stockholder and except in a transaction that, after giving effect thereto, would not result in any increase in the Interested Stockholder's percentage of beneficial ownership of any class or series of Capital Stock.

(e) After such Interested Stockholder has become an Interested Stockholder, such Interested Stockholder shall not have received the benefit, directly or indirectly (except proportionately as a shareholder of the Corporation), of any loans, advances, guarantees, pledges or other financial assistance or any tax credits or other tax advantages provided by the Corporation, whether in anticipation of or in connection with such Business Combination or otherwise.

(f) A proxy or information statement describing the proposed Business Combination and complying with the requirements of the Securities Exchange Act of 1934 and the rules and regulations thereunder (the "Act") (or any subsequent provisions replacing such Act, rules or regulations) shall be mailed to all shareholders of the Corporation at least 30 days prior to the consummation of such Business Combination (whether or not such proxy or information statement is required to be mailed pursuant to such Act or subsequent provisions). The proxy or information statement shall contain on the first page thereof, in a prominent place, any statement as to the advisability (or inadvisability) of the Business Combination that the Continuing Directors, or any of them, may choose to make and, if deemed advisable by a majority of the Continuing Directors, the opinion of an investment banking firm selected by a majority of the Continuing Directors as to the fairness (or not) of the terms of the Business Combination from a financial point of view to the holders of the outstanding shares of Capital Stock other than any Interested Stockholder and any Affiliate or Associate (as hereinafter defined), of any Interested Stockholder, such investment banking firm to be paid a reasonable fee for its services by the Corporation.

(g) Such Interested Stockholder shall not have made any major change in the Corporation's business or equity capital structure without the approval of a majority of the Continuing Directors.

C. For the purposes of this Article Tenth

(1) The term "Business Combination" shall mean:

(a) any merger or consolidation of the Corporation or any Subsidiary (as hereinafter defined) with (i) any Interested Stockholder or (ii) any other corporation (whether or not itself an Interested Stockholder) which is, or after such merger or consolidation would be, an Affiliate or Associate of an Interested Stockholder; or

(b) any sale, lease, exchange, mortgage, pledge, transfer or other disposition (in one transaction or a series of transactions) with any Interested Stockholder or any Affiliate or Associate of any Interested Stockholder involving any assets or securities of the Corporation, any Subsidiary or any Interested Stockholder or any Affiliate or Associate of any Interested Stockholder having an aggregate Fair Market Value of 10% of the total assets of the Corporation and its Subsidiaries as reflected on the consolidated balance sheet of the Corporation and its Subsidiaries as of the end of the Corporation's most recent fiscal year; provided that the sale or other dispositions of securities of the Corporation to anyone other than an Interested Stockholder or any Affiliate or Associate of an Interested Stockholder shall not be deemed in itself to be a Business Combination; or

(c) the adoption of any plan or proposal for the liquidation or dissolution of the Corporation proposed by or on behalf of any Interested Stockholder or any Affiliate or Associate of any Interested Stockholder; or

(d) any reclassification of securities (including any reverse stock split), or recapitalization of the Corporation, or any merger or consolidation of the Corporation with any of its subsidiaries or any other transaction (whether or not with or otherwise involving an Interested Stockholder) that has the effect, directly or indirectly, of increasing the proportionate share of any class or series of Capital Stock, or any securities convertible into Capital Stock or into equity securities of any Subsidiary, that is beneficially owned by any Interested Stockholder or any Affiliate or Associate of any Interested Stockholder; or

(e) any agreement, contract or other arrangement providing for any one or more of the actions specified in the foregoing clauses (a) to (d).

(2) The term "Capital Stock" shall mean all capital stock of the Corporation authorized to be issued from time to time under Article Fourth of this Restated Certificate of Incorporation, and the term "Voting Stock" shall mean all Capital Stock which by its terms may be voted on all matters submitted to shareholders of the Corporation generally.

(3) The term "person" shall mean any individual, firm, corporation or other entity and shall include any group comprised of any person and any other person with whom such person or any Affiliate or Associate of such person has any agreement, arrangement or understanding directly or indirectly, for the purpose of acquiring, holding, voting or disposing of Capital Stock.

(4) The term "Interested Stockholder" shall mean any person (other than the Corporation, any Subsidiary, any pension, retirement, profit-sharing employee stock ownership or other employee benefit plan of the Corporation or any Subsidiary or any trustee of or fiduciary with respect to any such plan when acting in such capacity or any person who on January 1, 1999 was the beneficial owner, directly or indirectly, of more than 10% of the Common Stock of the Corporation) who (a) acquires and beneficially owns Voting Stock representing ten percent (10%) or more of the votes entitled to be cast by the holders of all then outstanding shares of Voting Stock; or (b) is an Affiliate or Associate of the Corporation and at any time within the two-year period immediately prior to the date in question acquired and beneficially owned Voting Stock representing ten percent (10%) or more of the votes entitled to be cast by the holders of all then outstanding shares of Voting Stock.

(5) A person shall be a "beneficial owner" of any Capital Stock (a) which such person or any of its Affiliates or Associates beneficially owns, directly or indirectly; (b) which such person or any of its Affiliates or Associates has, directly or indirectly, (i) the right to acquire (whether such right is exercisable immediately or subject only to 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) the right to vote pursuant to any agreement, arrangement or understanding; or (c) which are beneficially owned, directly or indirectly, by any other person with which such person or any of its Affiliates or Associates has any agreement, arrangement or understanding for the purpose of acquiring, holding, voting or disposing of any shares of Capital Stock. For the purposes of determining whether a person is an Interested Stockholder pursuant to paragraph (4) of this section C, the number of shares of Capital Stock deemed to be outstanding shall include shares deemed beneficially owned by such person through application of paragraph (5) of this section C, but shall not include any other shares of Capital Stock that may be issuable pursuant to any agreement, arrangement or understanding, or upon exercise of conversion rights, warrants or options, or otherwise.

(6) The terms "Affiliate" and "Associate" shall have the respective meanings ascribed to such terms in Rule 12b-2 under the Act as in effect on January 1, 1999.

(7) The term "Subsidiary" shall mean any corporation of which a majority of any class of equity security is beneficially owned by the Corporation; provided, however, that for the purposes of the definition of Interested Stockholder set forth in paragraph (4) of this section C, the term "Subsidiary" shall mean only a corporation of which a majority of each class of equity security is beneficially owned by the Corporation.

(8) The term "Continuing Director" shall mean any member of the Board of Directors of the Corporation (the "Board") who is not an Affiliate or Associate or representative of an Interested Stockholder in question in connection with a particular Business Combination and either: (a) was a member of the Board prior to the time that such Interested Stockholder became an Interested Stockholder; or (b) is or was recommended or elected to fill a vacancy on the Board, however caused, by at least three-quarters of the Continuing Directors.

(9) The term "Fair Market Value" shall mean (a) in the case of cash, the amount of such cash; (b) in the case of stock, the highest closing sale price during the 30-day period ending on the date in question of a share of such stock on the Composite Tape for New York Stock Exchange-Listed Stocks, or, if such stock is not quoted on the Composite Tape, on the New York Stock Exchange, or, if such stock is not listed on such exchange, on the principal United States securities exchange registered under the Act on which such stock is listed, or, if such stock is not listed on any such exchange, the highest closing bid quotation with respect to a share of such stock during the 30-day period ending on the date in question on the National Association of Securities Dealers, Inc. Automated Quotations System or any similar system then in use, or if no such quotations are available, the Fair Market Value on the date in question of a share of such stock as determined by a majority of the Continuing Directors in good faith; and (c) in the case of property other than cash or stock, the Fair Market Value of such property on the date in question as determined in good faith by a majority of the Continuing Directors.

(10) In the event of any Business Combination in which the Corporation survives, the phrase "consideration other than cash to be received" as used in sub-paragraphs (2)(a) and (2)(b) of section B of this Article Tenth shall include the shares of Common Stock and/or the shares of any other class or series of Capital Stock retained by the holders of such shares.

D. The Board of Directors shall have the power and duty to determine for the purposes of this Article Tenth, on the basis of information known to them after reasonable inquiry, (a) whether a person is an Interested Stockholder, (b) the number of shares of Capital Stock or other securities beneficially owned by any person, (c) whether a person is an Affiliate or Associate of another, and (d) whether the assets that are the subject of any Business Combination have, or the consideration to be received for the issuance or transfer of securities by the Corporation or any Subsidiary in any Business Combination has, an aggregate Fair Market Value of more than 10% of the total assets of the Corporation and its Subsidiaries as reflected on the consolidated balance sheet of the Corporation and its Subsidiaries as of the end of the Corporation's most recent fiscal year. Any such determination made in good faith shall be binding and conclusive on all parties.

E. Nothing contained in this Article Tenth shall be construed to relieve any Interested Stockholder from any fiduciary obligation imposed by law.

F. The fact that any Business Combination complies with the provisions of

section B of this Article Tenth shall not be construed to impose any fiduciary duty, obligation or responsibility on the Board, or any member thereof, to approve such Business Combination or recommend its adoption or approval to the shareholders of the Corporation, nor shall such compliance limit, prohibit or otherwise restrict in any manner the Board, or any member thereof, with respect to evaluations of or actions and responses taken with respect to such Business Combination.

G. Notwithstanding any other provisions of this Restated Certificate of Incorporation or the By-Laws of the Corporation (and notwithstanding the fact that a lesser percentage or separate class vote may be specified by law, this Restated Certificate of Incorporation or the By-Laws of the Corporation), the affirmative vote of the holders of not less than eighty percent (80%) of the votes entitled to be cast by the holders of all then outstanding shares of Voting Stock, voting together as a single class shall be required to amend or repeal, or adopt any provisions inconsistent with, this Article Tenth.

ELEVENTH: This Corporation shall have perpetual existence.

IN WITNESS, the undersigned has set his hand this 21st day of December, 2000.

/s/ Reuben F. Richards, Jr.

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Reuben F. Richards, Jr.  
President and CEO

BY-LAWS

OF

EMCORE CORPORATION

As Amended Through December 21, 2000

ARTICLE I

OFFICES

1. Principal Place of Business. The principal place of business of EMCORE Corporation (the "Corporation") is 145 Belmont Drive, Somerset, New Jersey 08873.

2. Other Places of Business. Branch or subordinate places of business or offices may be established at any time by the Board of Directors of the Corporation (the "Board") at any place or places where the Corporation is qualified to do business.

ARTICLE II

SHAREHOLDERS

1. Annual Meeting. The annual meeting of shareholders shall be held at a time fixed by the Board that shall be within thirteen months of the last annual meeting, upon not less than ten nor more than sixty days written notice of the time, place, and purpose of the meeting at the corporate offices, or at such other time and place as shall be specified in the notice of meeting, in order to elect directors of the Corporation ("Directors") and transact such other business as shall come before the meeting.

2. Special Meetings. A special meeting of shareholders may be called for any purpose by the president or the Board. A special meeting shall be held upon not less than ten nor more than sixty days written notice of the time, place and purpose of the meeting.

3. Action Without Meeting. The shareholders may act without a meeting if, prior or subsequent to such action, each shareholder who would have been entitled to vote upon such action shall consent in writing to such action. Such written consent or consents shall be filed in the minute book.

4. Quorum. The presence at a meeting in person or by proxy of the holders of shares entitled to cast a majority of the votes shall constitute a quorum.

5. Organization. The president, or in the absence of the president, such vice president as may be designated by the president, shall preside at all meetings of the shareholders. If both are absent, any other officer designated by the Board shall preside. If no officer so designated is present, the shareholders present in person or represented by proxy may elect one of their number to preside. The secretary shall act as secretary at all meetings of the shareholders; but in the absence of the secretary the presiding officer may appoint any person to act as secretary of the meeting.

ARTICLE III

VOTING AND ELECTIONS

1. Voting. Each holder of shares with voting rights shall be entitled to one vote for each such share registered in his or her name, except as otherwise provided in the certificate of incorporation of the Corporation (the "Certificate of Incorporation"). Whenever any action, other than the election of Directors, is to be taken by vote of the shareholders, it shall be authorized by a majority of the votes cast at a meeting of shareholders by the holders of shares entitled to vote thereon, unless a greater percentage is required by statute or by the Certificate of Incorporation.

2. Voting Lists. The officer or agent having charge of the stock transfer books for shares of the Corporation shall make a complete list of shareholders entitled to vote at a shareholders' meeting or any adjournment thereof. A list required by this Section 2 may consist of cards arranged alphabetically or any equipment which permits the visual display of the information required. Such list shall be arranged alphabetically within each class, series or group of shareholders maintained by the Corporation for convenience of reference, with the address of, and the number of shares held by, each shareholder; be produced (or available by means of a visual display) at the time and place of the meeting; be subject to the inspection of any shareholder for reasonable periods during the meeting; and be prima facie evidence of the identity of the shareholders entitled to examine such list or to vote at any meeting. If the requirements of this Section 2 have not been complied with, the meeting shall, on the demand of any shareholder in person or by proxy, be adjourned until the requirements are complied with. Failure to comply with the requirements of this Section 2 shall not affect the validity of any action taken at such meeting prior to the making of such demand.

3. Fixing Record Date. (a) The Board may fix, in advance, a date as the record date for determining the Corporation's shareholders with regard to any corporate action or event and, in particular, for determining the shareholders who are entitled to

(i) notice of or to vote at any meeting of shareholders or any adjournment thereof;

(ii) give a written consent to any action without a meeting; or

(iii) receive payment of any dividend or allotment of any right.

The record date may in no case be more than sixty days prior to the shareholders' meeting or other corporate action or event to which it relates. The record date for a shareholders' meeting may not be less than ten days before the date of the meeting. The record date to determine shareholders to give a written consent may not be more than sixty days before the date fixed for tabulation of the consents or, if no date has been fixed for tabulation, more than sixty days before the last day on which consents received may be counted.

(b) If no record date is fixed,

(i) the record date for a shareholders' meeting shall be the close of business on the day next preceding the day on which notice is given, or, if no notice is given, the day next preceding the day on which the meeting is held; and

(ii) the record date for determining shareholders for any other purpose shall be at the close of business on the day on which the resolution of the Board relating thereto is adopted.

(c) The record date for determining shareholders entitled to consent to corporate action in writing without a meeting, when no prior action by the Board is required by this act, shall be the first date on which a signed written consent setting forth the action taken or proposes to be taken is delivered to the Corporation by delivery to its registered office in New Jersey, its principal place of business, or an officer or agent of the Corporation having custody of the book in which proceeding of meetings of shareholders are recorded.

(d) When a determination of shareholders of record for a shareholders' meeting has been made as provided in this Subsection 3(d), such determination shall apply to any adjournment thereof, unless the Board fixes a new record date under this Subsection 3(d) for the adjourned meeting.

4. Inspectors of Election. The Board may, in advance of any shareholders' meeting, or of the tabulation of written consents of shareholders without a meeting, appoint one or more inspectors to act at the meeting or any adjournment thereof or to tabulate such consents and make a written report thereof. If inspectors to act at any meeting of shareholders are not so appointed or shall fail to qualify, the person presiding at a shareholders' meeting may, and on the request of any shareholder entitled to vote thereat shall, make such appointment.

Each inspector, before entering upon the discharge of his duties, shall take and sign an oath faithfully to execute the duties of inspector with strict impartiality and according to the best of his or her ability. No person shall be elected a Director in an election for which he or she has served as an inspector.

The inspectors shall determine the number of shares outstanding and the voting power of each, the shares represented at the meeting, the existence of a quorum, the validity and effect of proxies, and shall receive votes or consents, hear and determine all challenges and questions arising in connection with the right to vote, count and tabulate all votes or consents, determine the result, and do such acts as are proper to conduct the election or vote with fairness to all shareholders. If there are three or more inspectors, the act of a majority shall govern. On request of the person presiding at the meeting or any shareholder entitled to vote thereat, the inspectors shall make a report in writing of any challenge, question or matter determined by them. Any report made by them shall be prima facie evidence of the facts therein stated, and such report shall be filed with the minutes of the meeting.

5. Proxies. (a) Every shareholder entitled to vote at a shareholder meeting may authorize another person or persons to act for him or her by proxy. Every proxy shall be executed by the shareholder or his or her agent, but a proxy may be given by telegram, cable, telephonic transmission, or any other means of electronic communication so long as that telegram, cable, telephonic transmission or other means of electronic communication either sets forth or is submitted with information from which it can be determined that the proxy was authorized by shareholder or his agent.

(b) No proxy shall be valid after eleven months from the date of its execution unless a longer time is expressly provided therein. A proxy shall be revocable at will unless it states that it is irrevocable and is coupled with an interest either in the stock itself or in the Corporation. A proxy shall not be revoked by the death or incapacity of the shareholder, but the proxy shall continue in force until revoked by the personal representative or guardian of the shareholder.

(c) The presence at a meeting of any shareholder who has given a proxy shall not revoke the proxy unless the shareholder (i) files written notice of the revocation with the secretary of the meeting prior to the voting of the proxy or (ii) votes the shares subject to the proxy by written ballot. A person named as proxy of a shareholder may, if the proxy so provides, substitute another person to act in his or her place, including any other person named as proxy in the same proxy. The substitution shall not be effective until an instrument effecting it is filed with the secretary of the Corporation.

(d) Each person holding a proxy shall either file the proxy with the secretary of the meeting or the inspectors at the start of the meeting or shall submit the proxy to the inspectors together with his or her ballot, as determined by the presiding officer. No proxy shall be counted or acted upon that is submitted to the secretary of the meeting or the inspectors any later than the first time during the meeting a vote is taken by ballot.

#### ARTICLE IV

#### BOARD OF DIRECTORS

1. Election; Term of Office; Removal; Vacancies; Nomination. (a) Election; Term of Office. The number of Directors constituting the entire Board shall be not less than six nor more than twelve, as fixed from time to time by the vote of not less than 66 2/3% of the entire Board; provided, however, that the number of Directors shall not be reduced so as to shorten the term of any Director at the time in office, and provided further, that the number of Directors constituting the entire Board shall be nine unless and until otherwise fixed by the vote of not less than 66 2/3% of the entire Board. The phrase "66 2/3% of the entire Board" shall be deemed to refer to 66 2/3% of the number of Directors constituting the Board as provided in or pursuant to this Subsection 1(a), without regard to any vacancies then existing.

(b) Classification. The Board shall be divided into three classes, as nearly equal in number as the then total number of Directors constituting the entire Board permits. The initial term of office of the first class shall expire at the 2002 Annual Meeting of Shareholders. The initial term of office of the second class shall expire at the 2001 Annual Meeting of Shareholders. The initial term of office of the third class expired at the 2000 Annual Meeting of Shareholders. The Directors elected at an annual meeting of shareholders to succeed those whose terms then expire shall be identified as being Directors of the same class as the Directors whom they succeed, and each of them shall hold office until the third succeeding annual meeting of shareholders and until such Director's successor shall have been elected and qualified. Any vacancies in the Board for any reason, and any created Directorships resulting from any increase in the number of Directors, may be filled by the vote of not less than 66 2/3% of the members of the Board then in office, although less than a quorum, and any Directors so chosen shall hold office until the next election of the class for which such Directors shall have been chosen and until their successors shall be elected and qualified. No decrease in the number of Directors shall shorten the term of any incumbent Director. Notwithstanding the foregoing, and except as otherwise required by law, whenever the holders of any one or more series of preferred stock of the Corporation ("Preferred Stock") shall have the right, voting separately as a class, to elect one or more Director, the then authorized number of Directors shall be increased by the number of Directors so to be elected, and the terms of the Director or Directors elected by such holders shall expire at the next succeeding annual meeting of shareholders.

(c) Removal. Notwithstanding any other provisions of these by-laws (the "By-Laws"), any Director, or the entire Board, may be removed at any time, but only for cause and only by the affirmative vote of the holders of 80% or more of the outstanding shares of capital stock of the Corporation ("Capital Stock") entitled to vote generally in the election of Directors (considered for this purpose as one class) cast at a meeting of the shareholders called for that purpose. Notwithstanding the foregoing, and except as otherwise required by law, whenever the holders of any one or more series of Preferred Stock shall have the right, voting separately as a class, to elect one or more Directors, the provisions of this Subsection 1(c) shall not apply with respect to the Director or Directors elected by such holders of Preferred Stock.

(d) Nomination. Nominations for the election of Directors may be made by the Board or by any shareholder entitled to vote for the election of Directors. Nominations for election at the annual meeting of shareholders which are not made by the Board shall be made by notice in writing, delivered or mailed by first class mail, postage prepaid, to the secretary by the date specified in the Corporation's proxy statement mailed to shareholders relating to the immediately preceding annual meeting of shareholders; provided, that in the event of an election to be held at a special meeting of shareholders, or if no such date was specified in the relevant proxy statement, such notice shall be given not more than 10 days after the date of notice of the meeting of the shareholders called for the election of Directors. Notice of nominations which are proposed by the Board shall be given by the Board.

Each notice under this Subsection 1(d) shall set forth (i) the name, age, and business address of each nominee proposed in such notice, (ii) the principal occupation or employment of each such nominee, (iii) the number of shares of Capital Stock which are beneficially owned by each such nominee; and (iv) such other information as would be required to be included in a proxy or disclosure to be filed with the Securities and Exchange Commission.

The person presiding at the meeting may, if the facts warrant, determine and declare to the meeting that a nomination was not made in accordance with the foregoing procedure, and if he should so determine, he shall so declare to the meeting and the defective nomination shall be disregarded.

2. Regular Meetings. A regular meeting of the Board shall be held without notice immediately following and at the same place as the annual shareholders' meeting for the purposes of electing officers and conducting such other business as may come before the meeting. The Board, by resolution, may provide for additional regular meetings which may be held without notice, except advance notice, as described in Section 3 below, shall be provided to Directors not present at the time of the adoption of the resolution.

3. Special Meetings. A special meeting of the Board may be called at any time by the president or a majority of the members of the Board for any purpose. Such meeting shall be held upon one days notice if given orally (either by telephone or in person) or by telegraph, e-mail or facsimile transmission, or by three days notice if given by depositing the notice in the United States mails, postage prepaid. Such notice shall specify the time and place of the meeting.

4. Action Without Meeting. The Board may act without a meeting if, prior or subsequent to such action, each member of the Board shall consent in writing to such action. Such written consent or consents shall be filed in the minute book.

5. Quorum. One-half of the entire Board shall constitute a quorum for the transaction of business.

6. Committees. The Board, by resolution adopted by a majority of the entire

Board, may appoint from among its members an executive committee and one or more other committees, each of which shall have at least three members. To the extent provided in such resolution, each such committee shall have and may exercise all the authority of the Board, except that no such committee shall (a) make, alter or repeal any By-Law; (b) elect any Director, or remove any officer or Director; (c) submit to shareholders any action that requires shareholders' approval; or (d) amend or repeal any resolution theretofore adopted by the Board which by its terms is amendable or repealable only by the Board.

The Board, by resolution adopted by a majority of the entire Board, may (a) fill any vacancy in any such committee; (b) appoint one or more Directors to serve as alternate members of any such committee, to act in the absence or disability of members of any such committee with all the powers of such absent or disabled members; (c) abolish any such committee at its pleasure; (d) remove any Director from membership on such committee at any time, with or without cause; and (e) establish as a quorum for any such committee less than a majority of the entire committee, but in no case less than the greater of two persons or one-third of the entire committee.

Actions taken at a meeting of any such committee shall be reported to the Board at its next meeting following such committee meeting; except that, when the meeting of the Board is held within two days after the committee meeting, such report shall, if not made at the first meeting, be made to the Board at its second meeting following such committee meeting.

7. Compensation of Directors. The Board, by the affirmative vote of a majority of Directors in office and irrespective of any personal interest of any of them, shall have authority to establish reasonable compensation of Directors for services to the Corporation as Directors, officers or otherwise.

## ARTICLE V

### WAIVERS OF NOTICE

Any notice required by these By-Laws, by the Certificate of Incorporation, or by applicable law, including the New Jersey Business Corporation Act may be waived in writing by any person entitled to notice. The waiver or waivers may be executed either before or after the event with respect to which notice is waived. Each Director or shareholder attending a meeting without protesting, prior to its conclusion, the lack of proper notice shall be deemed conclusively to have waived notice of the meeting.

## ARTICLE VI

### OFFICERS

1. Election. At its regular meeting following the annual meeting of shareholders, the Board shall elect a president, a treasurer and a secretary, and it may elect such other officers, including one or more vice presidents, as it shall deem necessary. One person may hold two or more offices. Each officer shall hold office until the end of the period for which such officer was elected, and until his or her successor has been elected and has qualified, unless he or she is earlier removed.

2. Duties and Authority of President. The president shall be chief executive officer of the Corporation. Subject only to the authority of the Board, the president shall have responsibility for the business and affairs of the Corporation. Unless otherwise directed by the Board, all other officers shall be subject to the authority and supervision of the president. The president may enter into and execute in the name of the Corporation contracts or other instruments in the regular course of business or contracts or other instrument not in the regular course of business which are authorized, either generally or specifically, by the Board. He shall have the general powers and duties of management usually vested in the office of president of a corporation.

3. Duties and Authority of Vice Presidents. Each vice president shall perform such duties and have such authority as from time to time may be delegated to him by the president or by the Board. The Board shall have the authority to append such prefixes as "executive," "senior" and "assistant" to any vice president's title as it shall determine. In the absence of the president or in the event of his death, inability, or refusal to act, such vice president as shall have been designated by the Board or, in the absence of such designation, by the president, shall perform the duties and be vested with the authority of the president.

4. Duties and Authority of Treasurer. The treasurer shall have the custody of the funds and securities of the Corporation and shall keep or cause to be kept regular books of account for the Corporation. The treasurer shall perform such other duties and possess such other powers as are incident to that office or as shall be assigned by the president or the Board.

5. Duties and Authority of Secretary. The secretary shall cause notices of all meetings to be served as prescribed in these By-Laws and shall keep or cause to be kept the minutes of all meetings of the shareholders and the Board. The secretary shall have charge of the seal of the Corporation. The secretary shall perform such other duties and possess such other powers as are incident to that office or as are assigned by the president or the Board.

6. Vacancies. Any vacancy in any office may be filled by the Board.

7. Removal and Resignation. Any officer may be removed, either with or without cause, by the Board or by any officer upon whom the power of removal has been conferred by the Board. An officer elected by the shareholders may be removed, with or without cause, only by vote of the shareholders but his or her authority to act as an officer may be suspended by the Board for cause. Removal of an officer shall be without prejudice to the officer's contract rights, if any. Election or appointment of an officer shall not of itself create contract rights. Any officer may resign at any time by giving written notice to the Board

or to the president. A resignation shall take effect on the date of the receipt of the notice or at any later time specified therein and, unless otherwise specified therein, the acceptance of the resignation shall not be necessary to make it effective.

## ARTICLE VII

### CAPITAL STOCK AND OTHER SECURITIES

1. Issuance of Capital Stock and Other Securities. Certificates of any class of Capital Stock and certificates representing any other securities of the Corporation shall be signed by the president, or any vice president and countersigned by the secretary, any assistant secretary, the treasurer or any assistant treasurer. The signature of each officer may be an engraved or printed facsimile. If an officer or transfer agent or registrar whose facsimile signature has been placed upon certificates ceases to hold the official capacity in which he or she signed, the certificates may continue to be used. The certificates may, but need not, be sealed with the seal of the Corporation, or a facsimile of the seal. The certificates shall be countersigned and registered in whatever manner the Board may prescribe.

2. Lost, Stolen and Destroyed Certificates. In case of lost, stolen or destroyed certificates, new certificates may be issued to take their place upon receipt by the Corporation of a bond of indemnity and under whatever regulations may be prescribed by the Board. The giving of a bond of indemnity may be waived.

3. Transfer of Securities. The shares of the Capital Stock or any other registered securities of the Corporation shall be transferable on the books of the Corporation by the holder thereof in person or by that person's authorized agent, or by the transferee, upon surrender for cancellation to the relevant transfer agent of an outstanding certificate or certificates for the same number of shares or other security with an assignment and authorization to transfer endorsed thereon or attached thereto, duly executed, together with such proof of the authenticity of the signature and of the power of the assignor to transfer the securities as the Corporation or its agents may require.

4. Fractional Shares. The Corporation may, but shall not be required to, issue certificates for fractions of a share where necessary to effect authorized transactions, or the Corporation may pay in cash the fair value of fractions of a share as of the time when those entitled to receive such fractions are determined, or it may issue scrip in registered or bearer form over the manual or facsimile signature of an officer of the Corporation or of its agent, exchangeable as therein provided for full shares, but such scrip shall not entitle the holder to any rights of a shareholder except as therein provided.

## ARTICLE VIII

### AMENDMENTS TO AND EFFECT OF BY-LAWS; FISCAL YEAR; SEAL; CHECKS; CONTRACTS; RECORDS

1. Force and Effect of By-Laws. These By-Laws are subject to the provisions of the applicable law, including the New Jersey Business Corporation Act, and the Certificate of Incorporation, as it may be amended from time to time. If any provision in these By-Laws is inconsistent with a provision in that Act or the Certificate of Incorporation, the provision of that Act or the Certificate of Incorporation shall govern.

2. Amendments to By-Laws. These By-Laws may be altered, amended or repealed by the shareholders or the Board in accordance with the terms of the Certificate of Incorporation, these By-laws and applicable law. Any By-Law adopted, amended or repealed by the shareholders may be amended or repealed by the Board, unless the resolution of the shareholders adopting such By-Law expressly reserves to shareholders the right to amend or repeal it.

3. Fiscal Year. The fiscal year of the Corporation shall begin on the first day of October of each year.

4. Seal. The corporate seal shall have inscribed thereon the name of the Corporation, the year of its incorporation, and the words "Corporate Seal New Jersey". The corporate seal may be used by causing it or a facsimile thereof to be impressed or reproduced on a document or instrument, or affixed thereto. Except to the extent required by applicable law or by resolution of the Board, no contract, instrument or other document executed by or on behalf of the Corporation, or to which the Corporation is otherwise a party, shall be required to bear the corporate seal.

5. Checks, Drafts, Etc. All checks, drafts or other orders for the payment of money, notes or other evidences of indebtedness, issued in the name of or payable to the Corporation, shall be signed or endorsed by the person or persons and in such manner, manually or by facsimile signature, as shall be determined from time to time by the Board.

6. Execution of Contracts. The Board may authorize any officer or officers, employee or employees, or agent or agents of the Corporation, to enter into any contract or execute any instrument in the name of and on behalf of the Corporation. The authority may be general or confined to specific instances.

7. Records. The Corporation shall keep books and records of account and minutes of the proceedings of the shareholders, Board and such committees as the Board may determine. Such books, records and minutes may be kept outside the State of New Jersey. The Corporation shall keep at its principal office, its registered office, or at the office of its registrar and transfer agent, a record or records containing the names and addresses of all shareholders, the number, class and series of shares held by each and the dates when they respectively became the owners of record thereof. Any of the foregoing books, minutes or records may be in written form or in any other form capable of being converted into readable form within a reasonable time.

Any person who shall have been a shareholder of record of the Corporation for at least six months immediately preceding his demand, or any person holding, or so authorized in writing by the holders of, at least five percent of the outstanding shares of any class or series, upon at least five days' written demand shall have the right for any proper purpose to examine in person or by agent or attorney, during usual business hours, the minutes of the proceedings of the shareholders and record of shareholders and to make extracts therefrom at the places where the same are kept.

## ARTICLE IX

### INDEMNIFICATION

1. General. The Corporation shall indemnify an Indemnitee (as hereinafter defined) against Liabilities (as hereinafter defined) and advance Expenses (as hereinafter defined) to an Indemnitee to the fullest extent permitted by applicable law and as provided in this Article IX. An Indemnitee shall be entitled to the indemnification provided in this Section 1, if, by reason of his being or having been an Officer/Director (as hereinafter defined), he is, or is threatened to be made, a party to any threatened, pending, or completed Proceeding (as hereinafter defined). Pursuant to this Section 1, an Indemnitee shall be indemnified against Expenses and Liabilities actually incurred by him or on his behalf in connection with such Proceeding or any claim, issue or matter therein.

2. Advancement of Expenses. The Corporation shall advance all Expenses incurred by or on behalf of an Indemnitee in connection with any Proceeding upon the receipt by the Corporation of a statement or statements from the Indemnitee requesting such advance or advances from time to time, whether prior to or after final disposition of such Proceeding. Such statement or statements shall reasonably evidence the Expenses incurred by the Indemnitee or refer to invoices or bills for Expenses furnished or to be furnished directly to the Corporation, and shall include or be preceded or accompanied by an undertaking by or on behalf of the Indemnitee to repay any Expenses advanced unless it shall ultimately be determined pursuant to Section 5 of this Article IX that the Indemnitee is entitled to be indemnified against such Expenses.

3. Indemnification for Expenses of a Witness. Notwithstanding any other provision of this Article IX, to the extent that an Indemnitee is, by reason of his being or having been an Officer/Director, a witness in any Proceeding in which such Indemnitee is not also a party, the Corporation shall indemnify such witness against all Expenses actually incurred by him or on his behalf in connection therewith.

4. Limitation on Indemnity. No indemnification shall be made to any Indemnitee pursuant to this Article IX to the extent that, in connection with the relevant Proceeding, a judgment or other final adjudication adverse to the Indemnitee establishes that his acts or omissions (a) were in breach of such Indemnitee's duty of loyalty to the Corporation or its shareholders, as defined in subsection (3) of N.J.S. 14A:2-7, (b) were not in good faith or involved a knowing violation of law, or (c) resulted in the receipt by such Indemnitee of an improper personal benefit. In the event of any such finding, the Indemnitee shall promptly disgorge and pay over to the Corporation any amounts theretofore paid to such Indemnitee pursuant to this Article IX, including any advance of Expenses pursuant to Section 2 of this Article IX. The termination of any Proceeding or of any claim, issue or matter therein by judgment, order, settlement or conviction, or upon a plea of nolo contendere or its equivalent, shall not of itself adversely affect the right of an Indemnitee to indemnification or create a presumption that an Indemnitee did not act in good faith or that an Indemnitee had reasonable cause to believe that his conduct was unlawful.

5. Procedure for Determination of Entitlement to Indemnification. (a) To obtain indemnification under this Article IX, an Indemnitee shall submit to the Corporation a written request for indemnification, and provide for the furnishing to the Corporation of such documentation and information as is reasonably available to the Indemnitee and is reasonably necessary to determine whether and to what extent the Indemnitee is entitled to indemnification. The secretary shall, promptly upon receipt of such a request for indemnification, advise the Board in writing that the Indemnitee has requested indemnification.

(b) Upon written request by an Indemnitee for indemnification pursuant to Section 5(a) of this Article IX, a written determination with respect to the Indemnitee's entitlement thereto shall be made: (i) if a Change in Control (as hereinafter defined) shall have occurred, by Independent Counsel (as hereinafter defined); (ii) if a Change in Control shall not have occurred, (A) by the Board by a majority vote of a quorum consisting of Disinterested Directors (as hereinafter defined), or (B) by a majority vote of a quorum of Disinterested Directors on a Committee of the Board authorized by the Board to make such determination, or (C) by Independent Counsel. If it is so determined that the Indemnitee is entitled to indemnification, payment to the Indemnitee shall be made in a timely fashion. An Indemnitee shall cooperate with the person, persons or entity making such determination with respect to the Indemnitee's entitlement to indemnification, including providing to such person, persons or entity upon reasonable advance request any documentation or information which is not privileged or otherwise protected from disclosure and which is reasonably available to the Indemnitee and reasonably necessary to such determination. Any costs or expenses (including attorneys' fees and disbursements) incurred by an Indemnitee in so cooperating with the person, persons or entity making such determination shall be borne by the Corporation (irrespective of the determination as to an Indemnitee's entitlement to indemnification).

(c) In the event the determination of entitlement is to be made by Independent Counsel pursuant to Subsection 5(b) of this Article IX, the Independent Counsel shall be selected as provided in this Subsection 5(c). If a Change in Control shall not have occurred, the Independent Counsel shall be selected by the Board of Directors or a Committee thereof authorized by the

Board to make such selection, and the Corporation shall give written notice to the Indemnitee advising him of the identity of the Independent Counsel so selected. If a Change of Control shall have occurred, the Independent Counsel shall be selected jointly by the Indemnitee and the Board or a Committee thereof authorized by the Board to make such determination. In the event that the Board or such a Committee thereof cannot agree with the Indemnitee on the choice of Independent Counsel, such Independent Counsel shall be selected by the Board or a Committee thereof from among the New York City law firms having more than 100 attorneys. The Corporation shall pay any and all reasonable fees and expenses of Independent Counsel incurred by such Independent Counsel in connection with acting pursuant to Subsection 5(b) of this Article IX, and the Corporation shall pay all reasonable fees and expenses incident to the procedures of this Subsection 5(c), regardless of the manner in which such Independent Counsel was selected or appointed.

6. Presumptions and Effect of Certain Proceedings. (a) If a Change in Control shall have occurred, in making a determination with respect to entitlement to indemnification hereunder, the person, persons or entity making such determination shall presume that an Indemnitee is entitled to indemnification under this Article if the Indemnitee has submitted a request for indemnification in accordance with Subsection 5(a) of this Article IX, and the Corporation shall have the burden of proof to overcome that presumption in connection with the making by any person, persons or entity of any determination contrary to that presumption.

(b) If the person, persons or entity empowered or selected under Section 5 of this Article IX to determine whether an Indemnitee is entitled to indemnification shall not have made such determination in a timely fashion after receipt by the Corporation of the request therefor, the requisite determination of entitlement to indemnification shall be deemed to have been made and the Indemnitee shall be entitled to such indemnification, absent (i) a misstatement by the Indemnitee of a material fact, or an omission of a material fact necessary to make the Indemnitee's statement not materially misleading, in connection with the request for indemnification (which shall have been proven by clear and convincing evidence), or (ii) a prohibition of such indemnification under applicable law.

(c) Every Indemnitee shall be presumed to have relied upon this Article IX in serving or continuing to serve as an Officer/Director.

7. Indemnification of Estate; Standards for Determination. If an Indemnitee is deceased and would have been entitled to indemnification under any provision of this Article IX, the Corporation shall indemnify the Indemnitee's estate and his spouse, heirs, administrators and executors. When the Board, Committee thereof or Independent Counsel acting in accordance with Section 5 of this Article IX is determining the availability of indemnification under this Article IX and when an Indemnitee is unable to testify on his own behalf by reason of his death or mental or physical incapacity, said Board, Committee or Independent Counsel shall deem the Indemnitee to have satisfied applicable standards set forth in the relevant section or sections of this Article IX unless it is affirmatively demonstrated by clear and convincing evidence that indemnification is not available thereunder.

8. Limitation of Actions and Release of Claims. No legal action shall be brought and no cause of action shall be asserted by or on behalf of the Corporation or its Affiliates against an Indemnitee, his spouse, heirs, executors or administrators after the expiration of two years from the date the Indemnitee ceases (for any reason) to serve as an Officer/Director, and any claim or cause of action of the Corporation or its Affiliates shall be extinguished and deemed released unless asserted by filing of a legal action within such two-year period.

9. Other Rights and Remedies of Indemnitee. (a) The Corporation shall purchase and maintain on behalf of Indemnitees such insurance covering such Liabilities and Expenses arising from actions or omissions of an Indemnitee in his capacity as an Officer/Director as is obtainable and is reasonable and appropriate in cost and amount.

(b) In the event that (i) a determination is made pursuant to Section 5 of this Article IX that an Indemnitee is not entitled to indemnification under this Article IX, (ii) advancement of Expenses is not timely made pursuant to Section 2 of this Article IX, (iii) the determination of entitlement to indemnification is to be made by Independent Counsel pursuant to Subsection 5(b) of this Article IX and such determination shall not have been made and delivered in a written opinion in a timely fashion after receipt by the Corporation of the request for indemnification, (iv) payment of indemnification is not made pursuant to Section 3 of this Article IX in a timely fashion after receipt by the Corporation of a written request therefor, or (v) payment of indemnification is not made in a timely fashion after a determination has been made that an Indemnitee is entitled to indemnification or such determination is deemed to have been made pursuant to Section 6 of this Article IX, the Indemnitee shall be entitled to an adjudication in the Superior Court of the State of New Jersey, or in any other court of competent jurisdiction, of his entitlement to such indemnification or advancement of Expenses. Alternatively, the Indemnitee, at his option, may seek an award in arbitration to be conducted by a single arbitrator pursuant to the rules of the American Arbitration Association. The Indemnitee shall commence such proceeding seeking an adjudication or an award in arbitration in a timely manner following the date on which the Indemnitee first has the right to commence such Proceeding pursuant to this Subsection 9(b). The Corporation shall not oppose the Indemnitee's right to exercise his rights under this Subsection 9(b).

(c) In the event that a determination shall have been made pursuant to Section 5 of this Article that an Indemnitee is not entitled to indemnification, any judicial proceeding or arbitration commenced pursuant to this Section 9 shall be conducted in all respects as a de novo trial or arbitration on the merits, and the Indemnitee shall not be prejudiced by reason of that adverse determination. If a Change of Control shall have occurred, in any judicial

proceeding or arbitration commenced pursuant to this Section 9 the Corporation shall have the burden of proving that the Indemnitee is not entitled to indemnification or advancement of Expenses, as the case may be.

(d) If a determination shall have been made or deemed to have been made pursuant to Section 5 of this Article IX that an Indemnitee is entitled to indemnification, the Corporation shall be bound by such determination in any judicial proceeding or arbitration commenced pursuant to this Section 9, absent (i) a misstatement by the Indemnitee of a material fact, or an omission of a material fact necessary to make the Indemnitee's statement not materially misleading, in connection with the request for indemnification (which shall have been proven by clear and convincing evidence), or (ii) a prohibition of such indemnification under applicable law.

(e) The Corporation shall be precluded from asserting in any judicial proceeding or arbitration commenced pursuant to this Section 9 that the procedures and presumptions of this Article are not valid, binding and enforceable and shall stipulate in any such court or before any such arbitrator that the Corporation is bound by all the provisions of this Article IX.

(f) In the event that an Indemnitee, pursuant to this Section 9, seeks a judicial adjudication of or an award in arbitration to enforce his rights under, or to recover damages for breach of, this Article, the Indemnitee shall be entitled to recover from the Corporation, and shall be indemnified by the Corporation against, any and all expenses (of the types described in the definition of Expenses in Section 12 of this Article IX) actually incurred by him in such judicial adjudication or arbitration, but only if he prevails therein. If it shall be determined in said judicial adjudication or arbitration that the Indemnitee is entitled to receive part but not all of the indemnification or advancement of Expenses sought, the Expenses incurred by the Indemnitee in connection with such judicial adjudication or arbitration shall be appropriately prorated.

10. Non-Exclusivity; Survival of Rights; Subrogation. (a) The rights of indemnification and to receive advancement of Expenses as provided by this Article shall not be deemed exclusive of any other rights to which an Indemnitee may at any time be entitled under applicable law, the Certificate of Incorporation, the certificate of incorporation or other similar organizational document of any Affiliate (as hereinafter defined) of the Corporation, the By-Laws, the by-laws or other similar organizational document of any Affiliate of the Corporation, any agreement, any insurance policy maintained or issued directly or indirectly by the Corporation or any Affiliate of the Corporation, a vote of stockholders, a resolution of Disinterested Directors, or otherwise. No amendment, alteration or repeal of this Article or of any provision hereof shall be effective as to any Indemnitee with respect to any action taken or omitted by such Indemnitee as an Officer/Director prior to such amendment, alteration or repeal. The provisions of this Article IX shall continue as to an Indemnitee whose status as an Officer/Director has ceased and shall inure to the benefit of his heirs, executors and administrators.

(b) In the event of any payment under this Article IX, the Corporation shall be subrogated to the extent of such payment to all of the rights of recovery of the Indemnitee, who shall execute all papers required and take all action necessary to secure such rights, including execution of such documents as are necessary to enable the Corporation to bring suit to enforce such rights.

(c) The Corporation shall not be liable under this Article IX to make any payment of amounts otherwise indemnifiable hereunder if and to the extent that the Indemnitee has otherwise actually received such payment under any insurance policy, contract, agreement or otherwise.

11. Severability. If any provision or provisions of this Article shall be held to be invalid, illegal or unenforceable for any reason whatsoever: (a) the validity, legality and enforceability of the remaining provisions of this Article (including without limitation, each portion of any subsection of this Article IX containing any such provision held to be invalid, illegal or unenforceable that is not itself invalid, illegal or unenforceable) shall not in any way be affected or impaired thereby; and (b) to the fullest extent possible, the provisions of this Article (including, without limitation, each portion of any subsection of this Article IX containing any such provision held to be invalid, illegal or unenforceable, that is not itself invalid, illegal or unenforceable) shall be construed so as to give effect to the intent manifested by the provision held invalid, illegal or unenforceable.

12. Definitions. For purposes of this Article IX:

(a) "Affiliate" or "Associate" shall have the same meaning as in Rule 405 under the Securities Act of 1933, as amended.

(b) "Change in Control" shall mean either:

(i) a change in the membership of the Board such that one-third or more of its members were neither recommended nor elected to the Board by a majority of those of its members (A) who are not Affiliates or Associates or representatives of a beneficial owner described in clause (ii) below or (B) who were members of the Board prior to the time the beneficial owner became such; or

(ii) The attainment of "beneficial ownership" (as defined in Rule 13d-3 under the Securities Exchange Act of 1934, as amended, as Rule 13d-3 was in existence on the date hereof) by any person, corporation or other entity, or any group, including, associates or affiliates of such beneficial owner, of more than 10% of the voting power of all classes of Capital Stock, other than by any such entity that held more than such percentage as of the date hereof.

(c) "Corporate Agent" means a person who is or was a director, officer, employee, agent or fiduciary of the Corporation or of any other

corporation, partnership, joint venture, trust, employee benefit plan or other enterprise which such person is or was serving at the request of the Corporation, but shall not include any Officer/Director.

(d) "Disinterested Director" means a Director who is not and was not a party to the Proceeding in respect of which indemnification is sought by an Indemnitee.

(e) "Expenses" means all reasonable costs, disbursements and counsel fees.

(f) "Indemnitee" means any person who is, or is threatened to be made, a witness in, or a party to, any Proceeding by reason of his being or having been an Officer/Director.

(g) "Independent Counsel" means a law firm, or a member of a law firm, that is experienced in matters of corporation law and neither presently is, nor in the past five years has been, retained to represent: (i) the Corporation or the Indemnitee or, following a Change in Control, any person acquiring control or any beneficial owner referred to in clause (ii) of Section 12(b) of this Article or any Affiliate or Associate of any such person or beneficial owner, in any matter material to any such person, or (ii) any other party to the Proceeding giving rise to a claim for indemnification hereunder. Notwithstanding the foregoing, the term "Independent Counsel" shall not include any person who under the applicable standards of professional conduct then prevailing, would have a conflict of interest in representing either the Corporation or the Indemnitee in an action to determine the Indemnitee's rights under this Article IX.

(h) "Liabilities" shall mean amounts paid or incurred in satisfaction of settlements, judgments, awards, fines and penalties.

(i) "Officer/Director" shall mean any officer of the Corporation or any Director.

(j) "Proceeding" includes any action, suit, arbitration, alternate dispute resolution mechanism, investigation, administrative hearing or any other proceeding whether civil, criminal, administrative or investigative, except one initiated by an Indemnitee pursuant to Section 9 of this Article IX to enforce his rights under this Article IX.

13. Notices. Any notice, request or other communication required or permitted to be given to the Corporation under this Article IX shall be in writing and either delivered in person or sent by telex, telegram or certified or registered mail, postage prepaid, return receipt requested, to the secretary of the Corporation and shall be effective only upon receipt by the secretary.

14. Amendments. This Article IX may be amended or repealed only by action of the Board approved by the favorable vote of a majority of the votes cast by stockholders entitled to vote thereon at a meeting of stockholders for which proxies are solicited in accordance with then applicable requirements of the Securities and Exchange Commission, except that (i) the Board, without stockholder approval, may make technical amendments that do not substantively affect the rights of an Indemnitee hereunder and (ii) following a Change of Control, as defined in clause (ii) of Subsection 12(b) of this Article IX, there shall also be required for approval of any such amendment or repeal the favorable vote of a majority of the votes cast by persons other than the beneficial owners referred to in clause (ii) of Section 12(b) of this Article IX and their Affiliates and Associates.

15. Indemnification of Corporate Agents. The Corporation may at the discretion of the Board indemnify any Corporate Agent to the fullest extent permitted by applicable law; provided, that the Corporation shall in any event indemnify a Corporate Agent to the extent required by applicable law. The procedures to be followed in the event of such indemnification shall be such as may be determined by the Board in its discretion; provided, that in the event any procedures are mandated by applicable law, such procedures shall be followed.

- and -

EMCORE Corporation

JOINT DEVELOPMENT, MANUFACTURING & MARKETING AGREEMENT  
FOR HIGH SPEED ARRAY TRANSCEIVERS

This Agreement is made the 16th day of June 2000.

By and Between

- (1) EMCORE Corporation, a New Jersey corporation having its principal offices at 394 Elizabeth Avenue, Somerset, New Jersey (hereinafter referred to as "EMCORE"); and
- (2) JDS Uniphase Corporation, a California corporation having its principal offices at 210 Baypointe Parkway, San Jose, California acting through its Transmission Group located at 305 East Drive, Melbourne, Florida (hereinafter referred to as "JDSU")

WHEREAS

- (A) EMCORE is the beneficial owner of certain intellectual property rights and possesses valuable technical information and know-how relating to vertical cavity surface-emitting lasers ("VCSEL"), circuit design, optics and detectors, optical links, and fiberoptic communication systems and possesses or has access to valuable commercial know-how relating to marketing such systems.
- (B) JDSU possesses or has access to valuable commercial know-how and information relating to the world-wide promotion, distribution and marketing of fiberoptic communication systems and is the beneficial owner of certain intellectual property rights and possesses valuable technical information and know-how relating to the optical packaging, assembly, applications engineering and testing of fiberoptic communication systems.
- (C) EMCORE and JDSU have agreed to collaborate in the design, development, production, marketing and sale of a family of fiberoptic array transceivers in accordance with the terms and conditions herein contained.

Now therefor it is hereby agreed as follows

1. Interpretation

- 1.1 The following provisions have effect for the interpretation of this Agreement including the Recitals and Schedules.
- 1.2 The following words and expressions shall, unless the context otherwise requires, have the following meanings:

"Agreement" means this Joint Development, Manufacturing and Marketing Agreement.

"Affiliate" means in relation to either Party, a corporation or other business entity in which the Party, either directly or indirectly, owns more than 50% of the outstanding voting stock (as measured by the ability of such stock to vote in elections for the board of directors of such controlled entity) for so long as such greater than 50% ownership shall continue.

"Background" means in respect of each Party the Intellectual Property owned by or otherwise in the possession of that Party relating to the Products at the Effective Date.

"Cancellation Costs" means the {redact} for all Products which are subject to a Guaranteed Purchase Forecast but which are cancelled by JDSU or a customer prior to shipment and which are not recovered by either (i) the sale of the Products affected to other parties within a reasonable time, or (ii) the exercise by EMCORE, in a commercially reasonable manner, of other mitigation measures.

"Commercial Launch Date" means for a Product, the earlier of (i) the first date upon which JDSU makes sales of such Product to third party customers other than low volume sales for evaluation purposes or (ii) the date of Steering Committee sign-off of a Product Release Checklist for such Product.

"Company Information" means a Party's proprietary information or materials which are provided to the other Party, whether oral or written, tangible or intangible, whether furnished before or after the execution of this Agreement, in relation to the research and development of, and promotion, marketing, distribution and sale of Products hereunder, including, without limitation, the information or materials on substances, formulations, techniques, technology, equipment, data, reports, Know-How, sources for supply, patent position and

business plans.

"Development Cost Difference"

means the amount, if any, by which the actual development costs of EMCORE (as reduced by any payments (other than interest) to EMCORE by JDSU as to such Product pursuant to Section 5.5(b) below) for a given Product, other than an EMCORE Developed Product, exceeds the actual development cost of JDSU for such Product (as increased by any payments (other than interest) to EMCORE by JDSU as to such Product pursuant to Section 5.5(b) below). For purposes of this calculation, a Party's actual development costs shall be determined on a per project basis in accordance with US GAAP (taking into account the collateral benefit of such development to other products or activities of the Party) and in a manner that is consistent with the manner in which such Party determines such costs for its other development projects for the purpose of its publicly released financial statements.

"EMCORE

Developed Product" means a Product for which EMCORE is primarily responsible for the development and includes, without limitation, the Initial Product.

"Estimated Development Cost"

means for each Product a Party's estimated cost for developing such Product, as the same may be adjusted from time to time by the Steering Committee pursuant to Section 4.4.2. A Party's estimated development costs shall be determined on a per project basis in accordance with US GAAP (taking into account the collateral benefit of such development to other products or activities of the Party) and in a manner that is consistent with the manner in which such Party determines such costs for its other development projects for the purpose of its publicly released financial statements.

"Effective Date"

means the date hereof.

"Force Majeure Event"

means any cause affecting the performance of this Agreement or the obligations of either Party arising from or attributable to any acts or events or failures beyond the reasonable control of the affected Party including, without limitation, strikes, lock-outs, industrial action, civil commotion, riot, invasion, war, threat of or preparation for war, fire, explosion, storm, flood, earthquake, subsidence, epidemic or other natural physical disaster, omissions or delays in acting by any governmental authority or the political interference with the normal operations of either Party.

"Foreground"

means all Intellectual Property generated in the course of performance by a Party of its development obligations under a Statement of Work pursuant to this Agreement.

"Future Products"

means any product that the Steering Committee agrees to make subject to this Agreement pursuant to Section 5.3 below and shall include, without limitation, each Identified Future Product, following a determination to make such Identified Future Product subject to this Agreement pursuant to Section 5.3(a) hereof.

"Gross Margin"

means a Party's gross margin measured as a percentage of the gross profit as to the revenue received with respect to sales of Products from EMCORE to JDSU hereunder (in the case of EMCORE) or by JDSU to third parties (in the case of JDSU), which shall be determined in accordance with US GAAP and in a manner that is consistent with the manner in which such Party determines revenue, gross profit and gross margin for the purpose of its publicly released statement of operations.

"Gross Revenue"

means a Party's gross revenue with respect to sales of Products to third parties in accordance with US GAAP, which shall include, without limitation, gross revenue of EMCORE from sales of Products to JDSU.

"High Volume Opportunity"

means a purchase order, series of related purchase orders from a single customer or a long term supply agreement with a customer for purchases in excess of {redact} million.

"Identified Future Product(s)"

means the following four array transceiver products: {redact}.

"Initial

"Product" means that certain 12 channel, 1.25 Gb/s/ch, 15 Gb/s net array transceiver product.

"Initial Program" means the development work to be performed by each Party with respect to the Initial Product as set forth in the Statement of Work for such Product.

"Initial Statement of Work" means that certain detailed statement of work attached hereto as Exhibit A to be carried out by the Parties as the Initial Program, which: (i) may be modified from time to time in accordance with the terms of this Agreement; (ii) sets forth the design, development and manufacturing objectives of the Parties as to the Initial Product; and (iii) includes the Specifications for the Initial Product.

"Intellectual Property" means all United States and foreign patents, copyrights trade and service marks and design rights (whether registered or not and all applications for any of the foregoing), rights in computer software, internet domain names and databases and all rights in the Know-How whensoever and howsoever arising for the full term thereof and all renewals and extensions thereof.

"Know-How" means information, data, know-how, trade secrets or experience whether patentable or not including, without limitation, all design or manufacturing techniques, operating instructions, machinery designs, raw materials or products specifications, drawings, blue prints, and any other technical and commercial information relating to research, design, development, manufacture, assembly, use or sale.

"Minimum Volume" means for a Product that level of sales of such Product for a six (6) month period that is determined by the Parties pursuant to Sections 2.5 and 4.4.4 hereof to be equal to {redact} percent ({redact}%) of the TAM for such Product during that six (6) month period.

"Parties" means EMCORE and JDSU collectively and Party means either of them individually.

"Products" means the Initial Product and any Future Products that the Parties shall agree to make subject to this Agreement pursuant to Section 5.3 hereof and shall thereafter develop.

"Product Release Checklist" means a checklist created by the Steering Committee pursuant to Section 4.4.8 following completion of successful development of such Product pursuant to the applicable Statement of Work and containing tasks that must be completed to the satisfaction of the Steering Committee prior to the first commercial sale of a Product. The tasks shall include, but need not be limited to, the following: (i) intellectual property review (including non-infringement analysis), (ii) approval of sales and marketing literature and rollout plan (iii) receipt of all necessary regulatory approvals and (iv) additional items as set forth in Section 4.4 (warranty, manufacturability, Minimum Volumes QA/QC) and Section 8.1 (initial pricing).

"Program(s)" means the Initial Program for development of the Initial Product as detailed in the Initial Statement of Work and any further program for the development of Future Products as agreed by the Parties pursuant to Section 4.4.1 of this Agreement.

"Program Manager" means the person appointed by each Party to manage the Program on its behalf pursuant to Section 4.6.

"Specifications" means those performance and other specifications for the operation, form and other material characteristics of a Product as determined by the Parties in accordance with this Agreement.

"Statement of Work" means any detailed program of development work to be performed under this Agreement by the Parties, as modified from time to time in accordance with the terms of this Agreement, and includes without limitation, the Initial Statement of Work.

"Steering Committee" means the steering committee established in accordance with Section 4.

"TAM" means the total available market measured over a six (6) month period for all array transceiver products that compete with a Product as determined in accordance with Section 2.4

hereof by the Steering Committee pursuant to Section 4.4.3 below on the basis of the "VCSEL Transceiver Global Market Forecast" published by ElectroniCast Corporation as updated from time to time or as reported by such other internationally recognized market forecasting company as the Parties may agree.

"Territory" means the World.

"Very Short Reach" means distances of 400 meters or less.

"Work Report" means the report prepared by each Party in accordance with Section 3.3.

1.3 Reference to a Party hereto shall include such Party's Affiliates and such Party's permitted assignees.

1.4 Reference to any statute or statutory provision or order or regulation made thereunder include that statute, statutory provision, order or regulation as amended, modified, re-enacted or replaced from time to time whether before or after the date hereof.

1.5 References to persons shall include bodies corporate, unincorporated, associations, partnerships and individuals. References to the singular shall include the plural and vice-versa.

1.6 Headings to Sections are for information only and shall not form part of the operative provisions of this Agreement or the Exhibits and shall be ignored in construing the same.

1.7 References to Recitals, Sections or Exhibits are to recitals to, Sections of or exhibits to this Agreement.

## 2. Scope of Agreement and Roles of the Parties

2.1 This Agreement sets down the terms on which the Parties shall collaborate in the design, development, production, marketing and sale of the Initial Product and any Future Products that the Parties determine to make subject to this Agreement pursuant to Section 5.3 below. The Parties perceive that the immediate market demand for the Initial Product and the Identified Future Products is for low cost, high speed (>10Gb/s) fiberoptic data links tailored for Very Short Reach distances. The primary target application is close to moderate proximity interconnection between equipment racks for system manufacturers. Primary target customers include, but are not limited to, {redact}.

2.2 During the term of this Agreement, EMCORE will direct its resources and capabilities to the manufacture of high-quality VCSEL arrays, the design of gigabit speed control circuits, photodetectors, optical links, and electronics and shall provide for manufacture and QA/QC testing of the Initial Product and any Future Products made subject to this Agreement by the Parties pursuant to Section 5.3 hereof. Consistent with the Initial Statement of Work, EMCORE shall be primarily responsible for the design, development and manufacture of the Initial Product.

2.3 During the term of this Agreement, JDSU will provide for all marketing, worldwide sales, application support and customer service and distribution functions for the Initial Product and any Future Products made subject to this Agreement by the Parties pursuant to Section 5.3 hereof and will provide technical support for the design and development of such Initial Product and Future Products (including, to the extent requested by EMCORE, assistance with the optical packaging, active alignment, lens arrays and testing of such Products).

2.4 During the term of this Agreement and subject to Sections 2.5, 2.6 and 2.7 below, {redact} neither Party shall be prohibited from designing, developing, marketing or selling product components (including, without limitation, components used in Products) to third parties; provided that such Party is not paid or compensated other than for the sale of said components and for the design and development of said components. The Parties acknowledge that either Party may acquire third parties (each an "Acquired Company") that have expertise, intellectual property, and/or carry on business relating to the Products (collectively the "Business"). {redact}

2.5 Notwithstanding Section 2.4 above, EMCORE shall have the right to terminate its {redact} obligations under said Section 2.4 as to any Product subject to this Agreement (but not this Agreement itself) for which JDSU fails to sell the Minimum Volume of such Product as provided in this Section 2.5 during any six month period (the first such six (6) month period for each Product to commence three (3) months after the Commercial Launch Date for that Product); provided that purchases for resale pursuant to Section 8.2 shall be counted as sales. JDSU shall be credited for sales towards the Minimum Volume in any six (6) month period for the sum of that number of Product units purchased by JDSU for resale, sold by JDSU and that number of Product units ordered for shipment by JDSU during that six (6) month period in accordance with this Agreement that EMCORE failed to timely ship during that six (6) month period. JDSU shall be required either to purchase for resale or sell such Minimum Volume amounts to maintain EMCORE's {redact} obligations under said Section 2.4, but shall not be deemed in breach of any of its obligations hereunder solely for failure to purchase for resale or sell such Minimum Volume amounts.

2.6 Notwithstanding Section 2.4 hereof, JDSU shall have the right to terminate its non-compete obligations pursuant to Section 2.4 above as to any Product subject to this Agreement (but not this Agreement itself) as follows:

- (a) Should EMCORE fail to ship that quantity of units of a Product subject to the Customer Commitment in accordance with Section 6.2 hereof that constitute {redact} percent ({redact}%) of the aggregate units of such Product subject to the Customer Commitment (other than a failure to ship caused by JDSU's failure to supply or delay in supplying parts used in the Product) during any six (6) month period (such six (6) month period to commence three (3) months after the Commercial Launch Date for that Product) during the term of this Agreement, JDSU shall have the right to terminate the {redact} provisions as to such Product on not less than sixty (60) days notice to EMCORE, which shall have the right to cure such delinquency during that sixty (60) day period by the shipment of all units in arrears and the timely shipment of all additional units of such Product subject to the Customer Commitment that have shipment dates within that thirty (30) day period; or
- (b) Should EMCORE ship units of a Product to a third party customer or JDSU that have warranty return rates in excess of {redact} percent ({redact}%) (other than as a result parts supplied by JDSU) during any six (6) month period (such six (6) month period to commence three (3) months after the Commercial Launch Date for that Product), JDSU shall have the right to terminate the {redact} provisions as to such Product on not less than sixty (60) days notice to EMCORE, which shall have the right to cure such warranty failure problem by: (i) creating a corrective action plan regarding such warranty failure problem, which plan is reasonably acceptable to JDSU, and (ii) shipping replacement Products to the third party customer or JDSU, as applicable, during that sixty (60) day period that have a warranty failure rate of less than {redact} percent ({redact} %); provided, however, that EMCORE shall not be deemed in breach of any of its obligations hereunder solely for failure to meet its obligations under (a) or (b) above.

2.7 In the event that either EMCORE or JDSU shall exercise its rights under Section 2.5 or 2.6 above to terminate its {redact} obligations under Section 2.4 above as to a Product, the {redact} obligations of the other Party shall also be terminated as to such Product. At any time that the Parties are not subject to the {redact} obligations set forth in Section 2.4 above with respect to a particular Product, commissions shall be payable to JDSU only with respect to units of that Product sold through JDSU in accordance with this Agreement. {redact}, this Agreement shall not serve to restrict either Party as to the development, manufacture or sale of any other products that they may elect to pursue during the term of this Agreement.

### 3. Collaboration and Initial Work of the Parties

3.1 The Parties shall collaborate in good faith under the Agreement and shall, subject to the confidentiality restrictions imposed hereunder, provide to the other Party such Company Information as the disclosing Party determines in good faith is reasonably required for the performance of its obligations under the Agreement.

3.2 EMCORE shall as soon as practicable after the Effective Date commence its development work pursuant to the Initial Statement of Work. The Steering Committee shall within sixty (60) days after the Effective Date jointly prepare a Statement of Work for the first of the Identified Future Products and on a thirty (30) day schedule for each additional Statement of Work thereafter, complete preparation of Statements of Work for the remaining three Identified Future Products within one hundred fifty (150) days after the Effective Date. Each of the Identified Future Products shall become subject to this Agreement upon the agreement by the Steering Committee as to such Statements of Work and the other items set forth in Section 5.3(a) hereof, and the failure of the Steering Committee to so agree as to any Identified Future Product shall cause such product to not become subject to this Agreement. As to the Initial Product and any Identified Future Product that the Steering Committee agrees shall become a Product for the purposes of this Agreement pursuant to said Section 5.3(a), each Party agrees to use its reasonable best efforts to complete its work within the development schedules set forth in the Initial Statement of Work and the Statements of Work for each such Identified Future Product made subject to this Agreement. Within ninety (90) days of the date hereof, the Parties shall prepare a product road map (the "Product Road Map") containing a five (5) year forecast of fiberoptic array transceivers contemplated for design and development as potential Future Products to enable the Parties to extend their relationship beyond the development and commercialization of the Initial Product and the Identified Future Products. Such Product Road Map shall not be deemed to bind either Party as to any Future Product until such time as the Parties shall have agreed to make such Future Product subject to this Agreement pursuant to Section 5.3(b). 3.3 During any period in which the Parties shall be developing a Product pursuant to a Statement of Work undertaken pursuant to this Agreement, each Party shall prepare and submit to the Steering Committee its Work Report on a quarterly basis or on some other timely basis as decided by the Steering Committee setting forth the work performed by each Party in the previous quarter in furtherance of such Statement of Work.

3.4 JDSU shall prepare (with input from EMCORE) a world-wide marketing plan for each of the Products (the "Marketing Plan") on a quarterly basis, which will be reviewed and approved by the Steering Committee.

3.5 In the event that a Party's development work under a Statement of Work

for a Product is unsuccessful, the Parties shall either modify such Statement of Work (or Specifications) for that Product through the Steering Committee, or, in the absence of an agreement by the Steering Committee as to such modification, terminate development of such Product and cause such Product to cease to be subject to this Agreement. For purposes of the foregoing sentence, development work of a Party may be deemed unsuccessful, as determined by the Steering Committee, if: (i) the period to complete such development is delayed by {redact} % or more based on the schedule for development set forth in the then effective Statement of Work; or (ii) the development is not reasonably likely to result in a Product that meets the then effective Specifications in all material respects.

#### 4. Management of the Program

4.1 The Parties shall as soon as practicable after the Effective Date, but in any event within thirty (30) days, establish the Steering Committee to supervise the performance of the Parties pursuant to this Agreement. The Steering Committee shall have an equal number of members appointed by each Party and shall be initially comprised of a total of four (4) members, and the members of each Party, including any replacement members, shall be subject to the approval of the other Party, which approval shall not be unreasonably withheld. The total number of Steering Committee members may be changed by the Steering Committee from time to time as appropriate provided that in all cases it will be comprised of an equal number of members from each Party. Each Party may substitute its representatives from time to time (subject to approval of the other Party as provided above) and the substitution is effective upon notice to the other Party.

4.2 The Steering Committee shall meet as often as required to ensure the effective operation of this Agreement but in no event less than quarterly on such date and at such place as to be agreed upon between the Parties; provided that members of the Steering Committee will be permitted to attend such meetings by electronic or telephonic means. The meetings of the Steering Committee may be held in person or in any other reasonable manner, including, without limitation, by telephone, video conference or e-mail. Each of the Steering Committee members shall have one vote and other than decisions requiring unanimous approval all decisions must be made by a majority vote. It is contemplated that additional representatives of the Parties may attend and participate in the Steering Committee meetings, however, such additional representatives will not be entitled to participate in the voting process.

4.3 As a first order of business, the Steering Committee will draft procedures which will govern the operation of the Steering Committee and its decision making process and the specific criteria to be used in the determinations set forth in Section 4.4.

4.4 The Steering Committee or its designees shall be responsible for:

4.4.1 reviewing, approving and, as necessary, modifying, Statements of Work and Specifications for each of the Initial Product and any Identified Future Products or Future Product made subject to this Agreement pursuant to Section 5.3 hereof;

4.4.2 reviewing and, if necessary, adjusting the Estimated Development Costs for each Product; 4.4.3 reviewing and approving EMCORE's manufacturing capabilities for each Product to ensure a consistent supply and appropriate quality assurance and quality control ("QA/QC") compliance as to that Product;

4.4.4 determining the Minimum Volumes for each Product for each successive six (6) month period following the Commercial Launch Date of such Product (provided that the first such six (6) month period for each Product shall commence three (3) months after the Commercial Launch Date for purposes of Section 2.5 hereof), reviewing and approving the Marketing Plan, and reviewing the progress of JDSU in fulfilling the objectives set forth therein on a quarterly basis;

4.4.5 reviewing the quarterly Work Reports submitted by each Party;

4.4.6 approving the Product Trademarks selected by the Parties in accordance with Section 4.5;

4.4.7 establishing and, on a quarterly basis, reviewing JDSU's commissions and pricing between the Parties for the Initial Product and any Future Products as provided in Sections 8.1 and 8.2;

4.4.8 establishing a Product Release Checklist for the Initial Product and any Future Products;

4.4.9 reviewing and approving the applicable royalty rate each Party shall be obligated to pay for use of the other Parties' Intellectual Property as provided in Section 9.5 hereof;

4.4.10 reviewing the Parties' accounting methodologies and Internal Accounts;

4.4.11 reviewing and approving the development budget for Shared Research and Development Expenditures (as defined in Section 5.4) and determining amounts, if any, owed from one Party to the other;

4.4.12 establishing a warranty policy for each Product; and

4.4.13 reviewing and approving the Product Road Map.

If the Steering Committee cannot agree pursuant to Section 4.4.2 above as to an adjustment to a Party's Estimated Development Cost for a Product and such Party determines in good faith that its actual development cost will exceed its then effective Estimated Development Cost by {redact}% or more, such Party shall have the option, exercisable on thirty (30) days written notice to the other Party, to terminate development of such Product and cause such Product to no longer be subject to this Agreement.

4.5 Within a reasonable time so as to permit an expeditious commercial launch of the Initial Product and those Identified Future Products that the Steering Committee determines to make subject to this pursuant to Section 5.3(a), the Parties shall select the trademarks to be used in connection with the Products (the "Product Trademarks"). The Product Trademarks shall be approved by a unanimous vote of the Steering Committee. Application to register the Product Trademarks so selected shall be made by JDSU at its own expense and once registered the Product Trademark shall be maintained by JDSU at its own expense and shall be owned solely by JDSU during and after the term of this Agreement; provided, however, that EMCORE shall be granted a fully paid-up, royalty free, perpetual, exclusive (except as to JDSU) license to commercialize Products under the Product Trademarks (which for purposes of such license shall not include the name JDS Uniphase or any tradenames or trademarks that include or otherwise use of the JDS Uniphase name or general logo(s)) which license shall terminate earlier in the event of an uncured material breach of this Agreement by EMCORE. To the extent practicable, during the term of the Agreement, Product labels and packaging shall bear the Product Trademarks and the trademarks and logos of each of the Parties.

4.6 Each Party shall appoint a suitably qualified and experienced Program Manager to manage the Program, who shall be responsible for the day to day operations and obligations under the Agreement of the Party that appointed him. The Program Managers shall be jointly responsible for the preparation of the Statement of Work and the Work Reports required on a quarterly basis. The Program Managers shall also be responsible for regular and periodic updates of the Product Road Map to enable it to be used as a rolling five (5) year forecast of Future Product development.

4.7 The initial Program Managers shall be:

for EMCORE - {redact}  
for JDSU - {redact}

4.8 In the event that the Steering Committee is unable to make a decision on any particular matter due to a deadlock, it shall submit the matter for joint resolution to the Chief Executive Officers of the Parties (or their senior officer designees). In the event that the matter so submitted remains unresolved after 30 days either Party may submit it for resolution in accordance with Section 21. Notwithstanding the foregoing, the failure of the Steering Committee to agree as to any of the following items shall not give rise to the dispute resolution provisions of this Section 4.8 or Section 21 below:

- (i) a determination pursuant to Section 5.3 hereof to make any product (including, without limitation, any Identified Future Product) subject to this Agreement, in which case such product shall not become subject to this Agreement;
- (ii) the Statement of Work, Specifications or Estimated Development Cost for any Product or product that is proposed to be made subject to this Agreement, in which case such product shall not become subject to this Agreement;
- (iii) any proposed adjustment to a Party's Estimated Development Cost, in which case such Party shall have the option provided in Section 4.4 hereof; and
- (iv) JDSU's commission, the price for a Product (other than the Initial Product) or Minimum Volumes for a Product, in which case Section 2.4 shall cease to apply as to such Product and Sections 8.1 or 8.2, as applicable, shall apply.

5. Future Products; Product Research and Development

5.1 Consistent with each Statement of Work, EMCORE shall use its reasonable best efforts to provide, or shall procure from a third party, sufficient engineering support and assistance to design and develop the Initial Product (and any Future Products as approved by the Steering Committee from time to time) to a stage where the Products meet the Specifications. It is agreed that for purposes of this Section 5.1 and Section 5.2 below, neither Party shall be deemed to provide any guarantee or assurance that their development work as to any Product will be successful in achieving the Specifications or any targeted manufacturing cost for the Product, and each Party's obligations as to such development work shall be limited to its reasonable best efforts through expenditure of its Estimated Development Cost for such Product to complete such development work as provided in the applicable Statement of Work.

5.2 Consistent with each Statement of Work, JDSU shall use its reasonable best efforts to provide sufficient mechanical and optical engineering support and assistance, including optical alignment of the arrays and mechanical designs of interfaces, to support production of the Initial Product (and any Future Products as approved by the Steering Committee from time to time) in finished and packaged form in accordance with the Specifications.

5.3 (a) The Parties acknowledge that, in marketing the Initial Product, the Parties have determined that potential customers have an interest in

assuring that the Parties intend to develop the Identified Future Products. The Steering Committee, shall within the times set forth in Section 3.2 hereof, meet to jointly determine in good faith the following with respect to each of the four Identified Future Products: (i) Specifications, (ii) a Statement of Work, (iii) the initial Estimated Development Cost and (iv) JDSU's commission and the initial pricing for such Product as determined in accordance with Sections 8.1 and 8.2 hereof. Once the Steering Committee has agreed as to clauses (i)-(iii) with respect to any given one of the four Identified Future Products, the Parties shall, subject to the other terms of this Agreement, be obligated to develop, manufacture and market such Product. Neither Party, through its representatives on the Steering Committee or otherwise, shall be deemed to have any obligation to make an Identified Future Product subject to this Agreement if such Party determines in good faith that the pricing over the estimated life of such Product cannot reasonably be expected to provide such Party with at least a {redact} % Gross Margin as provided in Section 8.2 hereof or, in JDSU's case, it determines in good faith that it will not receive a reasonable commission as provided in Section 8.1 hereof. In the absence of such agreement by the Steering Committee as to any of the Identified Future Products, such Identified Future Products shall not be deemed a Product for purposes of this Agreement.

(b) During the term of this Agreement, the Parties shall, by mutual written agreement through the Steering Committee, determine those Future Products (other than the Identified Future Products) that shall be subject to this Agreement. A Future Product (other than the Identified Future Products) shall only be made subject to this Agreement upon the written agreement of the Steering Committee as to each of the following: (i) Specifications, (ii) a Statement of Work, and (iii) the initial Estimated Development Cost and (iv) JDSU's commission and the initial pricing for such Future Product as determined in accordance with Sections 8.1 and 8.2 hereof. The Parties acknowledge that, upon agreement by the Steering Committee as to the Specifications, Statement of Work and Estimated Development Cost for a Future Product (including, without limitation, any of the Identified Future Products), a determination of Minimum Volumes, commission and initial pricing for such Future Product may not be then practicable and shall not be the then required to cause such Future Product to become subject to this Agreement. Prior to Commercial Launch Date for a Future Product, the Steering Committee shall determine in good faith the Minimum Volumes for such Future Product (as provided in Section 4.4.4 hereof), JDSU's commission and the initial pricing for such Future Product (as provided in Sections 8.1 and 8.2 hereof). In the event that the Steering Committee cannot agree as to Minimum Volumes, JDSU's commission or initial pricing, such Product shall remain subject to this Agreement as provided in Sections 8.1 and 8.2 hereof but not be subject to Section 2.4 hereof.

5.4 Each Party shall share bear its own share of the research and development costs and expenses incurred by it in connection with the design, development and manufacture of the Products. The Parties shall {redact} share, {redact}, those costs that are approved in writing by the Steering Committee and that relate to certain capital expenditures including, but not limited to, non-recurring engineering expenses, application specific integrated circuits and capital equipment (collectively the "Shared Research and Development Expenditures"). The Parties' respective contributions in connection with the Shared Research and Development Expenditures shall be taken into account by the Steering Committee when setting JDSU's commission.

5.5 (a) {redact} Other than the Shared Research and Development Expenditures, each Party shall bear its own expenses in connection with the research and development relating to the Initial Product. To permit EMCORE to recover the Development Cost Difference, if any, relating to a Future Product (other than an EMCORE Developed Product) made subject to this Agreement pursuant to Section 5.3 hereof, JDSU agrees to accept a reduced commission until such time as EMCORE has recovered the Development Cost Difference plus {redact}% from three (3) months prior to the Commercial Launch Date of such Product.

(b) In the event that JDSU orders a Product from EMCORE for resale to customers in accordance with Section 8.2, to permit EMCORE to recover the Development Cost Difference for such Product (other than an EMCORE Developed Product), if any, plus {redact}% from three (3) months prior to the Commercial Launch Date, JDSU will remit to EMCORE quarterly, within thirty (30) days following the end of the quarter, percent ({redact} %) of the gross revenue (defined to exclude VAT and other applicable sales tax) received by JDSU or its Affiliates in the preceding quarter through sale of (i) any one of the {redact} Identified Future Products made subject to this Agreement pursuant to Section 5.3(a) and (ii) Future Products made subject to this Agreement pursuant to Section 5.3(b) (the "R&D Off-Set"). For purposes of this Section 5.5, the actual development cost of a Party for a Product for the purpose of calculating the Development Cost Difference for such Product shall not be deemed to exceed {redact} % of the Estimated Development Cost of that Party, as the same may be adjusted from time to time by the Steering Committee. To assist EMCORE in the development of Future Products, JDSU may advance the estimated Development Cost Difference at any time during the performance by EMCORE of its Statement of Work as to such Future Product as the Parties may agree in writing.

5.6 Each Party shall ensure that all the work conducted by it under this Agreement shall be carried out in accordance with generally accepted standards of good practice at the time applicable to such work (including but without limiting the generality of the foregoing all relevant statutory safety standards from time to time in force) and each Party will be responsible for the implementation of and compliance with all applicable safety and other legislative requirements.

5.7 Each Party will procure that such facilities, materials and equipment as are reasonably required for the proper execution of the Statement of Work are made available by it. Should JDSU elect to contribute alignment equipment to EMCORE for development and manufacturing of the Product, JDSU will continue to own the equipment, and, for so long as EMCORE is in possession of the equipment, EMCORE shall be responsible for maintaining, repairing and insuring the equipment.

## 6. Forecasts and Orders and Shipping Procedures for Products

6.1 Each potential purchase order from a customer for which JDSU will receive a commission shall be subject to EMCORE's prior approval regarding price, cancellation penalties and shipping terms. All purchase orders accepted by JDSU and EMCORE shall specify:

- (a) Products (including EMCORE and JDSU part numbers, and Product specification reference) and quantities being ordered;
- (b) the applicable unit price for the Products;
- (c) shipping instructions, including requested shipment dates;
- (d) cancellation penalties; and
- (e) distribution point of the Products and the invoicing location.

Terms and conditions on customer purchase orders and EMCORE's sales acknowledgments, other than those agreed to between the customer and EMCORE, shall be of no effect. Within ten (10) business days after EMCORE's receipt of a purchase order, EMCORE will issue a written acknowledgment, which will recite this Agreement reference, Product type number, shipping instructions, the Product quantities being sold, the Product's applicable unit price and the estimated shipment dates. In the event of a conflict between this Agreement and EMCORE's written sales acknowledgment or a purchase order, this Agreement shall prevail.

6.2 Six (6) months prior to the Commercial Launch Date, as estimated by the Steering Committee, of the Initial Product and every three months thereafter for so long as this Agreement shall remain in force, JDSU shall provide EMCORE with a rolling {redact} month forecast (such period commencing upon such Commercial Launch Date) of its projected sales for the Products that are subject to Section 2.4 of this Agreement (each a "Forecast"), which Forecast will be prepared so as to be consistent with the Marketing Plan to the extent reasonably practicable. The Forecast shall specify the number and type of Products which JDSU anticipates selling and the expected delivery dates. JDSU agrees to include as part of the Forecast {redact}. The quantities specified in the Forecast (i) in respect of the first {redact} month period ("Agreed Shipment Period") shall constitute a guaranteed purchase forecast (a "Guaranteed Purchase Forecast") as to the type and quantity of Products, delivery dates specified therein, and (ii) in respect of the remaining portion of the {redact} period covered thereby, shall constitute a non-binding estimate of projected sales and delivery dates. The remaining portion of each Forecast for periods beyond the Agreed Shipment Period shall be deemed an advisory forecast, which shall not be binding on either Party; provided, however, that (i) the Guaranteed Purchase Forecast for an Agreed Shipment Period shall not be more than {redact} percent ({redact} %) higher or lower than the immediately preceding Forecast for that period without EMCORE's prior written consent and (ii) the Forecast for any given Agreed Shipment Period shall not be more than {redact} percent {redact} (%) higher or lower than the initial Forecast for such period without EMCORE's prior written consent. Each Forecast shall be accompanied by a purchase order for the Product units subject to the Customer Commitment.

6.3 If JDSU reduces or cancels any portion of a Guaranteed Purchase Forecast during the Agreed Shipment Period, JDSU shall be responsible for the Cancellation Costs incurred as a result of such reduction or cancellation; provided, however, that JDSU's liability with respect to such costs shall be: {redact} percent ({redact} %) of the Cancellation Costs if EMCORE receives written notification of cancellation from JDSU {redact} in advance; {redact} percent ({redact} %) of the Cancellation Costs if EMCORE receives written notification of cancellation from JDSU {redact} in advance; {redact} percent ({redact} %) of the Cancellation Costs if EMCORE receives written notification of cancellation from JDSU {redact} in advance; and {redact} percent {redact} % of the Cancellation Costs if EMCORE receives written notification of cancellation from JDSU {redact} days in advance. Notwithstanding the foregoing, JDSU will not be liable for Cancellation Costs relating to sales cancellations by JDSU (in respect of sales directly to JDSU) or by a customer due to Products being the subject of warranty returns as specified in Section 10 hereof (other than returns resulting from the failure of {redact}), and JDSU shall be entitled to return any such Products, which did not meet applicable Specifications when shipped by EMCORE (other than returns resulting from the failure of {redact}), for a full refund of amounts paid to EMCORE, after any applicable commissions to JDSU, for such Products.

6.4 Should JDSU at any time during the term of this Agreement refer an order for Products in excess of the amount of the applicable Customer Commitment and which would also exceed EMCORE's (or its contract manufacturer's) available manufacturing capacity for a given Product as of the date of the Forecast, the Parties agree to cooperate with each other and to use all reasonable efforts to fill the Product demand, including without limitation, sharing the expenses of expanding EMCORE's manufacturing capacity on such terms as the Parties may agree in writing. The Parties' respective contributions in connection with such expansion of EMCORE's manufacturing capacity shall be taken into account by the Steering Committee when setting JDSU's commission.

- 6.5 Within {redact} days of execution of this Agreement, JDSU will order evaluation quantities of the Initial Product in accordance with a purchase order issued by JDSU in compliance with this Agreement ("Development Purchase Order"). The price per module in the Development Purchase Order shall be determined by the Steering Committee. The evaluation quantities of the first of the Initial Product shall be delivered in accordance with the dates set forth in the Development Purchase Order and in any event, not earlier than completion of the Program.
- 6.6 On commission sales, pursuant to Section 8.1, EMCORE shall be responsible for processing and invoicing all purchase orders received from customers. EMCORE will invoice JDSU for the Development Purchase Order and the Initial Purchase Order upon shipment. All payments owed by JDSU to EMCORE under this Agreement, including, without limitation, cancellation charges, agreed price adjustments, and payment for Products purchased, are payable in U.S. dollars and will be due net {redact} days after the date of the invoice.
- 6.7 Delivery of the Products shall be {redact} EMCORE's manufacturing facility as per International Chamber of Commerce (ICC) Incoterms 2000 edition.
- 6.8 EMCORE shall be permitted to make engineering changes to the Products during the term of this Agreement that affect such Product's performance or reliability, or form, fit and function; provided, that any such engineering change provides a cost, performance or other material benefit or is reasonably required to minimize environmental, health or safety risks or is mandated by law. EMCORE shall give JDSU notice regarding any such engineering changes to the Product, and the Parties shall thereafter use reasonable efforts to develop, within four (4) weeks, a mutually acceptable qualification plan for Product containing such engineering changes. JDSU shall not unreasonably reject a qualification plan proposed by EMCORE. JDSU shall not be obligated to accept such engineering change for Product supplied to JDSU if such Product has not been qualified as described in the immediately preceding sentence or approved by JDSU customers. Until the Product has been so qualified, EMCORE will continue to manufacture Product ordered pursuant to this Agreement without incorporating the engineering changes that are in the process of being qualified. JDSU shall accept supply of all Product containing such engineering change that have been qualified in accordance with the foregoing qualification plan. In addition, EMCORE may issue mandatory engineering changes such as those required to minimize environmental, health or safety risks or as mandated by law provided that JDSU shall not be obligated to purchase for its own account or sell any Products that fail to conform materially with performance, reliability or form, fit and function of the agreed specifications.
- 6.9 JDSU shall be permitted to request changes to the Specifications during the term of this Agreement by giving EMCORE notice regarding any such Performance Specification change. The parties shall thereafter use reasonable efforts to develop, within four (4) weeks, a development program to implement such Performance Specification change and a mutually acceptable qualification plan for Product containing such Performance Specification change. EMCORE shall not unreasonably reject a Performance Specification plan proposed by JDSU provided such Specification change is technically practicable and such Specification change will not adversely affect the economic benefits and obligations of EMCORE pursuant to this Agreement. Until the Specification change has been implemented and the Product incorporating such revised Specification has been so qualified, EMCORE will continue to manufacture and JDSU will continue either to purchase for its own account or sell Product ordered pursuant to this Agreement without incorporating any such JDSU requested Specification change that is in the process of being qualified.
7. Sales and Marketing
- 7.1 Subject to oversight by the Steering Committee, JDSU shall be solely responsible for all Product marketing and sales related activities including, but not limited to, providing account management for each account, preparing and coordinating all advertising and promotional efforts, training and deploying qualified sales representatives, maintaining a competent customer service and support facility for the Products consistent with JDSU's other products and systems and maintaining appropriate press and media relations. In addition, JDSU shall provide EMCORE with application engineering support as reasonably required.
- 7.2 EMCORE, at its sole cost, shall provide small quantities of sample Products to JDSU from time to time to facilitate promotional activities, subject to the review and approval of the Steering Committee.
8. Commissions; Pricing; Minimum Volumes.
- 8.1 EMCORE shall pay JDSU a commission on the sale of all Products that are subject to Section 2.4 of this Agreement and for which EMCORE receives sales revenue directly from the customer. JDSU's commission shall be set by the Steering Committee on the basis of the average selling price for such Product and shall be payable from the gross revenue received by EMCORE from sales to third party customers. The Steering Committee shall review the commission payable to JDSU for each Product at its quarterly meetings; provided, however, that the Steering Committee shall only adjust JDSU's commission if (i) the average selling price of a Product has decreased; (ii) EMCORE has experienced a material ({redact}) increase or decrease in its manufacturing costs, or (iii) JDSU has experienced a material ({redact}) increase or decrease in its sales, marketing and

support costs. In the event that the Steering Committee cannot agree on JDSU's commission for a particular Product at any time during the term of the Agreement, the Parties agree that: (i) any {redact} obligations of the Parties set forth in Section 2.4 above shall not apply until the Parties agree on commission; and (ii) existing commissions shall continue to apply for the remaining term of the Agreement (or until the Parties agree on alternative commissions) with respect to all sales of such Product made through JDSU (it being understood that no commissions shall be payable to JDSU for sales not made through JDSU); provided that the Party wishing to invoke this provision shall give the other Party {redact} days prior written notice. The Parties agree that at least with respect to the Initial Product, JDSU shall conduct all marketing and sales on a commission basis.

8.2 In order to meet its Minimum Volume Requirement and for sales of Future Products, JDSU may purchase Product directly from EMCORE for resale to customers. The price of the Initial Product for sales to JDSU {redact} shall be set by the Steering Committee. The wholesale and retail prices for each of the Initial Product and any Future Products, when set by the Steering Committee, shall remain fixed for a period of three (3) months and shall be established, to the extent reasonably practicable, {redact}. The Steering Committee shall review the pricing for each Product at its quarterly meetings; provided, however, that the Steering Committee shall only adjust the {redact} pricing {redact}. In the event that the Steering Committee cannot agree on pricing at any time during the term of the Agreement, the Parties agree that (other than with respect to the Initial Product): (i) existing pricing shall continue to apply for the remaining term of the Agreement (or until the Parties agree on alternative pricing); and (ii) any {redact} obligations of the Parties set forth in Section 2.4 above shall not apply until the Parties agree on pricing; provided that the Party wishing to invoke this provision shall give the other Party {redact} days prior written notice.

8.3 Any withholding or other taxes that a Party is required by law to withhold or pay on behalf of the other Party shall be deducted from any payments owed to such Party provided, however, that in regard to any tax so deducted the remitting Party shall furnish the other Party with proper evidence of the taxes paid on its behalf and will furnish the other Party with appropriate documents to secure application of the most favorable rate of withholding tax under applicable law.

8.4 Each Party shall initially apply its internal accounting principles and methodology in determining its Gross Margins, Gross Revenues and product costs and expenses relating to the Shared Research and Development Expenditures. These internal accounting principles and methodology must be consistent with U.S. Generally Accepted Accounting Principles, consistently applied ("GAAP") and shall be reviewed by the Steering Committee prior to the Commercial Launch Date of the Initial Product. If the Steering Committee disagrees as to the accounting principles or methodology adopted by a Party, it shall request such Party to make necessary changes or adjustments. If the Party objects to such changes or adjustments, it may request that an independent accounting firm be chosen, at its own expense, by both Parties to make the final decision. The accounting principles and methodology of any Party approved by the Steering Committee or decided by an independent accounting firm, as the case may be, shall be consistently applied during the term of this Agreement. The internal accounts (the "Internal Accounts") prepared by each Party applying its internal accounting principles and methodology, as reviewed by the Steering Committee, must be submitted to the Steering Committee for review on a quarterly basis after the Commercial Launch Date as to each Product. If a Party objects to any changes to its Internal Accounts proposed by the Steering Committee the matter shall be resolved pursuant to the dispute resolution provisions of Section 4.8 and Section 21.

8.5 Each Party shall maintain complete and accurate books and records in connection with its research and development expenditures and its costs and expenses in connection with manufacture and sale of the Product, including relating to the design, development, promotion, marketing, distribution and selling of the Products. Upon a reasonable written request of one Party, the other Party shall permit the first Party to inspect or to use an independent accounting firm to audit, in each case at the first Party's own expense, the books and records of the second Party to evaluate whether its reporting {redact} are accurate. Should a discrepancy be found that resulted in an underpayment to the inspecting Party of greater than {redact} percent ({redact} %), the entire cost of the audit will be paid by the audited Party in addition to any amounts owed by the audited Party but which were unpaid.

## 9. Intellectual Property

9.1 All Background shall remain the absolute unencumbered property of the owner of such rights at the Effective Date. No Party will make any representation or do any act which may be taken to indicate that it has any right title or interest in or to the ownership or use of any of the Background of the other Party except under the terms of this Agreement, and each Party acknowledges that nothing contained in this Agreement shall give it any right, title or interest in or to the Background of the other Party save as granted hereby.

9.2 All Foreground generated by a Party (or by a Party and a third party in the course of a research project funded by such Party) shall remain the absolute unencumbered property of such Party.

9.3 Each Party hereby grants to the other Party a non-exclusive, royalty free license to use that Party's Background and Foreground for the purposes of performing its share of work under any Program. JDSU hereby grants EMCORE a non-exclusive, royalty free license to use its Background and

Foreground for the purpose of manufacturing and having manufactured the Products in the Territory. EMCORE hereby grants JDSU a non-exclusive, royalty free license to use its Background and Foreground for the purpose of marketing and selling Products in the Territory (but not to import, manufacture or have manufactured for sale in the Territory). Each Party agrees that, subject to Section 9.4, it will not use the Background and/or Foreground of the other Party for any purpose other than the performance of its obligations hereunder.

- 9.4 Upon termination of this Agreement or if at any time during the term of this Agreement the collaboration between the Parties becomes {redact} by virtue of Sections 2.5, 2.6 or 2.7 hereof and subject to the payment of royalties as provided in Section 9.5 below, each Party shall be entitled to a royalty bearing, non-transferable right and license under the Intellectual Property (including Background and Foreground) and Company Information (including all marketing information and customer lists) of the other Party to manufacture, have manufactured, promote, market, distribute and sell Products throughout the world; provided that, where the Agreement is terminated by reason of breach of one Party then that Party shall not be entitled to any license as aforesaid; and provided further that JDSU shall not be entitled to any right or license under any Intellectual Property of EMCORE relating to VCSEL or MOCVD technology and shall not be entitled to a license to manufacture or have manufactured an EMCORE Developed Product. As a condition to the exercise of any right of a Party hereunder to have a third party manufacture any portion of a Product, such third party shall be bound by a written confidentiality agreement as to any confidential information of the licensing party that is no less restrictive in any material respect than the restrictions contained in Section 11 hereof.
- 9.5 Royalties payable under the licenses granted in accordance with Section 9.4 shall be based on net sales, shall be applied on a Product-by-Product basis and shall be set at a fair market value rate. No royalty shall be payable under any such license until the licensee under the license has first recouped through profits obtained by sales of licensed Products, its research and development costs incurred under this Agreement.
- 9.6 The Parties shall, when appropriate, execute a formal license or licenses for the purpose of registering the licenses granted pursuant to Sections 9.3 or 9.4 above in such form as may be necessary to give effect to this Agreement in any part of the Territory and to conform with any existing laws. Such license or licenses shall be subject to all the terms and conditions of this Agreement.
- 9.7 Where Foreground is generated jointly by one or more employees of each Party or by employees of a third party on their behalf pursuant to a research project approved by the Steering Committee and funded as part of the Shared Research and Development Expenditures, it shall vest in and be the property of EMCORE and JDSU jointly unless in any particular case the Parties shall otherwise agree. Subject to the rights of the Parties in any Background, each Party shall have the irrevocable right, subject to the restrictions contained in Section 2.4, to use such joint Foreground independently of the other and without accounting and, to the extent necessary for such use, is hereby granted a royalty free license under all jointly held Intellectual Property.
- 9.8 EMCORE and JDSU shall decide through the mechanism of the Steering Committee which of the Parties shall be responsible for filing and prosecuting of any joint patent applications in connection with any jointly owned Foreground and of maintaining any patents granted thereon in all countries and shall, unless otherwise agreed, share equally all costs involved.
- 9.9 In the event that either Party becomes aware of an infringement of any of the Intellectual Property licensed under this Section 9 or of any action by a third person for a declaration that any of the Intellectual Property is invalid or unenforceable or of any infringement of a Party's right to sell hereunder, it shall promptly notify the other Party in writing. The Parties shall cooperate in determining the appropriate action to be taken against the third party. The Parties shall cooperate with each other and provide all necessary and reasonable assistance in any of such actions. EMCORE shall select the outside counsel to represent the Parties in an infringement or other action. Each Party may also retain its own outside counsel at its own expense. If any infringement or other appropriate action is jointly instituted pursuant to this Section, the Parties each shall bear its own-out-pocket expenses and share litigation costs and legal fees equally. In the event of such a joint action, the Parties will share equally in any recovery of damages or amount paid in settlement. In the event that either Party institutes action independently pursuant to this Section, such Party shall be entitled to retain all recoveries or settlements in connection therewith.
- 9.10 Upon termination of this Agreement, other than by reason of breach, or if at any time during the term of this Agreement the collaboration between the Parties becomes {redact} by virtue of Sections 2.5, 2.6 or 2.7 hereof, each Party agrees, to the extent it has available capacity, to supply to the other Party any Products (other than an EMCORE Developed Product) and any components or parts manufactured by that Party that are used in the manufacture of Products (other than an EMCORE Developed Product), and, for a {redact} period commencing on the date of such termination or {redact}, such supply shall be on a {redact} basis as provided in this Section 9.10 for so long as that Party continues to manufacture such Product or components or parts in commercial quantities for resale to third parties. {redact} terms shall be based only on actual sales by a Party to a third party of the same or equivalent components or parts and shall not be applied retroactively to any components or parts previously shipped by a Party to another Party. A Party purchasing any component or part on {redact} terms pursuant to this Section 9.11 shall

be required to purchase equivalent quantities and accept all material commercial terms as such third party {redact}.

#### 10. Warranties and Indemnities

10.1 JDSU shall provide customer service and Product support services, including the handling of warranty claims for the Products. JDSU shall have the sole right to determine the level of customer service and Product support services necessary; provided that JDSU shall perform such services in a {redact}. The Steering Committee shall be responsible for establishing a warranty policy, which policy shall generally conform to {redact}.

10.2 EMCORE warrants to JDSU that Products furnished pursuant to this Agreement will be {redact}. These warranties {redact} shall extend until the end of the warranty period determined by the Steering Committee as provided in Section 10.1. In addition, if Product furnished contains one or more manufacturer's warranties, EMCORE hereby assigns such warranties to JDSU. EMCORE warrants that {redact} All warranties shall survive inspection, acceptance and payment. {redact}

10.3 To the extent that JDSU supplies components or parts to EMCORE for the manufacture of Products, JDSU warrants that {redact}. The warranty period for such components and parts shall be coterminous with the warranty period of the Products.

10.4 EMCORE's warranty does not apply if {redact}

10.5 {redact}

10.6 INTENTIONALLY OMITTED.

10.7 EMCORE shall, at its expense, indemnify and hold JDSU harmless from {redact}

10.8 JDSU shall at its expense, indemnify and hold EMCORE harmless from {redact}

10.9 In the event that a claim of infringement of any patent, trademark, copyright, trade secret or mask work right is made against either Party during the Term of this Agreement, {redact}.

10.10 IN NO EVENT SHALL EITHER PARTY BE LIABLE FOR CONSEQUENTIAL DAMAGES, ANTICIPATED OR LOST PROFITS, INCIDENTAL DAMAGES, SPECIAL DAMAGES, PUNITIVE DAMAGES OR LOSS OF TIME INCURRED, DIRECTLY OR INDIRECTLY, IN CONNECTION WITH THE USE OF THE PRODUCT. THE FOREGOING IS EACH PARTY'S ENTIRE OBLIGATION AND EXCLUSIVE REMEDY FOR ALL CLAIMS OF INFRINGEMENT ARISING HEREUNDER, AND IS IN LIEU OF ANY OTHER OBLIGATIONS OR WARRANTIES, EXPRESS OR IMPLIED.

10.11 Each of EMCORE and JDSU hereby represents and warrants to the other Party that on the date hereof such Party is duly incorporated and validly existing and/or registered as applicable under the laws of the relevant jurisdiction and that it has the full power and authority to own and operate its properties and to conduct its business as described in its articles of association and to execute, deliver and perform this Agreement.

10.12 Each of EMCORE and JDSU hereby represents and warrants to the other Party that on the date hereof such Party has taken all requisite actions and obtained all consents, approvals, authorizations and permits necessary for the execution, delivery and performance of this Agreement. This Agreement constitutes the legal, valid and binding obligation of each of EMCORE and JDSU enforceable against such Party in accordance with its terms. The execution, delivery and performance of this Agreement will not violate such Party's articles of incorporation, any other agreements or obligations of such Party or any currently effective laws, regulations or decrees.

10.13 Each of EMCORE and JDSU represents and warrants to the other Party that it owns or has a valid right to license all the Intellectual Property licensed by it pursuant to Section 9 and to its best knowledge, there are no actual or threatened claims by a third party against its ownership of, or proprietary rights to any Intellectual Property licensed hereunder.

10.14 EXCEPT AS EXPRESSLY SET FORTH HEREIN, NEITHER PARTY MAKES ANY EXPRESS OR IMPLIED WARRANTIES, STATUTORY OR OTHERWISE, CONCERNING THE VALUE, ADEQUACY, FREEDOM FROM FAULT OF, OTHER QUALITY, EFFICIENCY, CHARACTERISTICS OR USEFULNESS OF OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF ANY PRODUCTS, COMPONENTS OR SUBCOMPONENTS THEREOF OR ANY INFORMATION, MATERIALS OR RIGHTS PROVIDED HEREUNDER, PROVIDED, HOWEVER, THAT NOTHING IN THIS ARTICLE SHALL BE DEEMED A WAIVER OF OR DEEMED TO LIMIT THE OBLIGATIONS OF EACH PARTY HEREUNDER OR UNDER ANY OTHER AGREEMENT BETWEEN THE PARTIES.

#### 11. Confidentiality

11.1 Each Party acknowledges that all the Company Information, Background and Foreground provided by the other Party is confidential and proprietary to the other Party and further that the information developed by either or both Parties during the term of this Agreement, which relates to the research, development, marketing or sales of a Product shall be treated as confidential information and agrees to maintain such information in confidence during the term of this Agreement and for a period of five (5) years thereafter and to use such information solely for the purpose of performing its respective obligations hereunder. The obligation set forth above shall be satisfied by each Party through the exercise of the same degree of care used to restrict disclosure and use of its own information

of like importance, but in any event at least a reasonable degree of care.

- 11.2 Each of EMCORE and JDSU covenants that it shall not disclose any such information to a third party except to its employees, agents or any other person under its authorization, on a need to know basis, provided such employees, agents or person under its authorization are subject in writing to the same confidentiality obligations as either EMCORE or JDSU, as the case may be.
- 11.3 Notwithstanding anything provided above, the restrictions provided in this section shall not apply to the information that is:
  - 11.3.1 already in the public domain as of the date of execution of this Agreement, or thereafter enters the public domain through no fault of the receiving Party;
  - 11.3.2 known to the receiving Party without restriction when received;
  - 11.3.3 received by either EMCORE or JDSU on an unrestricted basis whereby the receiving Party has no duty of confidence to the Party providing such information; or
  - 11.3.4 is required to be disclosed to a governmental or other regulatory authority to the extent that such is required by applicable laws, regulations or court orders of the applicable jurisdiction, in which case the disclosing Party shall promptly notify the other Party of such disclosure.
- 11.4 Each Party acknowledges that damages resulting from unauthorized disclosure of the Company Information, Foreground or Background would be an inadequate remedy and that in the event of any such disclosure, the other Party shall be entitled to seek injunctive relief or other equitable relief in addition to any and all remedies available at law or in equity, including the recovery of damages and reasonable attorneys' fees.
- 11.5 Upon termination of this Agreement, each Party shall cease use of the Company Information, Foreground and Background received from the other Party (other than as expressly permitted hereby), and shall destroy all copies of same with written certification of destruction. Alternatively, at the request of the originating Party, the receiving Party shall return all such information and copies to the originating Party.
12. No Assignment, Sub-Licenses and Sub-Contracts
  - 12.1 Except for the right of the Parties to assign to their parent corporation or wholly owned Affiliate and except for the delegation of duties expressly permitted hereby, neither EMCORE nor JDSU may assign this Agreement or any of its rights, interests, duties or obligations hereunder without prior written consent of the other Party. Notwithstanding the foregoing, either Party, may, without obtaining the prior written consent of the other Party, assign or transfer this Agreement or delegate any rights or obligations hereunder in connection with merger, reorganization, transfer, sale of assets or product lines, or change of control or ownership of such Party, or its permitted successors, assigns or transferees; provided, however that, prior to such assignment or transfer, such Party shall provide the other Party hereto with reasonable assurances that the performance of all of such Party's obligations hereunder shall continue after such assignment or transfer. Such assurances shall include, without limitation, reasonable assurances, form EMCORE that JDSU shall continue to receive its supply of Products hereunder, or reasonable assurances from JDSU that EMCORE shall continue to receive timely payments as required under any purchase orders. This Agreement shall be binding upon and inure to the benefit of the successors and permitted assigns of EMCORE and JDSU.
13. Term and Termination
  - 13.1 This Agreement shall, subject to earlier termination as provided herein, remain in force from the Effective Date for a period of {redact}, which term can be extended upon the written agreement of the Parties for an additional term of {redact} or such shorter period as the Parties shall agree.
  - 13.2 A Party shall have the right to terminate this Agreement forthwith at any time by notice in writing to the other upon the happening of any of the following events:
    - 13.2.1 if the other commits a material breach of any of the terms of this Agreement and does not within forty-five (45) days of receipt of notice of the breach (if the same be capable of remedy) repair such breach;
    - 13.2.2 if the other shall make an assignment for the benefit of creditors, admits its insolvency, is adjudicated bankrupt or insolvent by any court of competent jurisdiction, any trustee or receiver is appointed for it or for any of its property, or such Party files any involuntary petition under any bankruptcy or similar law providing for its reorganization, dissolution, liquidation or winding-up.
  - 13.3 Either Party shall have the right to terminate this Agreement if the Commercial Launch Date for the Initial Product does not occur by {redact}.
  - 13.4 Termination of this Agreement for all or any part of the Territory shall

be without prejudice to any rights of either Party against the other which may have accrued up to the date of such termination, including the right to claim damages or pursue injunctive relief.

13.5 In particular, termination of this Agreement for any reason shall not bring to an end the rights and obligations of the Parties under Sections 8.4, 9, 10 (as to Products shipped prior to termination), 11 and 21, each of which shall survive any termination of this Agreement except as otherwise expressly provided herein.

#### 14. Force Majeure

14.1 If either Party to this Agreement is prevented or delayed in the performance of any of its obligations under this Agreement by a Force Majeure Event and if such Party gives written notice thereof to the other Party specifying the matters constituting the Force Majeure Event together with such evidence as it reasonably can give and specifying the period for which it is estimated that such prevention or delay will continue then the Party so prevented or delayed shall be excused the performance as from the date of such notice for so long as such cause or delay shall continue provided that the Party giving notice shall use all reasonable efforts to mitigate the adverse consequences of any such Force Majeure Event.

14.2 If the Force Majeure Event continues to have effect for a period of more than ninety 90 days the Party not claiming relief under this Section 14 shall have the right to terminate this Agreement upon giving thirty 30 days' written notice of such termination to the other Party, but such notice shall not take effect if the Party claiming relief gives notice within that period that the cause has ceased to prevent the operation of this Agreement.

#### 15. Notice

15.1 All notices, requests, demands and other communications hereunder shall be given in writing and shall be personally delivered; sent by telecopier, facsimile transmission or other electronic means of transmitting written documents which provides an answer back proving receipt; or sent to the Parties at their respective addresses indicated herein by registered or certified U.S. mail, return receipt if requested and postage prepaid, or by private overnight mail courier service. Notices shall be effective upon receipt by the Party to which they are addressed. The respective addresses to be used for all such notices, demands or requests are as follows:

(a) If to EMCORE, to:

MicroOptical Devices  
5741 Midway Park Place NE  
Albuquerque, NM 87109  
Attention: {redact}  
Telephone: {redact}  
Facsimile: {redact}

with a copy to:

EMCORE Corporation  
394 Elizabeth Avenue  
Somerset, NJ 08873  
Attention: {redact}  
Telephone: {redact}  
Facsimile: {redact}

or to such other person or address as EMCORE shall furnish to JDSU in writing.

(b) If to JDSU, to:

JDS Uniphase Corporation  
305 East Drive  
Melbourne, Florida 32904  
Attention: {redact}  
Telephone: {redact}  
Facsimile: {redact}

With a copies to:

{redact}  
{redact}  
210 Baypointe Parkway  
San Jose, CA 95134  
Telephone: {redact}  
Facsimile: {redact}

And

{redact}

or to such other person or address as JDSU shall furnish to EMCORE in writing.

#### 16. Public Announcements

16.1 Each Party shall seek the prior written approval of the other at least ten (10) days prior to the release of items of publicity of any kind, including, without limitation, new releases, articles, brochures, advertisements, prepared speeches, external company reports and other information concerning the terms of this Agreement, the relations between

the Parties, the joint development undertaken hereunder or the Products.

16.2 The restrictions contained in Section 16.1 above shall not be construed to limit either Party's disclosure of such information as required in such Party's good faith judgment to satisfy the requirements of Federal or State securities laws or regulations, regulations of the Nasdaq National Market or other nationally recognized securities exchange on which such Party lists its securities, the order of a court of competent jurisdiction, or as required to meet such Party's credit and financing arrangements.

17. Severability

17.1 If any provision herein shall be held invalid or unenforceable by a court of competent jurisdiction or other authority, the remainder of the provisions herein shall remain in full force and effect and shall not be affected thereby.

18. Entire Agreement, Variation and Waiver

18.1 This Agreement represents the entire understanding and agreement between the Parties and supersedes any and all prior agreements, previous understandings both written and oral with respect to the subject matter hereof.

18.2 This Agreement may not be amended, varied, supplemented or otherwise modified except by an instrument in writing signed by both Parties.

18.3 The failure of either Party to insist in any one or more instances upon the performance of any provisions of this Agreement shall not be construed as a waiver or relinquishment of that Party's rights to future performance of such provision and the other Party's obligation respect of such future performance shall continue in full force and effect.

19. No Third Party Beneficiary

19.1 Nothing herein expressed or implied is intended to or shall be construed to confer upon or give to any person or entity other than the Parties and their successors and permitted assigns any rights or remedies under or by reason of this Agreement.

20. No Joint Venture or Partnership

20.1 Nothing in this Agreement shall create a partnership or joint venture between the Parties and save as expressly provided in this Agreement neither Party shall enter into or have authority to enter into any engagement or make any representation or warranty on behalf of or pledge the credit of or otherwise bind or oblige the other Party hereto.

21. Disputes and Governing Law

21.1 The Agreement shall be governed by the laws of the State of New York, without regard to the conflict of laws thereof.

21.2 In the event of any dispute under this Agreement, including, without limitation, any arising out of the operation of the Steering Committee under Section 4, not being resolved by the negotiation between the Chief Executive Officers within thirty (30) days upon the written request of either Party, the Parties agree to endeavour to settle the dispute in an amicable manner by mediation administered by the American Arbitration Association under its Commercial Mediation Rules, before resorting to arbitration. Thereafter, any unresolved controversy or claim arising out of or relating to this Agreement, or breach thereof, shall be settled by binding arbitration administered by the American Arbitration Association in accordance with its International Arbitration Rules, and judgment upon an award rendered by the arbitrator may be entered in any court having jurisdiction thereof. The number of arbitrators shall be three, one chosen by each Party with the third, who shall be the chairman, chosen by the two Arbitrators chosen by the Parties. If possible, the arbitrators will have experience with and knowledge of fiberoptic, VCSEL and/or data communication technology as well as accounting and business law. The place of arbitration shall be New York, New York and the language of the proceeding shall be English.

21.3 All submissions and proceedings held pursuant to this Section 21 shall be confidential and neither Party nor the mediator or arbitrators may disclose the existence, content, or results of any mediation or arbitration hereunder without the prior written consent of both Parties unless otherwise required by law to do so. All negotiations held pursuant to Section 4.8 shall be treated as compromise and settlement negotiations for purposes of the Federal Rules of Evidence and state rules of evidence.

21.4 NEITHER PARTY SHALL BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL, SPECIAL OR PUNITIVE DAMAGES, NOR FOR ANY LOST PROFITS, ARISING OUT OF THIS AGREEMENT OR ANY OBLIGATION ARISING THEREFROM OR OTHERWISE, WHETHER LIABILITY IS ASSERTED IN CONTRACT OR TORT (INCLUDING NEGLIGENCE AND STRICT PRODUCT LIABILITY), AND IRRESPECTIVE OF WHETHER IT HAS ADVISED OR BEEN ADVISED OF THE POSSIBILITY OF SUCH LOSS OR DAMAGE.

22. Originals

22.1 EMCORE and JDSU shall execute two (2) originals of this Agreement. Each Party hereto shall retain one original. Each original shall be equally valid.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed by their respective representatives on the day and year first above written.

EMCORE CORPORATION

JDS UNIPHASE CORPORATION

By: \_\_\_\_\_

By: \_\_\_\_\_

Name:  
Title:

Name:  
Title:

SUBSIDIARY OF THE REGISTRANT

MicroOptical Devices, Inc., a Delaware corporation

INDEPENDENT AUDITORS' CONSENT

We consent to the incorporation by reference in the Registration Statements of EMCORE Corporation on Form S-3 (No. 333-94911, No. 333-87753 and No. 333-42514), and Form S-8 (No. 333-27507, No. 333-37306, No. 333-36445, No. 333-39547 and No. 333-45827) of our report dated November 15, 2000 appearing in this Annual Report on Form 10-K of EMCORE Corporation for the year ended September 30, 2000.

DELOITTE & TOUCHE LLP

Parsippany, New Jersey  
December 28, 2000

INDEPENDENT AUDITORS' CONSENT

We consent to the incorporation by reference in the Registration Statements of EMCORE Corporation on Form S-3 (No. 333-94911, No. 333-87753 and No. 333-42514), and Form S-8 (No. 333-27507, No. 333-37306, No. 333-36445, No. 333-39547 and No. 333-45827) of our report dated December 5, 2000 relating to the financial statements of Uniroyal Optoelectronics, LLC appearing in the Annual Report on Form 10-K of EMCORE Corporation for the year ended September 30, 2000.

DELOITTE & TOUCHE LLP

Tampa, Florida  
December 28, 2000

EMCORE CORPORATION  
FINANCIAL DATA SCHEDULE

This Schedule contains summary financial information extracted from the consolidated financial statements of EMCORE Corporation for the fiscal year ended September 30, 2000, and is qualified in its entirety by reference to such financial statements.

	12-MOS	
	SEP-30-2000	
	SEP-30-2000	
	50,849	
	50,896	
	21,639	
	(1,065)	
	30,724	
	154,872	
	101,161	
	(31,460)	
	243,902	
43,285		
	0	
0		
	0	
	314,780	
	(115,458)	
243,902		
	104,506	
104,506		
	(61,301)	
	(61,301)	
	(68,348)	
	0	
	(342)	
	(25,485)	
	0	
0		
	0	
	0	
	0	
	(25,485)	
	(0.82)	
	(0.82)	