

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, 2005

or

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**

(State or other jurisdiction of incorporation or organization)

**22-2746503**

(I.R.S. Employer Identification No.)

**145 Belmont Drive, Somerset, NJ 08873**

(Address of principal executive offices, including zip code)

**(732) 271-9090**

(Registrant's telephone number, including area code)

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 if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.  Yes  **No**

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act.  Yes  **No**

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.

Indicate by check mark whether the registrant is an accelerated filer (as defined in Rule 12b-2 of the Act).  **Yes**  No

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act).  Yes  **No**

The aggregate market value of common stock held by non-affiliates of the registrant as of March 31, 2005 (the last business day of the registrant's most recently completed second fiscal quarter) was approximately \$123,924,639, based on the closing sale price of \$3.37 per share of common stock as reported on the NASDAQ National Market.

The number of shares outstanding of the registrant's no par value common stock as of December 2, 2005 was 48,243,280.

**DOCUMENTS INCORPORATED BY REFERENCE**

Portions of the Definitive Proxy Statement to be delivered to shareholders in connection with the Annual Meeting of Shareholders to be held February 13, 2006 are incorporated by reference in Part III.

**EMCORE Corporation**  
**Form 10-K**  
**For the Fiscal Year Ended September 30, 2005**

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## Forward-Looking Statements

This Annual Report on Form 10-K includes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Exchange Act of 1934. These forward-looking statements are based largely on our current expectations and projections about future events and financial trends affecting the financial condition of our business. These forward-looking statements may be identified by the use of terms and phrases such as "expects", "anticipates", "intends", "plans", "believes", "estimates", "targets", "can", "may", "could", "will", and variations of these terms and similar phrases. Management cautions that these forward-looking statements are subject to business, economic, and other risks and uncertainties, both known and unknown, that may cause actual results to be materially different from those discussed in these forward-looking statements. Factors that could contribute to these differences include, but are not limited to, those discussed under "Risk Factors", "Forward-Looking Statements", and elsewhere in this Report. The cautionary statements made in this Report should be read as being applicable to all forward-looking statements wherever they appear in this Report. This discussion should be read in conjunction with the consolidated financial statements, including the related footnotes.

These forward-looking statements include, without limitation, any and all statements or implications regarding:

- The ability of EMCORE Corporation (EMCORE) to remain competitive and a leader in its industry and the future growth of the company, the industry, and the economy in general;
- Difficulties in integrating recent or future acquisitions into our operations;
- The expected level and timing of benefits to EMCORE from on-going cost reduction efforts, including (i) expected cost reductions and their impact on our financial performance, (ii) our continued leadership in technology and manufacturing in its markets, and (iii) our belief that the cost reduction efforts will not impact product development or manufacturing execution;
- Expected improvements in our product and technology development programs;
- Whether our products will (i) be successfully introduced or marketed, (ii) be qualified and purchased by our customers, or (iii) perform to any particular specifications or performance or reliability standards; and/or
- Guidance provided by EMCORE regarding our expected financial performance in current or future periods, including, without limitation, with respect to anticipated revenues, income, or cash flows for any period in fiscal 2006 and subsequent periods.

These forward-looking statements involve risks and uncertainties that could cause actual results to differ materially from those projected, including without limitation, the following:

- EMCORE's cost reduction efforts may not be successful in achieving their expected benefits, or may negatively impact our operations;
- The failure of our products (i) to perform as expected without material defects, (ii) to be manufactured at acceptable volumes, yields, and cost, (iii) to be qualified and accepted by our customers, and (iv) to successfully compete with products offered by our competitors; and/or
- Other risks and uncertainties described in EMCORE's filings with the Securities and Exchange Commission (SEC) (including under the heading "Risk Factors" in this Annual Report on Form 10-K) such as: cancellations, rescheduling, or delays in product shipments; manufacturing capacity constraints; lengthy sales and qualification cycles; difficulties in the production process; changes in semiconductor industry growth; increased competition; delays in developing and commercializing new products; and other factors.

Neither management nor any other person assumes responsibility for the accuracy and completeness of the forward-looking statements. Forward-looking statements are made only as of the date of this Report and subsequent facts or circumstances may contradict, obviate, undermine, or otherwise fail to support or substantiate such statements. We assume no obligation to update the matters discussed in this Annual Report on Form 10-K to conform such statements to actual results or to changes in our expectations, except as required by applicable law or regulation.

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## PART I

### **Item 1. Business.**

For specific information about our company, our products or the markets we serve, please visit our website at <http://www.emcore.com>. The information on EMCORE's website is not incorporated by reference into and is not made a part of this report. All of our SEC filings available on our website are accessible free of charge.

#### **Company Overview**

EMCORE Corporation (EMCORE), a New Jersey corporation established in 1984, offers a broad portfolio of compound semiconductor-based components and subsystems for the broadband, fiber optic, satellite, solar and wireless communications markets. EMCORE has three operating segments: Fiber Optics, Photovoltaics, and Electronic Materials and Devices. Our integrated solutions philosophy embodies state-of-the-art technology, material science expertise, and a shared vision of our customer's goals and objectives to be leaders in the transport of video, voice and data over copper, hybrid fiber/coax (HFC), fiber, satellite, and wireless networks.

EMCORE's solutions include: optical components and subsystems for fiber-to-the-premise, cable television, and high speed data and telecommunications networks; solar cells, solar panels, and fiber optic ground station links for global satellite communications; and RF transistor materials for high bandwidth wireless communications systems, such as WiMAX and Wi-Fi Internet access and 3G mobile handsets and PDA devices.

Through its joint venture participation in GELcore, LLC, EMCORE plays a vital role in developing and commercializing next-generation High-Brightness LED technology for use in the general and specialty illumination markets.

#### **Industry Overview**

Advances in information technologies have created a growing need for efficient and high-performance electronic and optoelectronic systems that operate at very high frequencies, emit and detect light, provide higher transmission rates with increased storage capacities, and can be produced cost-effectively in commercial volumes. To meet these needs, we develop and manufacture components and subsystems that incorporate our internally produced compound semiconductor materials. Our products have several advantages over traditional silicon devices including higher operating speeds, lower power consumption, reduced noise and distortion, higher temperature performance, light emitting properties, higher detection efficiency, and higher light emission efficiency. In fiscal 2005, we offered innovative products, categorized into three segments, "Fiber Optics," "Photovoltaics," and "Electronic Materials and Devices." Collectively, these products and the products offered by our joint venture, GELcore, serve the communications, cable television, defense and homeland security, satellite and terrestrial power, wireless, and lighting and illumination markets.

#### **EMCORE's Operating Segments**

##### Fiber Optics

EMCORE's Fiber Optics segment provides optical components, subsystems and systems that enable the transmission of video, voice and data over high-capacity fiber optic cables. Our products enable information that is encoded on light signals to be transmitted, routed (switched), and received in communication systems. EMCORE's Fiber Optics segment serves the cable television (CATV), fiber-to-the-premise (FTTP), telecommunications, data and satellite communications, storage area network and, increasingly, the defense and homeland security markets.

Over the past several years, communications networks have experienced dramatic growth in data transmission traffic due to worldwide Internet access, e-mail, and e-commerce. As Internet content expands to include full motion video on-demand, HDTV, multi-channel high quality audio, online video conferencing, image transfer, online multi-player gaming, and other broadband applications, the delivery of such data will place a greater demand on available bandwidth and require the support of higher capacity networks. The bulk of this traffic, which continues to grow at a very high rate, is already routed through the optical networking infrastructure used by local and long distance carriers, as well as Internet service providers. Optical fiber offers substantially greater bandwidth capacity, is less error prone, and is easier to administer than older copper wire technologies. As greater bandwidth capability is delivered closer to the end user, increased demand for higher content, real-time, interactive visual and audio content is expected. We believe that EMCORE is well positioned to benefit from the continued deployment of these higher capacity fiber optic networks.

**Cable Television (CATV) and Fiber-to-the-premise (FTTP) Networks** - The communications industry in which we participate in continues to be dynamic. The driving factor is the competitive environment that exists between cable operators, telephone companies, and satellite and wireless service providers. Each are rapidly investing capital to deploy a converging multi-service network capable of delivering "triple play services", i.e. digitalized video, voice and data content, bundled as a service provided by a single communication provider.

As a market leader in radio frequency (RF) transmission over fiber products for the CATV industry, EMCORE enables cable companies to offer multiple forms of communications to meet the expanding demand for high-speed Internet, on-demand and interactive video, and other new services (such as HDTV and VOIP). Television is also undergoing a major transformation, as the US government requires television stations to broadcast exclusively in digital format, abandoning the analog format used for decades. Although the transition date for digital transmissions is not expected for several years, the build-out of these television networks has already begun. To support the telephone companies plan to offer competing video, voice and data services through the deployment of new fiber-based systems, EMCORE has developed and maintains customer qualified FTTP components and subsystem products. Our CATV and FTTP products include broadcast analog and digital fiber optic transmitters, quadrature amplitude modulation (QAM) transmitters, video receivers, and passive optical network (PON) transceivers.

As part of our strategy, we are committed to identifying strategic opportunities that either compliment or broaden our markets. In May 2005, EMCORE acquired the analog CATV and RF over fiber specialty businesses from JDS Uniphase Corporation (JDSU). This acquisition is expected to 1) solidify our leadership position in the CATV marketplace; 2) offer an optimal path to higher volume with improved overall product margins; and 3) expand our product line offering while broadening our customer base in the CATV market segment.

**Telecommunications Networks** - Our state-of-the-art optical components and modules enable high-speed (up to an aggregate 40 gigabits per second or Gb/s) optical interconnections that drive architectures in next-generation carrier class switching and routing networks. Our parallel optical modules facilitate high channel count optical interconnects in multi-shelf central office equipment. These systems sit in the network core and in key metro nodes of voice telephony and Internet infrastructures, and are highly expandable with pay-as-you-grow capacity scaling. EMCORE is a leader in providing optical modules to the telecom equipment market area with its most comprehensive parallel optical transceiver product family, including 12-lane SNAP-12™, OptoCube™, 4-lane QuadLink™ and SmartLink™ transceivers. In addition, EMCORE provides the telecom industry with distributed feedback (DFB) lasers, p-type, intrinsic, and n-type semiconductor material (PIN) and avalanche photodetector (APD) components, in various packages, for OC-48 and OC-192 applications.

**Data Communications Networks** - EMCORE's leading-edge optical components and modules for data applications include 10G Ethernet LX4, 10G Ethernet EX4, 10G Ethernet CX4, and SmartLink™ transceivers. These modules support 10G Ethernet, optical Infiniband, and parallel optical interconnects for enterprise Ethernet, metro Ethernet and high performance computing (HPC), also called "super computing" applications. These high-speed modules enable switch-to-switch, router-to-router, and server-to-server backbone connections at aggregate speeds of 10G and above. Pluggable LX4 modules in X2 or XENPAK form factors provide a "pay-as-you-populate"

cost structure during installation. The LX4 module can transmit data over both multi-mode and single-mode optical fiber, enabling transmission of optical 10G Ethernet signals over 300 meters of legacy multi-mode fiber or 10km of single-mode fiber. The EX4 extends optical span lengths to over 1km of multi-mode and 40km of single-mode fiber. CX4 modules similarly allow the cost-effective transmission of Ethernet signals over legacy copper cable. EMCORE's parallel optical modules also are used in switched bus architectures that are needed for next-generation blade servers, clustered and grid interconnected servers, super computers and network-attached storage.

**Satellite Communications Networks** - EMCORE manufactures satellite communications fiber optics products, including transmitters, receivers, subsystem, and systems, that transport wideband microwave signals between satellite hub equipment and antenna dishes.

**Storage Area Networks** - Our optical components also are used in the high-end data storage market, and include high-speed, 850 nm vertical cavity surface emitting lasers (VCSELs) and PIN photodiode components, and 10G transmit and receive optical subassemblies (TOSAs/ROSAs). In the future, EMCORE anticipates selling our integrated pluggable X2 or XENPAK form factor modules into the emerging 10G FibreChannel segment. These products provide optical interfaces for switches and storage systems used in large enterprise mission-critical applications, such as inventory control or financial systems.

**Defense and Homeland Security** - Leveraging its expertise in high frequency RF module design, EMCORE offers a suite of ruggedized products intended for the government and defense markets. EMCORE's specialty fiber products include fiber optic gyro components used in precision guidance munitions; RF fiber optic link components for towed decoy systems and phased array radar antennas; RF over fiber links for device remoting and optical networks; and emerging applications such as RF photonic systems.

### **Photovoltaics**

EMCORE serves the global satellite communications market by providing advanced solar cell products and solar panels. Compound semiconductor solar cells are used to power satellites because they are more resistant to radiation levels in space and convert substantially more power from light, consequently weighing less per unit of power than silicon-based solar cells. These characteristics increase satellite useful life, increase payload capacity, and reduce launch costs. EMCORE's Photovoltaics segment designs and manufactures multi-junction compound semiconductor solar cells for both commercial and military satellite applications. We currently manufacture and sell one of the most efficient and reliable, radiation resistant advanced triple-junction solar cells in the world, with an average "beginning of life" efficiency of 27.5%. EMCORE is also the only manufacturer to supply true monolithic bypass diodes, for shadow protection, utilizing several EMCORE patented methods. A satellite's broadcast success and corresponding revenue depend on its power efficiency and its capacity to transmit data.

EMCORE also provides covered interconnect cells (CICs) and solar panel lay-down services, giving us the capacity to manufacture complete solar panels. We can provide satellite manufacturers with proven integrated satellite power solutions that considerably improve satellite economics. Satellite manufacturers and solar array integrators rely on EMCORE to meet their satellite power needs with our proven flight heritage. Through well-established partnerships with major satellite manufacturers and a proven manufacturing process, we play a vital role in the evolution of satellite communications around the world.

EMCORE is adapting its high efficiency solar cell product for terrestrial applications. Intended for use with solar concentrator systems, these cells have already been measured at 35% efficiency and further improvements are anticipated. We believe that these systems will be competitive with silicon technologies because they are more efficient than silicon and, therefore, benefit more from concentration than silicon. With energy prices at all time highs, the demand for alternative energy sources continues to gain momentum. The terrestrial solar cell market is currently estimated at \$7 billion, growing at a 28% CAGR, and is expected to reach \$30 billion by 2010, according to *CSLA Asia-Pacific Markets*. EMCORE is working with several concentrator systems manufacturers to develop system elements for this product line.

In April 2005, EMCORE announced plans to consolidate solar panel operations into a state-of-the-art facility located in Albuquerque, New Mexico. The establishment of a modern solar panel manufacturing facility, adjacent to the Albuquerque solar cell fabrication operations, should enable superior consistency, as well as reduced manufacturing costs. The synergy of these operations located on one site is expected to provide the highest quality, highest reliability, and most cost-effective solar components to surpass current technologies and offerings. EMCORE will ensure that the space qualification of this facility is commensurate with the heritage of its existing solar panel operation located in City of Industry, California. Production operations at the California solar panel facility will be discontinued during fiscal 2006 and completely closed by March 2007. By consolidating operations into a single location, EMCORE Photovoltaics expects to realize annual cost savings in fiscal 2007 and beyond, which will enable us to better compete in the terrestrial and space power markets.

### **Electronic Materials and Devices**

EMCORE's RF materials are compound semiconductor materials used in wireless communications. These materials have a broader bandwidth and superior performance at higher frequencies compared to silicon-based materials. EMCORE's Electronic Materials and Devices (EMD) segment currently produces both GaAs and GaN based transistor wafers. For GaAs materials, EMD produces 4-inch and 6-inch wafers for three different applications: InGaP hetero-junction bipolar transistors (HBTs), pseudomorphic high electron mobility transistor wafers (pHEMTs), and enhancement-mode pHEMT transistor wafers (E-modes). These materials are used for power amplifiers and switches in GSM, CDMA multiband wireless handsets, WiMAX, Wi-Fi, broadband, cellular handsets, and in wireless LAN applications. InGaP HBT materials provide higher linearity, higher power-added efficiency, as well as greater reliability than first generation AlGaAs HBT technologies. For GaN materials, EMD produces 2-inch, 3-inch, and 4-inch AlGaIn/GaN HEMT materials. These materials are designed to meet future wireless base station infrastructure requirements for higher power and frequency, along with temperature operation at industry leading efficiencies. Recently, EMCORE has also combined into a single RF structure, InGaP HBT and pHEMT materials (combinational materials). We believe that our ability to produce high volumes of RF materials at a low cost will encourage their adoption in new applications and products.

EMCORE continues to work closely with its customers to develop next-generation technology to help them achieve their product roadmap objectives. In fiscal 2005, EMCORE started production of integrated HBT and pHEMT materials. The combination of these two devices in a single epi structure consolidates the processing requirement for EMCORE's customers. Additionally, the close integration of these devices enables our customers to increase the efficiency and performance of the devices by incorporating improved power control, better linearity and smaller size. Anadigics, Inc., a leading supplier of wireless and broadband solutions, announced that it had selected EMCORE to be their primary supplier for all their RF materials. EMCORE also works closely with and supplies advanced materials to several other industry leaders.

EMCORE supports GaN development projects through participation in government DARPA programs centered on wide bandgap communication and radar systems. EMCORE has secured several long-term contracts to provide critical GaN HEMT epitaxial materials to industry leading device, component, and system manufacturers. EMCORE anticipates converting these DARPA sponsored programs into long-term commercial business at the conclusion of the existing contracts.

### **Joint Venture - GELcore**

In January 1999, General Electric Lighting and EMCORE formed GELcore, a joint venture to address the solid-state lighting market with high brightness light emitting diode-based (HB-LED) lighting systems. HB-LEDs are solid-state compound semiconductor devices that emit light. They are used in miniature packages in everyday applications, including commercial displays, transportation, general and specialty illumination, computers, and other consumer electronics. HB-LEDs offer substantial advantages over small incandescent bulbs, including longer life, lower maintenance costs and energy consumption, and smaller space requirements. Groups of HB-LEDs can make up single or full-color electronic displays. Presently, HB-LED chips are used for backlighting applications, including wireless handsets, cellular handsets, computer monitors, and automotive dashboard lighting. In addition, they are used in consumer products, office equipment, full color displays, neon and fluorescent replacements, message advertising, informational signs, landscape lighting, and traffic signals. While growing its business in commercial applications, GELcore is focused on the general illumination market as its ultimate goal.

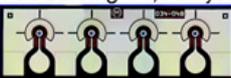
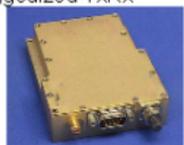
General Electric Lighting and EMCORE have agreed that this joint venture will be the exclusive vehicle for each party's participation in solid-state lighting. EMCORE has a 49% non-controlling interest in the GELcore venture. GELcore combines EMCORE's materials science and device design expertise with General Electric Lighting's brand

name recognition, phosphor technology, and extensive marketing and distribution capabilities. EMCORE participates in the development and commercialization of next-generation LED technology for use in the general and specialty illumination markets. GELcore's products include traffic lights, channel letters, and other signage and display products that incorporate HB-LEDs. In the near term, GELcore expects to deploy its HB-LED products in the commercial and industrial markets, including medical, aerospace, commercial refrigeration, transportation, appliance, and general and specialty illumination applications. GELcore's operating results are accounted for using the equity method of accounting and its financial reporting is on a calendar year basis. Since its inception, GELcore has had a compound annual revenue growth rate of 23%, with calendar 2004 revenue totaling \$68.0 million. EMCORE expects that GELcore's calendar 2005 revenue will approximate \$80.0 million.

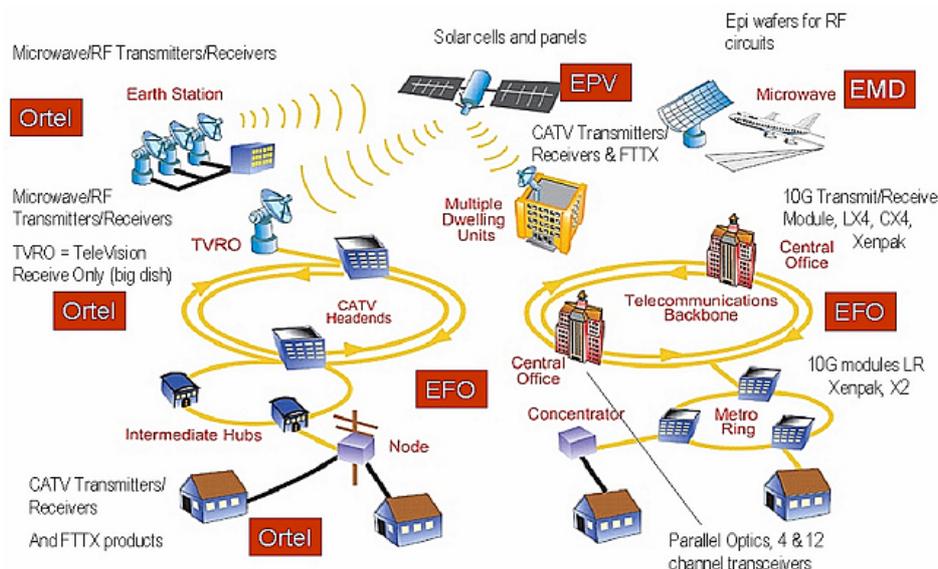
HB-LEDs have the potential to significantly reduce overall U.S. lighting energy consumption. Energy savings to date from HB-LEDs have been estimated to exceed the power produced from one large electric power plant -- more than 8 billion kilowatt-hours. If solid-state lighting achieves anticipated price and performance targets, over the next two decades U.S. lighting energy consumption could be reduced by over 30 percent. HB-LED traffic signals use only 10 percent of the electricity consumed by the incandescent lamps they replace. Moreover, LED signals last several times longer, allowing for additional savings through reduced maintenance costs. HB-LEDs also have made inroads into mobile applications, such as brake and signal lights on trucks, buses, and automobiles. In 2002, an estimated 41 million gallons of gasoline and 142 million gallons of diesel fuel were saved because of HB-LED use on these vehicles. If our nation's entire fleet of automobiles, trucks, and buses were converted to HB-LED lighting, an estimated 1.4 billion gallons of gasoline and 1.1 billion gallons of diesel fuel could be saved. (The information in this paragraph is based on published reports prepared by Navigant Consulting for the US Department of Energy.)

## EMCORE's Products

The following charts depict some of our products:

<b>Fiber Optic Products:</b>		<b>Digital Networks</b>
LX4 XENPAK & X2 	Parallel Optical Modules 	CX4 XENPAK & X2 
2, 4, 10 Gbps TOSAs 	2, 4, 10 Gbps ROSAs 	Surface mount 10G Rx 
<b>Fiber Optic Products:</b>		<b>CATV, FTTP, Satcom</b>
1310 & 1550 nm CATV Tx 	CATV & FTTP Tx Cards 	CATV Lasers & Receivers 
ONT PON Transceivers 	20 GHz Tx and Rx 	Satcom Systems 
<b>Fiber Optic Products:</b>		<b>Chips and Die</b>
DFB, FP Lasers 	VCSEL Singlets, Arrays 	PIN, APD Detectors 
<b>PhotoVoltaic Products:</b>		<b>Solar Cells, CICs, Solar Panels</b>
Solar Cells 	CICs 	Solar Panels 
<b>Electronic Materials and Devices Products:</b>		<b>Epi Wafers for Wireless, RF Applications</b>
InGaP HBTs 	pHEMTs 	GaN HEMTs 
<b>Specialty Defense &amp; Aerospace Products:</b>		<b>Optoelectronics</b>
Ruggedized TxRx 	Fiber Optic Gyros 	Advanced Photonics 

The following illustration shows how EMCORE's products are deployed throughout the world's communication infrastructure, and how they interconnect with each other. The lower left side shows CATV and FTTP networks, the lower right side shows telecommunications and data networks and the upper portion shows satellite communications and wireless networks.



The following chart summarizes (i) our products, (ii) the markets to which those products are directed, (iii) representative applications in which our products are used, and (iv) certain benefits and characteristics of compound semiconductor devices:

EMCORE Products	Market	Representative Applications	Benefits/Characteristics
Analog & digital lasers (DFB, FP) Photodetectors and subassembly components Broadcast analog & digital fiber-optic transmitters QAM transmitters	<b>CATV</b>	Cable Television (CATV)  Hybrid Fiber Coax (HFC) networks  Digital overlay on HFC	Increased capacity to offer more cable services Increase data transmission speeds Increased bandwidth Lower power consumption Low noise video receive Increased transmission distance
Analog & digital lasers (DFB, FP) Photodetectors and subassembly components PIN and APD photodiodes and subassemblies Passive optical network (PON) transceivers Analog & digital video receivers Multi-Dwelling Unit (MDU) video receivers	<b>FTTP</b>	Passive optical network (PON) in Fiber-to-the-Premise (FTTP) networks	High performance for both digital and analog characteristics Integrated infrastructure to support competitive costs Support for multiple standards
High-speed lasers (VCSEL, DFB, FP) and subassembly components High-speed photodetector (PIN, APD) and subassembly components RF devices and materials 10G Ethernet modules in XENPAK & X2 Parallel optical modules	<b>Data Communications (LAN, SAN, Infiniband)</b>	High-speed fiber optic networks and optical links (including Infiniband, Ethernet, Fiber Channel networks) Copper replacement in the data center/CO Supercomputing High performance computing (HPC) Systems Storage Area Networks (SAN) Network Attached Storage (NAS)	Increased network capacity Increase data transmission speeds Increased bandwidth Lower power consumption Improved cable management over copper interconnects Increased transmission distance Lowest cost optical interconnections for massively parallel multi-processors
Solar cells and panels Fiber-optic transmitters and receivers	<b>Satellite Communications</b>	Power modules for satellites Satellite-to-ground communications Antenna to ground station communications	High radiation tolerance High light-to-power conversion efficiency for reduced size and launch costs Increased bandwidth
RF and electronic materials RF and electronic devices Optical transmitters for remoting	<b>Wireless Communications</b>	Wireless handsets Wireless Broadband Direct broadcast systems Remoting High Power Wireless Infrastructure	Increased network capacity Lower power consumption Reduced network congestion Extended battery life Improved signal-to-noise performance
Fiber-optic gyroscope components High Frequency Fiber-Optic Links ED Fiber Amplifiers Terahertz Spectroscopy Systems	<b>Defense and Homeland Security</b>	Precision guided munitions Towed-Decoy Modules Secure communications Chemical, Biological, Explosive sensors	High-frequency and dynamic range Compact form-factor Extreme temperature, shock and vibration tolerance
HB-LED lighting systems	<b>Solid-State Lighting</b>	Flat panel displays Solid-state lighting Outdoor signage and displays Traffic signals	Lower power consumption Lower temperature operation Longer life

As summarized in the table below, EMCORE has positioned itself as a component and subsystem manufacturer that services a significant portion of the digital and analog communications market:

	Digital (Datacom & Telecom)					Video	
	Serial 2.5-4G		Serial 10G			Parallel	CATV/FTTX
	850nm	1310-1550nm	850nm	1310-1550nm	Copper		
MODULES			SR X2	LX4 Xenpak LX4 X2 LR X2	CX4 Xenpak CX4 X2	SNAP12 Optocube Smartlink	Subsystems Transmitters PON Transceivers Receivers Tx Engine Rx video card
OSA	TO - cans LC/SC TOSA LC/SC ROSA	TO - cans LC/SC TOSA LC/SC ROSA	LC/SC TOSA LC/SC ROSA	DML laser LC/SC ROSA			Laser Modules Rx modules
CHIPS	VCSELs PDs	FP, DFBs PINs, APDs	VCSELs PDs	FP, DFBs PINs, APDs		VCSEL arrays PD arrays	DFBs PDs

### EMCORE's Strategy

Management's objective is to maximize shareholder value by capitalizing upon EMCORE's leading-edge compound semiconductor materials and device expertise to provide cost-effective materials, components and subsystems for the broadband, fiber optic, satellite, solar and wireless communications markets. Specifically, the key elements of EMCORE's strategy include:

#### **I. Leverage Leading-Edge Compound Semiconductor Expertise Across Multiple Product Applications**

Purchasing components from multiple vendors can result in too many layers of margin costs, such that the final integrated subsystem is neither cost competitive nor effective in deploying new product technologies or responding to customer demands. We believe a vertically integrated structure in which key technologies are produced internally is the most beneficial way to maximize gross margins and meet customer objectives. By having the know-how and intellectual property to internally produce and supply compound semiconductor products, EMCORE can stay ahead of the competition in both performance and cost effectiveness.

#### **II. Target Potential High Growth Market Opportunities**

EMCORE targets potential 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 enhanced performance characteristics. EMCORE is focusing its product development efforts in the high growth areas of fiber optic communications (FTTP infrastructure), data and telecommunications (high data rate technologies), energy generation (terrestrial concentrator solar cells and modules), defense and homeland security (RF transport for defense applications), integrated GaAs epitaxial technology (3G handsets, PDAs, WiMAX / Wi-Fi networking), and energy conservation (LED-based technologies through GELcore).

#### **III. Pursue Strategic Acquisitions and Partnership with Industry Leading Companies**

EMCORE is committed to the ongoing evaluation of strategic opportunities that can expand our addressable markets and strengthen our competitive position. Where appropriate, EMCORE will acquire additional products, technologies, or businesses that are complimentary to, or broaden the markets we operate in. Over the past several years, several acquisitions have expanded not only our materials expertise, but also our components and subsystems technologies. EMCORE also seeks to develop long-term relationships with leading companies in each of the industries that we serve. We develop these relationships through long-term, high-volume supply agreements, joint ventures, investments, and other arrangements. EMCORE continues to work closely with its customers to develop next-generation technology to help them achieve their product roadmap objectives. Recently, EMCORE announced product design wins with Cisco Systems, Inc. (10G LX4 and CX4 XENPAK), JDS Uniphase Corporation and Finisar (10G TOSAs & ROSAs), Tellabs, Inc. (FTTP Integrated PON transceiver), Alcatel (FTTP video receiver), and Scientific-Atlanta, Inc. and Aurora Networks (CATV HFC transmitters). These product launches were successful due to the solid collaboration we have with these leading companies.

#### **IV. Invest in Research and Development to Maintain Technology Leadership and Lower Production Costs**

Through substantial investment in research and development (R&D), EMCORE seeks to expand its leadership position in compound semiconductor-based communications products and subsystems. EMCORE works with its customers to enhance the performance of our processes, materials science, and fiber optic module design expertise, including the development of new low-cost, high-volume wafers, components, and subsystems for our customers. To remain a leader in our markets, EMCORE not only addresses our customers' current needs, but we respond to their evolving requirements to remain designed into their product lifecycles. In addition, EMCORE's development efforts are constantly focused on lowering the production costs of its products. In 2005, EMCORE's product development projects included an X2 form factor for LX4, an extended reach version of the LX4 (the EX4), a high density 1310 nm transmitters for CATV, a triplexer for FTTP applications, and a 32 channel QAM transmitter for CATV. EMCORE expects significant revenue from each of these products in fiscal 2006. In addition, during fiscal 2005, our photovoltaic division developed a small concentrator unit using our high-efficiency gallium arsenide solar cells for terrestrial applications. We intend to expend additional resources during fiscal 2006 to further develop this technology and establish cost effective manufacturing and distribution capabilities.

#### **V. Target Positive Cash Flows and Income From Operations**

Management is committed to achieving operating profitability by reducing EMCORE's cost structure and lowering the breakeven points of every product line, with the goal of achieving positive operating income during the second half of fiscal 2006. Over the past several years, management has implemented a number of initiatives to help achieve this goal. EMCORE has (i) outsourced high volume product manufacturing to contract manufacturers; (ii) consolidated various corporate functions; (iii) reduced outside contractors and temporary workers; (iv) implemented programs to improve manufacturing process yields; (v) focused R&D efforts on projects that are expected to generate returns within one year without, we believe, jeopardizing future revenue opportunities; and (vi) initiated workforce reductions. In fiscal 2006, further cost reductions will be realized from facility consolidations and transfer of additional products to contract manufacturers.

## Acquisitions

In addition to using our internal capacity to develop and manufacture products for our target markets, EMCORE continues to expand its portfolio of communications products and technologies through acquisitions:

- In May 2005, EMCORE acquired the analog CATV and RF over fiber specialty businesses from JDSU. Product lines acquired through this acquisition include: HFC 1550-nm broadcast transmitters, in both legacy and linearized optical modulated designs, to link between cable network headends and hubs, 1310-nm transmitters linking cable network hubs and nodes, 1550-nm DWDM QAM transmitters, associated analog receivers, amplifiers for extending fiber network reach for FTTP applications, and RF and microwave over fiber specialty products for defense and satellite communications. With this acquisition, EMCORE consolidated certain key intellectual properties in the areas of analog CATV transmission and predistortion, and now offers the most complete and best-of-breed fiber optic product portfolios for the CATV and FTTP marketplaces. Our CATV products support various network architectures and address our customers' needs of transmitting and receiving signals in short to long haul, forward to return path, and headend to hub to node configurations. Our FTTP products include PON transceivers for Optical Network Terminals (ONTs), directly and externally modulated optical transmitters for optical line terminals (OLTs), and high-power (35 dbm) erbium-doped fiber amplifiers (EDFAs) for in-line signal amplification. As a result of this acquisition, we believe we have one of the broadest optical communications product portfolios in the industry.

- In November 2005, EMCORE announced that it acquired privately held Phasebridge, Inc. of Pasadena, California through an asset acquisition. The acquisition included its products, technical and engineering staff, certain assets and intellectual properties and technologies. Phasebridge's operations will be integrated into the Ortel division of EMCORE, which is located nearby in Alhambra, California. Founded in 2000, Phasebridge is known as an innovative provider of high performance, high value, miniaturized multi-chip system-in-package optical modules and subsystem solutions for a wide variety of markets, including fiber optic gyroscopes (FOG) for weapons & aerospace guidance, RF over fiber links for device remoting and optical networks, and emerging technologies such as optical RF frequency synthesis and processing and terahertz spectroscopy.

Please refer to Management's Discussion and Analysis of Financial Condition and Results of Operations under [Item 7](#) and Financial Statements and Supplemental Data under [Item 8](#) for further discussion of these acquisitions.

## Divestiture

In April 2005, EMCORE divested product technology focused on gallium nitride (GaN)-based power electronic devices for the power device industry. The new company, Velox Semiconductor Corporation (Velox), raised \$6.0 million from various venture capital partnerships. Five EMCORE employees transferred to Velox as full-time personnel and EMCORE contributed intellectual property and equipment receiving a 19.2% stake in Velox. As of September 30, 2005, the recorded value of EMCORE's investment in Velox was approximately \$1.3 million.

## Investments

In addition to the GELcore joint venture and Velox investment mentioned above, in February 2002, EMCORE purchased \$1.0 million of preferred stock of Archcom Technology, Inc. (Archcom), a venture-funded, start-up optical networking components company that designs, manufactures, and markets a series of high performance lasers and photodiodes for the datacom and telecom industries. During fiscal 2004, Archcom raised additional capital, but EMCORE did not participate. As a result, we reduced the carrying value of our investment in Archcom by 50%, or \$0.5 million and recorded this expense as an investment loss in the statement of operations.

In October 2004, EMCORE invested \$1.0 million in K2 Optronics, Inc., a California-based company specializing in the design and manufacture of external cavity lasers, to strengthen our partnership in designing next-generation, high-performance, long-wavelength components on an exclusive basis for the CATV and FTTP markets. As part of the acquisition of the JDSU businesses, EMCORE also paid \$0.5 million to purchase JDSU's equity interest in K2 Optronics, Inc.

## Restructuring Programs

Management is committed to achieving operating profitability by reducing EMCORE's cost structure and lowering the breakeven points of every product line, with the goal of achieving positive operating income during the second half of fiscal 2006.

Since fiscal 2002, EMCORE has significantly streamlined its manufacturing operations by focusing on core competencies to identify cost efficiencies. Where appropriate, EMCORE transferred the manufacturing of certain product lines to contract manufacturers. In fiscal 2005, we continued restructuring efforts that included centralizing corporate and administrative functions, divesting product technology, and consolidating multiple facilities. Our results of operations and financial condition have and will continue to be significantly affected by severance, restructuring charges, impairment of long-lived assets and idle facility expenses incurred during facility closing activities.

Please refer to Management's Discussion and Analysis of Financial Condition and Results of Operations under [Item 7](#) and Financial Statements and Supplemental Data under [Item 8](#) for further discussion of these charges.

## Revenues by Product Line

The following table sets forth the revenues and percentage of total revenues attributable to each of EMCORE's operating segments for each of the past three fiscal years.

### Product Revenues

For the fiscal years ended September 30,  
(in thousands)

	FY 2005		FY 2004		FY 2003	
	Revenue	% of Revenue	Revenue	% of Revenue	Revenue	% of Revenue
Fiber Optics	\$ 81,960	64.2%	\$ 56,169	60.4%	\$ 32,658	54.2%
Photovoltaics	33,407	26.2	25,716	27.6	18,196	30.2
Electronic Materials and Devices	12,236	9.6	11,184	12.0	9,430	15.6
Total revenues	\$ 127,603	100.0%	\$ 93,069	100.0%	\$ 60,284	100.0%

## Government Research Contract Funding

EMCORE derives a portion of its revenue from funding of research contracts or subcontracts by various agencies of the U.S. government (government). These contracts typically cover work performed from several months up to several years. These contracts may be modified or terminated at the convenience of the government; in addition, these programs may be subject to government budgetary fluctuations. In fiscal 2005, 2004, and 2003, government research contract funding represented 9%, 5%, and 9% of total EMCORE revenue, respectively.

EMCORE is presently engaged in a solar cell development and production program for a major US aerospace corporation based on our commercial BTJ photovoltaics technology. The initial phases of this long-term cost reimbursable contract are focused on technology development and manufacturing optimization. Establishment of a volume production capacity for this product is being performed by EMCORE at reduced margins in order to minimize program ramp-up costs for our customer. Over the next 2 to 3 years, the program scope could exceed \$40 million in development and production revenues.

Please refer to Management's Discussion and Analysis of Financial Condition and Results of Operations under [Item 7](#) and Financial Statements and Supplemental Data under [Item 8](#) for further discussion of government contracts.

## Customers and Geographic Region

EMCORE is devoted to working directly with its customers from initial product design, product qualification and manufacturing to product delivery. We design and develop (i) process technology, (ii) material science expertise, (iii) optical sub-assemblies, and/or (iv) integrated module level products for use in our customers' end-use applications. EMCORE's customer base includes many of the largest semiconductor, telecommunications, data communications, and computer manufacturing companies in the world. In fiscal 2005, Cisco Systems, Inc. (Cisco) accounted for 19% of our total revenue. In fiscal 2004, Motorola, Inc. (Motorola) and Cisco accounted for 13% and 8% of our total revenue, respectively. In fiscal 2003, Motorola accounted for 14% of total revenue.

The following table sets forth EMCORE's consolidated revenues by geographic region. Revenue was assigned to geographic regions based on the customers' or contract manufacturers' shipment locations.

### Geographic Revenues

For the fiscal years ended September 30,

(in thousands)	FY 2005		FY 2004		FY 2003	
	Revenue	% of Revenue	Revenue	% of Revenue	Revenue	% of Revenue
United States	\$ 107,956	84.6%	\$ 66,485	71.4%	\$ 44,136	73.2%
Asia and South America	13,728	10.8	15,912	17.1	9,018	15.0
Europe	5,919	4.6	10,672	11.5	7,130	11.8
Total revenues	\$ 127,603	100.0%	\$ 93,069	100.0%	\$ 60,284	100.0%

## Marketing and Sales

EMCORE actively markets its products through its dedicated sales force, external sales agents, marketing staff, applications engineers, select advertising, and participation at trade shows. We communicate directly with our customers' engineering, manufacturing and purchasing personnel in determining product design, qualifications, performance and cost. EMCORE's strategy is to use its dedicated sales force for marketing and selling to key accounts. EMCORE's external sales agents include UR Group in Europe, BUPT and MilliTech in China, and Altima, M-RF and RF-Device in Japan. We also have an established distribution and value added reseller channel to sell our satellite communication products worldwide. EMCORE plans to expand its external sales agent program for increased coverage in international markets and some domestic segments.

EMCORE's sales cycle for component and subsystem products is usually three months to in excess of a year. During this time, we work closely with our customers to qualify our products in their product lines. As a result, EMCORE develops strategic and long lasting customer relationships with products and services that we believe are uniquely tailored to our customers' requirements.

## Backlog

As of September 30, 2005, EMCORE had a backlog of approximately \$40.2 million as compared to a backlog of \$28.8 million as reported at September 30, 2004. We believe that substantially all of our backlog can be shipped during the next 12 months, with the exception of approximately \$0.6 million on a certain long-term contract. Given our current market environment, customers may delay shipment of certain orders and our backlog could also be adversely affected if customers unexpectedly cancel purchase orders accepted by us. A majority of EMCORE's products typically ship within the same quarter as when the purchase order is received; therefore, our backlog at any particular date is not necessarily indicative of actual revenue or the level of orders for any succeeding period.

## Manufacturing

EMCORE's operations include wafer fabrication, design and device production, solar panel engineering and assembly, and fiber optic module design and manufacture. Many of EMCORE's manufacturing operations are computer monitored or controlled to enhance reliability and yield. EMCORE employs a strategy of minimizing ongoing capital investments, while maximizing the variable nature of its cost structure. EMCORE maintains a commercially advantageous contract supply agreement with Veeco for MOCVD systems, components, and spare parts. Where EMCORE can gain significant cost advantages while maintaining strict quality and intellectual property control, EMCORE outsources to overseas contract manufacturers the production of certain components and subassemblies. Our contract manufacturing supply chain is an integral part of enabling this strategy. EMCORE develops assembly and testing procedures, and then transfers these procedures overseas. Our contract manufacturers must maintain comprehensive quality and delivery systems, and we continuously monitor them for compliance. As of September 30, 2005, EMCORE had 364 employees involved in manufacturing.

EMCORE has a combined clean room area totaling approximately 88,000 square feet. Unlike silicon semiconductor technology, which could involve up to a 100-step manufacturing process, our electronic materials and devices products are manufactured in a four-part process: epitaxial deposition, fabrication, testing, and packaging. The epitaxial deposition process represents the growth of thin layers of GaAs, GaN, or other materials on a polished wafer, depending on the nature of the device being produced. Following epitaxy, chips are fabricated in a clean room environment. The final steps involve testing and packaging prior to shipment to the customer, or further integration into a module or subsystem within EMCORE's manufacturing infrastructure. EMCORE also maintains the capability to transfer and monitor our ongoing processes to contract manufacturers.

Our various manufacturing processes involve extensive quality assurance systems and performance testing. All of EMCORE's facilities have acquired and maintain certification status for their quality management systems. The New Jersey facility, which is used for EMCORE's electronic materials and devices products, is registered to both ISO 9001 and QS 9000-1998. Both the New Mexico and California facilities, which are used for EMCORE's photovoltaics and fiber optics products, are registered to ISO 9001.

EMCORE has continued to invest in performance enhancing components for our MOCVD production equipment. These investments will enable us to meet ever-stricter performance requirements, combined with typical industry price erosion. Please refer to Properties under [Item 2](#) for a listing of manufacturing locations and the primary products manufactured at each location as of September 30, 2005. Please refer to Risk Factors for a discussion of risks attendant to EMCORE's use of foreign contract manufacturers.

## Sources of Raw Materials

EMCORE depends on a limited number of suppliers for certain raw materials, components and equipment used in our products. EMCORE continually reviews its vendor relationships to mitigate risks and improve costs, especially where we depend on one or two vendors for critical components or raw materials. While maintaining inventories that we believe are sufficient to meet our near term needs, we generally do not carry significant inventories of raw materials. Accordingly, EMCORE maintains ongoing communications with our vendors to work to prevent any interruptions in supply, and have implemented a supply-chain management program to maintain quality and improve prices through standardized purchasing efficiencies and design requirements. To date, we generally have been able to obtain sufficient quantities of quality supplies in a timely manner. Please refer to Risk Factors for a discussion of risks attendant to EMCORE's reliance upon sole or limited sources of materials.

## Research and Development

Our R&D efforts have been sharply focused to maintain our technology leadership position by working to improve the quality and attributes of our product lines. We also invest significant resources to develop new products and production technology to expand into new market opportunities by leveraging our existing technology base and infrastructure. The semiconductor industry is characterized by rapid changes in process technologies with increasing levels of functional integration. To maintain and improve its competitive position, EMCORE invests significant resources in R&D. Our efforts are focused on designing new proprietary processes and products, on improving the performance of our existing materials, components, and subsystems, and on reducing costs in the product manufacturing process.

EMCORE has dedicated 24 MOCVD systems and five device fabrication facilities for both research and production, which are capable of processing virtually all compound semiconductor materials and devices. Five of those MOCVD systems and two device fabrication areas are dedicated fully to R&D efforts and are used by a staff of over 125 scientists, engineers, technicians, and staff, of whom 45 have a Ph.D. degree. The R&D staff utilizes x-ray, optical, and electrical characterization equipment, as well as device and module fabrication and testing, that generates data rapidly, which allows for shortened development cycles and rapid customer response.

During fiscal 2005, 2004, and 2003, EMCORE invested \$17.4 million, \$23.6 million, and \$17.0 million in R&D activities. As a percentage of revenues, R&D represented 14%, 25%, and 28% for the fiscal years 2005, 2004, and 2003, respectively. As part of the ongoing effort to cut costs, many of our projects are to develop lower cost versions of our existing products and of our existing processes. Also, we have implemented a program to focus research and product development efforts on projects that we expect to generate returns within one year. As a result, EMCORE reduced overall R&D costs as a percentage of revenue without, we believe, jeopardizing future revenue opportunities. Our technology and product leadership is an important competitive advantage. Driven by current and anticipated demand, we will continue to invest in new technologies and products that offer our customers increased efficiency, higher performance, improved functionality, and/or higher levels of integration. One such R&D project was the XENPAK 10G LX4 module project that began in August 2003. Within twelve months, the LX4 module was designed and developed by EMCORE, qualified by the customer, and was transferred to manufacturing for full production. Revenues from LX4 module sales represented a significant area of growth in our total fiscal 2004 and 2005 revenues. We continue to expect significant revenues in fiscal 2006 and beyond. We believe that several other recently completed R&D projects have the potential to greatly improve our competitive position and drive revenue growth in the next few years. Listed below are a couple of examples:

- In the FTTP market, EMCORE has developed an integrated PON transceiver utilizing Ortel's industry leading video technology. EMCORE's PON transceiver has been customer qualified and is now in production.
- In the photovoltaics market, EMCORE has developed a high efficiency solar cell product for terrestrial applications. Intended for use in concentrated sunlight, these cells have been measured at greater than 35% efficiency at 500 suns.

### Fiscal 2005 new product launches include:

- April 2005: EMCORE announced its PCI height compliant, small form factor 10GBASE-CX4 (CX4) module, which extends its portfolio of electrical domain products for the 10G Ethernet market.
- March 2005: EMCORE announced a dramatic breakthrough in 1550nm video transmission technology. This new generation of video transmitters significantly reduces size, power consumption, and video transmission costs, while enhancing the signal quality of analog, digital and IP video delivered over conventional CATV HFC and FTTP networks.
- March 2005: EMCORE announced the availability of new generation 32-channel 1550nm wavelength QAM-256 transmitters for broadband CATV dense wavelength division multiplexing (DWDM) networks. Quadrature Amplitude Modulation (QAM) is a combined phase and amplitude modulation scheme to increase the transmission bandwidth over CATV networks. This technology is long sought after to harvest the bandwidth in the CATV allocated frequency band and will allow CATV multiple service operators (MSOs) to provide premium triple-play services: HDTV, data, and Voice over IP (VoIP).
- March 2005: EMCORE announced that it has released a 10G Transmitter Optical Subassembly (TOSA) and Receiver Optical Sub-assembly (ROSA) for short wavelength 10G Ethernet, 10G Fibre Channel, and backplane interconnect applications. EMCORE's TOSA/ROSA products are available in LC or SC receptacle packages for makers of optoelectronic modules operating in the 850nm window, assembled in XFP, XENPAK, X2, XPAK and proprietary form factors.
- February 2005: EMCORE announced that it has released a 10G Receiver Optical Subassembly (ROSA) for long wavelength 10G Ethernet, OC-192 SONET and 10G Fibre Channel applications. EMCORE's ROSA is an innovative and integrated LC or SC receptacle receiver for makers of optoelectronic modules operating in the 1310nm and 1550nm windows, assembled in XFP, XENPAK, X2, XPAK and proprietary form factors.
- February 2005: EMCORE announced that it has released a family of component devices for Passive Optical Network, Ethernet in the First Mile, and FTTP applications. These advanced Distributed Feedback Laser (DFB) and Avalanche Photodiode (APD) devices will be integrated into products deployed in Ethernet Passive Optical Networks (EPON), Gigabit Passive Optical Networks (GPON), Gigabit Ethernet Passive Optical Networks (GEAPON) and Broadband Passive Optical Networks (BPON). These advanced components add to EMCORE's strong market position as a leading semiconductor laser and photodiode supplier.
- February 2005: EMCORE announced that it has released a small form factor version of its successful 10GBASE-LX4 (LX4) module, used in 10G Ethernet (10GbE) applications. The new reduced size X2 module is roughly half the size of the XENPAK unit and supports topside mounting on the host PCB. This module continues to fully support the 10GbE, IEEE 802.3ae-2002 standard. The small form factor LX4 module in an X2 form factor offers all of the functionality of EMCORE's XENPAK units. LX4 modules offer a single interface that can transmit over both multimode fiber and single-mode fiber. It is the only solution approved by the IEEE that can enable 10GbE connectivity over 300m over multimode fiber, as well as 10km of single-mode fiber. By the end of 2006 it is estimated the number of X2 ports shipping will begin to surpass XENPAK. EMCORE has identified this rapid expansion of the small form factor 10GbE X2 segment as a significant market opportunity for its new product.
- February 2005: EMCORE announced that it has released a new, innovative 10G Ethernet compatible XENPAK module, part number EEX-8100-XEN (EX4), which enables extended distance transmission over both multimode and single-mode fibers. The EX4 is a proprietary EMCORE product that plugs into standard

XENPAK slots and can transmit up to 1 km on legacy multimode fiber, and up to 1.5 km on some higher-grade legacy multimode fibers. The module can also transmit up to 40 km over installed single-mode fiber. This extended multimode fiber reach addresses the needs of many end-users who find themselves with "stranded fibers" which are longer than 300 m. These legacy multimode fibers were installed for transmission of older technologies, such as FDDI, Fast Ethernet and Gigabit Ethernet. Current 10G Ethernet modules do not support these stranded links. According to a commissioned report by Alan Flatman, presented to the IEEE in March 2004, there are greater than seven million multimode links longer than 300 m installed worldwide in campus and building backbones. EMCORE has identified these embedded stranded fibers as a significant market opportunity for the EX4, by enabling these links to upgrade to 10G Ethernet.

EMCORE also actively competes for R&D funds. In view of the high cost of development, EMCORE solicits research contracts that provide opportunities to enhance its core technology base and promote the commercialization of targeted EMCORE products. Internal R&D funding is used for the development of products that will be released within 12 months, and external funding is used for longer-range R&D efforts.

## **Intellectual Property and Licensing**

EMCORE protects its proprietary technology by applying for patents where appropriate and in other cases by preserving the technology and related know-how and information as trade secrets. The success and competitive position of our product lines depend significantly on our ability to obtain intellectual property protection for our R&D efforts. We also acquire, through license grants or assignments, rights to patents on inventions originally developed by others. As of September 30, 2005, EMCORE held 63 U.S. patents and 8 foreign patents. Also, over 100 patent applications have been filed in the U.S. and internationally. Our U.S. patents will expire between 2009 and 2022. These patents and patent applications claim various aspects of current or planned commercial versions of EMCORE's materials, components, and subsystems.

We also have entered into license agreements with the licensing agencies of other universities and other organizations, under which we have obtained exclusive or non-exclusive rights to practice inventions claimed in various patents and applications issued or pending in the US and other foreign countries. We do not believe the financial obligations under any of these agreements has a material adverse effect on our business, financial condition or results of operations.

EMCORE relies on trade secrets to protect its intellectual property when it believes that publishing patents would make it easier for others to reverse engineer EMCORE's proprietary processes. 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. To protect our trade secrets, we take certain measures to ensure their secrecy, such as partitioning the non-essential flow of information between our different groups and executing non-disclosure agreements with our employees, our joint venture partner, customers, and suppliers. We also rely upon other intellectual property rights such as trademarks and copyright where appropriate.

As is typical in our industry, from time to time, we have sent letters to, and received letters from, third parties regarding the assertion of patent or other intellectual property rights in connection with certain of our products and processes. To date, we have not engaged in any litigation regarding the intellectual property rights of our products and processes.

In connection with our sale of the TurboDisc capital equipment business in November 2003, EMCORE retained a license to all MOCVD system-related technology. EMCORE intends to use this license to further optimize the performance of its own reactors and develop improvements to its hardware that will increase yields on existing products and enable the fabrication of advanced, wide bandgap materials.

## **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 R&D 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 arsine. If our control systems are unsuccessful in preventing release of these or other hazardous materials or we fail to comply with such environmental provisions, our actions, whether intentional or inadvertent, could result in fines and other liabilities to the government or third parties, and injunctions requiring us to suspend or curtail operations which could have a material adverse effect on our business.

EMCORE has in-house professionals to address compliance with applicable environmental and health and safety laws and regulations. We believe that EMCORE is currently in compliance with all applicable environmental laws, including the Resource Conservation and Recovery Act, except such violations as could not reasonably be expected to have a material effect on our financial condition or results of operations.

## **Competition**

The semiconductor industry is extremely competitive and is characterized by rapid technological change, frequent introduction of new products, short product life cycles and significant price erosion. EMCORE faces actual and potential competition from numerous domestic and international compound semiconductor companies. Many of these companies have greater engineering, manufacturing, marketing, and financial resources than we have. A partial list of these competitors include:

*CATV.* Competitors in the CATV market include Fujitsu, Mitsubishi and Optium Corporation.

*Telecommunications.* For telecommunications and FTTP components, the market competitors include Fujitsu, JDSU, Mitsubishi, MRV Communications, and Summitomo. For 10G transceivers and parallel optical modules, our competitors include Agilent Technologies, Inc. (Agilent), Eudyna Devices, Inc., Finisar Corporation (Finisar), Opnext, Inc. (Opnext), and Picolight, Inc. (Picolight).

*Data and Storage.* The market competitors include Agilent, Finisar (particularly its Advanced Optical Component division, which was acquired from Honeywell Corporation), Opnext, and Picolight. There are also numerous smaller vendors located throughout the world.

*Satellite Communications.* For photovoltaics products, EMCORE primarily competes with Mitsubishi Electric, RWE SCHOTT Solar GmbH, Sharp Electronics Corporation, and Spectrolab, Inc., a subsidiary of The Boeing Company. For satellite communication products, our primary competitors are Foxcom and MITEQ, Inc.

*Wireless Communications.* The primary competitors in the electronic materials and wireless communications markets include APA Enterprises, Inc., CREE Inc., Hitachi Cable, IQE plc., Kopin Corporation, Sumika, Visual Photonics Epitaxy Co., Ltd., as well as integrated circuit manufacturers with in-house transistor growth capabilities.

*Defense and Homeland Security.* The competitors in RF transport for defense and homeland security products include Aegis Technologies, Linear Photonics, LLC, Gemfire Corporation, JDSU, and Optium Corporation.

*Solid State Lighting.* The principal competitors for HB-LED applications and EMCORE's joint venture with General Electric Lighting include CREE, LumiLeds Lighting, a division of Philips Lighting, Nichia Corporation, Siemens AG's Osram GmbH subsidiary, and Toyoda Gosei Co., Ltd. In addition, Arima Computer Corporation, Epistar Corporation, and other Asia-based companies in recent years have begun production of LEDs.

In addition to the companies listed above, 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 current competitors may increase their market share. In the EU, political and legal requirements encourage the purchase of EU-produced goods, which may put EMCORE at a competitive disadvantage against its European competitors.

There are substantial barriers to entry by new competitors across EMCORE's product lines. These barriers include: the large number of existing patents; the time and costs to be incurred to develop products; the technical difficulty in manufacturing semiconductor products; the lengthy sales and qualification cycles; and the difficulties in hiring and retaining skilled employees with the required scientific and technical backgrounds. EMCORE believes that the primary competitive factors within EMCORE's current markets are yield, throughput, performance, breadth of product line, product heritage, customer satisfaction, and customer commitment to competing technologies. Competitors may develop enhancements to or future generations of competitive products that offer superior price and performance factors. We believe that in order to remain competitive, we must invest significant financial resources in developing new product features and enhancements and in maintaining customer satisfaction worldwide.

## Employees

At September 30, 2005, EMCORE had 650 employees, including 364 employees in manufacturing operations, 99 employees in R&D, 148 employees in sales, general and administration (SG&A), and 39 temporary employees. This represented an increase of 62 employees or 11% from September 30, 2004. Our ability to attract and retain qualified personnel is essential to our continued success. We are focused on retaining key contributors, developing our staff and cultivating their level of commitment. None of EMCORE's employees are covered by a collective bargaining agreement, nor have we ever experienced any labor-related work stoppage. We believe our employee relations generally to be good.

## Risk Factors

YOU SHOULD CAREFULLY CONSIDER THE RISKS DESCRIBED BELOW. IF ANY OF THE FOLLOWING RISKS ACTUALLY OCCURS, OUR BUSINESS, FINANCIAL CONDITION OR RESULTS OF OPERATIONS COULD BE MATERIALLY AND ADVERSELY AFFECTED. WE CAUTION THE READER THAT THESE RISK FACTORS MAY NOT BE EXHAUSTIVE. WE OPERATE IN A CONTINUALLY CHANGING BUSINESS ENVIRONMENT AND NEW RISK FACTORS EMERGE FROM TIME TO TIME. WE CANNOT PREDICT SUCH NEW RISK FACTORS, AND WE CANNOT ASSESS THE EFFECT, IF ANY, OF SUCH NEW RISK FACTORS ON OUR BUSINESSES OR THE EXTENT TO WHICH ANY FACTOR, OR COMBINATION OF FACTORS, MAY CAUSE ACTUAL RESULTS TO DIFFER MATERIALLY FROM THOSE PROJECTED IN ANY FORWARD-LOOKING STATEMENTS CONTAINED IN THIS REPORT. ACCORDINGLY, FORWARD-LOOKING STATEMENTS SHOULD NOT BE RELIED UPON AS A PREDICTION OF ACTUAL RESULTS. IN ADDITION, OUR MANAGEMENT'S ESTIMATES OF FUTURE OPERATING RESULTS ARE BASED ON THE CURRENT COMPLEMENT OF BUSINESSES, WHICH IS CONSTANTLY SUBJECT TO CHANGE AS MANAGEMENT UPDATES AND IMPLEMENTS ITS BUSINESS STRATEGY.

*We May Continue To Incur Net Losses.*

We started operations in 1984 and as of September 30, 2005, we had an accumulated deficit of \$316.0 million. We incurred net losses of \$13.1 million in fiscal 2005, \$13.4 million in fiscal 2004, and \$38.5 million in fiscal 2003. While we have reduced our cost structure substantially, and are focused on profitability, we may continue to lose money. Many of our expenses, particularly those relating to capital equipment, debt service, and manufacturing overhead are fixed. Accordingly, lower revenue causes our fixed production costs to be allocated across reduced production volumes, which adversely affects our gross margin and profitability. While our business strategy is to achieve operational profitability during the second half of fiscal 2006, if we are unable to achieve target revenues or to contain our cost structures, we will continue to incur operating losses.

*Our Cost Reduction Programs May Be Insufficient To Achieve Long-Term Profitability.*

We are undertaking cost reduction measures intended to reduce our expense structure at both the cost of goods sold and the operating expense levels. We believe these measures are a necessary response to, among other things, declining average sales prices across our product lines. These measures may be unsuccessful in creating profit margins sufficient to sustain our current operating structure and business.

*Reduced Customer Lead Times Means We Are Less Able To Forecast Revenues And, As A Result, We May Be Unable To Accurately Predict Growth And Manage Our Cost Structure.*

Several of our customers have reduced the lead times they give us when ordering product from us. While this trend has enabled us to reduce inventory, it also restricts our ability to forecast revenues. 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, results of operations and cash flows could be materially and adversely affected.

*Our Success Depends On Our Ability To Introduce New Products On A Timely Basis.*

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, systems and products. To remain competitive we must continually introduce new and improved products. Our business, financial condition, results of operations and cash flows may be materially and adversely affected if:

- we are unable to improve our existing products on a timely basis;
- our new products are not introduced on a timely basis or do not achieve sufficient market penetration; or
- our new products experience reliability or quality problems.

*Shifts In Industry-wide Demands And Inventories Could Result In Significant Inventory Write-downs.*

The life cycles of some of our products depend heavily upon the life cycles of the end products into which our products are designed. Products with short life cycles require us to manage production and inventory levels closely. We evaluate our ending inventories on a quarterly basis for excess quantities, impairment of value and obsolescence. This evaluation includes analysis of sales levels by product and projections of future demand based upon input received from our customers, sales team and management estimates. If inventories on hand are in excess of demand, or if they are greater than 12-months old, appropriate reserves are provided. In addition, we write off inventories that are considered obsolete based upon changes in customer demand, manufacturing process changes that result in existing inventory obsolescence or new product introductions, which eliminate demand for existing products. Remaining inventory balances are adjusted to approximate the lower of our manufacturing cost or market value.

If future demand or market conditions are less favorable than our estimates, additional inventory write-downs may be required. We cannot assure investors that obsolete or excess inventories, which may result from unanticipated changes in the estimated total demand for our products and/or the estimated life cycles of the end products into which our products are designed, will not affect us beyond the inventory charges that we have already taken.

*The Time And Costs Of Developing New Products May Exceed Our Budget And Our Products May Not Be Commercially Successful.*

We continue to introduce a number of new products, and expect to be introducing additional new products in the future. The commercialization of our new products involves substantial expenditures in R&D, production, and marketing. We may be unable to successfully design or manufacture these new products and may have difficulty penetrating new markets. In 2006, we intend to expend significant resources to continue to develop and commercialize a terrestrial solar concentrator based on our high efficiency gallium arsenide solar cell. There can be no assurance that we will successfully complete development or that any resultant system will be as cost effective as existing silicon-based solutions. In addition, development and commercialization may take longer than we anticipate and be more costly than we have budgeted.

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, results of operations, and cash flows could suffer if we incur budget overruns or delays in our R&D efforts.

*We Have Substantial Long-Term Debt Which We May Be Unable To Repay If We Cannot Generate Sufficient Funds To Do So.*

In May 2001, we sold \$175.0 million of 5% Convertible Subordinated Notes due May 15, 2006 (2006 Notes) in a private placement for resale to qualified institutional buyers. In December 2002, EMCORE purchased \$13.2 million principal amount of the notes at prevailing market prices for an aggregate of approximately \$6.3 million. In February 2004, EMCORE exchanged approximately \$146.0 million, or 90.2%, of these remaining 2006 Notes for approximately \$80.3 million aggregate principal amount of new 5% Convertible Senior Subordinated Notes due May 15, 2011 (2011 Notes) and approximately 7.7 million shares of EMCORE common stock. The new notes are convertible into EMCORE common stock at a conversion price of \$8.06 per share, subject to adjustment under customary anti-dilutive provisions. They also are redeemable should EMCORE's common stock price reach \$12.09 per share.

In November 2005, EMCORE exchanged \$14,425,000 aggregate principal amount of EMCORE's 2006 Notes for \$16,580,460 aggregate principal amount of newly issued Convertible Senior Subordinated Notes due May 15, 2011 (New 2011 Notes) pursuant to an Exchange Agreement (Agreement) with Alexandra Global Master Fund Ltd. (Alexandra). The terms of the New 2011 Notes are identical in all material respects to EMCORE's 2011 Notes. The New 2011 Notes are ranked pari passu with the existing 2011 Notes. The New 2011 Notes will be convertible at any time prior to maturity, unless previously redeemed or repurchased by EMCORE, into the shares of EMCORE common stock, no par value, at the conversion rate of 124.0695 shares of common stock per \$1,000 principal amount. The effective conversion rate is \$8.06 per share of common stock, subject to adjustment under customary anti-dilutive provisions. They also are redeemable should EMCORE's common stock price reach \$12.09 per share. The 2006 Notes exchanged by Alexandra represented approximately 91.4% of the \$15,775,000 total amount of existing 2006 Notes outstanding at the time of the transaction. EMCORE intends to redeem for cash the remaining \$1,350,000 of 2006 Notes on or before the May 15, 2006 maturity date.

In addition, we may incur additional debt in the future. This significant amount of debt could, among other things:

- make it difficult for us to make payments on the notes and any other debt we may have;
- make it difficult for us to obtain any necessary future financing for working capital, capital expenditures, debt service requirements or other purposes;
- require us to dedicate a substantial portion of our cash flow from operations to service our debt, which would reduce the amount of our cash flow available for other purposes, including working capital and capital expenditures;
- limit our flexibility in planning for, or reacting to, changes in our business; and
- make us more vulnerable in the event of a further or continued downturn in our business.

If our cash flow is inadequate to meet our obligations or we are unable to generate sufficient cash flow or otherwise obtain funds necessary to make required payments on the notes or our other obligations, we would be in default under the terms thereof. Default under one or both of the note indentures would permit the holders of the notes to accelerate the maturity of the notes and could cause defaults under future indebtedness we may incur. Any such default would have a material adverse effect on our business, prospects, financial condition, results of operations and cash flows. In addition, we cannot assure you that we would be able to repay amounts due in respect of the notes if payment of either or both of the notes were to be accelerated following the occurrence of an event of default as defined in the respective note indentures.

*We May Engage In Acquisitions That May Effect Our Operating Results, Dilute Our Shareholders, and/or Cause Us To Incur Debt.*

We may pursue acquisitions to acquire new technologies, products or service offerings. Future acquisitions by us may involve the following:

- use of significant amounts of cash;
- potentially dilutive issuances of equity securities on potentially unfavorable items; and
- incurrence of debt on potentially unfavorable terms, as well as amortization expense related to other intangible assets.

In addition, acquisitions involve numerous risks, including:

- inability to achieve anticipated synergies;
- difficulties in the integration of the operations, technologies, products and personnel of the acquired company;
- diversion of management's attention from other business concerns;
- risks of entering markets in which we have no or limited prior experience; and
- potential loss of key employees of the acquired company or of EMCORE.

From time to time, we have engaged in discussions with acquisition candidates regarding potential acquisitions of product lines, technologies and businesses. If acquisitions occur, we cannot be certain that our business, operating results and financial condition will not be materially and adversely affected.

In the past several years we have completed several major acquisitions, which have reoriented EMCORE's strategy and broadened our product lines within our target markets. However, if customer demand in these markets does not meet current expectations, our revenues could be significantly reduced, and we could suffer a material adverse effect on our financial condition, results of operations and cash flows.

*Our Acquisitions Place A Strain On Our Resources.*

We are in a dynamic business and certain of our larger acquisitions over the past several years have presented many challenges. These acquisitions have placed, and will continue to place, a significant strain on our management, financial, sales, and other employees, as well as on our internal systems and controls. If we are unable to effectively manage multiple facilities and a joint venture in geographically distant locations, our business, financial condition, results of operations and cash flows could be materially and adversely affected.

*Cisco Systems, Inc. (Cisco) is an important customer, accounting for 19% of our revenue in fiscal 2005. The majority of our revenues from Cisco come from the sale of our LX4 module.*

We sell most of our LX4 modules to Cisco. Until recently, EMCORE was the sole supplier of LX4 modules to Cisco, and we currently continue to supply Cisco with the majority of its needs. In fiscal 2005, sales to Cisco accounted for 19% of our total revenue. The majority of this revenue came from sales of our LX4 module. We do not have an exclusive commercial arrangement with Cisco and Cisco has made it clear that continued sales are dependent on our continuing to be the leader in price, quality and delivery. We understand that Cisco has recently qualified another vendor for LX4 modules and is working with several other vendors (including EMCORE) to qualify the next generation LX4 module, the X2. There can be no assurance that EMCORE will continue to be the dominant supplier of LX4 modules to Cisco or that EMCORE will be selected to supply X2

modules to Cisco. Absent strong demand for EMCORE's LX4 modules from other customers, if Cisco decreases its purchase orders, for any reason, our business and operating results (including, among other things, our revenue and gross margin) will be harmed, at least in the short-term.

*The Markets In Which We Compete Are Highly Competitive. An Increase In Competition Would Limit Our Ability To Maintain Or Increase Our Market Share.*

We face substantial competition from a number of companies, many of which have greater financial, marketing, manufacturing and technical resources. Larger-sized competitors could spend more on R&D, which could give those competitors an advantage in meeting customer demand. We expect that existing and new competitors will improve the design of their existing products and will introduce new products with enhanced performance characteristics. The introduction of new products or more efficient production of existing products by our competitors could result in price reductions and increases in expenses, and reduce market acceptance of our products, which could diminish our market share and gross margins.

*We Face Intense and Predatory Competition in Certain Markets.*

The compound semiconductor industry has been undergoing a period of significant consolidation, and we believe that some of our competitors have engaged in below-cost sales and other predatory conduct in order to preserve revenues and/or drive their competitors out of business. As part of our strategy to achieve profitable growth, we may be unable to win future business from customers who elect to buy from such predatory companies. As a result, our revenues may decline as we focus on profitable business opportunities (by not choosing to bid on orders with negative gross margins), and our business, financial condition, results of operations, and cash flows may be materially and adversely impacted.

*We May Not Respond Effectively to Increased Competition Caused by Industry Volatility and Consolidation.*

Our business could be seriously harmed if we do not compete effectively. We face competitive challenges, especially from Asia, that are likely to arise from a number of factors, including industry volatility resulting from rapid product development cycles; increasing price competition due to maturation of technologies; industry consolidation resulting in competitors with greater financial, marketing, and technical resources; the emergence of new competitors in Asia with lower cost structures and competitive offerings; and greater competition for fewer customers as a result of consolidation in our sales channels.

*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. They can include:

- the volume and timing of orders and payments for our products;
- the timing of our announcements and introduction of new products and of similar announcements by our competitors;
- downturns in the market for our customers' products;
- regional economic conditions, particularly in locations (such as the United States and Asia) where we derive a significant portion of our revenues;
- price volatility in the compound semiconductor industry; and
- changes in product mix.

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.

*General Electric Lighting, Our Joint Venture Partner, Who Has Majority Ownership and Control Of GELcore, May Make Decisions That We Do Not Agree With And That Adversely Affect Our Net Income.*

We have a 49% minority interest in our GELcore joint venture with General Electric Lighting. A board of managers governs GELcore with representatives from both General Electric Lighting and EMCORE. Many fundamental decisions must be approved by both parties, which means we will be unable to direct the operation and direction of GELcore without the agreement of General Electric Lighting. If we are unable to agree on important issues with General Electric Lighting, GELcore's business may be delayed or interrupted, which may, in turn, materially and adversely affect our business, financial condition, results of operations and cash flows.

We have devoted and may be required to continue to devote significant funds and technologies to GELcore to develop and enhance its products. In addition, GELcore requires that some of our employees devote much of their time to its projects. This places a strain on our management, scientific, financial, and sales employees. If GELcore is unsuccessful in developing and marketing their products, our business, financial condition, results of operations and cash flows may be materially and adversely affected.

General Electric Lighting and EMCORE have agreed that this 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 how each of us can make use of the joint venture's technology. One consequence of these limitations is that in certain circumstances, such as a material default by us or certain sales of our interest in the joint venture, we would not be permitted to use the joint venture's technology to compete in the solid state lighting market.

*Since a Significant Percentage of Our Revenues Are From Foreign Sales, Various International Commercial Risks May Disproportionately Affect Our Revenues.*

Sales to customers located outside the U.S. accounted for approximately 15% of our revenues in fiscal 2005, 29% of our revenues in fiscal 2004, and 27% of our revenues in fiscal 2003. 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 international commercial risks may disproportionately affect our revenues:

- political and economic instability may inhibit export of our devices and limit potential customers' access to U.S. dollars in a country or region in which our customers are located;
- we may experience difficulties in the timeliness of collection of foreign accounts receivable and be forced to write off receivables from foreign customers;
- tariffs and other barriers may make our devices less cost competitive;
- the laws of certain foreign countries may not adequately protect our trade secrets and intellectual property or may be burdensome to comply with;
- potentially adverse tax consequences to our customers may make our devices not cost competitive; and
- currency fluctuations may impact foreign investment in U.S. companies, including EMCORE, or affect overseas demand for our products.

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

Exports of our products to certain international destinations (such as the People's Republic of China, Argentina, Brazil, India, Russia, 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. Failure to receive these authorizations may materially and adversely affect our revenues and in turn our business, financial condition, results of operations and cash flows from international sales.

Our communications satellite business is particularly sensitive to export control issues. All of our commercially-available solar cell products are export-controlled. At present, jurisdiction over export of these items is being reviewed by the U.S. Department of State and the U.S. Department of Commerce. During this review period, we are required to apply to the U.S. Department of State for export licenses for our solar cell products. Given the current global political climate, obtaining export licenses can be difficult

and time-consuming. Failure to obtain export licenses for these shipments could significantly reduce our revenue, and could have a material adverse effect on our financial condition, results of operations and cash flows.

*Our Operating Results Could Be Harmed If We Lose Access To Sole Or Limited Sources Of Materials Or Services.*

We currently obtain some components and services for our products from limited or single sources. We generally do not carry significant inventories of any raw materials. Because we often do not account for a significant part of our vendors' business, we may not have access to sufficient capacity from these vendors in periods of high demand. In addition, we risk having important suppliers terminate product lines, change business focus, or even go out of business. Because some of these suppliers are located overseas, we may be faced with higher costs of purchasing these materials if the dollar weakens against other currencies. If we were to change any of our limited or sole source vendors, we would be required to re-qualify each new vendor. Re-qualification could prevent or delay product shipments that could negatively affect our results of operations. In addition, our reliance on these vendors may negatively affect our production if the components vary in quality or quantity. If we are unable to obtain timely deliveries of sufficient components of acceptable quality or if the prices of components for which we do not have alternative sources increase, our business, financial condition, results of operations and cash flows could be materially and adversely affected.

*Our Products Are Difficult To Manufacture And Our Production Could Be Disrupted If We Are Unable To Avoid Manufacturing Difficulties.*

We manufacture many of our wafers and devices in our own production facilities. Difficulties in the production process can cause a substantial percentage of wafers and devices to be rejected. Lower-than-expected production yields may delay shipments or result in unexpected levels of warranty claims, either of which can materially and adversely affect our operating results. We have experienced difficulties in achieving planned yields in the past, particularly in pre-production and upon initial commencement of full production volumes, which have adversely affected our gross margins. Because the majority of our manufacturing costs are relatively fixed, our production yields are critical to our financial results. Because we manufacture many of our products internally, any interruption in manufacturing resulting from fire, natural disaster, equipment failures, or otherwise could materially and adversely affect our business, financial condition, results of operations and cash flows.

*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.*

Nearly all of our products are tested by current and potential customers to determine whether they meet customer or industry specifications. During a given qualification period, we invest significant resources and allocate substantial production capacity to the manufacture of these new products, prior to any commitment to purchase by customers and without generating significant revenues from the qualification process. If we are unable to meet applicable specifications, or do not receive sufficient orders to profitably use the allocated production capacity, our business, financial condition, results of operations and cash flows could be materially and adversely affected.

Our historical and future budgets for operating expenses, capital expenditures, operating leases, and service contracts are based upon our assumptions as to the anticipated market acceptance of our products. Because of the lengthy lead time required for product development and the changes in technology that typically occur during such period, it is difficult to accurately estimate customer demand for a given product. If our products do not achieve expected customer demand, our business, financial condition, results of operations and cash flows could be materially and adversely affected.

*If Our Contract Manufacturers Fail To Deliver Quality Products At Reasonable Prices And On A Timely Basis, Our Results Of Operations And Financial Condition Could Be Materially Affected.*

We are increasing our use of contract manufacturers located outside of the U.S. as a less-expensive alternative to performing our own manufacturing of certain products. If these contract manufacturers do not fulfill their obligations to us, or if we do not properly manage these relationships and the transition of production to these contract manufacturers, our existing customer relationships may suffer. In addition, by undertaking these activities, we run the risk that the reputation and competitiveness of our products and services may deteriorate as a result of the reduction of our control over quality and delivery schedules. We also may experience supply interruptions, import/export controls, cost escalations and competitive disadvantages if our contract manufacturers fail to develop, implement or maintain manufacturing methods appropriate for our products and customers.

Prior to our customers accepting products manufactured at our contract manufacturers, they must requalify the product and manufacturing processes. The qualification process can be lengthy and is expensive, with no guarantee that any particular product qualification process will lead to profitable product sales. The qualification process determines whether the product manufactured at our contract manufacturer achieves the customers' quality, performance and reliability standards. Our expectations as to the time periods required to qualify a product line and ship products in volumes to customers may be erroneous. Delays in qualification can impair the expected timing of transfer of a product line to our contract manufacturer, and may impair the expected amount of sales of the affected products. We may, in fact, experience delays in obtaining qualification of our contract manufacturer's manufacturing lines and, as a consequence, our operating results and customer relationships could be harmed.

Our supply chain and manufacturing process relies on accurate forecasting to provide us with optimal margins and profitability. Because of market uncertainties, forecasting is becoming much more difficult. In addition, as we come to rely more heavily on contract manufacturers, we may have fewer personnel with expertise to manage these third-party arrangements.

*We Have Continuing Concerns Regarding The Manufacture, Profitability Quality, And Distribution Of Our Products.*

EMCORE's success depends upon our ability to timely deliver high quality products to our customers at acceptable cost. As a technology company, we constantly encounter quality, volume, price and cost concerns. These factors have caused considerable strain on our execution capabilities and our customer relations. Currently, we are (a) having difficulty responding to customer delivery expectations for some of our products, (b) unable to fulfill customer demand for some of our products, (c) experiencing yield and quality problems, and (d) expending additional funds and other resources to respond to these execution challenges. We are currently losing additional revenue opportunities due to these concerns. We are also, in the short-term, diverting resources from R&D and other functions to assist with resolving these matters. If we do not improve our performance in all of these areas, our operating results will be harmed, the commercial viability of new products may be challenged and our customers may choose to reduce their orders of our products and purchase additional products from our competitors. Our business, financial condition, results of operations, and cash flows may be materially and adversely affected by these factors.

*We Could Incur Significant Costs To Correct Defective Products.*

Our products are rigorously tested for quality both internally and by our customers. Nevertheless, our products do, and may continue to, fail to meet customer expectations from time-to-time. Also, not all defects are immediately detectible. Failures could result from faulty design or problems in manufacturing. In either case, we could incur significant costs to repair and/or replace defective products under warranty, particularly when such failures occur in installed systems. We have experienced such failures in the past and remain exposed to such failures. In some cases, product redesigns and/or rework may be required to correct a defect, and such occurrences could adversely impact future business with effected customers. Our business, financial condition, results of operations and cash flows may be materially and adversely affected by any unexpected warranty costs.

*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. The competition for attracting and retaining these employees (especially scientists and technical personnel) is intense. Because of this competition for 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 the extent necessary to keep up with our business demands and changes, our financial condition, results of operations and cash flows may 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. 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, our joint venture partner, 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, results of operations and cash flows.

There is also no assurance that any patents will afford us commercially significant protection of our technologies or that we will have adequate resources to enforce our patents. We are actively pursuing patents on some of our recent inventions. In addition, the laws of certain other countries may not protect our intellectual property to the same extent as U.S. laws.

*Our Failure To Obtain Or Maintain The Right To Use Certain Intellectual Property May Adversely Affect Our Financial Results.*

The compound semiconductor, optoelectronics and fiber optic 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 litigation relating to our intellectual property, there can be no assurance that:

- infringement claims (or claims for indemnification resulting from infringement claims) will not be asserted against us or that such claims will not be successful;
- future assertions will not result in an injunction against the sale of infringing products or otherwise significantly impair our business and results of operations;
- any patent owned by us will not be invalidated, circumvented or challenged; or
- we will not be required to obtain licenses, the expense of which may adversely affect our results of operations and profitability.

In addition, effective copyright and trade secret protection may be unavailable or limited in certain foreign countries. Litigation, which could result in substantial cost to us and diversion of our resources, may be necessary to defend our rights or defend us against claimed infringement of the rights of others.

*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, Jr., 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 approximately 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.*

Some of our production activities involve the use of certain hazardous raw materials, including, but not limited to, ammonia, gallium, 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, results of operations and cash flows.

*Compliance Obligations Will Cause Us To Incur Increased Costs.*

Changes in the laws and regulations affecting public companies over the past several years, including certain provisions of the Sarbanes-Oxley Act of 2002, have resulted in additional internal and external expenses required to respond to these new requirements. In particular, we have incurred and will continue to incur general and administrative expense as we have implemented Section 404 of the Sarbanes-Oxley Act, which requires management to report on, and our independent auditors to attest to, our internal controls. Compliance with these new rules requires management to devote substantial time and attention to accounting and other compliance matters, which can be disruptive to product development, marketing and other business activities. Furthermore, these new requirements may make it more difficult for us to attract and retain qualified persons to serve on our board of directors or as executive officers, which could harm our business.

*We May Have Difficulty Obtaining Director And Officer Liability Insurance In Acceptable Amounts For Acceptable Rates Which Could Impair Our Ability To Recruit And Retain Qualified Officers And Directors.*

Like most other public companies, we carry insurance protecting our officers and directors against claims relating to the conduct of our business. Historically, this insurance covered, among other things, the costs incurred by companies and their management to defend against and resolve claims relating to management conduct and results of operations, such as securities class action claims. These claims typically are extremely expensive to defend against and resolve. Hence, as is customary, we purchase and maintain insurance to cover some of these costs. We pay significant premiums to acquire and maintain this insurance, which is provided by third-party insurers, and we agree to underwrite a portion of such exposures under the terms of the insurance coverage. Over the last several years, the premiums we have paid for this insurance have increased substantially. One consequence of the current economic environment and decline in stock prices has been a substantial increase in the number of securities class actions and similar claims brought against public corporations and their management. Consequently, insurers providing director and officer liability insurance have in recent periods sharply increased the premiums they charge for this insurance, raised retentions (that is, the amount of liability that a company is required to pay to defend and resolve a claim before any applicable insurance is provided), and limited the amount of insurance they will provide. Moreover, insurers typically provide only one-year policies.

Each year we negotiate with insurers to renew our director and officer insurance. Particularly in the current economic environment, we cannot be certain that we will be able to obtain sufficient director and officer liability insurance coverage in the future at acceptable rates and with acceptable deductibles and other limitations. Failure to obtain such insurance could materially harm our financial condition in the event that we are required to defend against and resolve any future securities class actions or other claims made against us or our management arising from the conduct of our operations. Further, the inability to obtain such insurance in adequate amounts may impair our future ability to retain and recruit qualified officers and directors.

*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 EMCORE 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 and may depress the price of our common stock.

*Certain Provisions Of New Jersey Law And Our Charter May Make A Takeover Of EMCORE 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 and this could depress the price of our common stock.

*The Price Of Our Common Stock May Fluctuate Widely In The Future.*

EMCORE's stock price has experienced large swings over the last year, and may continue to fluctuate widely in the future. In fiscal 2005, our stock price was as high as \$6.12 per share and as low as \$1.46 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.

Factors such as quarterly fluctuations in financial results, the estimates and projections of industry analysts, 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. Similarly, the NASDAQ National Market has experienced and may continue to experience significant price and volume fluctuations, which could adversely affect the market price of our common stock without regard to our operating performance.

**Item 2. Properties.**

The following chart contains certain information regarding each of EMCORE's principal facilities as of September 30, 2005. Except for the storage facility located in Somerset, NJ, each of these facilities contains office, marketing, sales, and R&D space.

<u>Location</u>	<u>Function</u>	<u>Approximate Sq. Feet</u>	<u>Terms (in fiscal year)</u>
Somerset, New Jersey	Corporate Headquarters	18,716	Lease expires in 2007 <sup>(1)</sup>
	Manufacturing of RF materials	19,500	Lease expires in 2007 <sup>(2)</sup>
	Storage facility	47,000	Lease expires in 2006 <sup>(1)(3)</sup>
Albuquerque, New Mexico	Manufacturing of photovoltaic and fiber optic products	145,000	Owned by EMCORE <sup>(4)</sup>
City of Industry, California	Manufacturing of photovoltaic panels	71,699	Lease expires in 2007
Alhambra, California	Manufacturing of CATV, FTTP, and satcom products	75,000	Lease expires in 2011 <sup>(1)</sup>
Santa Clara, California	Fiber optics sales and R&D facility	4,000	Lease expires in 2006
Ewing, New Jersey	CATV sales and R&D facility	8,880	Site license expires in Nov. 2005 <sup>(5)</sup>
Downers Grove, Illinois	Manufacturing of LX4 modules; R&D facility	11,700	Month to month

Notes

- (1) Leases have the option to be renewed by EMCORE, subject to inflation adjustments.
- (2) EMCORE has the right of first offer to purchase the building in which the lease property is located.
- (3) EMCORE subleases this space to a third party.
- (4) EMCORE subleases approximately 20,000 square feet of this facility to third parties.
- (5) Limited transitional site license under Asset Purchase Agreement with JDS Uniphase.

**Item 3. Legal Proceedings.**

We are involved in lawsuits and proceedings which arise in the ordinary course of business. There are no matters pending that we expect to be material in relation to our business, consolidated financial condition, results of operations, or cash flows.

**Item 4. Submission of Matters to a Vote of Security Holders.**

No matters were submitted to a vote of security holders during the fourth quarter of fiscal 2005.

## PART II

### Item 5. Market for Registrant's Common Equity, Related Stockholder Matters, and Issuer Purchases of Equity Securities.

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 two most recent fiscal years.

	<u>High</u>	<u>Low</u>
<b>Fiscal year ended September 30, 2004:</b>		
First Quarter	\$ 6.13	\$ 2.75
Second Quarter	\$ 7.93	\$ 3.01
Third Quarter	\$ 5.15	\$ 2.46
Fourth Quarter	\$ 3.89	\$ 1.90
<b>Fiscal year ended September 30, 2005:</b>		
First Quarter	\$ 3.97	\$ 1.46
Second Quarter	\$ 3.77	\$ 2.25
Third Quarter	\$ 4.75	\$ 2.70
Fourth Quarter	\$ 6.12	\$ 4.00

The reported closing sale price of EMCORE's common stock on November 30, 2005 was \$6.14 per share. As of November 30, 2005, EMCORE had approximately 6,800 shareholders of record. EMCORE has never declared or paid dividends on its common stock since the company's formation. EMCORE currently does not intend to pay dividends on its common stock in the foreseeable future, so that it may reinvest any earnings in its business. The payment of dividends, if any, in the future is at the discretion of the Board of Directors.

### Equity Compensation Plan Information

The following table sets forth the number of securities outstanding under each of EMCORE's stock option plans, the weighted average exercise price of such options, and the number of options available for grant under such plans, as of September 30, 2005.

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
	(a)	(b)	(c)
Equity compensation plans approved by security holders	6,164,306	\$ 4.16	449,972
Equity compensation plans not approved by security holders	1,920	0.23	-
<b>Total</b>	<b>6,166,226</b>	<b>\$ 4.16</b>	<b>449,972</b>

### Item 6. Selected Financial Data.

The following selected consolidated financial data of EMCORE's five most recent fiscal years ended September 30, 2005 is qualified by reference to, and should be read in conjunction with Management's Discussion and Analysis of Financial Condition and Results of Operations under [Item 7](#) and Financial Statements and Supplemental Data under [Item 8](#). The Statement of Operations data set forth below with respect to fiscal years 2005, 2004, and 2003, and the Balance Sheet data as of September 30, 2005 and 2004, are derived from EMCORE's audited financial statements included elsewhere in this document. The Statement of Operations data for fiscal years 2002 and 2001, and the Balance Sheet data as of September 30, 2003, 2002, and 2001, are derived from audited financial statements not included herein. Significant transactions that affect the comparability of EMCORE's operating results and financial condition include:

*In November 2003, EMCORE sold its TurboDisc capital equipment business to a subsidiary of Veeco Instruments, Inc. (Veeco). EMCORE's financial statements have been reclassified to reflect the TurboDisc business as a discontinued operation for all prior periods presented.*

#### Fiscal 2001:

Interest income and interest expense reflect the May 2001 issuance of \$175.0 million aggregate principal amount of 5% convertible subordinated notes due in May 2006 (2006 Notes).

Other income included a net gain of \$5.9 million related to the settlement of litigation and a net gain of \$10.0 million in connection with the sale of the Uniroyal Optoelectronics LLC (UOE) joint venture.

Equity in net loss of unconsolidated affiliates included an approximate \$7.4 million charge associated with the UOE joint venture along with an approximate \$4.9 million charge associated with the GELcore joint venture.

Effective October 1, 2000, EMCORE changed its revenue recognition policy to defer the portion of revenue related to the installation of TurboDisc MOCVD systems until final acceptance. The net effect of this change was \$3.6 million.

#### Fiscal 2002:

In March 2002, EMCORE acquired certain assets of Tecstar for a total cash purchase price of approximately \$25.1 million.

EMCORE recorded pre-tax charges to income totaling \$40.7 million, which included: a) a severance SG&A charge of \$0.8 million related to employee termination costs; b) a non-cash SG&A charge of \$30.8 million related to impairment of certain fixed assets; c) an inventory write-down expense of \$7.7 million charged to cost of revenue; and d) an additional reserve for doubtful accounts of \$1.4 million which was charged to SG&A expense.

Financial Accounting Standards Board approved an accounting standard that no longer requires goodwill to be amortized.

Other expense included a charge of \$14.4 million associated with the write-off of two investments.

#### **Fiscal 2003:**

In January 2003, EMCORE purchased Ortel for \$26.2 million in cash.

In December 2002, EMCORE purchased \$13.2 million principal amount of the 2006 Notes at prevailing market prices for approximately \$6.3 million. Total gain from debt extinguishment was \$6.6 million after netting unamortized debt issuance costs of approximately \$0.3 million.

#### **Fiscal 2004:**

In November 2003, EMCORE sold its TurboDisc capital equipment business to Veeco in a transaction that is valued at up to \$80.0 million. The net gain associated with the sale of the TurboDisc business totaled approximately \$19.6 million.

In February 2004, EMCORE exchanged approximately \$146.0 million, or 90.2%, of the 2006 Notes for approximately \$80.3 million aggregate principal amount of new 5% Convertible Senior Subordinated Notes due May 15, 2011 and approximately 7.7 million shares of EMCORE common stock. Total net gain from debt extinguishment was \$12.3 million.

SG&A expense included approximately \$1.2 million in severance-related charges.

Other expense included a charge of \$0.5 million associated with the write-down of an investment.

#### **Fiscal 2005:**

SG&A expense included approximately \$0.9 million in severance-related charges and \$2.3 million of City of Industry related charges.

EMCORE received a \$12.5 million net earn-out payment from Veeco in connection with the sale of the TurboDisc business.

### **Selected Financial Data**

#### **Balance Sheet Data As of September 30, (in thousands)**

	2005	2004	2003	2002	2001
Cash, cash equivalents and marketable securities	\$ 40,175	\$ 51,572	\$ 28,439	\$ 84,181	\$ 147,661
Working capital	39,098	58,541	77,464	111,825	201,215
Total assets	206,287	213,243	232,439	285,943	403,553
Long-term liabilities	94,709	96,078	161,791	175,087	175,046
Shareholders' equity	\$ 75,563	\$ 85,809	\$ 44,772	\$ 81,950	\$ 197,127

#### **Statement of Operations Data For the fiscal years ended September 30, (in thousands)**

	FY 2005	FY 2004	FY 2003	FY 2002	FY 2001
Revenue	\$ 127,603	\$ 93,069	\$ 60,284	\$ 51,236	\$ 53,473
Cost of revenue	106,746	85,780	61,959	62,385	41,784
Gross profit (loss)	20,857	7,289	(1,675)	(11,149)	11,689
Operating expenses:					
Selling, general and administrative	25,136	21,927	21,637	47,295	15,714
Research and development	17,429	23,555	17,002	30,580	42,204
Goodwill amortization	-	-	-	-	1,147
Total operating expenses	42,565	45,482	38,639	77,875	59,065
Operating loss	(21,708)	(38,193)	(40,314)	(89,024)	(47,376)
Other (income) expenses:					
Interest income	(1,081)	(783)	(1,009)	(2,865)	(5,222)
Interest expense	4,844	6,156	8,288	8,936	3,240
Gain from debt extinguishment	-	(12,312)	(6,614)	-	-
Other expense (income)	-	500	-	14,388	(15,920)
Equity in net loss (income) of unconsolidated affiliates	112	(789)	1,228	2,706	12,326
Total other expenses (income)	3,875	(7,228)	1,893	23,165	(5,576)
Loss from continuing operations	(25,583)	(30,965)	(42,207)	(112,189)	(41,800)
Discontinued operations:					
(Loss) income from discontinued operations	-	(2,045)	3,682	(17,572)	33,158
Gain on disposal of discontinued operations	12,476	19,584	-	-	-
Income (loss) from discontinued operations	12,476	17,539	3,682	(17,572)	33,158
Net loss before cumulative effect of a change in accounting principle	(13,107)	(13,426)	(38,525)	(129,761)	(8,642)

Cumulative effect of a change in accounting principle	-	-	-	-	(3,646)
Net loss	\$ (13,107)	\$ (13,426)	\$ (38,525)	\$ (129,761)	\$ (12,288)
<b>Per share data:</b>					
Basic and diluted per share data:					
Loss from continuing operations	\$ (0.54)	\$ (0.72)	\$ (1.14)	\$ (3.07)	\$ (1.21)
Income (loss) from discontinued operations	0.26	0.41	0.10	(0.48)	0.96
Cumulative effect of a change in accounting principle	-	-	-	-	(0.11)
Net loss	\$ (0.28)	\$ (0.31)	\$ (1.04)	\$ (3.55)	\$ (0.36)
Weighted average number of shares outstanding used in basic and diluted per share calculations	47,387	43,303	36,999	36,539	34,438

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

This Annual Report on Form 10-K includes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Exchange Act of 1934. These forward-looking statements are based largely on our current expectations and projections as they relate to our future results, prospects, developments, and business strategies. These forward-looking statements may be identified by the use of terms and phrases such as "expects", "anticipates", "intends", "plans", "believes", "estimate", "predict", "target", "may", "could", "will", and variations of these terms and phrases including references to assumptions. These forward-looking statements are subject to known and unknown risks, business, economic, and other risks and uncertainties, that may cause actual results to be materially different from those discussed in these forward-looking statements. The cautionary statements made in this report should be read as being applicable to all forward-looking statements wherever they appear in this report. This discussion should be read in conjunction with the consolidated financial statements, including the related footnotes. If one or more of these risks or uncertainties materialize, or if underlying assumptions prove incorrect, our actual results may vary materially from those expected or projected.

### Company Overview

EMCORE Corporation (EMCORE), a New Jersey corporation established in 1984, offers a broad portfolio of compound semiconductor-based components and subsystems for the broadband, fiber optic, satellite, solar and wireless communications markets. EMCORE has three operating segments: Fiber Optics, Photovoltaics, and Electronic Materials and Devices. Our integrated solutions philosophy embodies state-of-the-art technology, material science expertise, and a shared vision of our customer's goals and objectives to be leaders in the transport of video, voice and data over copper, hybrid fiber/coax (HFC), fiber, satellite, and wireless networks.

EMCORE's solutions include: optical components and subsystems for fiber-to-the-premise, cable television, and high speed data and telecommunications networks; solar cells, solar panels, and fiber optic ground station links for global satellite communications; and RF transistor materials for high bandwidth wireless communications systems, such as WiMAX and Wi-Fi Internet access and 3G mobile handsets and PDA devices.

Through its joint venture participation in GELcore, LLC, EMCORE plays a vital role in developing and commercializing next-generation High-Brightness LED technology for use in the general and specialty illumination markets.

### Management Summary

We are an industry-leading company in the development and manufacture of optoelectronic and high-frequency products. By leveraging our broad compound semiconductor expertise to provide cost-effective components, subsystems, and systems, we are focused on six key markets:

- High-speed Fiber Optics for Telephony and Internet Core and Metro Networks
- High-speed Fiber Optics for Large Enterprise Data Communications, Super Computing, and Storage Area Networks
- Next-generation Cable TV and Fiber-to-the-Premise "Triple Play" Networks
- Satellite Communications, in Space and on the Ground
- Advanced Transistors and Amplifiers Used in High-Bandwidth Wireless Communications Systems, such as WiMAX and Wi-Fi Internet access and 3G mobile handsets and PDA devices
- Solid State Lighting for Specialty and Commercial Illumination

In fiscal 2005, demand for the Company's products was driven principally by increased communications bandwidth requirements and by expanded competition between telecommunications carriers, cable TV MSOs, and wireless network providers for the delivery of video, voice and data. We continued our leadership of the 10G Ethernet space, acquired JDSU's CATV business and privately-held Phasebridge to expand our leading positions in CATV and Specialty fiber products, launched our next-generation FTTP triplexer product, won several major satellite programs, and increased our 3G wireless and base station materials sales by over 50%.

In fiscal 2005, we significantly exceeded our revenue objectives, expanding the business by more than 37% over the prior year. We also continued our efforts to streamline operations and focus on bottom-line profitability. As a result, we attained our goal of dramatically improving gross margins, and achieved positive cash flows from operations in the September 30 fiscal quarter. We expect these growth trends to continue in fiscal 2006, as accelerating demand for our products has increased year-end sales backlog by 40% to over \$40 million.

Our primary objectives for the coming year are to achieve positive operating income during the second half of fiscal 2006 and positive net income by the end of fiscal 2006; to expand our satellite photovoltaics technologies into the terrestrial solar power markets; to continue our successful growth in digital fiber optics products and technologies; and to expand our defense and government markets activities across all operating segments.

We are operationally focused on driving profitable revenue growth based on our existing product lines, developing or acquiring next-generation technologies and high-margin products for our strategic markets, and continuing our business optimization efforts to manage costs and enhance productivity. While achieving 20-30% annual top-line growth, we intend to remove over \$10 million in COGS through material cost reductions, overseas contract manufacturing labor, and product design improvements.

### Business Segments, Geographic Revenues, Customers and Backlog

The following table sets forth the revenues and percentage of total revenues attributable to each of EMCORE's operating segments for each of the past three fiscal years.

### Product Revenues

For the fiscal years ended September 30,

(in thousands)	FY 2005		FY 2004		FY 2003	
	Revenue	% of Revenue	Revenue	% of Revenue	Revenue	% of Revenue
Fiber Optics	\$ 81,960	64.2%	\$ 56,169	60.4%	\$ 32,658	54.2%
Photovoltaics	33,407	26.2	25,716	27.6	18,196	30.2
Electronic Materials and Devices	12,236	9.6	11,184	12.0	9,430	15.6
Total revenues	<u>\$ 127,603</u>	<u>100.0%</u>	<u>\$ 93,069</u>	<u>100.0%</u>	<u>\$ 60,284</u>	<u>100.0%</u>

The following table sets forth EMCORE's consolidated revenues by geographic region. Revenue was assigned to geographic regions based on the customers' or contract manufacturers' shipment locations.

### Geographic Revenues

For the fiscal years ended September 30,

(in thousands)	FY 2005		FY 2004		FY 2003	
	Revenue	% of Revenue	Revenue	% of Revenue	Revenue	% of Revenue
United States	\$ 107,956	84.6%	\$ 66,485	71.4%	\$ 44,136	73.2%
Asia and South America	13,728	10.8	15,912	17.1	9,018	15.0
Europe	5,919	4.6	10,672	11.5	7,130	11.8
Total revenues	<u>\$ 127,603</u>	<u>100.0%</u>	<u>\$ 93,069</u>	<u>100.0%</u>	<u>\$ 60,284</u>	<u>100.0%</u>

EMCORE is devoted to working directly with its customers from initial product design, product qualification and manufacturing to product delivery. We design and develop (i) process technology, (ii) material science expertise, (iii) optical sub-assemblies, and/or (iv) integrated module level products for use in our customers' end-use applications. EMCORE's customer base includes many of the largest semiconductor, telecommunications, data communications, and computer manufacturing companies in the world. In fiscal 2005, Cisco Systems, Inc. (Cisco) accounted for 19% of our total revenue. In fiscal 2004, Motorola, Inc. (Motorola) and Cisco accounted for 13% and 8% of our total revenue, respectively. In fiscal 2003, Motorola accounted for 14% of total revenue.

As of September 30, 2005, EMCORE had a backlog of approximately \$40.2 million as compared to a backlog of \$28.8 million as reported at September 30, 2004. We believe that substantially all of our backlog can be shipped during the next 12 months, with the exception of approximately \$0.6 million on a certain long-term contract. Given our current market environment, customers may delay shipment of certain orders and our backlog could also be adversely affected if customers unexpectedly cancel purchase orders accepted by us. A majority of EMCORE's products typically ship within the same quarter as when the purchase order is received; therefore, our backlog at any particular date is not necessarily indicative of actual revenue or the level of orders for any succeeding period.

The following table set forth operating loss attributable to each EMCORE operating segment.

### Operating Loss by Segment

For the fiscal years ended September 30,

(in thousands)	FY 2005	FY 2004	FY 2003
Operating loss by segment:			
Fiber Optics	\$ (13,681)	\$ (24,889)	\$ (19,790)
Photovoltaics	(4,234)	(8,571)	(14,488)
Electronic Materials and Devices	(3,793)	(4,733)	(6,036)
Total operating loss	<u>(21,708)</u>	<u>(38,193)</u>	<u>(40,314)</u>
Other (income) expenses:			
Interest expense, net	3,763	5,373	7,279
Gain from debt extinguishment	-	(12,312)	(6,614)
Investment loss	-	500	-
Equity in net loss (income) of GELcore	112	(789)	1,228
Total other expenses (income)	<u>3,875</u>	<u>(7,228)</u>	<u>1,893</u>
Loss from continuing operations	<u>\$ (25,583)</u>	<u>\$ (30,965)</u>	<u>\$ (42,207)</u>

Long-lived assets (consisting of property, plant and equipment, goodwill and intangible assets) for each operating segment are as follows:

### Long-Lived Assets

As of September 30,

(in thousands)	2005	2004
Fiber Optics	\$ 56,261	\$ 59,802
Photovoltaics	37,861	38,577
Electronic Materials and Devices	2,825	5,736
Total	<u>\$ 96,947</u>	<u>\$ 104,115</u>

### Critical Accounting Policies

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 reported period. Management bases estimates on historical experience and on various assumptions about the future that are believed to be reasonable based on available information. EMCORE's reported financial position or results of operations may be materially different under changed conditions or when using different estimates and assumptions, particularly with respect to significant accounting policies, which are discussed below. In the event that estimates or assumptions

prove to differ from actual results, adjustments are made in subsequent periods to reflect more current information. EMCORE's most significant estimates relate to accounts receivable, inventory, warranty accruals, goodwill, intangibles, other long-lived assets, and revenue recognition.

**Accounts Receivable.** EMCORE regularly evaluates its accounts receivable and accordingly maintains allowances for doubtful accounts for estimated losses resulting from the inability of our customers to meet their financial obligation to us. The allowance is based on the age of receivables and a specific identification of receivables considered at risk. EMCORE classifies charges associated with the allowance for doubtful accounts as a SG&A expense. If the financial condition of our customers were to deteriorate, additional allowances may be required.

**Inventory.** Inventory is stated at the lower of cost or market, with cost being determined using the standard cost method. EMCORE reserves against inventory once it has been determined that: (i) conditions exist that may not allow the inventory to be sold for its intended purpose, (ii) the inventory's value is determined to be less than cost, (iii) or the inventory is determined to be obsolete. The charge related to inventory reserves is recorded as a cost of revenue. The majority of the inventory write-downs are related to estimated allowances for inventory whose carrying value is in excess of net realizable value and on excess raw material components resulting from finished product obsolescence. In most cases where EMCORE sells previously written down inventory, it is typically sold as a component part of a finished product. The finished product is sold at market price at the time resulting in higher average gross margin on such revenue. EMCORE does not track the selling price of individual raw material components that have been previously written off, since such raw material components usually are only a portion of the resultant finished products and related sales price. EMCORE evaluates inventory levels at least quarterly against sales forecasts on a significant part-by-part basis, in addition to determining its overall inventory risk. Reserves are adjusted to reflect inventory values in excess of forecasted sales, as well as overall inventory risk assessed by management. We have incurred, and may in the future incur, charges to write-down our inventory. While we believe, based on current information, that the amount recorded for inventory is properly reflected on our balance sheet, if market conditions are less favorable than our forecasts, our future sales mix differs from our forecasted sales mix, or actual demand from our customers is lower than our estimates, we may be required to record additional inventory write-downs.

**Valuation of Goodwill and Intangible Assets.** Goodwill represents the excess of the purchase price of an acquired business or assets over the fair value of the identifiable assets acquired and liabilities assumed. Intangible assets consist primarily of intellectual property acquired and purchased intangible assets. Purchased intangible assets include existing and core technology, trademarks and trade names, and customer contracts. Intangible assets are amortized using the straight-lined method over estimated useful lives ranging from 1 to 5 years. EMCORE evaluates its goodwill and intangible assets for impairment on an annual basis, or whenever events or changes in circumstances indicate that the carrying value may not be recoverable. EMCORE last evaluated its goodwill and intangible assets during the quarter ended March 31, 2005. Circumstances that could trigger an impairment test include but are not limited to: a significant adverse change in the business climate or legal factors; an adverse action or assessment by a regulator; unanticipated competition; loss of key personnel; the likelihood that a reporting unit or significant portion of a reporting unit will be sold or otherwise disposed; results of testing for recoverability of a significant asset group within a reporting unit; and recognition of a goodwill impairment loss in the financial statements of a subsidiary that is a component of a reporting unit. The determination as to whether a write-down of goodwill or intangible assets is necessary involves significant judgment based on the short-term and long-term projections of the future performance of the reporting unit to which the goodwill or intangible assets are attributed. During fiscal 2005, 2004, and 2003, EMCORE tested for impairment of goodwill on an annual basis and did not record any impairment charges on any goodwill or intangible assets. As part of our quarterly review of financial results, we did not identify any impairment indicators that the carrying value of our goodwill may not be recoverable. In accordance with Statement of Financial Accounting Standard (SFAS) No. 142, *Goodwill and Other Intangible Assets*, the fair value of the reporting units was determined by using a valuation technique based on each reporting unit's weighted average revenue. Based on that analysis, we determined that the carrying amount of the reporting units did not exceed their fair value.

**Valuation of Long-lived Assets.** EMCORE reviews long-lived assets on an annual basis or whenever events or circumstances indicate that the assets may be impaired. A long-lived asset is considered impaired when its anticipated undiscounted cash flow is less than its carrying value. In making this determination, EMCORE uses certain assumptions, including, but not limited to: (a) estimates of the fair market value of these assets; and (b) estimates of future cash flows expected to be generated by these assets, which are based on additional assumptions such as asset utilization, length of service that assets will be used in our operations, and estimated salvage values. During fiscal 2005, 2004, and 2003, we recorded no impairment charges on any of EMCORE's long-lived assets.

**Product Warranty Reserves.** EMCORE provides its customers with limited rights of return for non-conforming shipments and warranty claims for certain products. In accordance with Financial Accounting Standards Board (FASB) Interpretation No. 45, *Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others*, EMCORE makes estimates using historical experience rates as a percentage of revenue and accrues estimated warranty expense as a cost of revenue. We estimate the costs of our warranty obligations based on our historical experience of known product failure rates, use of materials to repair or replace defective products and service delivery costs incurred in correcting product failures. In addition, from time to time, specific warranty accruals may be made if unforeseen technical problems arise. Should our actual experience relative to these factors differ from our estimates, we may be required to record additional warranty reserves. Alternatively, if we provide more reserves than we need, we may reverse a portion of such provisions in future periods.

**Revenue Recognition.** Revenue is generally recognized upon shipment provided persuasive evidence of a contract exists, (such as when a purchase order or contract is received from a customer), the price is fixed, the product meets its specifications, title and ownership have transferred to the customer, and there is reasonable assurance of collection of the sales proceeds. In those few instances where a given sale involves post shipment obligations, formal customer acceptance documents, or subjective rights of return, revenue is not recognized until all post-shipment conditions have been satisfied and there is reasonable assurance of collection of the sales proceeds. The majority of our products have shipping terms that are free on board (FOB) or free carrier alongside (FCA) shipping point, which means that EMCORE fulfills its delivery obligation when the goods are handed over to the freight carrier at our shipping dock. This means the buyer bears all costs and risks of loss or damage to the goods from that point. In certain cases, EMCORE ships its products cost insurance and freight (CIF). Under this arrangement, revenue is recognized under FCA shipping point terms, but EMCORE pays (and bills the customer) for the cost of shipping and insurance to the customer's designated location. EMCORE accounts for shipping and related transportation costs by recording the charges that are invoiced to customers as revenue, with the corresponding cost recorded as cost of revenue. In those instances where inventory is maintained at a consigned location, revenue is recognized only when our customer pulls product for its use and title and ownership have transferred to the customer. In rare occurrences, at a customer's request, EMCORE enters into bill and hold transactions whereby title and risk of loss transfers to the customer, but carriage to the customer does not occur until a specified later date. EMCORE recognizes revenue associated with the sale of product from bill and hold arrangements when the product is complete, ready for delivery, and all bill and hold criteria have been met. There were no bill and hold arrangements as of September 30, 2005, 2004, or 2003.

**Distributors** - EMCORE uses a number of distributors around the world. In accordance with Staff Accounting Bulletin No. 104, *Revenue Recognition*, EMCORE recognizes revenue upon shipment of product to these distributors. Title and risk of loss pass to the distributors upon delivery, and our distributors are contractually obligated to pay EMCORE on standard commercial terms, just like our other direct customers. EMCORE does not sell to its distributors on consignment and, except in the event of a product discontinuance, does not give distributors a right of return.

**Solar Panel Contracts** - EMCORE records revenues from certain solar panel contracts using the percentage-of-completion method. Revenue is recognized in proportion to actual costs incurred compared to total anticipated costs expected to be incurred for each contract. If estimates of costs to complete long-term contracts indicate a loss, a provision is made for the total loss anticipated. EMCORE has numerous contracts that are in various stages of completion. Such contracts require estimates to determine the appropriate cost and revenue recognition. EMCORE uses all available information in determining dependable estimates of the extent of progress towards completion, contract revenues, and contract costs. Estimates are revised as additional information becomes available. At September 30, 2005 and 2004, EMCORE's accrued program losses totaled approximately \$23,000 and \$120,000, respectively.

**Government R&D Contracts** - R&D contract revenue represents reimbursement by various U.S. government entities, or their contractors, to aid in the development of new technology. The applicable contracts generally provide that EMCORE may elect to retain ownership of inventions made in performing the work, subject to a non-exclusive license retained by the government to practice the inventions for government purposes. The R&D contract funding may be based on a cost-plus, cost reimbursement, cost-share, or a firm fixed price arrangement. The amount of funding under each R&D contract is determined based on cost estimates that include both direct and indirect costs. Cost-plus funding is determined based on actual costs plus a set margin. As we incur costs under cost reimbursement type contracts, we record revenue. Contract costs include material, labor, special tooling and test equipment, subcontracting costs, as well as an

allocation of indirect costs. For cost-share contracts, the actual costs of performance are divided between the U.S. government and EMCORE based on the R&D contract terms. An R&D contract is considered complete when all significant costs have been incurred, milestones have been reached, and any reporting obligations to the customer have been met. Revenues from government R&D contracts amounted to approximately \$11.8 million, \$4.6 million and \$5.2 million for the years ended September 30, 2005, 2004, and 2003 respectively.

The above listing is not intended to be a comprehensive list of all of our accounting policies. In many cases, the accounting treatment of a particular transaction is specifically dictated by generally accepted accounting principles (GAAP). There also are areas in which management's judgment in selecting any available alternative would not produce a materially different result. See our audited consolidated financial statements and notes thereto included in this Annual Report on Form 10-K, which contain a discussion of our accounting policies and other required GAAP disclosures.

## Results of Operations

The following table sets forth the consolidated statements of operations data of EMCORE expressed as a percentage of total revenues for the fiscal years ended September 30, 2005, 2004, and 2003.

### Statement of Operations Data

For the fiscal years ended September 30,

	FY 2005	FY 2004	FY 2003
Revenue	100.0%	100.0%	100.0%
Cost of revenue	83.7	92.2	102.8
Gross profit (loss)	16.3	7.8	(2.8)
Operating expenses:			
Selling, general and administrative	19.7	23.5	35.9
Research and development	13.6	25.3	28.2
Total operating expenses	33.3	48.8	64.1
Operating loss	(17.0)	(41.0)	(66.9)
Other (income) expenses:			
Interest expense, net	3.0	5.7	12.1
Gain from debt extinguishment	-	(13.2)	(11.0)
Investment loss	-	0.5	-
Equity in net (income) loss of GELcore	0.1	(0.8)	2.0
Total other (income) expenses	3.1	(7.8)	3.1
Loss from continuing operations	(20.1)	(33.2)	(70.0)
Discontinued operations:			
(Loss) income from discontinued operations	-	(2.2)	6.1
Gain on disposal of discontinued operations	9.8	21.0	-
Income from discontinued operations	9.8	18.8	6.1
Net loss	(10.3)%	(14.4)%	(63.9)%

### Comparison of Fiscal Years Ended September 30, 2005 and 2004

#### Consolidated Revenue

EMCORE's consolidated revenue increased \$34.5 million or 37% to \$127.6 million in fiscal 2005 from \$93.1 million in fiscal 2004. All three of EMCORE's operating segments: Fiber Optics, Photovoltaics and Electronic Materials and Devices, posted revenue increases year over year. On a product line basis, fiber optics revenues increased \$25.8 million or 46%, photovoltaic revenues increased \$7.7 million or 30%, and revenues from electronic materials and devices increased \$1.0 million or 9% from the prior year. International sales accounted for 15% of revenues in fiscal 2005 and 29% in fiscal 2004. Revenue from government contracts increased \$7.2 million to \$11.8 million in fiscal 2005 from \$4.6 million in fiscal 2004. With increased focus on energy conservation, national security, and fiber optic communications, we expect revenues from government contracts to increase significantly in fiscal 2006. A comparison of revenue earned at each of EMCORE's operating segments follows:

#### Fiber Optics

Over the past several years, communications networks have experienced dramatic growth in data transmission traffic due to worldwide Internet access, e-mail, and e-commerce. As Internet content expands to include full motion video on-demand, HDTV, multi-channel high quality audio, online video conferencing, image transfer, online multi-player gaming, and other broadband applications, the delivery of such data will place a greater demand on available bandwidth and require the support of higher capacity networks. The bulk of this traffic, which continues to grow at a very high rate, is already routed through the optical networking infrastructure used by local and long distance carriers, as well as Internet service providers. Optical fiber offers substantially greater bandwidth capacity, is less error prone, and is easier to administer than older copper wire technologies. As greater bandwidth capability is delivered closer to the end user, increased demand for higher content, real-time, interactive visual and audio content is expected. We believe that EMCORE is well positioned to benefit from the continued deployment of these higher capacity fiber optic networks.

EMCORE's Fiber Optics segment provides optical components, subsystems and systems that enable the transmission of video, voice and data over high-capacity fiber optic cables. Our products enable information that is encoded on light signals to be transmitted, routed (switched) and received in communication systems. EMCORE's Fiber Optics segment serves the cable television (CATV), fiber-to-the-premise (FTTP), telecommunications, data and satellite communications, storage area network and, increasingly, the defense and homeland security markets.

Annual revenues increased \$25.8 million or 46% to \$82.0 million in fiscal 2005 from \$56.2 million in fiscal 2004. On a quarterly basis, fiscal 2005 revenues were \$17.7 million, \$19.0 million, \$21.1 million, and \$24.2 million compared to fiscal 2004 quarterly revenues of \$15.5 million, \$14.2 million, \$11.9 million, and \$14.6 million. Increased sales volume of 10G Ethernet transceiver modules and CATV and FTTX components were the reason for the significant increase in annual revenues. The communications industry in which we participate in continues to be dynamic. The driving factor is the competitive environment that exists between cable operators, telephone companies, and satellite and wireless service providers. Each are rapidly investing capital to deploy a converging multi-service network capable of delivering

“triple play services”, i.e. digitalized video, voice and data content, bundled as a service provided by a single communication provider. As a market leader in radio frequency (RF) transmission over fiber products for the CATV industry, EMCORE enables cable companies to offer multiple forms of communications to meet the expanding demand for high-speed Internet, on-demand and interactive video, and other new services (such as HDTV and VOIP). Television is also undergoing a major transformation, as the US government requires television stations to broadcast exclusively in digital format, abandoning the analog format used for decades. Although the transition date for digital transmissions is not expected for several years, the build-out of these television networks has already begun. To support the telephone companies plan to offer competing video, voice and data services through the deployment of new fiber-based systems, EMCORE has developed and maintains customer qualified FTTP components and subsystem products. Our CATV and FTTP products include broadcast analog and digital fiber optic transmitters, quadrature amplitude modulation (QAM) transmitters, video receivers, and passive optical network (PON) transceivers.

As part of our strategy, we are committed to identifying strategic opportunities that either compliment or broaden our markets. In May 2005, EMCORE acquired the analog CATV and RF over fiber specialty businesses from JDS Uniphase Corporation (JDSU). This acquisition is expected to 1) solidify our leadership position in the CATV marketplace; 2) offer an optimal path to higher volume with improved overall product margins; and 3) expand our product line offering while broadening our customer base in the CATV market segment. The CATV product line purchased from JDSU contributed approximately \$4.0 million in additional revenues during fiscal 2005.

During fiscal 2005, EMCORE also experienced increased demand for its existing parallel optical products: SNAP-12™ and SmartLink™ transceivers. Fiber optics revenue represented 64% and 60% of EMCORE's total revenues in fiscal 2005 and 2004, respectively. Significant customers for the fiber optics product line include: Agilent Technologies, Inc., Alcatel, Aurora Networks, BUPT-GUOAN Broadband, C-Cor Electronics, Cisco, Finisar, Hewlett-Packard Corporation, Intel Corporation, JDSU, Motorola, Network Appliance, Scientific-Atlanta, Inc., Sycamore Networks, Inc., and Tellabs. As a result of successful customer product qualifications and the recent increase in order backlog, annual fiber optics revenues are expected to increase by approximately 20% in fiscal 2006.

### **Photovoltaics**

EMCORE serves the global satellite communications market by providing advanced solar cell products and solar panels. Compound semiconductor solar cells are used to power satellites because they are more resistant to radiation levels in space and convert substantially more power from light, consequently weighing less per unit of power than silicon-based solar cells. These characteristics increase satellite useful life, increase payload capacity, and reduce launch costs. EMCORE's Photovoltaics segment designs and manufactures multi-junction compound semiconductor solar cells for both commercial and military satellite applications. We currently manufacture and sell one of the most efficient and reliable, radiation resistant advanced triple-junction solar cells in the world, with an average "beginning of life" efficiency of 27.5%. EMCORE is also the only manufacturer to supply true monolithic bypass diodes, for shadow protection, utilizing several EMCORE patented methods. A satellite's broadcast success and corresponding revenue depend on its power efficiency and its capacity to transmit data. EMCORE also provides covered interconnect cells (CICs) and solar panel lay-down services, giving us the capacity to manufacture complete solar panels. We can provide satellite manufacturers with proven integrated satellite power solutions that considerably improve satellite economics. Satellite manufacturers and solar array integrators rely on EMCORE to meet their satellite power needs with our proven flight heritage. Through well-established partnerships with major satellite manufacturers and a proven manufacturing process, we play a vital role in the evolution of satellite communications around the world.

Annual revenues increased \$7.7 million or 30% to \$33.4 million in fiscal 2005 from \$25.7 million in fiscal 2004. On a quarterly basis, fiscal 2005 revenues were \$7.5 million, \$7.8 million, \$8.8 million, and \$9.3 million compared to fiscal 2004 quarterly revenues of \$4.5 million, \$6.1 million, \$6.8 million, and \$8.3 million. The increase in revenue was attributable to both increases in solar cell orders and government research contracts. Government contract revenues for photovoltaics products were \$9.4 million and \$2.8 million in fiscal years 2005 and 2004, respectively.

The space power generation market continues to depend on government programs as a result of significant sales price erosion for commercial solar products. Commercial satellite awards decreased from 19 in calendar year 2003 to 13 in calendar year 2004. Commercial satellite awards have increased to 17 through the first 9 months of calendar 2005, representing a modest recovery. There have been indications that the commercial satellite market is improving to some degree as future awards are anticipated for high definition TV, satellite radio and advanced mobile services. Military procurement remains steady, and we are focusing on gaining market share in that area.

EMCORE is presently engaged in a solar cell development and production program for a major US aerospace corporation based on our commercial BTJ photovoltaics technology. The initial phases of this long-term cost reimbursable contract are focused on technology development and manufacturing optimization. Establishment of a volume production capacity for this product is being performed by EMCORE at reduced margins in order to minimize program ramp-up costs for our customer. Over the next 2 to 3 years, the program scope could exceed \$40.0 million in development and production revenues.

EMCORE is adapting its high efficiency solar cell product for terrestrial applications. Intended for use with solar concentrator systems, these cells have already been measured at 35% efficiency and further improvements are anticipated. We believe that these systems will be competitive with silicon technologies because they are more efficient than silicon and, therefore, benefit more from concentration than silicon. With energy prices at all time highs, the demand for alternative energy sources continues to gain momentum. The terrestrial solar cell market is currently estimated at \$7 billion, growing at a 28% CAGR, and is expected to reach \$30 billion by 2010, according to *CSLA Asia-Pacific Markets*. EMCORE is working with several concentrator systems manufacturers to develop system elements for this product line.

Photovoltaics revenue represented 26% and 28% of EMCORE's total revenues for fiscal 2005 and 2004, respectively. Significant customers for the photovoltaics product line include Boeing, General Dynamics, ISRO, Lockheed Martin, Loral Space Systems. In fiscal 2006, we expect to see increased applications for our solar cells in terrestrial products, as well as in the commercial satellite industry that continues to develop a communications backbone for video, voice and data networks. As a result, annual photovoltaics revenues are expected to increase by approximately 30% in fiscal 2006.

### **Electronic Materials & Devices**

EMCORE's RF materials are compound semiconductor wafers used in wireless communications. These materials have a broader bandwidth and superior performance at higher frequencies compared to silicon-based materials. EMCORE's Electronic Materials and Devices (EMD) segment currently produces both GaAs and GaN based transistor wafers. For GaAs materials, EMD produces 4-inch and 6-inch wafers for three different applications: InGaP hetero-junction bipolar transistors (HBTs), pseudomorphic high electron mobility transistor wafers (pHEMTs), and enhancement-mode pHEMT transistor wafers (E-modes). For GaN materials, EMD produces 2-inch, 3-inch, and 4-inch AlGaIn/GaN HEMT materials. Recently, EMCORE has also combined into a single RF structure, InGaP HBT and pHEMT materials (combinational materials).

Revenues from EMCORE's EMD segment increased \$1.0 million or 9% to \$12.2 million in fiscal 2005 from \$11.2 million in fiscal 2004. On a quarterly basis, fiscal 2005 revenues were \$1.8 million, \$3.6 million, \$3.3 million, and \$3.5 million compared to fiscal 2004 quarterly revenues of \$3.1 million, \$2.9 million, \$2.6 million, and \$2.6 million. Government contract revenues for EMCORE's EMD products were \$2.4 million and \$1.8 million in fiscal years 2005 and 2004, respectively. In the first half of fiscal 2005, development of advanced GaN RF material was funded primarily through government contract programs administered by The Defense Advanced Research Projects Agency (DARPA) and the United States Air Force. EMCORE expects continued funding from contracts during fiscal 2006, with some of this funding transitioning to commercial business. Overall, the market that this segment competes in is highly competitive, raw materials are extremely expensive, and average selling prices have been declining over the past several years. Management anticipates the broader acceptance of GaAs Combinational Materials, and introduction of new GaN RF materials to drive revenue growth in fiscal 2006. Both of these materials are expected to be well utilized by major RF product manufacturers in both infrastructure and wireless devices. EMD's revenue represented 10% and 12% of EMCORE's total revenues for fiscal 2005 and 2004, respectively. Significant customers for the EMD product line include Anadigics, Inc., Freescale Semiconductor, Inc. (Freescale), RFMD and Triquint. As a result of successful customer product qualifications and the recent increase in order backlog, annual EMD revenues are expected to increase by approximately 20% in fiscal 2006.

## Gross Profit

Gross profit increased \$13.6 million to \$20.9 million in fiscal 2005 from \$7.3 million in fiscal 2004. Compared to the prior year, gross margins increased to 16% from 8%. On a segment basis, margins for fiber optics increased from 12% in fiscal 2004 to 18% in fiscal 2005 due to increased revenues and improvement on material costs. Margins for the photovoltaics segment improved from (8%) in fiscal 2004 to 14% in fiscal 2005 due to increased revenues, completion of profitable solar panel contracts and significant improvement on manufacturing metrics and yields. Margins for the EMD segment decreased from 25% in fiscal 2004 to 12% in fiscal 2005 due to declining selling prices and higher raw material and facility costs.

Factors that contributed to the increase in gross profit include the introduction of new products where we were first to market which allowed for favorable pricing, lower unabsorbed overhead variances due to higher revenue levels and favorable product mix shifts. These factors were slightly offset by declining average selling prices, which is a gross profit pressure that is expected to remain for the foreseeable future. Actions designed to improve our gross margins (through product mix improvements, cost reductions associated with product transfers and product rationalization, and yield and quality improvements, among other things) continue to be a principal focus for us.

Many of our expenses, particularly those relating to capital equipment, debt service, and manufacturing overhead are fixed. Improvement to gross margins is highly dependent upon the amount of revenue EMCORE earns. As revenues increase, our margins should increase as well since a significant portion of our facility costs is fixed, so higher throughput should result in lower costs per unit produced. Management does expect gains in gross margins to be somewhat offset by lower sales prices due to competitive pricing pressures.

## Operating Expenses

*Selling, General and Administrative.* SG&A expenses increased \$3.2 million or 15% to \$25.1 million in fiscal 2005 from \$21.9 million in fiscal 2004. This increase is a direct result of acquisition-related charges, costs incurred as we fully implemented the requirements of the Sarbanes-Oxley Act of 2002, in particular, Section 404 thereof, the continued investment in personnel strategic to our business, severance charges, and expenses associated with the Company's April 2005 announcement to consolidate its City of Industry, California location to New Mexico. As a percentage of revenue, SG&A decreased from 24% to 20%. Fiscal 2005 SG&A expense included approximately \$0.9 million in severance-related charges and approximately \$2.3 million in expenses related to the City of Industry facility. The severance-related charges were provided to 54 employees that were involuntarily affected by a reduction in workforce. In fiscal 2004, EMCORE incurred \$1.2 million in severance-related charges related to employee termination costs for 110 employees. We intend to continue to aggressively address our SG&A expenses and reduce these expenses as, and when, opportunities arise.

In April 2005, EMCORE announced plans to consolidate solar panel operations into a state-of-the-art facility located in Albuquerque, New Mexico. The establishment of a modern solar panel manufacturing facility, adjacent to the Albuquerque solar cell fabrication operations, should enable superior consistency, as well as reduced manufacturing costs. In connection with this plan, EMCORE's Photovoltaics operating segment recorded charges consisting of fixed asset disposals totaling \$0.4 million and other exit costs totaling approximately \$1.9 million for total City of Industry related costs of \$2.3 million. Asset disposals relate to equipment that has been abandoned for disposal. Other exit charges relate to consolidation of excess facilities and other costs associated with exiting business activities. All of the City of Industry related charges, except for the asset impairments will result in cash outflows.

In August 2005, EMCORE announced the receipt of a photovoltaic contract valued in excess of \$8.0 million. This contract also contains options for several additional sets of solar panels with deliveries through early 2007. As a result of this contract award and the requirement of an accelerated delivery schedule, EMCORE resumed production operations at its City of Industry, California facility to support this new effort. As a result, until the facility closes, EMCORE no longer classifies these expenses as restructuring charges, but includes them in selling, general and administrative expenses and refers to them as City of Industry related charges. Total City of Industry related charges during fiscal 2005 amounted to \$2.3 million. Production operations at the California facility will be discontinued during fiscal 2006 and completely closed by March 2007.

By consolidating operations into a single location, EMCORE Photovoltaics expects to realize annual cost savings in fiscal 2007 and beyond, which will enable us to better compete in the terrestrial and space power markets. New estimates of the projected shutdown costs and timeline remain to be determined at this time, as they depend in part upon whether any of the contractual options described above are exercised by the customer. However, the projected total cost associated with the closure of EMCORE's California solar panel facility is expected to decrease due to a reduction in contract termination costs.

*Research and Development.* The semiconductor industry is characterized by rapid changes in process technologies with increasing levels of functional integration. Our R&D efforts have been sharply focused to maintain our technology leadership position by working to improve the quality and attributes of our product lines. We also invest significant resources to develop new products and production technology to expand into new market opportunities by leveraging our existing technology base and infrastructure. Our efforts are focused on designing new proprietary processes and products, on improving the performance of our existing materials, components, and subsystems, and on reducing costs in the product manufacturing process.

R&D expenses decreased \$6.1 million or 26% to \$17.4 million in fiscal 2005 from \$23.5 million in fiscal 2004. As a percentage of revenue, R&D decreased from 25% to 14%. The primary reason for the annual decrease in R&D expense was the divestiture of product technology. In April 2005, EMCORE divested a R&D project that was focused on gallium nitride (GaN)-based power electronic devices for the power device industry. The new company, Velox Semiconductor Corporation (Velox), raised \$6.0 million from various venture capital partnerships. Five EMCORE employees transferred to Velox as full-time personnel and EMCORE contributed intellectual property and equipment, receiving a 19.2% stake in Velox. As of September 30, 2005, the recorded value of EMCORE's investment in Velox was approximately \$1.3 million.

The reduction in annual R&D expense is also due to several new products that were launched during fiscal 2005. We believe that recently completed R&D projects have the potential to greatly improve our competitive position and drive revenue growth in the next few years. Listed below are a couple of examples:

- In the FTTP market, EMCORE has developed an integrated PON transceiver utilizing Ortel's industry leading video technology. EMCORE's PON transceiver has been customer qualified and is now in production.
- In the photovoltaics market, EMCORE has developed a high efficiency solar cell product for terrestrial applications. Intended for use in concentrated sunlight, these cells have been measured at greater than 35% efficiency at 500 suns.

As part of the ongoing effort to cut costs, many of our projects are to develop lower cost versions of our existing products and of our existing processes. Also, we have implemented a program to focus research and product development efforts on projects that we expect to generate returns within one year. As a result, EMCORE reduced overall R&D costs as a percentage of revenue without, we believe, jeopardizing future revenue opportunities. In fiscal 2006, management expects R&D to continue to decline as a percentage of revenue as products previously under development are released to production. Our technology and product leadership is an important competitive advantage. Driven by current and anticipate demand, we will continue to invest in new technologies and products that offer our customers increased efficiency, higher performance, improved functionality, and/or higher levels of integration.

## Other Income & Expenses

*Interest Expense, net.* Interest expense, net decreased \$1.6 million, or 30%, to \$3.8 million in fiscal 2005 from \$5.4 million in fiscal 2004. This decrease is primarily due to the retirement of approximately \$65.7 million of EMCORE's subordinated debt through a debt exchange accomplished in February 2004.

**Gain From Debt Extinguishment.** In February 2004, EMCORE exchanged approximately \$146.0 million, or 90.2%, of the remaining 2006 Notes for approximately \$80.3 million aggregate principal amount of new 5% Convertible Senior Subordinated Notes due May 15, 2011 and approximately 7.7 million shares of EMCORE common stock. As a result of this transaction, EMCORE recorded a net gain from early debt extinguishment of approximately \$12.3 million.

**Investment Loss.** In February 2002, EMCORE purchased \$1.0 million of preferred stock of Archcom Technologies, Inc., a venture-funded, start-up optical networking components company that designs, manufactures and markets a series of high performance lasers and photodiodes for datacom and telecom industries. In fiscal 2004, EMCORE chose not to participate in an equity offering at Archcom, which diluted EMCORE's ownership in half to \$0.5 million.

**Equity in Net Loss (Income) of GELcore.** EMCORE's portion of equity in GELcore decreased \$0.9 million to a net loss of approximately \$0.1 million in fiscal 2005 from net income of approximately \$0.8 million in fiscal 2004. In fiscal 2005, on a quarterly basis, EMCORE's share of GELcore's operating results was \$0.4 million, \$(0.3) million, \$(0.8) million and \$0.6 million. In fiscal 2004, on a quarterly basis, EMCORE's share of GELcore's operating results was \$0.3 million, \$(0.1) million, \$0.4 million and \$0.2 million. The annual decrease was due to costs associated with the transfer of operations from GELcore's Lechine, Quebec manufacturing facility to Mexico, which was completed in July 2005. GELcore incurred approximately \$1.6 million of costs related to this transfer, of which EMCORE's share was approximately \$0.8 million.

**Income Taxes.** As a result of its losses, the Company did not incur any income tax expense in either fiscal 2005 or 2004. Realization of the deferred tax assets is dependent upon future earnings, if any, the timing and amount of which are uncertain. Accordingly, the net deferred tax assets have been fully offset by a valuation allowance. As of September 30, 2005, the Company had Federal and State tax net operating loss carryforwards of approximately \$278.0 million and \$176.0 million, respectively, that expire in the years 2006 through 2025. The Company is incorporated in the State of New Jersey, which presently has a moratorium on the use of tax net operating loss carryforwards due to state government budget deficits.

**Discontinued Operations.** EMCORE sold its TurboDisc capital equipment business in an asset sale in November 2003 to a subsidiary of Veeco Instruments Inc. (Veeco) in a transaction that is valued at up to \$80.0 million. The selling price was \$60.0 million in cash at closing, with an additional aggregate maximum payout of \$20.0 million over the next two years. In March 2005, EMCORE received \$13.2 million of earn-out payment from Veeco in connection with its first year of net sales of TurboDisc products. After offsetting this receipt against expenses related to the discontinued operation, EMCORE recorded a net gain from the disposal of discontinued operations of \$12.5 million. EMCORE's maximum second year earn-out payment from Veeco is \$6.8 million. Based upon currently available information, EMCORE cannot predict whether it will receive a second year earn-out payment from Veeco because calendar year 2005 revenues from the TurboDisc capital equipment business may not exceed the minimum revenue earn-out threshold. During fiscal 2004, EMCORE recognized a net loss from discontinued operations of \$2.0 million and a gain on the disposal of the TurboDisc capital equipment business of \$19.6 million. EMCORE does not have any material contingent liabilities resulting from this sale of this business.

## **Comparison of Fiscal Years Ended September 30, 2004 and 2003**

### **Consolidated Revenue**

EMCORE's consolidated revenue increased \$32.8 million or 54% to \$93.1 million in fiscal 2004 from \$60.3 million in fiscal 2003. All three of EMCORE's operating segments: Fiber Optics, Photovoltaics and Electronic Materials and Devices, posted revenue increases year over year. On a product line basis, fiber optics revenues increased \$23.5 million or 72%, photovoltaic revenues increased \$7.5 million or 41%, and revenues from electronic materials and devices increased \$1.8 million or 19% from the prior year. International sales accounted for 29% of revenues in fiscal 2004 and 27% in fiscal 2003. Revenue from government contracts decreased \$0.6 million to \$4.6 million in fiscal 2004 from \$5.2 million in fiscal 2003.

#### **Fiber Optics**

In fiscal 2004, EMCORE acquired two fiber optics businesses that complement the transceiver module product line. In October 2003, EMCORE acquired Molex Inc.'s 10G Ethernet transceiver business (Molex), and in June 2004, EMCORE purchased Corona Optical Systems, Inc. (Corona), a parallel optics company. In January 2003, EMCORE acquired Agere's System's, Inc.'s CATV transmission systems, telecom access, and satellite communication components business, formerly Ortel Corporation (Ortel).

Annual revenues increased \$23.5 million or 72% to \$56.2 million in fiscal 2004 from \$32.7 million in fiscal 2003. On a quarterly basis, fiscal 2004 revenues were \$15.5 million, \$14.2 million, \$11.9 million, and \$14.6 million compared to fiscal 2003 quarterly revenues of \$2.3 million, \$9.7 million, \$11.2 million, and \$9.5 million. In fiscal 2003, Ortel was part of EMCORE for approximately three quarters. The first quarter of fiscal 2004 experienced an unexpected increase in Ortel sales volumes due to one-time buys from our customers. But the third and fourth quarter were lower due to reduced customer demand. The decrease in revenues in the third quarter of fiscal 2004 was a direct result of a LX4 product launch delay. Supply chain issues caused the delay; specifically, a vendor supplied contaminated material that was not identified until testing of the finished modules. To maintain the integrity of our business and product line, management decided not to ship the finished modules because of the risk of warranty returns. The LX4 product was successfully launched in July 2004. Fiber optics revenue represented 60% and 54% of EMCORE's total revenues in fiscal 2004 and 2003, respectively.

#### **Photovoltaics**

Annual revenues increased \$7.5 million or 41% to \$25.7 million in fiscal 2004 from \$18.2 million in fiscal 2003. On a quarterly basis, fiscal 2004 revenues were \$4.5 million, \$6.1 million, \$6.8 million, and \$8.3 million compared to fiscal 2003 quarterly revenues of \$5.1 million, \$5.2 million, \$3.0 million, and \$4.9 million. Government contract revenues for photovoltaics products were \$2.8 million and \$2.7 million in fiscal years 2004 and 2003, respectively. The increase in revenue is attributable to the receipt of two significant solar contracts that were delayed from the prior year. Photovoltaics revenue represented 28% and 30% of EMCORE's total revenues for fiscal 2004 and 2003, respectively.

#### **Electronic Materials & Devices**

Revenues from the EMD segment increased \$1.8 million or 19% to \$11.2 million in fiscal 2004 from \$9.4 million in fiscal 2003. On a quarterly basis, fiscal 2004 revenues were \$3.1 million, \$2.9 million, \$2.6 million, and \$2.6 million compared to fiscal 2003 quarterly revenues of \$2.0 million, \$2.0 million, \$2.7 million, and \$2.7 million. Government contract revenues for EMD products were \$1.8 million and \$2.5 million in fiscal years 2004 and 2003, respectively. The increase in revenues was due in part to EMCORE broadening its relationship with ANADIGICS, Inc. by entering into a preferred supplier agreement in the second quarter of fiscal 2004. EMD's revenue represented 12% and 16% of EMCORE's total revenues for fiscal 2004 and 2003, respectively.

### **Gross Profit (Loss)**

Gross profit increased \$9.0 million to \$7.3 million in fiscal 2004 from (\$1.7) million in fiscal 2003. Compared to the prior year, gross margins increased from (2.8%) to 7.8% of revenue. On a product line basis, margins for fiber optics increased from 10.4% in fiscal 2003 to 11.8% in fiscal 2004, margins for photovoltaics improved from (31.5%) in fiscal 2003 to (8.2%) in fiscal 2004 and margins for the electronic materials and devices product line increased slightly as well. Gross margins were negatively impacted by the underutilization of fixed costs and overhead resulting from expansions previously deployed through fiscal 2001.

### **Operating Expenses**

*Selling, General and Administrative.* SG&A expenses increased \$0.3 million or 1% to \$21.9 million in fiscal 2004 from \$21.6 million in fiscal 2003. As a percentage of revenue, SG&A significantly decreased from 36% in fiscal 2003 to 24% in fiscal 2004. In fiscal 2004, EMCORE incurred \$1.2 million in severance-related charges related to employee termination costs for 110 employees. In the fourth quarter of fiscal 2004, EMCORE reversed a portion of the professional fees accrual in the amount of \$0.5 million, which represented an over-accrued amount based upon information gained directly from the service providers.

*Research and Development.* R&D expenses increased \$6.6 million or 39% to \$23.6 million in fiscal 2004 from \$17.0 million in fiscal 2003. The increase was primarily due to an increase in R&D spending in the fiber optics product line. During fiscal 2004, this group incurred significant R&D on the development of the LX4 module, including a \$1.3 million one-time charge incurred as a result of contaminated materials supplied to us by a vendor. Also, Ortel's R&D focus continued the development of PONs and FTTP systems that are intended to provide even greater bandwidth, better performance and increased reliability to homes and businesses. As a percentage of revenue, R&D decreased from 28% in fiscal 2003 to 25% in 2004.

*Gain From Debt Extinguishment.* In February 2004, EMCORE exchanged approximately \$146.0 million, or 90.2%, of 2006 Notes for approximately \$80.3 million aggregate principal amount of new 5% Convertible Senior Subordinated Notes due May 15, 2011 and approximately 7.7 million shares of EMCORE common stock. As a result of this transaction, EMCORE recorded a net gain from early debt extinguishment of approximately \$12.3 million.

*Interest Expense, net.* Interest expense, net decreased \$1.9 million, or 26%, to \$5.4 million in fiscal 2004 from \$7.3 million in fiscal 2003. This decrease is due to the retirement of approximately \$65.7 million of EMCORE's subordinated debt through the debt exchange accomplished in February 2004.

*Investment Loss.* In February 2002, EMCORE purchased \$1.0 million of preferred stock of Archcom Technologies, Inc., a venture-funded, start-up optical networking components company that designs, manufactures and markets a series of high performance lasers and photodiodes for datacom and telecom industries. In fiscal 2004, EMCORE chose not to participate in an equity offering at Archcom which diluted EMCORE ownership in half to \$0.5 million.

*Equity in Net Income (Loss) of GELcore.* EMCORE's portion of equity in GELcore increased \$2.0 million, or 164%, to net income of \$0.8 million in fiscal 2004 from a net loss of \$1.2 million in fiscal 2003. In fiscal 2004, on a quarterly basis, EMCORE's share of GELcore's operating results was \$0.3 million, \$(0.1) million, \$0.4 million and \$0.2 million. In fiscal 2003, on a quarterly basis, EMCORE's share of GELcore's operating results was \$(0.5) million, \$(0.7) million, \$(0.1) million and \$0.1 million. This quarterly improvement is associated with increased unit volumes, changes in LED product mix and less manufacturing inefficiencies associated with newer product introductions.

*Income Taxes.* As a result of its losses, EMCORE did not incur any income tax expense in either fiscal 2004 or 2003.

## Quarterly Results of Operations

The following tables present EMCORE's unaudited results of operations expressed in dollars and as a percentage of revenue for the eight most recently ended 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. EMCORE has experienced and expects to continue to experience significant fluctuations in quarterly results. See Selected Financial Data under [Item 6](#) for a listing of certain significant transactions that affect the comparability of EMCORE's operating results and financial condition.

### STATEMENTS OF OPERATIONS

<i>(in thousands)</i>	Dec. 31, 2003	Mar. 30, 2004	June 30, 2004	Sept. 30, 2004	Dec. 31, 2004	Mar. 30, 2005	June 30, 2005	Sept. 30, 2005
Revenue	\$ 23,125	\$ 23,180	\$ 21,225	\$ 25,539	\$ 26,964	\$ 30,430	\$ 33,234	\$ 36,975
Cost of revenue	19,945	20,499	20,811	24,525	24,889	24,901	26,503	30,453
Gross profit	3,180	2,681	414	1,014	2,075	5,529	6,731	6,522
Operating expenses:								
Selling, general & administrative	5,307	5,644	5,723	5,253	5,560	5,127	7,902	6,547
Research and development	6,046	5,714	6,535	5,260	5,059	4,069	4,061	4,240
Total operating expenses	11,353	11,358	12,258	10,513	10,619	9,196	11,963	10,787
Operating loss	(8,173)	(8,677)	(11,844)	(9,499)	(8,544)	(3,667)	(5,232)	(4,265)
Other (income) expenses:								
Interest expense, net	1,867	1,486	1,004	1,016	969	953	905	936
Gain from debt extinguishment	-	(12,312)	-	-	-	-	-	-
Investment loss	-	-	-	500	-	-	-	-
Equity in net loss (income) of GELcore	(267)	51	(341)	(232)	(372)	297	778	(591)
Total other expenses (income)	1,600	(10,775)	663	1,284	597	1,250	1,683	345
(Loss) income from continuing operations	(9,773)	2,098	(12,507)	(10,783)	(9,141)	(4,917)	(6,915)	(4,610)
Discontinued operations:								
Loss from discontinued operations	(1,697)	(348)	-	-	-	-	-	-
Gain on disposal of discontinued operations	19,584	-	-	-	-	12,476	-	-
Income (loss) from discontinued operations	17,887	(348)	-	-	-	12,476	-	-
Net income (loss)	\$ 8,114	\$ 1,750	\$ (12,507)	\$ (10,783)	\$ (9,141)	\$ 7,559	\$ (6,915)	\$ (4,610)

	Dec. 31, 2003	Mar. 30, 2004	June 30, 2004	Sept. 30, 2004	Dec. 31, 2004	Mar. 30, 2005	June 30, 2005	Sept. 30, 2005
Revenue	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Cost of revenue	86.2	88.4	98.0	96.0	92.3	81.8	79.7	82.4
Gross profit	13.8	11.6	2.0	4.0	7.7	18.2	20.3	17.6
Operating expenses:								
Selling, general & administrative	23.0	24.3	27.0	20.6	20.6	16.8	23.8	17.7
Research and development	26.1	24.7	30.8	20.6	18.8	13.4	12.2	11.5

Total operating expenses	49.1	49.0	57.8	41.2	39.4	30.2	36.0	29.2
Operating loss	(35.3)	(37.4)	(55.8)	(37.2)	(31.7)	(12.0)	(15.7)	(11.6)
Other (income) expenses:								
Interest expense, net	8.1	6.5	4.7	3.9	3.6	3.2	2.7	2.5
Gain from debt extinguishment	-	(53.1)	-	-	-	-	-	-
Investment loss	-	-	-	2.0	-	-	-	-
Equity in net loss (income) of GELcore	(1.1)	0.2	(1.6)	(0.9)	(1.4)	1.0	2.4	(1.6)
Total other expenses (income)	7.0	(46.4)	3.1	5.0	2.2	4.2	5.1	0.9
(Loss) income from continuing operations	(42.3)	9.0	(58.9)	(42.2)	(33.9)	(16.2)	(20.8)	(12.5)
Discontinued operations:								
Loss from discontinued operations	(7.3)	(1.5)	-	-	-	-	-	-
Gain on disposal of discontinued operations	84.7	-	-	-	-	41.0	-	-
Income (loss) from discontinued operations	77.4	(1.5)	-	-	-	41.0	-	-
Net income (loss)	35.1%	7.5%	(58.9)%	(42.2)%	(33.9)%	24.8%	(20.8)%	(12.5)%

## Liquidity and Capital Resources

### Working Capital

As of September 30, 2005 EMCORE had working capital of approximately \$39.1 million compared to \$58.5 as of September 30, 2004. Cash, cash equivalents, and marketable securities at September 30, 2005 totaled \$40.2 million, which reflects a net decrease of \$11.4 million for fiscal 2005.

### Cash Flow

#### Net Cash Used For Operations

Net cash used for operations decreased \$17.0 million or 53% to \$15.3 million in fiscal 2005 from \$32.3 million in fiscal 2004. Following is a summary of the major items accounting for the increase in cash used in operations:

**For the fiscal years ended September 30,**  
(in thousands)

	FY 2005	FY 2004	Favorable (Unfavorable)
Loss from continuing operations	\$ (25,583)	\$ (30,965)	\$ 5,382
Adjustments (non cash items):			
Depreciation	14,464	15,219	(755)
Gain from debt extinguishment	-	(12,312)	12,312
Other non-cash items	1,579	304	1,275
Cash used in operations, excluding working capital changes and cash used for discontinued operations	(9,540)	(27,754)	18,214
Other adjustments:			
Changes in working capital	(5,747)	(366)	(5,381)
Cash used for discontinued operations	-	(4,218)	4,218
Cash used in operations	\$ (15,287)	\$ (32,338)	\$ 17,051

Fiscal 2005 changes in working capital include an increase of accounts receivables of \$1.6 million, an increase in prepaid and other current assets of \$1.1 million, an increase of other assets totaling \$1.0 million and a decrease in accounts payable and accrued expenses of \$1.6 million. Fiscal 2004 changes in working capital include an increase of accounts receivables of \$6.2 million, an increase in prepaid and other current assets of \$0.6 million, an increase of other assets totaling \$0.5 million and an increase in accounts payable, accrued expenses and other liabilities of \$7.5 million.

Despite a significant increase in annual revenues, days sales outstanding decreased from 69 days at September 30, 2004 to 62 days at September 30, 2005, due to improved collections. Inventory turnover increased slightly from 6.0 turns at September 30, 2004 to 6.4 turns at September 30, 2005.

The \$4.2 million of discontinued operations in fiscal 2004 represents costs incurred on the TurboDisc capital equipment business sold to Veeco in November 2003. EMCORE owned this product line for approximately 35 days in fiscal 2004. As a result, expenses exceeded revenues and a loss was incurred for the period during which EMCORE still owned the TurboDisc business.

#### Net Cash Provided by Investing Activities

Net cash provided by investing activities decreased by \$8.3 million to \$14.0 million in fiscal 2005 from \$22.3 million in fiscal 2004. Changes in cash flow consisted of:

**Divestiture** - In November 2003, EMCORE sold its TurboDisc capital equipment business in an asset sale to Veeco in a transaction that is valued at up to \$80.0 million. The selling price was \$60.0 million in cash at closing, with an additional aggregate maximum payout of \$20.0 million over the next two years. In March 2005, EMCORE received \$13.2 million of earn-out payment from Veeco in connection with its first year of net sales of TurboDisc products. After offsetting this receipt against expenses related to the discontinued operation, EMCORE recorded a net gain from the disposal of discontinued operations of \$12.5 million. EMCORE's maximum second year earn-out payment from Veeco is \$6.8 million. Based upon currently available information, EMCORE cannot predict whether it will receive a second year earn-out payment from Veeco because calendar year 2005 revenues from the TurboDisc capital equipment business may not exceed the minimum revenue earn-out threshold.

**Capital expenditures** - Capital expenditures increased to \$5.4 million in fiscal 2005 from \$4.2 million in fiscal 2004. This increase was due in part to our purchase of an uninterruptible power supply system, a power supply that includes a battery to maintain power in the event of a power outage. This unit was installed at our Albuquerque manufacturing facility. As part of our ongoing effort to manage cash, management carefully scrutinizes all significant capital purchases. Management has approved an increase in capital expenditures for fiscal 2006 in order to support the expected increase in annual revenues.

GELcore Investment - An investment in GELcore of approximately \$1.5 million was made during fiscal 2005 to support the transfer of operations from Canada to Mexico. No investments were made to GELcore during fiscal 2004.

Other Investments - In October 2004, EMCORE invested \$1.0 million in K2 Optronics, Inc., a California-based company specializing in the design and manufacture of external cavity lasers, to strengthen its partnership in designing next-generation long wavelength components for the CATV and FTTP markets. Also, as part of the acquisition of JDSU's analog CATV and RF over fiber specialty businesses, EMCORE also paid \$0.5 million to purchase JDSU's equity interest in K2 Optronics, Inc.

Acquisitions - In October 2003, EMCORE acquired Molex's 10G Ethernet transceiver business for an initial \$1.0 million in cash, \$1.5 million in cash earn out based upon initial LX4 unit shipments, and future cash earn out payments calculated as a percentage of revenue, ranging from 3.7% to 0.25%, on LX4 product sold through December 2007. In June 2004, EMCORE purchased Corona for \$1.2 million in a cash-for-stock merger. As mentioned above, in May 2005, EMCORE acquired the CATV and RF over fiber specialty businesses from JDSU for \$1.5 million in cash plus a deferred payment, payable in quarterly installments, associated with EMCORE's quarterly usage of the acquired JDSU inventory valued between \$2.5 million and \$3.5 million.

Marketable securities - In fiscal 2005, EMCORE's net investment in marketable securities decreased by \$11.5 million. In fiscal 2004, EMCORE's net investment in marketable securities increased by \$32.2 million (as compared to fiscal 2003) in order to take advantage of higher interest-bearing instruments.

### **Net Cash Provided By Financing Activities**

Net cash provided by financing activities increased \$0.4 million to \$1.4 million in fiscal 2005 from \$1.0 million in fiscal 2004. In fiscal 2004, EMCORE incurred approximately \$2.5 million in debt issuance costs associated with the convertible debt exchange. In fiscal 2005, proceeds from the exercise of stock options decreased \$1.7 million from the prior year.

### **Financing Transactions**

In May 2001, EMCORE sold \$175.0 million of 5% Convertible Subordinated Notes due May 15, 2006 (2006 Notes) in a private placement for resale to qualified institutional buyers. In December 2002, EMCORE purchased \$13.2 million principal amount of the notes at prevailing market prices for an aggregate of approximately \$6.3 million. In February 2004, EMCORE exchanged approximately \$146.0 million, or 90.2%, of these remaining 2006 Notes for approximately \$80.3 million aggregate principal amount of new 5% Convertible Senior Subordinated Notes due May 15, 2011 (2011 Notes) and approximately 7.7 million shares of EMCORE common stock. The new notes are convertible into EMCORE common stock at a conversion price of \$8.06 per share, subject to adjustment under customary anti-dilutive provisions. They also are redeemable should EMCORE's common stock price reach \$12.09 per share. As a result of this transaction, EMCORE recorded a gain from early debt extinguishment of approximately \$12.3 million, decreased annual interest expense by approximately \$3.3 million, and reduced debt by approximately \$65.7 million.

In November 2005, EMCORE exchanged \$14,425,000 aggregate principal amount of EMCORE's 2006 Notes for \$16,580,460 aggregate principal amount of newly issued Convertible Senior Subordinated Notes due May 15, 2011 (New 2011 Notes) pursuant to an Exchange Agreement (Agreement) with Alexandra Global Master Fund Ltd. (Alexandra). The terms of the New 2011 Notes are identical in all material respects to EMCORE's 2011 Notes. The New 2011 Notes are ranked pari passu with the existing 2011 Notes. The New 2011 Notes will be convertible at any time prior to maturity, unless previously redeemed or repurchased by EMCORE, into the shares of EMCORE common stock, no par value, at the conversion rate of 124.0695 shares of common stock per \$1,000 principal amount. The effective conversion rate is \$8.06 per share of common stock, subject to adjustment under customary anti-dilutive provisions. They also are redeemable should EMCORE's common stock price reach \$12.09 per share. The 2006 Notes exchanged by Alexandra have been reclassified to long-term debt in the accompanying balance sheets. As a result of this transaction, EMCORE will recognize a non-cash loss in the first quarter of fiscal 2006 related to the early extinguishment of debt. Furthermore, the 2006 Notes exchanged by Alexandra represented approximately 91.4% of the \$15,775,000 total amount of existing 2006 Notes outstanding at the time of the transaction. EMCORE intends to redeem for cash the remaining \$1,350,000 of 2006 Notes on or before the May 15, 2006 maturity date.

EMCORE may continue to repurchase 2006 Notes and/or 2011 Notes through various means, including, but not limited to, one or more open market or privately negotiated transactions in future periods. The timing and amount of repurchase, if any, whether *de minimis* material, will depend on many factors, including, but not limited to, the availability of capital, the prevailing market price of the notes, and overall market conditions.

If our cash flow is inadequate to meet our obligations or we are unable to generate sufficient cash flow or otherwise obtain funds necessary to make required payments on the notes or our other obligations, we would be in default under the terms thereof. Default under any of the note indentures would permit the holders of the notes to accelerate the maturity of the notes and could cause defaults under future indebtedness we may incur. Any such default would have a material adverse effect on our business, prospects, financial condition, results of operations and cash flows. In addition, we cannot assure you that we would be able to repay amounts due in respect of the notes if payment of any of the notes were to be accelerated following the occurrence of an event of default as defined in the respective note indentures.

In September 2005, EMCORE entered into a non-recourse receivables purchase agreement (AR Agreement) with Silicon Valley Bank (SVBank). Under the terms of the AR Agreement, EMCORE from time to time may sell, without recourse, certain accounts receivables to SVBank up to a maximum aggregate outstanding amount of \$20.0 million. The AR Agreement expires on December 31, 2006, unless the term is extended by mutual agreement by all parties. During the quarter ended September 30, 2005, EMCORE sold approximately \$2.2 million of account receivables to SVBank.

### **Contractual Obligations**

EMCORE's contractual obligations over the next five years are summarized in the table below:

<b>As of September 30, 2005</b> <i>(in millions)</i>	<b>Total</b>	<b>&lt; 1 Year</b> <i>(FY 2006)</i>	<b>1 - 3 Years</b> <i>(FY 2007 to FY 2009)</i>	<b>4 - 5 Years</b> <i>(FY 2010 to FY 2011)</i>	<b>After 5 Years</b>
Convertible Subordinated Notes	\$ 96.0	\$ 1.3	\$ -	\$ 94.7	\$ -
Interest on Convertible Subordinated Notes	24.5	4.5	12.0	8.0	-
Operating Leases	9.0	1.8	3.0	1.8	2.4
JDSU Inventory Obligations	3.4	2.4	1.0	-	-
Purchase Obligations	34.5	34.5	-	-	-
<b>Total Contractual Cash Obligations</b>	<b>\$ 167.4</b>	<b>\$ 44.5</b>	<b>\$ 16.0</b>	<b>\$ 104.5</b>	<b>\$ 2.4</b>

Our long-term debt is convertible debt, and therefore may be converted to EMCORE common stock before maturity under certain circumstances. The above-listed JDSU inventory purchase obligation is an estimate. As of September 30, 2005, EMCORE does not have any significant purchase obligations or other long-term liabilities beyond those listed in the table above. EMCORE's off-balance sheet arrangements consist of operating leases, employment contracts and purchase obligations as described above. In addition, EMCORE guarantees 49% of any amounts borrowed under GELcore's revolving credit line. As of September 30, 2005, GELcore's outstanding borrowings were \$2.9 million. The maximum borrowing currently permitted under the credit line is \$6.2 million.

## **Conclusion**

We believe that our current liquidity should be sufficient to meet our cash needs for working capital through the next 12 months. If 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, our ability to continue to fund expansion, develop and enhance products and services, or otherwise respond to competitive pressures may be severely limited. Such a limitation could have a material adverse effect on EMCORE's business, financial condition, results of operations, and cash flow.

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

We are exposed to financial market risks, including changes in currency exchange rates, interest rates, and non-marketable equity security prices. We do not use derivative financial instruments for speculative purposes.

*Currency Exchange Rates.* Although EMCORE occasionally enters into transactions denominated in foreign currencies, the total amount of such transactions is not material. Accordingly, fluctuations in foreign currency values would not have a material adverse effect on our future financial condition or results of operations. However, some of our foreign suppliers may adjust their prices (in \$US) from time to time to reflect currency exchange fluctuations, and such price changes could impact our future financial condition or results of operations.

*Interest Rates.* We maintain an investment portfolio in a variety of high-grade (AAA), short-term debt and money market instruments, which carry a minimal degree of interest rate risk. Due in part to these factors, our future investment income may be slightly less than expected because of changes in interest rates, or we may suffer insignificant losses in principal if forced to sell securities that have experienced a decline in market value because of changes in interest rates.

*Non-Marketable Equity Securities.* Our strategic investments in non-marketable equity securities would be affected by an adverse movement of equity market prices, although the impact cannot be directly quantified. Such a movement and the related underlying economic conditions would negatively affect the prospects of the companies in which we invest, their ability to raise additional capital, and the likelihood of our being able to realize our investments through liquidity events, such as initial public offerings, mergers, and private sales. These types of investments involve a great deal of risk, and there can be no assurance that any specific company will grow or will become successful. Consequently, we could lose all or part of our investment.

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**EMCORE CORPORATION**  
**Consolidated Statements of Operations**  
**for the fiscal years ended September 30, 2005, 2004, and 2003**  
**(in thousands, except per share data)**

	<u>FY 2005</u>	<u>FY 2004</u>	<u>FY 2003</u>
Revenue	\$ 127,603	\$ 93,069	\$ 60,284
Cost of revenue	106,746	85,780	61,959
Gross profit (loss)	20,857	7,289	(1,675)
Operating expenses:			
Selling, general and administrative	25,136	21,927	21,637
Research and development	17,429	23,555	17,002
Total operating expenses	42,565	45,482	38,639
Operating loss	(21,708)	(38,193)	(40,314)
Other (income) expenses:			
Interest income	(1,081)	(783)	(1,009)
Interest expense	4,844	6,156	8,288
Gain from debt extinguishment	-	(12,312)	(6,614)
Investment loss	-	500	-
Equity in net loss (income) of GELcore	112	(789)	1,228
Total other expenses (income)	3,875	(7,228)	1,893
Loss from continuing operations	(25,583)	(30,965)	(42,207)
Discontinued operations:			
(Loss) income from discontinued operations	-	(2,045)	3,682
Gain on disposal of discontinued operations	12,476	19,584	-
Income from discontinued operations	12,476	17,539	3,682
Net loss	<u>\$ (13,107)</u>	<u>\$ (13,426)</u>	<u>\$ (38,525)</u>
<b>Per share data:</b>			
Basic and diluted per share data:			
Loss from continuing operations	\$ (0.54)	\$ (0.72)	\$ (1.14)
Income from discontinued operations	0.26	0.41	0.10
Net loss	<u>\$ (0.28)</u>	<u>\$ (0.31)</u>	<u>\$ (1.04)</u>
Weighted average number of shares outstanding used in basic and diluted per share calculations	<u>47,387</u>	<u>43,303</u>	<u>36,999</u>

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

**EMCORE CORPORATION**  
**Consolidated Balance Sheets**  
as of September 30, 2005 and 2004  
(in thousands)

	2005	2004
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 19,525	\$ 19,422
Restricted cash	547	-
Marketable securities	20,650	32,150
Accounts receivable, net	22,633	20,775
Receivables, related parties	4,197	215
Inventory, net	18,348	14,839
Prepaid expenses and other current assets	3,638	2,496
	89,538	89,897
Total current assets	89,538	89,897
Property, plant and equipment, net	56,957	65,354
Goodwill	34,643	33,584
Intangible assets, net	5,347	5,177
Investments in unconsolidated affiliates	12,698	10,003
Receivables, related parties	169	3,754
Other assets, net	6,935	5,474
	206,287	213,243
Total assets	\$ 206,287	\$ 213,243
<b>LIABILITIES and SHAREHOLDERS' EQUITY</b>		
Current liabilities:		
Accounts payable	\$ 15,587	\$ 16,064
Accrued expenses and other current liabilities	19,078	15,292
Convertible subordinated notes, current portion	1,350	-
	36,015	31,356
Total current liabilities	36,015	31,356
Convertible subordinated notes	94,701	96,051
Capitalized lease obligation, net of current portion	8	27
	130,724	127,434
Total liabilities	130,724	127,434
Commitments and contingencies		
Shareholders' equity:		
Preferred stock, \$0.0001 par, 5,882 shares authorized, no shares outstanding	-	-
Common stock, no par value, 100,000 shares authorized, 48,023 shares issued and 48,003 outstanding at September 30, 2005; 46,951 shares issued and 46,931 outstanding at September 30, 2004	392,466	389,750
Accumulated deficit	(315,971)	(302,864)
Accumulated other comprehensive loss	-	(111)
Shareholders' notes receivable	-	(34)
Treasury stock, at cost; 20 shares	(932)	(932)
	75,563	85,809
Total shareholders' equity	75,563	85,809
Total liabilities and shareholders' equity	\$ 206,287	\$ 213,243

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

**EMCORE CORPORATION**  
**Consolidated Statements of Shareholders' Equity**  
**for the fiscal years ended September 30, 2005, 2004, and 2003**  
(in thousands)

	Shares	Common Stock	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Shareholders Notes Receivable	Treasury Stock	Total Shareholders' Equity
<b>Balance at October 1, 2002</b>	36,752	\$ 334,051	\$ (250,913)	\$ (222)	\$ (34)	\$ (932)	\$ 81,950
Net loss			(38,525)				(38,525)
Unrealized loss on marketable securities				(37)			(37)
Translation adjustment				169			169
Comprehensive loss							(38,393)
Stock option exercise	157	285					285
Compensatory stock issuances	309	759					759
Issuance of common stock - Employee Stock Purchase Plan (ESPP)	89	171					171
<b>Balance at September 30, 2003</b>	37,307	335,266	(289,438)	(90)	(34)	(932)	44,772
Net loss			(13,426)				(13,426)
Unrealized loss on marketable securities				4			4
Translation adjustment				(25)			(25)
Comprehensive loss							(13,447)
Stock option exercise	1,328	2,642					2,642
Compensatory stock issuances	230	812					812
Issuance of common stock - ESPP	411	911					911
Subordinated debt exchange	7,655	50,119					50,119
<b>Balance at September 30, 2004</b>	46,931	389,750	(302,864)	(111)	(34)	(932)	85,809
Net loss			(13,107)				(13,107)
Translation adjustment				111			111
Comprehensive loss							(12,996)
Stock option exercise	483	936					936
Compensatory stock issuances	247	774					774
Issuance of common stock - ESPP	342	1,006					1,006
Forgiveness of shareholder note receivable					34		34
<b>Balance at September 30, 2005</b>	48,003	\$ 392,466	\$ (315,971)	\$ -	\$ -	\$ (932)	\$ 75,563

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

**EMCORE CORPORATION**  
**Consolidated Statements of Cash Flows**  
**For the fiscal years ended September 30, 2005, 2004, and 2003**  
(in thousands)

	FY 2005	FY 2004	FY 2003
<b>Cash flows from operating activities:</b>			
Net loss	\$ (13,107)	\$ (13,426)	\$ (38,525)
Adjustments to reconcile net loss to net cash used for operating activities:			
Loss (income) from discontinued operations	-	2,045	(3,682)
Recognition of loss on marketable securities	-	(25)	-
Gain on disposal of discontinued operations	(12,476)	(19,584)	-
Gain from debt extinguishment	-	(12,312)	(6,614)
Translation adjustment	-	(25)	169
Depreciation and amortization	14,464	15,219	19,340
Loss on disposal of property, equipment, and other impairment	439	-	-
Provision for doubtful accounts	(302)	(215)	443
Equity in net loss (income) of GELcore	112	(789)	1,228
Compensatory stock issuances	775	812	759
Reduction of note receivable due for services received	521	521	706
Forgiveness of shareholder notes receivable	34	-	-
Changes in operating assets and liabilities:			
Accounts receivable	(1,556)	(6,190)	(1,953)
Related party receivables	(397)	110	193
Inventory	(59)	(752)	6,639
Prepaid and other current assets	(1,142)	(560)	(779)
Other assets	(978)	(509)	(619)
Accounts payable	(477)	6,543	(12)
Accrued expenses and other current liabilities	(1,138)	992	(1,262)
Total change in operating assets and liabilities	(5,747)	(366)	2,207
Net cash (used for) provided by operating activities of continuing operations	(2,180)	(14,694)	14,556
Net cash (used for) provided by operating activities of discontinued operations	-	(4,218)	5,388
Net cash used for operating activities	(15,287)	(32,338)	(18,581)
<b>Cash flows from investing activities:</b>			
Cash proceeds from disposition of discontinued operations	13,197	62,043	-
Purchase of plant and equipment	(5,357)	(4,173)	(2,599)
Investments in unconsolidated affiliates	(1,495)	-	(1,960)
Investments in associated company	(1,000)	-	-
Cash purchase of business, net of cash acquired	(2,821)	(3,386)	(26,450)
Purchase of marketable securities	(13,275)	(49,621)	(34,371)
Sale of marketable securities	24,775	17,475	75,799
Funding of restricted cash	(547)	-	-
Proceeds from disposals of property, plant and equipment	15	-	-
Net cash used for investing activities of discontinued operations	-	-	(164)
Net cash provided by investing activities	13,492	22,338	10,255
<b>Cash flows from financing activities:</b>			
Repurchase of convertible subordinated notes	-	(10)	(6,317)
Payments on capital lease obligations	(43)	(60)	(90)
Proceeds from exercise of stock options	936	2,642	285
Proceeds from employee stock purchase plan	1,005	911	171
Convertible debt/equity issuance costs	-	(2,500)	-
Net cash provided by (used for) financing activities	1,898	983	(5,951)
Net increase (decrease) in cash and cash equivalents	103	(9,017)	(14,277)
Cash and cash equivalents, beginning of period	19,422	28,439	42,716
Cash and cash equivalents, end of period	\$ 19,525	\$ 19,422	\$ 28,439
<b>SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION</b>			
Cash paid during the period for interest	\$ 4,803	\$ 7,383	\$ 8,498
Issuance of common stock in conjunction with the subordinated debt exchange	\$ -	\$ 51,091	\$ -
<b>NON-CASH INVESTING AND FINANCING ACTIVITIES</b>			
Acquisition of property and equipment under capital leases	\$ -	\$ 37	\$ -

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

**EMCORE Corporation**  
**Notes to Consolidated Financial Statements**  
**As of September 30, 2005 and 2004,**  
**and for the fiscal years ended September 30, 2005, 2004, and 2003**

**NOTE 1. Description of Business.**

EMCORE Corporation (EMCORE), a New Jersey corporation established in 1984, offers a broad portfolio of compound semiconductor-based components and subsystems for the broadband, fiber optic, satellite, solar and wireless communications markets. EMCORE has three operating segments: Fiber Optics, Photovoltaics, and Electronic Materials and Devices. Our integrated solutions philosophy embodies state-of-the-art technology, material science expertise, and a shared vision of our customer's goals and objectives to be leaders in the transport of video, voice and data over copper, hybrid fiber/coax (HFC), fiber, satellite, and wireless networks.

EMCORE's solutions include: optical components and subsystems for fiber-to-the-premise, cable television, and high speed data and telecommunications networks; solar cells, solar panels, and fiber optic ground station links for global satellite communications; and RF transistor materials for high bandwidth wireless communications systems, such as WiMAX and Wi-Fi Internet access and 3G mobile handsets and PDA devices.

Through its joint venture participation in GELcore, LLC, EMCORE plays a vital role in developing and commercializing next-generation High-Brightness LED technology for use in the general and specialty illumination markets.

**NOTE 2. Summary of Significant Accounting Policies.**

Principles of Consolidation. The consolidated financial statements include the accounts of EMCORE and all its wholly owned subsidiaries. All material intercompany accounts and transactions have been eliminated in consolidation. Certain amounts in prior period financial statements have been reclassified to conform to the current year presentation.

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 reported period. Management bases estimates on historical experience and on various assumptions about the future that are believed to be reasonable based on available information. EMCORE's reported financial position or results of operations may be materially different under changed conditions or when using different estimates and assumptions, particularly with respect to significant accounting policies, which are discussed below. In the event that estimates or assumptions prove to differ from actual results, adjustments are made in subsequent periods to reflect more current information.

Cash and Cash Equivalents. Cash and cash equivalents consist of highly liquid short-term investments purchased with an original maturity of three months or less.

Marketable Securities. Unrealized gains and losses for these securities are excluded from earnings and reported 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 statement of operations. Fair values are determined by reference to market prices for securities as quoted based on publicly traded exchanges. The fair value of the debt securities approximate cost. Declines in values that are deemed to be other than temporary are recorded as a component of other (income) expense on the consolidated statement of operations. EMCORE recorded approximately \$0.1 million of net realized gains on sales of available-for-sale debt securities during fiscal 2003. There were no net realized gains on sales of available-for-sale debt securities during fiscal 2005 or 2004.

Concentration of Credit Risk. Financial instruments, which may subject EMCORE to a concentration of credit risk, consist primarily of cash and cash equivalents, marketable securities and accounts receivable. EMCORE's cash and cash equivalents consist primarily of money market funds. EMCORE has established guidelines relative to credit ratings, diversification and maturities that seek to maintain safety and liquidity. EMCORE has maintained cash balances with certain large creditworthy financial institutions in excess of the \$100,000 insured limit of the Federal Deposit Insurance Corporation. On certain occasions, EMCORE performs credit evaluations of its customers' financial condition and generally requires no collateral from its customers. These evaluations require significant judgment and are based on a variety of factors including, but not limited to, current economic trends, historical payment, bad debt write-off experience, and financial review of the customer.

Fair Value of Financial Instruments. The carrying amounts of cash and cash equivalents, marketable securities, account receivable, accounts payable, and accrued expenses approximate fair value because of the short maturity of these instruments. The carrying amount of long-term receivables approximates fair value, as the effective rates for these instruments are comparable to market rates at year-end. The carrying amount of investments approximates fair market value. Fair value for investments in privately held companies is estimated based upon one or more of the following: assessment of historical and forecasted financial condition; operating results and cash flows, valuation estimates based on recent rounds of financing, and/or quoted market prices of comparable public companies. As of September 30, 2005 and 2004, the fair market value of the convertible subordinated notes, based on the quoted market prices, approximated \$92.8 million and \$88.0 million, respectively.

Accounts Receivable. EMCORE regularly evaluates its accounts receivable and accordingly maintains allowances for doubtful accounts for estimated losses resulting from the inability of our customers to meet their financial obligation to us. The allowance is based on the age of receivables and a specific identification of receivables considered at risk. EMCORE classifies charges associated with the allowance for doubtful accounts as a SG&A expense. If the financial condition of our customers were to deteriorate, additional allowances may be required.

Inventory. Inventory is stated at the lower of cost or market, with cost being determined using the standard cost method. EMCORE reserves against inventory once it has been determined that: (i) conditions exist that may not allow the inventory to be sold for its intended purpose, (ii) the inventory's value is determined to be less than cost, (iii) or the inventory is determined to be obsolete. The charge related to inventory reserves is recorded as a cost of revenue. The majority of the inventory write-downs are related to estimated allowances for inventory whose carrying value is in excess of net realizable value and on excess raw material components resulting from finished product obsolescence. In most cases where EMCORE sells previously written down inventory, it is typically sold as a component part of a finished product. The finished product is sold at market price at the time resulting in higher average gross margin on such revenue. EMCORE does not track the selling price of individual raw material components that have been previously written off, since such raw material components usually are only a portion of the resultant finished products and related sales price. EMCORE evaluates inventory levels at least quarterly against sales forecasts on a significant part-by-part basis, in addition to determining its overall inventory risk. Reserves are adjusted to reflect inventory values in excess of forecasted sales, as well as overall inventory risk assessed by management. We have incurred, and may in the future incur, charges to write-down our inventory. While we believe, based on current information, that the amount recorded for inventory is properly reflected on our balance sheet, if market conditions are less favorable than our forecasts, our future sales mix differs from our forecasted sales mix, or actual demand from our customers is lower than our estimates, we may be required to record additional inventory write-downs.

Property, Plant, and Equipment. Property, plant, and equipment are recorded at cost and depreciated on a straight-line basis over the assets' estimated useful lives, which range from three to forty years. Leasehold improvements are amortized over the lesser of the asset life or the life of the related lease. Expenditures for repairs and maintenance are charged to expense as incurred. The costs for major renewals and improvements are capitalized and depreciated over their estimated useful lives. The cost and related accumulated depreciation of the assets are removed from the accounts upon disposition and any resulting gain or loss is reflected in the consolidated statement of operations.

**Valuation of Goodwill and Intangible Assets.** Goodwill represents the excess of the purchase price of an acquired business or assets over the fair value of the identifiable assets acquired and liabilities assumed. Intangible assets consist primarily of intellectual property acquired and purchased intangible assets. Purchased intangible assets include existing and core technology, trademarks and trade names, and customer contracts. Intangible assets are amortized using the straight-lined method over estimated useful lives ranging from 1 to 5 years. EMCORE evaluates its goodwill and intangible assets for impairment on an annual basis, or whenever events or changes in circumstances indicate that the carrying value may not be recoverable. EMCORE last evaluated its goodwill and intangible assets during the quarter ended March 31, 2005. Circumstances that could trigger an impairment test include but are not limited to: a significant adverse change in the business climate or legal factors; an adverse action or assessment by a regulator; unanticipated competition; loss of key personnel; the likelihood that a reporting unit or significant portion of a reporting unit will be sold or otherwise disposed; results of testing for recoverability of a significant asset group within a reporting unit; and recognition of a goodwill impairment loss in the financial statements of a subsidiary that is a component of a reporting unit. The determination as to whether a write-down of goodwill or intangible assets is necessary involves significant judgment based on the short-term and long-term projections of the future performance of the reporting unit to which the goodwill or intangible assets are attributed. During fiscal 2005, 2004, and 2003, EMCORE tested for impairment of goodwill on an annual basis and did not record any impairment charges on any goodwill or intangible assets. As part of our quarterly review of financial results, we did not identify any impairment indicators that the carrying value of our goodwill may not be recoverable. In accordance with Statement of Financial Accounting Standard (SFAS) No. 142, *Goodwill and Other Intangible Assets*, the fair value of the reporting units was determined by using a valuation technique based on each reporting unit's weighted average revenue. Based on that analysis, we determined that the carrying amount of the reporting units did not exceed their fair value.

**Valuation of Long-lived Assets.** EMCORE reviews long-lived assets on an annual basis or whenever events or circumstances indicate that the assets may be impaired. A long-lived asset is considered impaired when its anticipated undiscounted cash flow is less than its carrying value. In making this determination, EMCORE uses certain assumptions, including, but not limited to: (a) estimates of the fair market value of these assets; and (b) estimates of future cash flows expected to be generated by these assets, which are based on additional assumptions such as asset utilization, length of service that assets will be used in our operations, and estimated salvage values. During fiscal 2005, 2004, and 2003, we recorded no impairment charges on any of EMCORE's long-lived assets.

**Investments.** EMCORE accounts for its investment in the GELcore joint venture, a 49% owned company over which it has the ability to exercise significant influence, using the equity method of accounting. Due to the limited availability of timely data, EMCORE occasionally records adjustments to this equity basis investment in the subsequent quarter. EMCORE accounts for similar investments which do not permit us to exert significant influence over the entity in which we are investing by using the cost method of accounting. The recorded amounts generally represent our cost of the investment less any adjustments we make when we determine that an investment's carrying value is other-than-temporarily impaired. EMCORE periodically reviews these investments for impairment. In the event the carrying value of an investment exceeds its fair value and the decline in fair value is determined to be other-than-temporary, EMCORE writes down the value of the investment to its fair value.

**Post-employment Benefits.** Post-employment benefits accrued for workforce reductions related to restructuring activities are accounted for under SFAS No. 112, *Employer's Accounting for Post-employment Benefits*. A liability for post-employment benefits is recorded when payment is probable, the amount is reasonably estimable, and the obligation relates to rights that have vested or accumulated.

**Revenue Recognition.** Revenue is generally recognized upon shipment provided persuasive evidence of a contract exists, (such as when a purchase order or contract is received from a customer), the price is fixed, the product meets its specifications, title and ownership have transferred to the customer, and there is reasonable assurance of collection of the sales proceeds. In those few instances where a given sale involves post shipment obligations, formal customer acceptance documents, or subjective rights of return, revenue is not recognized until all post-shipment conditions have been satisfied and there is reasonable assurance of collection of the sales proceeds. The majority of our products have shipping terms that are free on board (FOB) or free carrier alongside (FCA) shipping point, which means that EMCORE fulfills its delivery obligation when the goods are handed over to the freight carrier at our shipping dock. This means the buyer bears all costs and risks of loss or damage to the goods from that point. In certain cases, EMCORE ships its products cost insurance and freight (CIF). Under this arrangement, revenue is recognized under FCA shipping point terms, but EMCORE pays (and bills the customer) for the cost of shipping and insurance to the customer's designated location. EMCORE accounts for shipping and related transportation costs by recording the charges that are invoiced to customers as revenue, with the corresponding cost recorded as cost of revenue. In those instances where inventory is maintained at a consigned location, revenue is recognized only when our customer pulls product for its use and title and ownership have transferred to the customer. In rare occurrences, at a customer's request, EMCORE enters into bill and hold transactions whereby title and risk of loss transfers to the customer, but carriage to the customer does not occur until a specified later date. EMCORE recognizes revenue associated with the sale of product from bill and hold arrangements when the product is complete, ready for delivery, and all bill and hold criteria have been met. There were no bill and hold arrangements as of September 30, 2005, 2004 or 2003.

**Distributors -** EMCORE uses a number of distributors around the world. In accordance with Staff Accounting Bulletin No. 104, *Revenue Recognition*, EMCORE recognizes revenue upon shipment of product to these distributors. Title and risk of loss pass to the distributors upon delivery, and our distributors are contractually obligated to pay EMCORE on standard commercial terms, just like our other direct customers. EMCORE does not sell to its distributors on consignment and, except in the event of a product discontinuance, does not give distributors a right of return.

**Solar Panel Contracts -** EMCORE records revenues from certain solar panel contracts using the percentage-of-completion method. Revenue is recognized in proportion to actual costs incurred compared to total anticipated costs expected to be incurred for each contract. If estimates of costs to complete long-term contracts indicate a loss, a provision is made for the total loss anticipated. EMCORE has numerous contracts that are in various stages of completion. Such contracts require estimates to determine the appropriate cost and revenue recognition. EMCORE uses all available information in determining dependable estimates of the extent of progress towards completion, contract revenues, and contract costs. Estimates are revised as additional information becomes available. At September 30, 2005 and 2004, EMCORE's accrued program losses totaled approximately \$23,000 and \$120,000, respectively.

**Government R&D Contracts -** R&D contract revenue represents reimbursement by various U.S. government entities, or their contractors, to aid in the development of new technology. The applicable contracts generally provide that EMCORE may elect to retain ownership of inventions made in performing the work, subject to a non-exclusive license retained by the government to practice the inventions for government purposes. The R&D contract funding may be based on a cost-plus, cost reimbursement, cost-share, or a firm fixed price arrangement. The amount of funding under each R&D contract is determined based on cost estimates that include both direct and indirect costs. Cost-plus funding is determined based on actual costs plus a set margin. As we incur costs under cost reimbursement type contracts, we record revenue. Contract costs include material, labor, special tooling and test equipment, subcontracting costs, as well as an allocation of indirect costs. For cost-share contracts, the actual costs of performance are divided between the U.S. government and EMCORE based on the R&D contract terms. An R&D contract is considered complete when all significant costs have been incurred, milestones have been reached, and any reporting obligations to the customer have been met. Revenues from government R&D contracts amounted to approximately \$11.8 million, \$4.6 million and \$5.2 million for the years ended September 30, 2005, 2004, and 2003 respectively.

**Product Warranty Reserves.** EMCORE provides its customers with limited rights of return for non-conforming shipments and warranty claims for certain products. In accordance with Financial Accounting Standards Board (FASB) Interpretation No. 45, *Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others*, EMCORE makes estimates using historical experience rates as a percentage of revenue and accrues estimated warranty expense as a cost of revenue. We estimate the costs of our warranty obligations based on our historical experience of known product failure rates, use of materials to repair or replace defective products and service delivery costs incurred in correcting product failures. In addition, from time to time, specific warranty accruals may be made if unforeseen technical problems arise. Should our actual experience relative to these factors differ from our estimates, we may be required to record additional warranty reserves. Alternatively, if we provide more reserves than we need, we may reverse a portion of such provisions in future periods.

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

**Income Taxes.** Deferred tax assets and liabilities are recognized for the expected tax consequences of temporary differences between the tax bases of assets and liabilities and their reported amounts. Management provides valuation allowances against the deferred tax asset for amounts which are considered "more likely than not" to be realized.

**Comprehensive Income.** SFAS No. 130, *Reporting Comprehensive Income*, establishes standards for reporting and display of comprehensive income and its components in financial statements. It requires that all items that are required to be recognized under accounting standards as components of comprehensive income be reported in the financial

statement that is displayed with the same prominence as other financial statements. Comprehensive income consists of net earnings, the net unrealized gains or losses on available for sale marketable securities and foreign currency translation adjustments and is presented in the consolidated statements of shareholders' equity.

**Earnings Per Share.** Basic earnings per share is calculated by dividing net earnings applicable to common stock by the weighted average number of common stock shares outstanding for the period. Diluted earnings per share reflect the potential dilution that could occur if EMCORE's outstanding stock options were exercised. The effect of outstanding common stock purchase options and warrants, the convertible preferred stock and the convertible subordinated notes have been excluded from the diluted earnings per share calculation since the effect of such securities is anti-dilutive.

#### Recent Accounting Pronouncements.

##### FASB Interpretation No. 47

In March 2005, the FASB issued FASB Interpretation No. 47, *Accounting for Conditional Asset Retirement Obligations, an Interpretation of FASB Statement No. 143*. FIN 47 clarifies the timing of liability recognition for legal obligations associated with the retirement of tangible long-lived assets when the timing and/or method of settlement of the obligations are conditional on a future event and where an entity would have sufficient information to reasonably estimate the fair value of an asset retirement obligation. FIN 47 is effective for conditional asset retirement obligations occurring during fiscal years ending after December 15, 2005. EMCORE does not believe the adoption of this pronouncement on October 1, 2006 will have a material impact on its financial statements.

##### FAS No. 151

In November 2004, the FASB issued Statement of Financial Accounting Standards No. 151, *Inventory Costs, an amendment of ARB No. 43, Chapter 4*. FAS 151 clarifies the accounting for abnormal amounts of idle facility expense, freight, handling costs, and wasted material (spoilage). FAS 151 requires that those items be recognized as current-period charges regardless of whether they meet the criterion of "so abnormal". In addition, it requires that allocation of fixed production overheads to the costs of conversion be based on the normal capacity of the production facilities. FAS 151 is effective for inventory costs incurred during fiscal years beginning after June 15, 2005. The Company believes that FAS 151 will not have a significant impact on its financial position or results of operations.

##### SFAS No. 154

In June 2005, FASB issued SFAS No. 154, *Accounting Changes and Error Corrections, a replacement of APB Opinion No. 20, Accounting Changes, and FASB Statement No. 3, Reporting Accounting Changes in Interim Financial Statements*. The Statement applies to all voluntary changes in accounting principle, and changes the requirements for accounting for and reporting of a change in accounting principle. SFAS 154 requires retrospective application to prior periods' financial statements of a voluntary change in accounting principle unless it is impracticable. SFAS 154 requires that a change in method of depreciation, amortization, or depletion for long-lived, non-financial assets be accounted for as a change in accounting estimate that is affected by a change in accounting principle. Opinion 20 previously required that such a change be reported as a change in accounting principle. SFAS 154 is effective for accounting changes and corrections of errors made in fiscal years beginning after December 15, 2005. EMCORE does not believe the adoption of this pronouncement on October 1, 2006 will have a material impact on its financial statements.

##### EITF No. 05-6

In June 2005, the Emerging Issues Task Force (EITF) issued No. 05-6, *Determining the Amortization Period for Leasehold Improvements*. The pronouncement requires that leasehold improvements acquired in a business combination or purchased subsequent to the inception of the lease be amortized over the lesser of the useful life of the asset or the lease term that includes reasonably assured lease renewals as determined on the date of the acquisition of the leasehold improvement. This pronouncement should be applied prospectively and EMCORE adopted it during the first quarter of fiscal 2006. EMCORE does not believe this pronouncement will have an impact on its financial statements.

##### SFAS No. 123(R)

Effective October 1, 2005, the first day of fiscal 2006, EMCORE adopted SFAS No. 123(R), *Share-Based Payment (Revised 2004)* on a modified prospective basis. As a result, EMCORE will include stock-based compensation costs in its results of operations for the quarter ended December 31, 2005, as more fully described in Note 3 to EMCORE's consolidated financial statements.

The above listing is not intended to be a comprehensive list of all of our significant accounting policies. In many cases, the accounting treatment of a particular transaction is specifically dictated by generally accepted accounting principles (GAAP). There also are areas in which management's judgment in selecting any available alternative would not produce a materially different result.

#### NOTE 3. Stock Options and Warrants.

##### Stock Options.

In accordance with Accounting Principles Board Opinion (APB) No. 25, *Accounting for Stock Issued to Employees, as amended*, no compensation expense is recorded for stock options or other stock-based awards that are granted to employees with an exercise price equal to or above the common stock price on the grant date. EMCORE accounts for stock-based compensation in accordance with APB 25, and provides the pro forma disclosures required by SFAS No. 123, *Accounting for Stock-Based Compensation*, as amended by SFAS No. 148, *Accounting for Stock-Based Compensation Transition and Disclosure*. EMCORE computes fair value for this purpose using the Black-Scholes option valuation model. The Black-Scholes model was developed for use in estimating the fair value of traded options that have no vesting restrictions and are fully transferable. In addition, option valuation models require the input of highly subjective assumptions, including the expected stock price volatility. EMCORE's options have characteristics significantly different from traded options, and the input assumptions used in the model can materially affect the fair value estimate. The assumptions used in this model to estimate fair value and resulting values are as follows:

##### **Stock Option Plans**

**For the fiscal years ended September 30,**

	<u>FY 2005</u>	<u>FY 2004</u>	<u>FY 2003</u>
Expected dividend yield	0%	0%	0%
Expected stock price volatility	105%	109%	112%
Risk-free interest rate	3.8%	3.4%	2.8%
Weighted average expected life (in years)	5	5	5

The following table illustrates the effect on the net loss and net loss per share if EMCORE had applied the fair value recognition provisions of SFAS No. 123 to stock based compensation:

##### **Loss per share**

**For the fiscal years ended September 30,**

<i>(in thousands)</i>	<u>FY 2005</u>	<u>FY 2004</u>	<u>FY 2003</u>
Net loss	\$ (13,107)	\$ (13,426)	\$ (38,525)
Deduct: Total stock based employee compensation expense determined under fair value based methods for all awards, net of related tax effects	(2,927)	(3,476)	(3,339)

Pro forma net loss	\$	(16,034)	\$	(16,902)	\$	(41,864)
Reported net loss per basic and diluted share	\$	<u>(0.28)</u>	\$	<u>(0.31)</u>	\$	<u>(1.04)</u>
Pro forma net loss per basic and diluted share	\$	<u>(0.34)</u>	\$	<u>(0.39)</u>	\$	<u>(1.13)</u>

EMCORE has stock option plans to provide incentives to eligible employees, officers and directors in the form of stock options. Most of the options vest and become exercisable over three to five years and have ten year terms. EMCORE maintains two incentive stock option plans: the 2000 Stock Option Plan (2000 Plan), and the 1995 Incentive and Non Statutory Stock Option Plan (1995 Plan and, together with the 2000 Plan, the Option Plans). The 1995 Plan authorizes the grant of options to purchase up to 2,744,118 shares of EMCORE's common stock. As of September 30, 2005, no options were available for issuance under the 1995 Plan. The 2000 Plan authorizes the grant of options to purchase up to 6,850,000 shares of EMCORE's common stock. As of September 30, 2005, 449,972 options were available for issuance under the 2000 Plan. Certain options under the Option Plans are intended to qualify as incentive stock options pursuant to Section 422A of the Internal Revenue Code.

During fiscal 2005, 1,793,900 options were granted pursuant to the 2000 Plan at exercise prices ranging from \$1.98 to \$5.84 per share. As of September 30, 2005, 2004, and 2003, options with respect to 2,845,544, 2,489,807, and 3,088,389, were exercisable, respectively. The following table summarizes the activity under the Option Plans:

	Shares	Weighted Average Exercise Price
Outstanding as of October 1, 2002	5,006,588	\$ 11.79
Granted	4,181,349	1.87
Exercised	(156,716)	3.14
Cancelled	<u>(3,280,155)</u>	13.28
Outstanding as of September 30, 2003	5,751,066	3.98
Granted	1,920,950	3.03
Exercised	(1,327,819)	1.98
Cancelled	<u>(842,884)</u>	3.47
Outstanding as of September 30, 2004	5,501,313	4.21
Granted	1,793,900	3.23
Exercised	(482,881)	1.94
Cancelled	<u>(646,106)</u>	3.64
Outstanding as of September 30, 2005	<u>6,166,226</u>	\$ 4.16

At September 30, 2005, stock options outstanding were as follows:

Exercise Price	Options Outstanding	Weighted Average Remaining Contractual Life (Years)	Exercisable Options	Weighted Average Exercise Price
<\$1	1,920	2.18	1,920	\$ 0.23
\$1 < to <\$5	4,770,314	7.99	1,515,522	2.66
\$5 < to <\$10	1,167,152	4.15	1,101,262	6.84
>\$10	226,840	4.54	226,840	\$ 22.07
	<u>6,166,226</u>		<u>2,845,544</u>	

On September 30, 2002, EMCORE offered to all employees holding options with an exercise price of at least \$4.00 per share, excluding executive officers, the opportunity to exchange those options for new options to be issued on May 1, 2003. On October 30, 2002, EMCORE accepted all options tendered for exchange and canceled them all. On May 1, 2003, EMCORE issued 2,972,149 options in exchange for the tendered options. These options had an exercise price of \$1.82, which was the closing price for EMCORE common stock on May 1, 2003. With the exception of the new exercise price, the new options had the same terms as the tendered options.

#### Warrants.

Set forth below is a summary of EMCORE's outstanding warrants at September 30, 2005:

Underlying Security	Exercise Price	Warrants	Expiration Date
Common Stock <sup>(1)</sup>	\$2.16	14,796	August 21, 2006
Common Stock <sup>(2)</sup>	\$15.16 - \$31.18	16,739	March 5, 2006 - September 1, 2006

#### Notes

<sup>(1)</sup> Issued in connection with EMCORE's December 1997 acquisition of MicroOptical Devices, Inc.

<sup>(2)</sup> Issued in connection with EMCORE's IP agreement with Sandia Laboratories.

#### **NOTE 4. GELcore Joint Venture.**

In January 1999, General Electric Lighting and EMCORE formed GELcore, a joint venture to address the solid-state lighting market with high brightness light emitting diode-based (HB-LED) lighting systems. 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. EMCORE has a 49% non-controlling interest in the GELcore venture, and accounts for this investment using the equity method of accounting. Additional investments in GELcore totaled approximately \$1.5 million in fiscal 2005. For the years ended September 30, 2005, 2004, and 2003, EMCORE recognized (loss) income of \$(0.1) million, \$0.8 million, and \$(1.2) million, respectively, related to this joint venture, which was recorded as a component of other income and expenses. As of September 30, 2005 and 2004, EMCORE's net investment in this joint venture amounted to approximately \$11.4 million and \$10.0 million, respectively.

**NOTE 5. Acquisitions.**

Fiscal 2004 - In October 2003, EMCORE acquired Molex Inc.'s 10G Ethernet transceiver business (Molex) for an initial \$1.0 million in cash, \$1.5 million in cash earn out based upon initial LX4 unit volumes, and future cash earnout payments calculated as a percentage of revenue, ranging from 3.7% to 0.25%, on LX4 product sold through December 2007. In June 2004, EMCORE purchased Corona Optical Systems, Inc. (Corona), a parallel optics company, for \$1.2 million in a cash-for-stock merger. These acquired businesses are a part of EMCORE's fiber optic operating segment.

Fiscal 2005 - In May 2005, EMCORE acquired the analog cable TV (CATV) and radio frequency (RF) over fiber specialty businesses from JDS Uniphase Corporation (JDSU) for \$1.5 million in cash plus a deferred payment, payable in quarterly installments, associated with EMCORE's quarterly usage of the acquired JDSU inventory valued between \$2.5 million and \$3.5 million. EMCORE will also pay JDSU a royalty on licensed intellectual property. The acquired business is a part of EMCORE's fiber optic operating segment. The preliminary allocation of the purchase price was based, in part, upon a valuation and estimates, and assumptions are subject to change. The preliminary purchase price was allocated as follows:

**JDSU CATV Acquisition - Preliminary Allocation***(in thousands)*

Inventory	\$	3,450
Fixed assets		500
Cost investment in K2 Optronics		500
Intangible assets		1,900
Accrued expenses		(4,850)
<b>Total purchase price</b>	<b>\$</b>	<b>1,500</b>

These transactions were accounted for as purchases in accordance with SFAS No. 141, *Business Combinations*; therefore, the tangible assets acquired were recorded at fair value on acquisition date. These acquisitions were not significant on a pro-forma basis, and therefore, pro-forma financial statements are not provided. The operating results of the assets acquired are included in the accompanying consolidated statement of operations from the date of acquisition.

**NOTE 6. Divestiture.**

In April 2005, EMCORE divested product technology focused on gallium nitride (GaN)-based power electronic devices for the power device industry. The new company, Velox Semiconductor Corporation (Velox), raised \$6.0 million from various venture capital partnerships. Five EMCORE employees transferred to Velox as full-time personnel and EMCORE contributed intellectual property and equipment receiving a 19.2% stake in Velox. As of September 30, 2005, the recorded value of EMCORE's investment in Velox was approximately \$1.3 million.

**NOTE 7. Investments.**

In addition to the GELcore joint venture and Velox investment mentioned above, in February 2002, EMCORE purchased \$1.0 million of preferred stock of Archcom Technology, Inc. (Archcom), a venture-funded, start-up optical networking components company that designs, manufactures, and markets a series of high performance lasers and photodiodes for the datacom and telecom industries. During fiscal 2004, Archcom raised additional capital, but EMCORE did not participate. As a result, we reduced the carrying value of our investment in Archcom by 50%, or \$0.5 million and recorded this expense as an investment loss in the statement of operations.

In October 2004, EMCORE invested \$1.0 million in K2 Optronics, Inc., a California-based company specializing in the design and manufacture of external cavity lasers, to strengthen our partnership in designing next-generation, high-performance, long-wavelength components on an exclusive basis for the CATV and FTTP markets. As part of the acquisition of JDSU's businesses, EMCORE also paid \$0.5 million to purchase JDSU's equity interest in K2 Optronics, Inc.

**NOTE 8. Discontinued Operations.**

In November 2003, EMCORE sold its TurboDisc capital equipment business in an asset sale in November 2003 to a subsidiary of Veeco Instruments Inc. (Veeco) in a transaction that is valued at up to \$80.0 million. The selling price was \$60.0 million in cash at closing, with an additional aggregate maximum payout of \$20.0 million over the next two years. In March 2005, EMCORE received \$13.2 million of earn-out payment from Veeco in connection with its first year of net sales of TurboDisc products. After offsetting this receipt against expenses related to the discontinued operation, EMCORE recorded a net gain from the disposal of discontinued operations of \$12.5 million. EMCORE's maximum second year earn-out payment from Veeco is \$6.8 million. Based upon currently available information, EMCORE cannot predict whether it will receive a second year earn-out payment from Veeco because calendar year 2005 revenues from the TurboDisc capital equipment business may not exceed the minimum revenue earn-out threshold.

**NOTE 9. Severance Expense.**

Severance - SG&A expense included approximately \$0.9 million and \$1.2 million in severance-related charges in fiscal 2005 and 2004, respectively. In fiscal 2005, \$0.3 million of severance-related benefits was associated with the reduction of 51 employees related to the closure of the City of Industry, California (COI) facility. Excluding the COI facility closure, EMCORE further reduced its workforce by 39 employees, of whom 29 employees were engaged in manufacturing, 4 employees in SG&A, and 6 employees in R&D. In fiscal 2004, severance-related benefits were provided to 110 employees that were involuntary affected by a reduction in workforce. Severance expense by operating segment is summarized below:

**Severance Expense****For the fiscal years ended September 30,***(in thousands)*

	<u>FY 2005</u>	<u>FY 2004</u>
Operating Segment:		
Fiber Optics	\$ 610	\$ 831
Photovoltaics	230	85
Electronic Materials & Devices	60	240
<b>Total Severance</b>	<b>\$ 900</b>	<b>\$ 1,156</b>

The following table sets forth changes in the severance accrual account, the balance of which is expected to be paid by December 31, 2005.

**Severance Accrual**

<i>(in thousands)</i>	
Balance as of October 1, 2003	\$ 24
New charges	1,156
Payments	(658)
Balance as of September 30, 2004	522
New charges	900
Payments	(1,392)
Balance as of September 30, 2005	<u>\$ 30</u>

**NOTE 10. Receivables.**

Accounts receivable consisted of the following:

**Accounts Receivable, net**

**As of September 30,**

<i>(in thousands)</i>	<u>2005</u>	<u>2004</u>
Accounts receivable	\$ 21,721	\$ 19,270
Accounts receivable - unbilled	1,240	2,171
Subtotal	22,961	21,441
Allowance for doubtful accounts	(328)	(666)
<b>Total</b>	<u>\$ 22,633</u>	<u>\$ 20,775</u>

The following table summarizes the changes in the allowance for doubtful accounts for the years ended September 30, 2005, 2004 and 2003:

**Allowance for Doubtful Accounts**

**As of September 30,**

<i>(in thousands)</i>	<u>2005</u>	<u>2004</u>	<u>2003</u>
Balance at beginning of year	\$ 666	\$ 1,041	\$ 1,185
Account adjustments	(302)	(215)	443
Write-offs (deductions)	(36)	(160)	(587)
<b>Balance at end of year</b>	<u>\$ 328</u>	<u>\$ 666</u>	<u>\$ 1,041</u>

In September 2005, EMCORE entered into a non-recourse receivables purchase agreement (AR Agreement) with Silicon Valley Bank (SVBank). Under the terms of the AR Agreement, EMCORE from time to time may sell, without recourse, certain accounts receivables to SVBank up to a maximum aggregate outstanding amount of \$20.0 million. The AR Agreement expires on December 31, 2006, unless the term is extended by mutual agreement by all parties. During the quarter ended September 30, 2005, EMCORE sold approximately \$2.2 million of account receivables to SVBank.

Receivables from related parties consisted of the following:

**Receivables, Related Parties**

**As of September 30,**

<i>(in thousands)</i>	<u>2005</u>	<u>2004</u>
<b>Current assets:</b>		
GELcore joint venture	\$ 185	\$ 215
Velox	249	-
Employee loans	3,000	-
Employee loans - interest portion	763	-
Subtotal	4,197	215
<b>Long-term assets:</b>		
Employee loans	169	3,169
Employee loans - interest portion	-	585
Subtotal	169	3,754
<b>Total</b>	<u>\$ 4,366</u>	<u>\$ 3,969</u>

Employee Loans

From time to time, prior to July 2002, EMCORE has loaned money to certain of its executive officers and directors. Pursuant to due authorization from EMCORE's Board of Directors, EMCORE loaned \$3.0 million to the Chief Executive Officer in February 2001. The promissory note matures on February 22, 2006 and bears interest (compounded annually) at a rate of (a) 5.18% per annum through May 23, 2002 and (b) 4.99% from May 24, 2002 through maturity. All interest is payable at maturity. The note is partially secured by a pledge of shares of EMCORE's common stock. Accrued interest at September 30, 2005 totaled approximately \$0.8 million.

In addition, pursuant to due authorization of the Company's Board of Directors, EMCORE loaned \$82,000 to the Chief Financial Officer (CFO) of EMCORE in December 1995. The loan does not bear interest and provides for offset of the loan via bonuses payable to the CFO over a period of up to 25 years. The remaining balance relates to \$87,260 of loans from the Company to an officer (who is not a Named Executive Officer) that were made during 1997 through 2000, and are payable on demand.

During the first quarter of fiscal 2005, pursuant to due authorization of the Company's Compensation Committee, EMCORE wrote-off \$34,000 of notes receivable that were issued in 1994 to certain EMCORE employees.

**NOTE 11. Inventory, net.**

Inventory is stated at the lower of cost or market, with cost being determined using the standard cost method that includes material, labor and manufacturing overhead costs. The components of inventory consisted of the following:

<b>Inventory, net</b> <b>As of September 30,</b> <i>(in thousands)</i>	<u>2005</u>	<u>2004</u>
Raw materials	\$ 15,482	\$ 9,000
Work-in-process	5,101	4,140
Finished goods	<u>5,911</u>	<u>5,754</u>
Subtotal	26,494	18,894
Less: reserves	<u>(8,146)</u>	<u>(4,055)</u>
Total	<u>\$ 18,348</u>	<u>\$ 14,839</u>

EMCORE recorded write-downs of inventory of \$3.7 million and \$4.0 million for the years ended September 30, 2005 and 2004, respectively.

**NOTE 12. Property, Plant, and Equipment, net.**

Property, plant, and equipment, net, consisted of the following:

<b>Property, Plant, and Equipment, net</b> <b>As of September 30,</b> <i>(in thousands)</i>	<u>2005</u>	<u>2004</u>
Land	\$ 1,502	\$ 1,502
Building and improvements	37,944	37,938
Equipment	71,854	72,094
Furniture and fixtures	5,002	5,002
Leasehold improvements	2,935	2,893
Construction in progress	3,390	1,406
Property and equipment under capital lease	<u>466</u>	<u>466</u>
Subtotal	123,093	121,301
Less: accumulated depreciation and amortization	<u>(66,136)</u>	<u>(55,947)</u>
Total	<u>\$ 56,957</u>	<u>\$ 65,354</u>

At September 30, 2005, minimum future lease payments due under the capital leases are as follows:

<b>Lease Payments</b> <i>(in thousands)</i>	
Year ending:	
September 30, 2006	\$ 21
September 30, 2007	<u>8</u>
Total minimum lease payments	29
Less: amount representing interest	<u>2</u>
Net minimum lease payments	27
Less: current portion	<u>19</u>
Long-term portion	<u>\$ 8</u>

Depreciation expense on owned property and equipment amounted to approximately \$14.5 million, \$13.2 million, and \$16.8 million in fiscal 2005, 2004, and 2003, respectively. Accumulated amortization on assets accounted under capital leases amounted to approximately \$0.4 million as of September 30, 2005 and 2004. In fiscal 2005, EMCORE wrote off \$0.4 million of equipment that has been abandoned for disposal.

**NOTE 13. Goodwill and Intangible Assets, net.**

The following table sets forth changes in the carrying value of goodwill by reportable segment:

<i>(in thousands)</i>	<u>Fiber Optics</u>	<u>Photovoltaics</u>	<u>Total</u>
Balance as of September 30, 2004	\$ 13,200	\$ 20,384	\$ 33,584
Acquisition - earn out payments	<u>1,059</u>	<u>-</u>	<u>1,059</u>
Balance as of September 30, 2005	<u>\$ 14,259</u>	<u>\$ 20,384</u>	<u>\$ 34,643</u>

The following table sets forth changes in the carrying value of intangible assets by reportable segment:

**As of September 30,**  
*(in thousands)*

	<u>2005</u>			<u>2004</u>		
	<u>Gross Assets</u>	<u>Accumulated Amortization</u>	<u>Net Assets</u>	<u>Gross Assets</u>	<u>Accumulated Amortization</u>	<u>Net Assets</u>
<b>Fiber Optics:</b>						
Patents	\$ 368	\$ (136)	\$ 232	\$ 360	\$ (61)	\$ 299
Ortel acquired IP	3,274	(1,746)	1,528	3,274	(1,098)	2,176
JDSU acquired IP	1,650	(110)	1,540	-	-	-
Alvesta acquired IP	193	(107)	86	193	(68)	125
Molex acquired IP	558	(223)	335	558	(112)	446
Corona acquired IP	1,000	(267)	733	1,000	(66)	934
Subtotal	<u>7,043</u>	<u>(2,589)</u>	<u>4,454</u>	<u>5,385</u>	<u>(1,405)</u>	<u>3,980</u>
<b>Photovoltaics:</b>						
Patents	271	(101)	170	265	(49)	216
Tecstar acquired IP	<u>1,900</u>	<u>(1,350)</u>	<u>550</u>	<u>1,900</u>	<u>(970)</u>	<u>930</u>
Subtotal	<u>2,171</u>	<u>(1,451)</u>	<u>720</u>	<u>2,165</u>	<u>(1,019)</u>	<u>1,146</u>
<b>Electronic Materials &amp; Devices:</b>						
Patents	<u>390</u>	<u>(217)</u>	<u>173</u>	<u>235</u>	<u>(184)</u>	<u>51</u>
<b>Total</b>	<u>\$ 9,604</u>	<u>\$ (4,257)</u>	<u>\$ 5,347</u>	<u>\$ 7,785</u>	<u>\$ (2,608)</u>	<u>\$ 5,177</u>

Based on the carrying amount of the intangible assets as of September 30, 2005, the estimated future amortization expense is as follows:

<b>Amortization</b> <i>(in thousands)</i>	
Period ending:	
Year ended September 30, 2006	\$ 1,884
Year ended September 30, 2007	1,485
Year ended September 30, 2008	939
Year ended September 30, 2009	585
Year ended September 30, 2010	272
Thereafter	<u>182</u>
Total future amortization expense	<u>\$ 5,347</u>

**NOTE 14. Accrued Expenses and Other Current Liabilities.**

The components of accrued expenses consisted of the following:

**Accrued Expenses and Other Current Liabilities**

**As of September 30,**  
*(in thousands)*

	<u>2005</u>	<u>2004</u>
Compensation-related	\$ 4,974	\$ 4,875
Interest	1,814	1,814
Warranty	1,268	2,152
Professional fees	1,082	1,223
Royalty	551	1,554
Acquisition-related	5,006	-
Self insurance	646	1,182
Other	<u>3,737</u>	<u>2,492</u>
Total	<u>\$ 19,078</u>	<u>\$ 15,292</u>

The following table sets forth changes in the product warranty accrual account:

**Warranty Reserve**

<i>(in thousands)</i>	
Balance as of October 1, 2003	\$ 2,440
Accruals for warranty expense	<u>1,502</u>

Reversals due to use of liability	(751)
Accrual releases	(1,039)
Balance as of September 30, 2004	2,152
Accruals for warranty expense	432
Reversals due to use of liability	(685)
Accrual releases	(631)
Balance as of September 30, 2005	\$ 1,268

**NOTE 15. Convertible Subordinated Notes.**

In May 2001, EMCORE issued \$175.0 million aggregate principal amount of its 5% convertible subordinated notes due in May 2006 (2006 Notes). Interest is payable in arrears semiannually on May 15 and November 15 of each year. The notes are convertible into EMCORE common stock at a conversion price of \$48.76 per share, subject to certain adjustments, at the option of the holder. In December 2002, EMCORE purchased \$13.2 million principal amount of the 2006 Notes at prevailing market prices for an aggregate of approximately \$6.3 million, resulting in a gain of approximately \$6.6 million after netting unamortized debt issuance costs of approximately \$0.3 million.

On February 24, 2004, EMCORE exchanged approximately \$146.0 million, or 90.2%, of its remaining 2006 Notes for approximately \$80.3 million aggregate principal amount of new 5% Convertible Senior Subordinated Notes due May 15, 2011 (2011 Notes) and approximately 7.7 million shares of EMCORE common stock. Interest on the 2011 Notes is payable in arrears semiannually on May 15 and November 15 of each year. The notes are convertible into EMCORE common stock at a conversion price of \$8.06 per share, subject to adjustment under customary anti-dilutive provisions. They also are redeemable should EMCORE's common stock price reach \$12.09 per share. As a result of this transaction, EMCORE reduced debt by approximately \$65.7 million, recorded a gain from early debt extinguishment of approximately \$12.3 million.

For the years ended September 30, 2005, 2004, and 2003, interest expense relating to the notes approximated \$4.8 million, \$6.1 million, and \$8.3 million, respectively.

**Subsequent Event**

Fiscal 2006: In November 2005, EMCORE exchanged \$14,425,000 aggregate principal amount of EMCORE's 2006 Notes for \$16,580,460 aggregate principal amount of newly issued Convertible Senior Subordinated Notes due May 15, 2011 (New 2011 Notes) pursuant to an Exchange Agreement (Agreement) with Alexandra Global Master Fund Ltd. (Alexandra). The terms of the New 2011 Notes are identical in all material respects to EMCORE's 2011 Notes. The New 2011 Notes are ranked pari passu with the existing 2011 Notes. The New 2011 Notes will be convertible at any time prior to maturity, unless previously redeemed or repurchased by EMCORE, into the shares of EMCORE common stock, no par value, at the conversion rate of 124.0695 shares of common stock per \$1,000 principal amount. The effective conversion rate is \$8.06 per share of common stock, subject to adjustment under customary anti-dilutive provisions. They also are redeemable should EMCORE's common stock price reach \$12.09 per share. The 2006 Notes exchanged by Alexandra have been reclassified to long-term debt in the accompanying balance sheets. As a result of this transaction, EMCORE will recognize a non-cash loss in the first quarter of fiscal 2006 related to the early extinguishment of debt. Furthermore, the 2006 Notes exchanged by Alexandra represented approximately 91.4% of the \$15,775,000 total amount of existing 2006 Notes outstanding at the time of the transaction. EMCORE intends to redeem for cash the remaining \$1,350,000 of 2006 Notes on or before the May 15, 2006 maturity date.

**NOTE 16. Commitments and Contingencies.**

EMCORE leases certain land, facilities, and equipment under non-cancelable operating leases. All of the leases provide for rental adjustments for increases in base rent (up to specific limits), property taxes, and general property maintenance that would be recorded as rent expense. EMCORE also has subleased a portion of one of its leased facilities to a third party. Net facility and equipment rent expense under such leases amounted to approximately \$1.9 million, \$2.3 million, and \$2.1 million for the years ended September 30, 2005, 2004, and 2003, respectively. Future minimum rental payments under EMCORE's non-cancelable operating leases with an initial or remaining term of one year or more as of September 30, 2005 are as follows:

**Operating Leases**

(in thousands)

Period ending:	
September 30, 2006	\$ 1,853
September 30, 2007	1,265
September 30, 2008	858
September 30, 2009	872
September 30, 2010	885
Thereafter	3,276
Total minimum lease payments	\$ 9,009

Future amounts to be received from third parties related to the sublease of certain of EMCORE's facilities are as follows:

**Subleases**

(in thousands)

Period ending:	
September 30, 2006	\$ 136
Total minimum lease payments	\$ 136

EMCORE is involved in lawsuits and proceedings that arise in the ordinary course of business. There are no matters pending that we expect to be material in relation to our business, consolidated financial condition, results of operations, or cash flows.

**NOTE 17. Income Taxes.**

A reconciliation of the income tax provision at the federal statutory rate to the income tax provision at the effective tax rate is as follows:

For the fiscal years ended September 30,	FY 2005	FY 2004	FY 2003
US statutory income tax rate	(34.0)%	(34.0)%	(34.0)%
State rate, net of federal benefit	(5.9)	(5.9)	(5.9)
Valuation allowance	39.9	39.9	39.9
Effective tax rate	-%	-%	-%

As a result of its losses, the Company did not incur any income tax expense during the years ended September 30, 2005, 2004 and 2003.

Significant components of the Company's deferred tax assets are as follows:

For the fiscal years ended September 30, (in thousands)	FY 2005	FY 2004
Deferred tax assets (liabilities):		
Federal net operating loss carryforwards	\$ 94,634	\$ 88,799
Research credit carryforwards (state and federal)	2,024	4,124
Inventory reserves	2,751	1,360
Accounts receivable reserves	112	233
Accrued warranty reserve	431	852
State net operating loss carryforwards	15,860	15,277
Investment writedown	4,766	4,766
Other	1,586	1,993
Fixed assets and intangibles	2,256	(3,920)
Total deferred tax assets (liabilities)	124,420	113,484
Valuation Allowance	(124,420)	(113,484)
Net deferred tax asset	\$ -	\$ -

Realization of the deferred tax assets is dependent upon future earnings, if any, the timing and amount of which are uncertain. Accordingly, the net deferred tax assets have been fully offset by a valuation allowance.

As of September 30, 2005, the Company had net operating loss carryforwards for federal income tax purposes of approximately \$278.0 million, which expire beginning in the year 2007 through 2025. The Company also has state net operating loss carryforwards of approximately \$176.0 million, which expire beginning in the year 2006. The Company also has federal and state research and development tax credits of approximately \$0.7 million and \$2.7 million. The research credits will begin to expire in the year 2006 through 2025.

Utilization of the Company's net operating loss and tax credit carryforwards may be subject to a substantial annual limitation due to the ownership change limitations set forth in Internal Revenue Code Section 382 and similar state provisions. Such an annual limitation could result in the expiration of the net operating loss and tax credit carryforwards before utilization.

The Company is incorporated in the State of New Jersey, which presently limits the use of net operating loss carryforwards due to state government budget deficits.

#### NOTE 18. Shareholders' Equity.

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

**Future Issuances:** As of September 30, 2005, EMCORE has reserved a total of 17,024,659 shares of its common stock for future issuances as follows:

	Number of Shares
For exercise of outstanding warrants to purchase common stock	31,535
For exercise of outstanding common stock options	6,166,226
For conversion of subordinated notes	10,283,307
For future common stock option awards	449,972
For future issuances to employees under the Employee Stock Purchase Plan	93,619
Total reserved	17,024,659

#### NOTE 19. Segment Data and Related Information.

Effective January 1, 2005, EMCORE reorganized its reporting structure into three segments: Fiber Optics, Photovoltaics, and Electronic Materials and Devices. EMCORE's Fiber Optics revenues are derived primarily from sales of optical components and subsystems for CATV, fiber to the premise, enterprise routers and switches, telecom grooming switches, core routers, high performance servers, supercomputers and satellite communications data links. EMCORE's Photovoltaics revenues are derived primarily from the sales of solar power conversion products, including solar cells, covered interconnect solar cells, and solar panels. EMCORE's Electronic Materials and Devices revenues are derived primarily from sales of wireless components, such as RF materials including Hetero-junction Bipolar Transistors and enhancement-mode pseudomorphic high electron mobility transistors, GaN materials for wireless base stations, and process development technology.

The following table sets forth the revenues and percentage of total revenues attributable to each of EMCORE's operating segments for each of the past three fiscal years.

**Product Revenues**

For the fiscal years ended September 30,

(in thousands)	FY 2005		FY 2004		FY 2003	
	Revenue	% of Revenue	Revenue	% of Revenue	Revenue	% of Revenue
Fiber Optics	\$ 81,960	64.2%	\$ 56,169	60.4%	\$ 32,658	54.2%
Photovoltaics	33,407	26.2	25,716	27.6	18,196	30.2
Electronic Materials and Devices	12,236	9.6	11,184	12.0	9,430	15.6
Total revenues	<u>\$ 127,603</u>	<u>100.0%</u>	<u>\$ 93,069</u>	<u>100.0%</u>	<u>\$ 60,284</u>	<u>100.0%</u>

The following table sets forth EMCORE's consolidated revenues by geographic region. Revenue was assigned to geographic regions based on the customers' or contract manufacturers' shipment locations.

**Geographic Revenues**

For the fiscal years ended September 30,

(in thousands)	FY 2005		FY 2004		FY 2003	
	Revenue	% of Revenue	Revenue	% of Revenue	Revenue	% of Revenue
United States	\$ 107,956	84.6%	\$ 66,485	71.4%	\$ 44,136	73.2%
Asia and South America	13,728	10.8	15,912	17.1	9,018	15.0
Europe	5,919	4.6	10,672	11.5	7,130	11.8
Total revenues	<u>\$ 127,603</u>	<u>100.0%</u>	<u>\$ 93,069</u>	<u>100.0%</u>	<u>\$ 60,284</u>	<u>100.0%</u>

In fiscal 2005, Cisco Systems, Inc. (Cisco) accounted for 19% of our total revenue. In fiscal 2004, Motorola, Inc. (Motorola) and Cisco accounted for 13% and 8% of our total revenue, respectively. In fiscal 2003, Motorola accounted for 14% of total revenue.

The following table set forth operating loss attributable to each EMCORE operating segment.

**Operating Loss by Segment**

For the fiscal years ended September 30,

(in thousands)	FY 2005	FY 2004	FY 2003
Operating loss by segment:			
Fiber Optics	\$ (13,681)	\$ (24,889)	\$ (19,790)
Photovoltaics	(4,234)	(8,571)	(14,488)
Electronic Materials and Devices	(3,793)	(4,733)	(6,036)
Total operating loss	(21,708)	(38,193)	(40,314)
Other (income) expenses:			
Interest expense, net	3,763	5,373	7,279
Gain from debt extinguishment	-	(12,312)	(6,614)
Investment loss	-	500	-
Equity in net loss (income) of GELcore	112	(789)	1,228
Total other expenses (income)	3,875	(7,228)	1,893
Loss from continuing operations	<u>\$ (25,583)</u>	<u>\$ (30,965)</u>	<u>\$ (42,207)</u>

Long-lived assets (consisting of property, plant and equipment, goodwill and intangible assets) for each operating segment are as follows:

**Long-Lived Assets**

As of September 30,

(in thousands)	2005	2004
Fiber Optics	\$ 56,261	\$ 59,802
Photovoltaics	37,861	38,577
Electronic Materials and Devices	2,825	5,736
Total	<u>\$ 96,947</u>	<u>\$ 104,115</u>

**NOTE 20. Employee Benefits.**

EMCORE has a savings plan (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. All employer contributions are made in EMCORE's common stock. For the years ended September 30, 2005, 2004, and 2003, EMCORE contributed approximately \$734,000, \$739,000, and \$701,000, respectively, in common stock to the Savings Plan.

EMCORE adopted an Employee Stock Purchase Plan (ESPP) in fiscal 2000, which was amended in fiscal 2004. The amendment changed the ESPP plan from a 12-month duration plan to a 6-month duration plan, with new participation periods beginning in January and July of each year. The ESPP provides employees of EMCORE with an opportunity to purchase common stock through payroll deductions. The option price is set at 85% of the market price for EMCORE's common stock on either the first or last day of the participation period, whichever is lower. Contributions are limited to 10% of an employee's compensation. The Board of Directors has reserved 1,000,000 shares of common stock for issuance under the ESPP.

The remaining amount of shares reserved for the ESPP are as follows:

Number of Shares

Original amount of shares reserved for the ESPP	1,000,000
Number of shares issued in December 2000 for CY2000	(16,534)
Number of shares issued in December 2001 for CY2001	(48,279)
Number of shares issued in December 2002 for CY2002	(89,180)
Number of shares issued in December 2003 for CY2003	(244,166)
Number of shares issued in June 2004 for first half of CY2004	(166,507)
Number of shares issued in December 2004 for second half of CY2004	(167,546)
Number of shares issued in June 2005 for first half of CY2005	(174,169)
Remaining shares reserved for the ESPP as of September 30, 2005	<u>93,619</u>

**NOTE 21. Quarterly Financial Data (Unaudited).**

<i>(in thousands)</i>	Dec. 31, 2003	Mar. 30, 2004	June 30, 2004	Sept. 30, 2004	Dec. 31, 2004	Mar. 30, 2005	June 30, 2005	Sept. 30, 2005
Revenue	\$ 23,125	\$ 23,180	\$ 21,225	\$ 25,539	\$ 26,964	\$ 30,430	\$ 33,234	\$ 36,975
Cost of revenue	19,945	20,499	20,811	24,525	24,889	24,901	26,503	30,453
Gross profit	3,180	2,681	414	1,014	2,075	5,529	6,731	6,522
Operating expenses:								
Selling, general & administrative	5,307	5,644	5,723	5,253	5,560	5,127	7,902	6,547
Research and development	6,046	5,714	6,535	5,260	5,059	4,069	4,061	4,240
Total operating expenses	11,353	11,358	12,258	10,513	10,619	9,196	11,963	10,787
Operating loss	(8,173)	(8,677)	(11,844)	(9,499)	(8,544)	(3,667)	(5,232)	(4,265)
Other (income) expenses:								
Interest expense, net	1,867	1,486	1,004	1,016	969	953	905	936
Gain from debt extinguishment	-	(12,312)	-	-	-	-	-	-
Investment loss	-	-	-	500	-	-	-	-
Equity in net loss (income) of GELcore	(267)	51	(341)	(232)	(372)	297	778	(591)
Total other expenses (income)	1,600	(10,775)	663	1,284	597	1,250	1,683	345
(Loss) income from continuing operations	(9,773)	2,098	(12,507)	(10,783)	(9,141)	(4,917)	(6,915)	(4,610)
Discontinued operations:								
Loss from discontinued operations	(1,697)	(348)	-	-	-	-	-	-
Gain on disposal of discontinued operations	19,584	-	-	-	-	12,476	-	-
Income (loss) from discontinued operations	17,887	(348)	-	-	-	12,476	-	-
Net income (loss)	<u>\$ 8,114</u>	<u>\$ 1,750</u>	<u>\$ (12,507)</u>	<u>\$ (10,783)</u>	<u>\$ (9,141)</u>	<u>\$ 7,559</u>	<u>\$ (6,915)</u>	<u>\$ (4,610)</u>

**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

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, 2005 and 2004, and the related consolidated statements of operations, shareholders' equity, and cash flows for each of the three years in the period ended September 30, 2005. 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 the standards of the Public Company Accounting Oversight Board (United States). 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 consolidated financial statements present fairly, in all material respects, the financial position of EMCORE Corporation as of September 30, 2005 and 2004, and the results of its operations and its cash flows for each of the three years in the period ended September 30, 2005, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the effectiveness of the Company's internal control over financial reporting as of September 30, 2005, based on the criteria established in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated December 14, 2005 expressed an unqualified opinion on management's assessment of the effectiveness of the Company's internal control over financial reporting and an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

*DELOITTE & TOUCHE LLP*

Parsippany, New Jersey  
December 14, 2005

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

None.

**Item 9A. Controls and Procedures.**

**(a) Evaluation of Disclosure Controls and Procedures**

The term “disclosure controls and procedures” is defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934, as amended (Exchange Act). This term refers to the controls and procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files under the Exchange Act is recorded, processed, summarized, and reported within required time periods. Our Chief Executive Officer and our Chief Financial Officer have evaluated the effectiveness of our disclosure controls and procedures as of the end of the period covered by this annual report. They have concluded that, as of that date, our disclosure controls and procedures were effective at ensuring that required information will be disclosed on a timely basis in our reports filed under the Exchange Act.

**(b) Changes in Internal Control over Financial Reporting**

No change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) occurred during the fiscal quarter ended September 30, 2005 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

**(c) Report of Management on Internal Control Over Financial Reporting**

Our management is responsible for establishing and maintaining adequate internal control over financial reporting for the company. Internal control over financial reporting is a process to provide reasonable assurance regarding the reliability of our financial reporting for external purposes in accordance with accounting principles generally accepted in the United States of America. Internal control over financial reporting includes maintaining records that in reasonable detail accurately and fairly reflect our transactions; providing reasonable assurance that transactions are recorded as necessary for preparation of our financial statements; providing reasonable assurance that receipts and expenditures of company assets are made in accordance with management authorization; and providing reasonable assurance that unauthorized acquisition, use or disposition of company assets that could have a material effect on our financial statements would be prevented or detected on a timely basis. Because of its inherent limitations, internal control over financial reporting is not intended to provide absolute assurance that a misstatement of our financial statements would be prevented or detected.

Management conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this evaluation, management concluded that the company’s internal control over financial reporting was effective as of September 30, 2005. Deloitte & Touche LLP has audited this assessment of our internal control over financial reporting; their report is included below.

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**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

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

We have audited management's assessment, included in Item 9A Controls and Procedures - Report of Management on Internal Control Over Financial Reporting, that EMCORE Corporation (the "Company") maintained effective internal control over financial reporting as of September 30, 2005 based on criteria established in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission. The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting. Our responsibility is to express an opinion on management's assessment and an opinion on the effectiveness of the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, evaluating management's assessment, testing and evaluating the design and operating effectiveness of internal control, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed by, or under the supervision of, the company's principal executive and principal financial officers, or persons performing similar functions, and effected by the company's board of directors, management, and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of the inherent limitations of internal control over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may not be prevented or detected on a timely basis. Also, projections of any evaluation of the effectiveness of the internal control over financial reporting to future periods are subject to the risk that the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, management's assessment that the Company maintained effective internal control over financial reporting as of September 30, 2005, is fairly stated, in all material respects, based on the criteria established in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of September 30, 2005, based on the criteria established in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated financial statements as of and for the year ended September 30, 2005 of the Company and our report dated December 14, 2005 expressed an unqualified opinion on those financial statements.

*DELOITTE & TOUCHE LLP*

Parsippany, New Jersey  
December 14, 2005

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**Item 9B. Other Information.**

None.

**PART III**

**Item 10. Directors and Executive Officers of the Registrant.**

Information regarding our executive officers and directors required by this Item is incorporated by reference to EMCORE's Definitive Proxy Statement in connection with the 2005 Annual Meeting of Stockholders (the "Proxy Statement"), which will be filed with the Securities and Exchange Commission within 120 days after the fiscal year ended September 30, 2005. Information required by Item 405 of Regulation S-K is incorporated by reference to the section entitled "Section 16(a) Beneficial Ownership Reporting Compliance" in the Proxy Statement.

We have adopted a code of ethics entitled the "EMCORE Corporation Code of Business Conduct and Ethics," which is applicable to all employees, officers, and directors of EMCORE. The full text of our Code of Business Conduct and Ethics is included with the Corporate Governance information available on our website ([www.emcore.com](http://www.emcore.com)).

**Item 11. Executive Compensation.**

Information required by this Item is incorporated by reference to the section entitled "Executive Compensation" in the Proxy Statement.

**Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.**

Information regarding security ownership of certain beneficial owners and management is incorporated by reference to the section entitled "Security Ownership of Certain Beneficial Owners and Management" in the Proxy Statement.

Information regarding EMCORE's equity compensation plans is incorporated by reference to the section entitled "Equity Compensation Plans" in the Proxy Statement.

**Item 13. Certain Relationships and Related Transactions.**

Information required by this Item is incorporated by reference to the sections entitled "Certain Relationships and Related Transactions" and "Compensation Committee Interlocks and Insider Participation" in the Proxy Statement.

**Item 14. Principal Accounting Fees and Services.**

Information required by this Item is incorporated by reference to the sections entitled "Independent Auditors" in the Proxy Statement.

**PART IV**

**Item 15. Exhibits, Financial Statement Schedules.**

**(a)(1) Financial Statements**

Included in Part II, [Item 8](#) of this Annual Report on Form 10-K:

[Consolidated Statements of Operations for the fiscal years ended September 30, 2005, 2004, and 2003](#)

[Consolidated Balance Sheets as of September 30, 2005 and 2004](#)

[Consolidated Statements of Shareholders' Equity for the fiscal years ended September 30, 2005, 2004, and 2003](#)

[Consolidated Statements of Cash Flows for the fiscal years ended September 30, 2005, 2004, and 2003](#)

[Notes to Consolidated Financial Statements](#)

[Report of Independent Registered Public Accounting Firm](#)

**(a)(2) Financial Statement**

**Schedule**

The applicable Financial Statement Schedules required under this Item 15(a)(2) are presented in the Company's consolidated financial statements and notes thereto under [Item 8](#) of this Annual Report on Form 10-K.

**(a)(3) Exhibits**

<u>Exhibit No.</u>	<u>Description</u>
2.1	Asset Purchase Agreement, dated as of November 3, 2003, by and among Veeco St. Paul Inc., Veeco Instruments Inc., and Registrant (incorporated by reference to Exhibit 2.1 to Registrant's Current Report on Form 8-K filed November 18, 2003).
2.2	Purchase Agreement, dated as of May 27, 2005, between JDS Uniphase Corporation and Registrant (incorporated by reference to Exhibit 2.1 to Registrant's Current Report on Form 8-K filed June 3, 2005).
3.1	Restated Certificate of Incorporation, dated December 21, 2000 (incorporated by reference to Exhibit 3.1 to Registrant's Annual Report on Form 10-K for the fiscal year ended September 30, 2000).
3.2	Amended By-Laws, as amended through December 21, 2000 (incorporated by reference to Exhibit 3.2 to Registrant's Annual Report on Form 10-K for

the fiscal year ended September 30, 2000).

- 4.1 Indenture, dated as of May 7, 2001, between Registrant and Wilmington Trust Company, as Trustee (incorporated by reference to Exhibit 4.1 to Registrant's Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2001).
- 4.2 Note, dated as of May 7, 2001, in the amount of \$175,000,000 (incorporated by reference to Exhibit 4.2 to Registrant's Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2001).
- 4.3 Indenture, dated as of February 24, 2004, between Registrant and Deutsche Bank Trust Company Americas, as Trustee (incorporated by reference to Exhibit 4.3 to Registrant's Annual Report on Form 10-K for the fiscal year ended September 30, 2004).
- 4.4 Note dated as of February 24, 2004, in the amount of \$80,276,000 (incorporated by reference to Exhibit 4.4 to Registrant's Annual Report on Form 10-K for the fiscal year ended September 30, 2004).
- [4.5](#) Note, dated as of November 16, 2005, in the amount of 16,580,460.\*
- [4.6](#) Indenture, dated as of November 16, 2005, between Registrant and Deutsche Bank Trust Company Americas, as Trustee.\*
- 10.1 Specimen certificate for shares of common stock (incorporated by reference to Exhibit 4.1 to Amendment No. 3 to the Registration Statement on Form S-1 (File No. 333-18565) filed with the Commission on February 24, 1997).
- 10.2 Transaction Agreement dated January 20, 1999 between General Electric Company and Registrant (incorporated by reference to Exhibit 10.1 to Registrant's Amended Quarterly Report on Form 10-Q/A filed on May 17, 1999). Confidential treatment has been requested by EMCORE for portions of this document. Such portions are indicated by "[\*]".
- 10.3† 1995 Incentive and Non-Statutory Stock Option Plan (incorporated by reference to Exhibit 10.1 to the Amendment No. 1 to the Registration Statement on Form S-1 filed on February 6, 1997).
- 10.4† 1996 Amendment to Option Plan (incorporated by reference to Exhibit 10.2 to Amendment No. 1 to the Registration Statement on Form S-1 filed on February 6, 1997).
- 10.5† MicroOptical Devices 1996 Stock Option Plan (incorporated by reference to Exhibit 99.1 to the Registration Statement on Form S-8 filed on February 6, 1998).
- 10.6† 2000 Stock Option Plan, as amended and restated, effective February 20, 2004 (incorporated by reference to Exhibit 4.1 to the Registration Statement on Form S-8 filed on August 10, 2004).
- 10.7† 2000 Employee Stock Purchase Plan (incorporated by reference to Exhibit 4.3 to the Registration Statement on Form S-8 filed on May 18, 2000).
- 10.8† Directors' Stock Award Plan (incorporated herein by reference to Exhibit 99.1 to Registrant's Original Registration Statement of Form S-8 filed on November 5, 1997), as amended by the Registration Statement on Form S-8 filed on August 10, 2004.
- 10.9† Amended and Restated Note, dated as of May 23, 2002 between Registrant and Reuben F. Richards, Jr. (incorporated by reference to Exhibit 10.1 to Registrant's Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2002).
- 10.10† Amended and Restated Stock Pledge Agreement, dated as of May 23, 2002 between Registrant and Reuben F. Richards, Jr. (incorporated by reference to Exhibit 10.2 to Registrant's Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2002).
- 10.11† Fiscal 2006 Executive Bonus Plan (incorporated by reference to Registrant's Current Report on Form 8-K filed on October 25, 2005).
- 10.12† Terms of Executive Severance Policy (incorporated by reference to Exhibit 10.1 to Registrant's Quarterly Report on Form 10-Q for the fiscal quarter ended December 31, 2004).
- 10.13† Outside Directors' Cash Compensation Plan, dated as of October 20, 2005 (incorporated by reference to Exhibit 10.1 to Registrant's Current Report on Form 8-K filed on October 25, 2005).
- [10.14](#) Non-Recourse Receivables Purchase Agreement, dated as of September 23, 2005, between Registrant and Silicon Valley Bank.\*
- [10.15](#) Exchange Agreement, dated as of November 10, 2005, by and between Alexandra Global Master Fund Ltd. and Registrant.\*
- 14.1 Code of Ethics for Financial Professionals (incorporated by reference to Exhibit 14.1 to Registrant's Annual Report on Form 10-K for the fiscal year ended September 30, 2003).
- [21.1](#) Subsidiaries of the Registrant.\*
- [23.1](#) Consent of Deloitte & Touche LLP.\*
- [31.1](#) Certificate of Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, dated December 14, 2005.\*
- [31.2](#) Certificate of Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, dated December 14, 2005.\*
- [32.1](#) Certificate of Chief Executive Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, dated December 14, 2005.\*
- [32.2](#) Certificate of Chief Financial Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, dated December 14, 2005.\*

\* Filed herewith

† Management contract or compensatory plan



## EXHIBIT INDEX

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[32.1](#) Certificate of Chief Executive Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, dated December 14, 2005.\*

[32.2](#) Certificate of Chief Financial Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, dated December 14, 2005.\*

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\* *Filed herewith*

† *Management contract or compensatory plan*

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UNLESS THIS CERTIFICATE IS PRESENTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY TO THE COMPANY OR ITS AGENT FOR REGISTRATION OF TRANSFER, EXCHANGE OR PAYMENT, AND ANY CERTIFICATE ISSUED IS REGISTERED IN THE NAME OF CEDE & CO. OR IN SUCH OTHER NAME AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY (AND ANY PAYMENT HEREON IS MADE TO CEDE & CO. OR TO SUCH OTHER ENTITY AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY), ANY TRANSFER, PLEDGE OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL SINCE THE REGISTERED OWNER HEREOF, CEDE & CO., HAS AN INTEREST HEREIN. THIS NOTE IS A GLOBAL NOTE WITHIN THE MEANING OF THE INDENTURE HEREINAFTER REFERRED TO AND IS REGISTERED IN THE NAME OF A DEPOSITARY OR A NOMINEE THEREOF. THIS NOTE IS EXCHANGEABLE FOR SECURITIES REGISTERED IN THE NAME OF A PERSON OTHER THAN THE DEPOSITARY OR ITS NOMINEE ONLY IN THE LIMITED CIRCUMSTANCES DESCRIBED IN THE INDENTURE AND, UNLESS AND UNTIL IT IS EXCHANGED IN WHOLE OR IN PART FOR SECURITIES IN DEFINITIVE FORM, THIS NOTE MAY NOT BE TRANSFERRED EXCEPT AS A WHOLE BY THE DEPOSITARY TO A NOMINEE OF THE DEPOSITARY OR BY A NOMINEE OF THE DEPOSITARY TO THE DEPOSITARY OR ANOTHER NOMINEE OF THE DEPOSITARY OR BY THE DEPOSITARY OR ANY SUCH NOMINEE TO A SUCCESSOR DEPOSITARY OR A NOMINEE OF SUCH SUCCESSOR DEPOSITARY AND TRANSFERS OF PORTIONS OF THIS GLOBAL NOTE SHALL BE LIMITED TO TRANSFERS MADE IN ACCORDANCE WITH SECTION 2.12 OF THE INDENTURE.

THIS NOTE (OR ITS PREDECESSOR) WAS ORIGINALLY ISSUED IN A TRANSACTION EXEMPT FROM REGISTRATION UNDER THE UNITED STATES SECURITIES ACT OF 1933 (THE "SECURITIES ACT"), AND THIS NOTE AND THE COMMON STOCK ISSUABLE UPON CONVERSION THEREOF MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED IN THE ABSENCE OF SUCH REGISTRATION OR AN APPLICABLE EXEMPTION THEREFROM. EACH PURCHASER OF THIS NOTE IS HEREBY NOTIFIED THAT THE SELLER OF THIS NOTE MAY BE RELYING ON THE EXEMPTION FROM THE PROVISIONS OF SECTION 5 OF THE SECURITIES ACT PROVIDED BY RULE 144A THEREUNDER.

THE HOLDER OF THIS NOTE AGREES FOR THE BENEFIT OF THE COMPANY THAT (A) THIS NOTE AND THE NOTE COMMON STOCK ISSUABLE UPON CONVERSION THEREOF MAY BE OFFERED, RESOLD, PLEDGED OR OTHERWISE TRANSFERRED, ONLY (I) IN THE UNITED STATES TO A PERSON WHOM THE SELLER REASONABLY BELIEVES IS A QUALIFIED INSTITUTIONAL BUYER (AS DEFINED IN RULE 144A UNDER THE SECURITIES ACT) IN A TRANSACTION MEETING THE REQUIREMENTS OF RULE 144A, (II) OUTSIDE THE UNITED STATES IN AN OFFSHORE TRANSACTION IN ACCORDANCE WITH RULE 904 UNDER THE SECURITIES ACT, (III) PURSUANT TO AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT PROVIDED BY RULE 144 THEREUNDER (IF AVAILABLE) OR (IV) PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT, IN EACH OF CASES (I) THROUGH (IV) IN ACCORDANCE WITH ANY APPLICABLE SECURITIES LAWS OF ANY STATE OF THE UNITED STATES, AND (B) THE HOLDER WILL, AND EACH SUBSEQUENT HOLDER IS REQUIRED TO, NOTIFY ANY PURCHASER OF THIS NOTE FROM IT OF THE RESALE RESTRICTIONS REFERRED TO IN (A) ABOVE. IN ANY CASE, THE HOLDER HEREOF WILL NOT, DIRECTLY OR INDIRECTLY, ENGAGE IN ANY HEDGING TRANSACTIONS WITH REGARD TO THE NOTES EXCEPT AS PERMITTED UNDER THE SECURITIES ACT.

**EMCORE CORPORATION**

CUSIP 290846 AD 6

5% CONVERTIBLE SENIOR SUBORDINATED NOTES DUE 2011

EMCORE Corporation, a New Jersey corporation (the "Company", which term shall include any successor corporation under the Indenture referred to on the reverse hereof), promises to pay to Cede & Co., or registered assigns, the principal sum of sixteen million five hundred eighty thousand four hundred and sixty Dollars (\$16,580,460) on May 15, 2011 or such greater or lesser amount as is indicated on the Schedule of Exchanges of Notes on the other side of this Note.

Interest Payment Dates: May 15 and November 15

Record Dates: May 1 and November 1

This Note is convertible as specified on the other side of this Note. Additional provisions of this Note are set forth on the other side of this Note.

IN WITNESS WHEREOF, the Company has caused this instrument to be duly executed.

EMCORE Corporation

By: /s/ Howard W. Brodie  
Howard W. Brodie  
Executive Vice President and Chief Legal Officer

Attest:

By: /s/ Ian T. Graham  
Ian T. Graham  
Assistant Secretary

Dated: November 16, 2005

Trustee's Certificate of Authentication: This is one of the Notes referred to in the within-mentioned Indenture.

DEUTSCHE BANK TRUST COMPANY AMERICAS,  
as Trustee

By: /s/ Wanda Camacho

EMCORE CORPORATION  
5% CONVERTIBLE SENIOR SUBORDINATED NOTES DUE 2011

1. INTEREST

EMCORE Corporation, a New Jersey corporation (the "Company," which term shall include any successor corporation under the Indenture hereinafter referred to), promises to pay interest on the principal amount of this Note at the rate of 5% per annum. The Company shall pay interest semiannually on May 15 and November 15 of each year, commencing May 15, 2006, unless such date is not a business day, in which case, we shall pay interest on the next succeeding business day and such payment shall be deemed to have been paid on such interest payment date and no interest shall accrue during the additional period of time. Interest on the Notes shall accrue from the most recent date to which interest has been paid or, if no interest has been paid, from November 16, 2005; provided, however, that if there is not an existing default in the payment of interest and if this Note is authenticated between a record date referred to on the face hereof and the next succeeding interest payment date, interest shall accrue from such interest payment date. Interest will be computed on the basis of a 360-day year of twelve 30-day months.

2. METHOD OF PAYMENT

The Company shall pay interest on this Note (except defaulted interest) to the person who is the Holder of this Note at the close of business on May 1 or November 1, as the case may be, next preceding the related interest payment date. The Holder must surrender this Note to a Paying Agent to collect payment of principal. The Company will pay principal and interest in money of the United States that at the time of payment is legal tender for payment of public and private debts. The Company may, however, pay principal and interest in respect of any Definitive Note by check or wire payable in such money; provided, however, that a Holder with an aggregate principal amount in excess of \$2,000,000 will be paid by wire transfer in immediately available funds at the election of such Holder. The Company may mail an interest check to the Holder's registered address. Notwithstanding the foregoing, so long as this Note is registered in the name of a Depositary or its nominee, all payments hereon shall be made by wire transfer of immediately available funds to the account of the Depositary or its nominee.

3. PAYING AGENT, REGISTRAR AND CONVERSION AGENT

Initially, Deutsche Bank Trust Company Americas (the "Trustee," which term shall include any successor trustee under the Indenture hereinafter referred to) will act as Paying Agent, Registrar and Conversion Agent. The Company may change any Paying Agent, Registrar or Conversion Agent without notice to the Holder. The Company or any of its Subsidiaries may, subject to certain limitations set forth in the Indenture, act as Paying Agent or Registrar.

4. INDENTURE, LIMITATIONS

This Note is one of a duly authorized issue of Notes of the Company designated as its 5% Convertible Senior Subordinated Notes due 2011 (the "Notes"), issued under an Indenture dated as of November 16, 2005 (together with any supplemental indentures thereto, the "Indenture"), between the Company and the Trustee. The terms of this Note include those stated in the Indenture and those required by or made part of the Indenture by reference to the Trust Indenture Act of 1939, as amended, as in effect on the date of the Indenture. This Note is subject to all such terms, and the Holder of this Note is referred to the Indenture and said Act for a statement of them. All capitalized terms used but not defined herein shall have the meaning ascribed to such term in the Indenture.

The Notes are subordinated unsecured obligations of the Company. The aggregate principal amount of Notes which may be authenticated and delivered pursuant to the Indenture is unlimited. The Indenture does not limit other debt of the Company, secured or unsecured, including Senior Indebtedness.

5. PROVISIONAL REDEMPTION

The Notes may be redeemed at the election of the Company, as a whole or in part from time to time, at any time (a "Provisional Redemption"), upon at least 20 and not more than 60 days' notice by mail to the Holders of the Notes (a "Provisional Redemption Notice") at a redemption price equal to \$1,000 per \$1,000 principal amount of the Notes redeemed plus accrued and unpaid interest, if any (such amount, together with the Early Call Premium described below, the "Provisional Redemption Price"), to but excluding the date of redemption (the "Provisional Redemption Date") if the Closing Sale Price of the Common Stock has exceeded 150% of the Conversion Price for at least 20 Trading Days within a period of any 30 consecutive Trading Days ending on the Trading Day prior to the date of mailing of the notice of Provisional Redemption (the "Provisional Redemption Notice Date").

Except as set forth above, the Company shall not have the option to redeem the Notes.

6. EARLY CALL PREMIUM

If the Company delivers a Provisional Redemption Notice on or prior to May 15, 2007, the Company shall make an additional payment, at its option, in cash or Common Stock or a combination of cash and Common Stock (the "Early Call Premium") with respect to the Notes called for redemption to holders on the Provisional Redemption Notice Date in an amount equal to \$150.00 per \$1,000 principal amount of the Notes, less the amount of any interest actually paid (including, if the Provisional Redemption Date occurs after a record date but before an interest payment date, any interest paid or to be paid in connection with such interest payment date) on such Notes prior to the Provisional Redemption Date. Payments made in Common Stock will be valued at 95% of the average closing sales prices of Common Stock for the five Trading Days ending on the third day prior to the Provisional Redemption Date. The Company shall pay the Early Call Premium on all Notes called for Provisional Redemption on or prior to May 15, 2007, including those Notes converted into Common Stock between the Provisional Redemption Notice Date and the Provisional Redemption Date.

7. NOTICE OF REDEMPTION

Notice of redemption will be mailed by first-class mail at least 20 days but not more than 60 days before the Redemption Date to each Holder of Notes to be redeemed at its registered address. Notes in denominations larger than \$1,000 may be redeemed in part, but only in whole multiples of \$1,000. On and after the Redemption Date, subject to the deposit with the Paying Agent of funds sufficient to pay the Redemption Price plus accrued interest, if any, accrued to, but not including, the Redemption Date, interest shall cease to accrue on Notes or portions of them called for redemption.

8. PURCHASE OF NOTES AT OPTION OF HOLDER UPON A CHANGE OF CONTROL

At the option of the Holder and subject to the terms and conditions of the Indenture, the Company shall become obligated to purchase all or any part specified by the Holder (so long as the principal amount of such part is \$1,000 or an integral multiple of \$1,000 in excess thereof) of the Notes held by such Holder on the date that is 30 Business Days after the occurrence of a Change of Control, at a purchase price equal to 100% of the principal amount thereof together with accrued interest up to, but excluding, the Change of Control Purchase Date. The Holder shall have the right to withdraw any Change of Control Purchase Notice (in whole or in a portion thereof that is \$1,000 or an integral multiple thereof) at any time prior to the close of business on the Business Day next preceding the Change of Control Purchase Date by delivering a written notice of withdrawal to the Paying Agent in accordance with the terms of the Indenture.

9. CONVERSION

A Holder of a Note may convert the principal amount of such Note (or any portion thereof equal to \$1,000 or any integral multiple of \$1,000 in excess thereof) into shares of Common Stock at any time prior to the close of business on May 15, 2011; provided, however, that if the Note is called for redemption or subject to purchase upon a Change of Control, the conversion right will terminate at the close of business on the Business Day immediately preceding the redemption date or the Change of Control Purchase Date, as the case may be, for such Note or such earlier date as the Holder presents such Note for redemption or purchase (unless the Company shall default in making the redemption payment or Change of Control Purchase Price, as the case may be, when due, in which case the conversion right shall terminate at the close of business on the date such default is cured and such Note is redeemed or purchased).

The initial Conversion Price is \$8.06 per share, subject to adjustment under certain circumstances. The number of shares of Common Stock issuable upon conversion of a Note is determined by dividing the principal amount of the Note or portion thereof converted by the Conversion Price in effect on the Conversion Date. No fractional shares will be issued upon conversion; in lieu thereof, an amount will be paid in cash based upon the Closing Price (as defined in the Indenture) of the Common Stock on the Trading Day immediately prior to the Conversion Date.

To convert a Note, a Holder must (a) complete and manually sign the conversion notice set forth below and deliver such notice to a Conversion Agent, (b) surrender the Note to a Conversion Agent, (c) furnish appropriate endorsements and transfer documents if required by a Registrar or a Conversion Agent, and (d) pay any transfer or similar tax, if required. Notes so surrendered for conversion (in whole or in part) during the period from the close of business on any regular record date to the opening of business on the next succeeding interest payment date (excluding Notes or portions thereof called for redemption or subject to purchase upon a Change of Control on a Redemption Date or Change of Control Purchase Date, as the case may be, during the period beginning at the close of business on a regular record date and ending at the opening of business on the first Business Day after the next succeeding interest payment date, or if such interest payment date is not a Business Day, the second such Business Day) shall also be accompanied by payment in funds acceptable to the Company of an amount equal to the interest payable on such interest payment date on the principal amount of such Note then being converted, and such interest shall be payable to such registered Holder notwithstanding the conversion of such Note, subject to the provisions of this Indenture relating to the payment of defaulted interest by the Company. If the Company defaults in the payment of interest payable on such interest payment date, the Company shall promptly repay such funds to such Holder. A Holder may convert a portion of a Note equal to \$1,000 or any integral multiple thereof.

A Note in respect of which a Holder had delivered a Change of Control Purchase Notice exercising the option of such Holder to require the Company to purchase such Note may be converted only if the Change of Control Purchase Notice is withdrawn in accordance with the terms of the Indenture.

#### 10. SUBORDINATION

The indebtedness evidenced by the Notes is, to the extent and in the manner provided in the Indenture, subordinate and junior in right of payment to the prior payment in full in cash of all Senior Indebtedness. Any Holder by accepting this Note agrees to and shall be bound by such subordination provisions and authorizes the Trustee to give them effect. In addition to all other rights of Senior Indebtedness described in the Indenture, the Senior Indebtedness shall continue to be Senior Indebtedness and entitled to the benefits of the subordination provisions irrespective of any amendment, modification or waiver of any terms of any instrument relating to the Senior Indebtedness or any extension or renewal of the Senior Indebtedness. The indebtedness evidenced by the Notes shall rank *pari passu* with the Company's 5% Convertible Senior Subordinated Notes due 2011 issued under that certain Indenture dated as of February 24, 2004, between the Company and the Trustee.

#### 11. DENOMINATIONS, TRANSFER, EXCHANGE

The Notes are in registered form without coupons in denominations of \$1,000 and integral multiples thereof. A Holder may register the transfer of or exchange Notes in accordance with the Indenture. The Registrar may require a Holder, among other things, to furnish appropriate endorsements and transfer documents and to pay any taxes or other governmental charges that may be imposed in relation thereto by law or permitted by the Indenture.

#### 12. PERSONS DEEMED OWNERS

The Holder of a Note may be treated as the owner of it for all purposes.

#### 13. UNCLAIMED MONEY

If money for the payment of principal or interest remains unclaimed for two years, the Trustee or Paying Agent will pay the money back to the Company at its written request. After that, Holders entitled to money must look to the Company for payment.

#### 14. AMENDMENT, SUPPLEMENT AND WAIVER

Subject to certain exceptions, the Indenture or the Notes may be amended or supplemented with the consent of the Holders of at least a majority in principal amount of the Notes then outstanding, and an existing default or Event of Default and its consequence or compliance with any provision of the Indenture or the Notes may be waived in a particular instance with the consent of the Holders of a majority in principal amount of the Notes then outstanding. Without the consent of or notice to any Holder, the Company and the Trustee may amend or supplement the Indenture or the Notes to, among other things, cure any ambiguity, defect or inconsistency or make any other change that does not adversely affect the rights of any Holder.

#### 15. SUCCESSOR CORPORATION

When a successor corporation assumes all the obligations of its predecessor under the Notes and the Indenture in accordance with the terms and conditions of the Indenture, the predecessor corporation will (except in certain circumstances specified in the Indenture) be released from those obligations.

#### 16. DEFAULTS AND REMEDIES

Under the Indenture, an Event of Default includes: (i) default for 30 days in payment of any interest on any Notes; (ii) default in payment of any principal (including, without limitation, any premium, if any) on the Notes when due; (iii) failure by the Company for 60 days after notice, given in accordance with the terms of the indenture, to it to comply with any of its other agreements contained in the Indenture or the Notes; (iv) the Company fails to comply with any of the provisions of Section 6.08 of the Indenture; (v) the Company fails to provide timely notice of a change of control; and (vi) certain events of bankruptcy, insolvency or reorganization of the Company. If an Event of Default (other than as a result of certain events of bankruptcy, insolvency or reorganization of the Company) occurs and is continuing, the Trustee or the Holders of at least 25% in principal amount of the Notes then outstanding may declare all unpaid principal to the date of acceleration on the Notes then outstanding to be due and payable immediately, all as and to the extent provided in the Indenture. If an Event of Default occurs as a result of certain events of bankruptcy, insolvency or reorganization of the Company, unpaid principal of the Notes then outstanding shall become due and payable immediately without any declaration or other act on the part of the Trustee or any Holder, all as and to the extent provided in the Indenture. Holders may not enforce the Indenture or the Notes except as provided in the Indenture. The Trustee may require indemnity satisfactory to it before it enforces the Indenture or the Notes. Subject to certain limitations, Holders of a majority in principal amount of the Notes then outstanding may direct the Trustee in its exercise of any trust or power. The Trustee may withhold from Holders notice of any continuing default (except a default in payment of principal or interest) if it determines that withholding notice is in their interests. The Company is required to file periodic reports with the Trustee as to the absence of default.

#### 17. TRUSTEE DEALINGS WITH THE COMPANY

Deutsche Bank Trust Company Americas, the Trustee under the Indenture, in its individual or any other capacity, may make loans to, accept deposits from and perform services for the Company or an Affiliate of the Company, and may otherwise deal with the Company or an Affiliate of the Company, as if it were not the Trustee.

#### 18. NO RECOURSE AGAINST OTHERS

A director, officer, employee or shareholder, as such, of the Company shall not have any liability for any obligations of the Company under the Notes or the Indenture nor for any claim based on, in respect of or by reason of such obligations or their creation. The Holder of this Note by accepting this Note waives and releases all such liability. The waiver and release are part of the consideration for the issuance of this Note.

#### 19. AUTHENTICATION

This Note shall not be valid until the Trustee or an authenticating agent manually signs the certificate of authentication on the other side of this Note.

#### 20. ABBREVIATIONS AND DEFINITIONS

Customary abbreviations may be used in the name of the Holder or an assignee, such as: TEN COM (= tenants in common), TEN ENT (= tenants by the entireties), JT TEN (= joint tenants with right of survivorship and not as tenants in common), CUST (= Custodian) and UGMA (= Uniform Gifts to Minors Act).

All terms defined in the Indenture and used in this Note but not specifically defined herein are defined in the Indenture and are used herein as so defined.

#### 21. INDENTURE TO CONTROL; GOVERNING LAW

In the case of any conflict between the provisions of this Note and the Indenture, the provisions of the Indenture shall control. This Note shall be governed by, and construed in accordance with, the laws of the State of New York, without regard to principles of conflicts of law.

The Company will furnish to any Holder, upon written request and without charge, a copy of the Indenture. Requests may be made to: EMCORE Corporation, 145 Belmont Drive, Somerset, New Jersey 08873, Attention: Chief Financial Officer.

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ASSIGNMENT FORM

To assign this Note, fill in the form below:

I or we assign and transfer this Note to

(Insert assignee's soc. sec. or tax I.D. no.)

(Print or type assignee's name, address and zip code)

and irrevocably appoint

agent to transfer this Note on the books of the Company. The agent may substitute another to act for him or her.

Your Signature:

Date:

(Sign exactly as your name appears on the other side of this Note)

\*Signature guaranteed by:

By:

\* The signature must be guaranteed by an institution which is a member of one of the following recognized signature guaranty programs: (i) the Securities Transfer Agent Medallion Program (STAMP); (ii) the New York Stock Exchange Medallion Program (MSP); (iii) the Stock Exchange Medallion Program (SEMP); or (iv) such other guaranty program acceptable to the Trustee.

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CONVERSION NOTICE

To convert this Note into Common Stock of the Company, check the box:

To convert only part of this Note, state the principal amount to be converted (must be \$1,000 or an integral multiple thereof): \$\_\_\_\_\_.

If you want the stock certificate made out in another person's name, fill in the form below:

(Insert assignee's soc. sec. or tax I.D. no.)

(Print or type assignee's name, address and zip code)

Your Signature:

Date:

(Sign exactly as your name appears on the other side of this Note)

\*Signature guaranteed by:

By:

\* The signature must be guaranteed by an institution which is a member of one of the following recognized signature guaranty programs: (i) the Securities Transfer Agent Medallion Program (STAMP); (ii) the New York Stock Exchange Medallion Program (MSP); (iii) the Stock Exchange Medallion Program (SEMP); or (iv) such other guaranty program acceptable to the Trustee.

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OPTION TO ELECT REPURCHASE UPON A CHANGE OF CONTROL

To: EMCORE Corporation

The undersigned registered owner of this Note hereby irrevocably acknowledges receipt of a notice from EMCORE Corporation (the "Company") as to the occurrence of a Change of Control with respect to the Company and requests and instructs the Company to redeem the entire principal amount of this Note, or the portion thereof (which is \$1,000 or an integral multiple thereof) below designated, in accordance with the terms of the Indenture referred to in this Note at the Change of Control Purchase Price, together with accrued interest to, but excluding, such date.

Dated:

Signature(s)

Signature(s) must be guaranteed by a qualified guarantor institution with membership in an approved signature guarantee program pursuant to Rule 17Ad-15 under the Securities Exchange Act of 1934.

Signature Guaranty

Principal amount to be redeemed  
(in an integral multiple of \$1,000, if less than all):

NOTICE: The signature to the foregoing Election must correspond to the Name as written upon the face of this Note in every particular, without alteration or any change whatsoever.

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SCHEDULE OF EXCHANGES OF NOTES

The following exchanges, redemptions, repurchases or conversions of a part of this global Note have been made:

<b>Principal Amount of this Global Note Following Such Decrease Date of Exchange (or Increase)</b>	<b>Authorized Signatory of Custodian</b>	<b>Amount of Decrease in Principal Amount of this Global Note</b>	<b>Amount of Increase in Principal Amount of this Global Note</b>
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EMCORE CORPORATION  
5% CONVERTIBLE SENIOR SUBORDINATED NOTES DUE 2011

INDENTURE

Dated as of November 16, 2005

Deutsche Bank Trust Company Americas

Trustee

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INDENTURE dated as of November 16, 2005 between EMCORE Corporation, a New Jersey corporation (the “Company”), and Deutsche Bank Trust Company Americas, as trustee (the “Trustee”).

The Company and the Trustee agree as follows for the benefit of each other and for the equal and ratable benefit of the Holders of the 5% Convertible Senior Subordinated Notes due 2011 (the “Notes”):

ARTICLE 1.

DEFINITIONS AND INCORPORATION

BY REFERENCE

*Section 1.01. Definitions*

“144A Global Note” means a global note substantially in the form of Exhibit A hereto bearing the Global Note Legend and the Private Placement Legend and deposited with or on behalf of, and registered in the name of, the Depository or its nominee that will be issued in a denomination equal to the outstanding principal amount of the Notes sold in reliance on Rule 144A.

“Affiliate” of any specified Person means any other Person directly or indirectly controlling or controlled by or under direct or indirect common control with such specified Person. For purposes of this definition, “control” (including, with correlative meanings, the terms “controlling,” “controlled by” and “under common control with”), as used with respect to any Person, shall mean the possession, directly or indirectly, of the power to direct or cause the direction of the management or policies of such Person, whether through the ownership of voting securities, by agreement or otherwise; provided, however, that beneficial ownership of 10% or more of the voting securities of a Person shall be deemed to be control.

“Agent” means any Registrar, Paying Agent or co-registrar.

“Applicable Procedures” means, with respect to any transfer or exchange of or for beneficial interests in any Global Note, the rules and procedures of the Depository, Euroclear and Cedel that apply to such transfer or exchange.

“Bankruptcy Law” means Title 11, U.S. Code or any similar federal or state law for the relief of debtors.

“Board of Directors” means the Board of Directors of the Company, or any authorized committee of the Board of Directors.

“Business Day” means any day other than a Legal Holiday.

“Capital Lease Obligation” means, at the time any determination thereof is to be made, the amount of the liability in respect of a capital lease that would at such time be required to be capitalized on a balance sheet in accordance with GAAP.

“Capital Stock” means any and all shares, interests, participations, rights or other equivalents (however designated) of corporate stock, including, without limitation, with respect to partnerships, partnership interests (whether general or limited) and any other interest or participation that confers on a Person the right to receive a share of the profits and losses of, or distributions of assets of, such partnership.

“Cedel” means Cedel Bank, SA., and any and all successors thereto.

“Closing Sale Price” means the last reported sales price or, in case no such reported sale takes place on such date, the average of the reported closing bid and asked prices in either case on The Nasdaq National Market or, if the Common Stock is not listed or admitted to trading on The Nasdaq National Market, on the principal national securities exchange on which the Common Stock is listed or admitted to trading or, if not listed or admitted to trading on The Nasdaq National Market or any national securities exchange, the last reported sales price of the Common Stock as quoted on The Nasdaq National Market or, in case no reported sales takes place, the average of the closing bid and asked prices as quoted on The Nasdaq National Market or any comparable system or, if the Common Stock is not quoted on The Nasdaq National Market or any comparable system, the closing sales price or, in case no reported sale takes place, the average of the closing bid and asked prices, as furnished by any two members of the National Association of Securities Dealers, Inc. selected from time to time by the Company for that purpose.

“Company” means the issuer, and any and all successors thereto.

“Common Stock” means the common stock, no par value per share, of the Company.

“Corporate Trust Office of the Trustee” shall be at the address of the Trustee specified in Section 12.02 hereof or such other address as to which the Trustee may give notice to the Company.

“Custodian” means the Trustee, as custodian with respect to the Global Notes or any successor entity thereto.

“Default” means any event that is or with the passage of time or the giving of notice or both would be an Event of Default.

“Definitive Note” means a certificated Note registered in the name of the Holder thereof and issued in accordance with Section 2.06 hereof, substantially in the form of Exhibit A hereto except that such Note shall not bear the Global Note Legend and shall not have the “Schedule of Exchanges of Interests in the Global Note” attached thereto.

“Depository” means, with respect to any Global Notes, the Person specified in Section 2.03 hereof as the Depository with respect to such Global Notes, and any and all successors thereto appointed as depository hereunder and having become such pursuant to the applicable provision of this Indenture.

“Designated Senior Indebtedness” means any Senior Indebtedness permitted hereunder the principal amount of which is \$10.0 million or more and that has been designated by the Company as “Designated Senior Indebtedness.”

“Equity Interests” means Capital Stock and all warrants, options or other rights to acquire Capital Stock (but excluding any debt security that is convertible into, or exchangeable for, Capital Stock).

“Euroclear” means Morgan Guaranty Trust Company of New York, Brussels office, as operator of the Euroclear system, and any and all successors thereto.

“Exchange Act” means the Securities Exchange Act of 1934, as amended.

“Existing 2006 Notes” means the Company’s 5% Convertible Subordinated Notes due 2006 issued under the Existing 2006 Notes Indenture.

“Existing 2006 Notes Indenture” means that Indenture, dated as of May 7, 2001, between the Company and Wilmington Trust Company.

“Existing 2011 Notes” means the Company’s 5% Convertible Senior Subordinated Notes due 2011 issued under the Existing 2011 Notes Indenture.

“Existing 2011 Notes Indenture” means that Indenture, dated as of February 24, 2004, between the Company and Deutsche Bank Trust Company Americas.

“GAAP” means generally accepted accounting principles set forth in the opinions and pronouncements of the Accounting Principles Board of the American Institute of Certified Public Accountants and statements and pronouncements of the Financial Accounting Standards Board or in such other statements by such other entity as have been approved by a significant segment of the accounting profession, which are in effect on the date of this Indenture.

“Global Note” means a permanent global Note substantially in the form of Exhibit A hereto issued in accordance with this Indenture, that is deposited with or on behalf of and registered in the name of the Depository and that bears the Global Note Legend and has the “Schedule of Exchanges of Notes” attached thereto.

“Global Note Legend” means the legend set forth under the heading “Global Note Legend” in Exhibit A hereto, which is required to be placed on all Global Notes issued under this Indenture.

“Government Securities” means direct obligations of, or obligations guaranteed by, the United States of America, and the payment for which the United States pledges its full faith and credit.

“Holder” means a Person in whose name a Note is registered.

“Indebtedness” means, with respect to any Person, without duplication, (a) all indebtedness, obligations and other liabilities (contingent or otherwise) of such Person for borrowed money (including obligations of such Person in respect of overdrafts, foreign exchange contracts, currency exchange agreements, interest rate protection agreements, and any loans or advances from banks, whether or not evidenced by notes or similar instruments) or evidenced by credit or loan agreements, bonds, debentures, notes or other written obligations (whether or not the recourse of the lender is to the whole of the assets of such Person or to only a portion thereof) (other than any accounts payable or other accrued current liability or obligation incurred in the ordinary course of business in connection with the obtaining of materials or services), (b) all reimbursement obligations and other liabilities (contingent or otherwise) of such Person with respect to letters of credit, bank guarantees or bankers’ acceptances, (c) all obligations and liabilities (contingent or otherwise) of such Person in respect of leases of such Person required, in conformity with generally accepted accounting principles, to be accounted for as Capitalized Lease Obligations on the balance sheet of such Person, (d) all obligations of such Person evidenced by a note or similar instrument given in connection with the acquisition of any business, properties or assets of any kinds, (e) all obligations of such Person issued or assumed as the deferred purchase price of property or services (excluding trade account payables and accrued liabilities arising in the ordinary course of business), (f) all obligations (contingent or otherwise) of such Person under any lease or related document (including a purchase agreement) in connection with the lease of real property or improvements (or any personal property included as part of any such lease) which provides that such Person is contractually obligated to purchase or cause a third party to purchase the leased property and thereby guarantee a minimum residual value of the leased property to the lessor and the obligations of such Person under such lease or related document to purchase or to cause a third party to purchase such leased property (whether or not such lease transaction is characterized as an operating lease or a capitalized lease in accordance with generally accepted accounting principles), (g) all obligations (contingent or otherwise) of such Person with respect to any interest rate, currency or other swap, cap, floor or collar agreement, hedge agreement, forward contract, or other similar instrument or agreement or foreign currency hedge, exchange, purchase or similar instrument or agreement, (h) all direct or indirect guaranties, agreements to be jointly liable or similar agreements by such Person in respect of, and obligations or liabilities (contingent or otherwise) of such Person to purchase or otherwise acquire or otherwise assure a creditor against loss in respect of, indebtedness, obligations or liabilities of another Person of the kind described in clauses (a) through (g), and (i) any and all deferrals, renewals, extensions and refundings of, or amendments, modifications or supplements to, any indebtedness, obligation or liability of the kind described in clauses (a) through (h).

“Indenture” means this Indenture, as amended or supplemented from time to time.

“Indirect Participant” means a Person who holds a beneficial interest in a Global Note through a Participant.

“Legal Holiday” means a Saturday, a Sunday or a day on which banking institutions in the City of New York or at a place of payment are authorized by law, regulation or executive order to remain closed. If a payment date is a Legal Holiday at a place of payment, payment may be made at that place on the next succeeding day that is not a Legal Holiday, and no interest shall accrue on such payment for the intervening period.

“Non-U.S. Person” means a Person who is not a U.S. Person.

“Notes” has the meaning assigned to it in the preamble to this Indenture.

“Obligations” means any principal, interest, penalties, fees, indemnifications, reimbursements, fees and expenses, damages and other liabilities payable under the documentation governing any Indebtedness.

“Officer” means, with respect to any Person, the Chairman of the Board, the Chief Executive Officer, the President, the Chief Operating Officer, the Chief Financial Officer, the Treasurer, any Assistant Treasurer, the Controller, the Secretary or any Vice-President of such Person.

“Officers’ Certificate” means a certificate signed on behalf of the Company by two Officers of the Company, one of whom must be the principal executive officer, the principal financial officer, the treasurer or the principal accounting officer of the Company, that meets the requirements of Section 12.05 hereof.

“Opinion of Counsel” means an opinion from legal counsel who is reasonably acceptable to the Trustee, that meets the requirements of Section 12.05 hereof. The counsel may be an employee of or counsel to the Company, any Subsidiary of the Company or the Trustee.

“Participant” means, with respect to the Depository, Euroclear or Cedel, a Person who has an account with the Depository, Euroclear or Cedel, respectively (and, with respect to DTC, shall include Euroclear and Cedel).

“Permitted Junior Securities” means Equity Interests in the Company or debt securities that are subordinated to all Senior Indebtedness (and any debt securities issued in exchange for Senior Indebtedness) to substantially the same extent as, or to a greater extent than, the Notes are subordinated to Senior Indebtedness pursuant to the Indenture.

“Person” means any individual, corporation, partnership, limited liability company, joint venture, association, joint-stock company, trust, unincorporated organization or government or agency or political subdivision thereof (including any subdivision or ongoing business of any such entity or substantially all of the assets of any such entity, subdivision or business).

“Private Placement Legend” means the legend set forth under the heading “Private Placement Legend” in Exhibit A hereto to be placed on all Notes issued under this Indenture except where otherwise permitted by the provisions of this Indenture.

“QIB” means a “qualified institutional buyer” as defined in Rule 144A.

“*Regulation S*” means Regulation S promulgated under the Securities Act.

“*Regulation S Global Note*” means a global Note bearing the Private Placement Legend and deposited with or on behalf of the Depository and registered in the name of the Depository or its nominee, issued in a denomination equal to the outstanding principal amount of the Notes initially sold in reliance on Rule 903 of Regulation S.

“*Representative*” means the indenture trustee or other trustee, agent or representative for any Senior Indebtedness.

“*Responsible Officer*,” when used with respect to the Trustee, means any officer within the Corporate Trust Administration of the Trustee (or any successor group of the Trustee) with direct responsibilities for the administration of this Indenture and also means, with respect to a particular corporate trust matter, any other officer to whom such matter is referred because of his knowledge of and familiarity with the particular subject.

“*Restricted Definitive Note*” means a Definitive Note bearing the Private Placement Legend.

“*Restricted Global Note*” means a Global Note bearing the Private Placement Legend.

“*Restricted Period*” means the 40-day restricted period as defined in Regulation S.

“*Rule 144*” means Rule 144 promulgated under the Securities Act.

“*Rule 144A*” means Rule 144A promulgated under the Securities Act.

“*Rule 903*” means Rule 903 promulgated under the Securities Act.

“*Rule 904*” means Rule 904 promulgated the Securities Act.

“*SEC*” means the Securities and Exchange Commission.

“*Securities Act*” means the Securities Act of 1933, as amended.

“*Senior Indebtedness*” means (i) the principal of, premium, if any, interest including all interest accruing subsequent to the commencement of any bankruptcy or similar proceeding, whether or not a claim for post-petition interest is allowable as a claim in any such proceeding, and rent payable on or in connection with, Indebtedness of the Company unless the instrument under which such Indebtedness is incurred expressly provides that it is on a parity with or subordinated in right of payment to the Notes, and (ii) all Obligations with respect to any of the foregoing, whether secured or unsecured, absolute or contingent, due or to become due, outstanding on the date hereof or hereafter credited, incurred, assumed, guaranteed or in effect guaranteed by the Company, including all deferrals, renewals, extensions and refundings of or amendments, modifications or supplements to, the foregoing. Notwithstanding anything to the contrary in the foregoing, Senior Indebtedness shall not include (x) any of the Existing 2006 Notes, (y) any of the Existing 2011 Notes, (z) any Indebtedness of the Company to any of its Subsidiaries or other Affiliates, (aa) any Indebtedness incurred for the purchase of goods or materials or for services obtained in the ordinary course of business (other than with the proceeds of revolving credit borrowings permitted hereby) and (bb) any Indebtedness that is incurred in violation of this Indenture.

“*Subsidiary*” means, with respect to any Person, any corporation, association or other business entity of which more than 50% of the total voting power of shares of Capital Stock entitled (without regard to the occurrence of any contingency) to vote in the election of directors, managers or trustees thereof is at the time owned or controlled, directly or indirectly, by such Person or one or more of the other Subsidiaries of such Person or a combination thereof.

“*TIA*” means the Trust Indenture Act of 1939 (15 U.S.C. §§ 77aaa-77bbb) as in effect on the date on which this Indenture is qualified under the TIA; *provided, however*, that in the event the Trust Indenture Act of 1939 is amended after such date, “*TIA*” means, to the extent required by any such amendment, the Trust Indenture Act of 1939 as so amended.

“*Trading Day*” means a day on which trades may be made on The Nasdaq National Market.

“*Trustee*” means the party named as such above until a successor replaces it in accordance with the applicable provisions of this Indenture and thereafter means the successor serving hereunder.

“*Unrestricted Global Note*” means a permanent Global Note substantially in the form of Exhibit A attached hereto that bears the Global Note Legend and that is deposited with or on behalf of and registered in the name of the Depository, representing a series of Notes that do not bear the Private Placement Legend.

“*Unrestricted Definitive Note*” means one or more Definitive Notes that do not bear and are not required to bear the Private Placement Legend.

“*U.S. Person*” means a U.S. person as defined in Rule 902(o) under the Securities Act.

“*Voting Stock*” of a Person means any class or classes of Capital Stock pursuant to which the holders of capital stock under ordinary circumstances have the power to vote in the election of the board of directors, managers or trustees thereof of such Person or other persons performing similar functions irrespective of whether or not, at the time Capital Stock of any other class or classes shall have, or might have, voting power by reason of the happening of any contingency.

#### Section 1.02. Other Definitions

Term	Defined in Section
“ <i>Authentication Order</i> ”	2.02
“ <i>Change of Control</i> ”	6.08
“ <i>Change of Control Offer</i> ”	6.08
“ <i>Change of Control Payment</i> ”	6.08
“ <i>Change of Control Payment Date</i> ”	6.08
“ <i>Change of Control Payment Notice</i> ”	6.08
“ <i>Conversion Price</i> ”	4.01
“ <i>Determination Date</i> ”	4.06
“ <i>Early Call Premium</i> ”	3.08
“ <i>Event of Default</i> ”	8.01
“ <i>Expiration Date</i> ”	4.06
“ <i>Expiration Date</i> ”	4.06

“Notice Date”	3.07
“Paying Agent”	2.03
“Provisional Redemption”	3.07
“Provisional Redemption Date”	3.07
“Provisional Redemption Notice”	3.07
“Provisional Redemption Notice Date”	3.07
“Provisional Redemption Price”	3.07
“Purchased Shares”	4.06
“Registrar”	2.03
“tender offer”	4.06
“Triggering Distribution”	4.06

### Section 1.03. Incorporation by Reference of Trust Indenture Act

Whenever this Indenture refers to a provision of the TIA, the provision is incorporated by reference in and made a part of this Indenture.

The following TIA terms used in this Indenture have the following meanings:

“*indenture securities*” means the Notes;

“*indenture security Holder*” means a Holder of a Note;

“*indenture to be qualified*” means this Indenture;

“*indenture trustee*” or “*institutional trustee*” means the Trustee; and

“*obligor*” on the Notes means the Company and any successor obligor upon the Notes.

All other terms used in this Indenture that are defined by the TIA, defined by TIA reference to another statute or defined by SEC rule under the TIA have the meanings so assigned to them.

### Section 1.04. Rules of Construction

Unless the context otherwise requires:

(a) a term has the meaning assigned to it;

(b) an accounting term not otherwise defined has the meaning assigned to it in accordance with GAAP;

(c) “or” is not exclusive;

(d) words in the singular include the plural, and in the plural include the singular;

(e) provisions apply to successive events and transactions; and

(f) references to sections of or rules under the Securities Act shall be deemed to include substitute, replacement of successor sections or rules adopted by the SEC from time to time.

## ARTICLE 2.

### THE NOTES

#### Section 2.01. Form and Dating

(a) *General.* The Notes and the Trustee’s certificate of authentication shall be substantially in the form of Exhibit A hereto. The Notes may have notations, legends or endorsements required by law, stock exchange rule or usage. Each Note shall be dated the date of its authentication. The Notes shall be in denominations of \$1,000 and integral multiples thereof.

The terms and provisions contained in the Notes shall constitute, and are hereby expressly made, a part of this Indenture and the Company and the Trustee, by their execution and delivery of this Indenture, expressly agree to such terms and provisions and to be bound thereby. However, to the extent any provision of any Note conflicts with the express provisions of this Indenture, the provisions of this Indenture shall govern and be controlling.

(b) *Global Notes.* Notes issued in global form shall be substantially in the form of Exhibit A attached hereto (including the Global Note Legend thereon and the “Schedule of Exchanges of Interests in the Global Note” attached thereto). Notes issued in definitive form shall be substantially in the form of Exhibit A attached hereto (but without the Global Note Legend thereon and without the “Schedule of Exchanges of Interests in the Global Note” attached thereto). Each Global Note shall represent such of the outstanding Notes as shall be specified therein and each shall provide that it shall represent the aggregate principal amount of outstanding Notes from time to time endorsed thereon and that the aggregate principal amount of outstanding Notes represented thereby may from time to time be reduced or increased, as appropriate, to reflect exchanges and redemptions. Any endorsement of a Global Note to reflect the amount of any increase or decrease in the aggregate principal amount of outstanding Notes represented thereby shall be made by the Trustee or the Custodian, at the direction of the Trustee, in accordance with instructions given by the Holder thereof as required by Section 2.13 hereof.

(c) *Euroclear and Cedel Procedures Applicable.* The provisions of the “Operating Procedures of the Euroclear System” and “Terms and Conditions Governing Use of Euroclear” and the “General Terms and Conditions of Cedel Bank” and “Customer Handbook” of Cedel Bank shall be applicable to transfers of beneficial interests in the Regulation S Global Notes that are held by Participants through Euroclear or Cedel Bank.

#### Section 2.02. Execution and Authentication

An Officer shall sign the Notes for the Company by manual or facsimile signature. The Company’s seal shall be reproduced on the Notes and may be in facsimile form.

If an Officer whose signature is on a Note no longer holds that office at the time a Note is authenticated, the Note shall nevertheless be valid.

A Note shall not be valid until authenticated by the manual signature of the Trustee. The signature shall be conclusive evidence that the Note has been authenticated under this Indenture.

The Trustee shall, upon receipt of a written order of the Company signed by an Officer (an “*Authentication Order*”), authenticate Notes for original issue in the aggregate principal amount specified in the Authentication Order. The Authentication Order shall specify the amount of Notes to be authenticated, shall provide that all Notes will be represented by a Restricted Global Note and the date on which each original issue of Notes is to be authenticated. The aggregate principal amount of Notes which may be authenticated and delivered pursuant to this Indenture is unlimited.

The Trustee shall act as initial authenticating agent. Thereafter, the Trustee may appoint an authenticating agent acceptable to the Company to authenticate Notes. An authenticating agent may authenticate Notes whenever the Trustee may do so. Each reference in this Indenture to authentication by the Trustee includes authentication by such agent. An authenticating agent has the same rights as an Agent to deal with the Company or an Affiliate of the Company.

#### *Section 2.03. Registrar, Paying Agent and Conversion Agent*

The Company shall maintain an office or agency where Notes may be presented for registration of transfer or for exchange (“*Registrar*”), an office or agency where Notes may be presented for payment (“*Paying Agent*”), an office or agency where Notes may be presented for conversion (“*Conversion Agent*”) and an office or agent where notices and demands to or upon the Company in respect of the Notes and this Indenture may be served. The Registrar shall keep a register of the Notes and of their registration of transfer and exchange. The Company may appoint one or more co-registrars and one or more additional paying agents and conversion agents. The term “*Registrar*” includes any co-registrar, the term “*Paying Agent*” includes any additional paying agent and the term “*Conversion Agent*” includes any additional conversion agent. The Company may change any Paying Agent, Conversion Agent or Registrar without notice to any Holder. The Company shall notify the Trustee in writing of the name and address of any Agent not a party to this Indenture. If the Company fails to appoint or maintain another entity as Registrar, Paying Agent, Conversion Agent or agent for service of notices and demands in any place required by this Indenture, or fails to give the foregoing notice, the Trustee shall act as such. The Company or any of its Subsidiaries may act as Paying Agent, Conversion Agent or Registrar.

The Company initially appoints The Depository Trust Company (“*DTC*”) to act as Depository with respect to the Global Notes.

The Company initially appoints the Trustee to act as the Registrar, Paying Agent and Conversion Agent and to act as Custodian with respect to the Global Notes.

#### *Section 2.04. Paying Agent to Hold Money in Trust*

Prior to 10:00 a.m., New York City time, on each due date of the principal of, premium, if any, or interest, on any Notes, the Company shall deposit with the Paying Agent a sum sufficient to pay such principal, premium, if any, or interest so becoming due. The Company shall require each Paying Agent other than the Trustee to agree in writing that the Paying Agent will hold in trust for the benefit of Holders or the Trustee all money held by the Paying Agent for the payment of principal, premium or interest on the Notes, and will notify the Trustee of any default by the Company in making any such payment. While any such default continues, the Trustee may require a Paying Agent to pay all money held by it to the Trustee. The Company at any time may require a Paying Agent to pay all money held by it to the Trustee. Upon payment over to the Trustee, the Paying Agent (if other than the Company or a Subsidiary) shall have no further liability for the money. If the Company or a Subsidiary acts as Paying Agent, it shall before 10:00 a.m. New York City time on each due date of the principal of, premium, if any, or interest, segregate and hold in a separate trust fund for the benefit of the Holders all money held by it as Paying Agent. Upon any bankruptcy or reorganization proceedings relating to the Company, the Trustee shall serve as Paying Agent for the Notes.

#### *Section 2.05. Holder Lists*

The Trustee shall preserve in as current a form as is reasonably practicable the most recent list available to it of the names and addresses of all Holders and shall otherwise comply with TIA § 312(a). If the Trustee is not the Registrar, the Company shall furnish to the Trustee at least seven Business Days before each interest payment date and at such other times as the Trustee may request in writing, a list in such form and as of such date as the Trustee may reasonably require of the names and addresses of the Holders of Notes and the Company shall otherwise comply with TIA § 312(a).

#### *Section 2.06. Transfer and Exchange*

(a) Subject to compliance with any applicable additional requirements contained in Section 2.12, when a Note is presented to a Registrar with a request to register a transfer thereof or to exchange such Note for an equal principal amount of Notes of other authorized denominations, the Registrar shall register the transfer or make the exchange as requested; *provided, however*, that every Note presented or surrendered for registration of transfer or exchange shall be duly endorsed or accompanied by an assignment form and, if applicable, a transfer certificate each in the form included in Exhibit A, and in form satisfactory to the Registrar duly executed by the Holder thereof or its attorney duly authorized in writing. To permit registration of transfers and exchanges, upon surrender of any Note for registration of transfer or exchange at an office or agency maintained pursuant to Section 2.03, the Company shall execute and the Trustee shall authenticate Notes of a like aggregate principal amount at the Registrar’s request. Any exchange or registration of transfer shall be without charge, except that the Company or the Registrar may require payment of a sum sufficient to cover any tax or other governmental charge that may be imposed in relation thereto, and provided, that this sentence shall not apply to any exchange pursuant to Section 2.07, 2.10, 2.12(a), 3.06, 4.02 (last paragraph), 6.08(a) (7) or 11.05.

Neither the Company, any Registrar nor the Trustee shall be required to exchange or register a transfer of (a) any Notes for a period of 15 days next preceding any mailing of a notice of Notes to be redeemed, (b) any Notes or portions thereof selected or called for redemption (except, in the case of redemption of a Note in part, the portion not to be redeemed) or (c) any Notes or portions thereof in respect of which a Note has been delivered and not withdrawn by the Holder thereof (except, in the case of the purchase of a Note in part, the portion not to be purchased).

All Notes issued upon any registration of transfer or exchange of Notes shall be valid obligations of the Company, evidencing the same debt and entitled to the same benefits under this Indenture, as the Notes surrendered upon such registration of transfer or exchange.

(b) Any Registrar appointed pursuant to Section 2.03 hereof shall provide to the Trustee such information as the Trustee may reasonably require in connection with the delivery by such Registrar of Notes upon registration of transfer or exchange of Notes.

(c) Each Holder of a Note agrees to indemnify the Company, the Registrar and the Trustee against any liability that may result from the registration of transfer, exchange or assignment of such Holder’s Note in violation of any provision of this Indenture and/or applicable United States federal or state securities law.

The Trustee shall have no obligation or duty to monitor, determine or inquire as to compliance with any restrictions on registration of transfer imposed under this Indenture or under applicable law with respect to any transfer of any interest in any Note (including any transfers between or among Participants or other beneficial owners of interests in any Global Note) other than to require delivery of such certificates and other documentation or evidence as are expressly required by, and to do so if and when expressly required by the terms of, this Indenture, and to examine the same to determine substantial compliance as to form with the express requirements hereof.

#### *Section 2.07. Replacement Notes*

If any mutilated Note is surrendered to the Trustee or the Company and the Trustee receives evidence to its satisfaction of the destruction, loss or theft of any Note, the Company shall issue and the Trustee, upon receipt of an Authentication Order, shall authenticate a replacement Note if the Trustee’s requirements are met. If required by the

Trustee or the Company, an indemnity bond must be supplied by the Holder that is sufficient in the judgment of the Trustee and the Company to protect the Company, the Trustee, any Agent and any authenticating agent from any loss that any of them may suffer if a Note is replaced. The Company may charge for its expenses in replacing a Note.

Every replacement Note is an additional obligation of the Company and shall be entitled to all of the benefits of this Indenture equally and proportionately with all other Notes duly issued hereunder.

#### *Section 2.08. Outstanding Notes*

The Notes outstanding at any time are all the Notes authenticated by the Trustee except for those canceled by it, those delivered to it for cancellation, those reductions in the interest in a Global Note effected by the Trustee in accordance with the provisions hereof, and those described in this Section as not outstanding. Except as set forth in Section 2.09 hereof, a Note does not cease to be outstanding because the Company or an Affiliate of the Company holds the Note.

If a Note is replaced pursuant to Section 2.07 hereof, it ceases to be outstanding unless the Trustee receives proof satisfactory to it that the replaced Note is held by a protected purchaser.

If the principal amount of any Note is considered paid under Section 6.01 hereof, it ceases to be outstanding and interest on it ceases to accrue.

If the Paying Agent (other than the Company, a Subsidiary or an Affiliate of any thereof) holds, on a redemption date, a Change of Control Payment Date or maturity date, money sufficient to pay Notes payable on that date, then on and after that date such Notes shall be deemed to be no longer outstanding and shall cease to accrue interest.

#### *Section 2.09. Treasury Notes*

In determining whether the Holders of the required principal amount of Notes have concurred in any notice, direction, waiver or consent, Notes owned by the Company, or by any Person directly or indirectly controlling or controlled by or under direct or indirect common control with the Company, shall be considered as though not outstanding, except that for the purposes of determining whether the Trustee shall be protected in relying on any such notice, direction, waiver or consent, only Notes that the Trustee knows are so owned shall be so disregarded.

#### *Section 2.10. Temporary Notes*

Until certificates representing Notes are ready for delivery, the Company may prepare and execute, and the Trustee, upon receipt of an Authentication Order, shall authenticate and deliver temporary Notes. Temporary Notes shall be substantially in the form of definitive Notes but may have variations that the Company considers appropriate for temporary Notes and as shall be reasonably acceptable to the Trustee. Without unreasonable delay, the Company shall prepare and the Trustee, upon receipt of an Authentication Order, shall authenticate and deliver definitive Notes in exchange for temporary Notes.

Holders of temporary Notes shall be entitled to all of the benefits of this Indenture.

#### *Section 2.11. Cancellation*

The Company at any time may deliver Notes to the Trustee for cancellation. The Registrar, Paying Agent and Conversion Agent shall forward to the Trustee any Notes surrendered to them for registration of transfer, exchange, redemption, payment or conversion. The Trustee and no one else shall cancel all Notes surrendered for registration of transfer, exchange, redemption, payment, conversion, replacement or cancellation and shall destroy canceled Notes (subject to the record retention requirement of the Exchange Act), in accordance with their normal procedures. All Notes which are redeemed, purchased or otherwise acquired by the Company or any of its Subsidiaries prior to the maturity date shall be delivered to the Trustee for cancellation. Certification of the destruction of all canceled Notes shall be delivered to the Company. The Company may not hold or resell such Notes or issue new Notes to replace Notes that it has purchased or otherwise acquired or that have been delivered to the Trustee for cancellation.

#### *Section 2.12. Additional Transfer and Exchange Requirements*

##### *(a) Transfer And Exchange Of Global Notes.*

(1) Definitive Notes shall be issued in exchange for interests in the Global Notes only if (x) the Depository notifies the Company that it is unwilling or unable to continue as depository for the Global Notes or if it at any time ceases to be a "clearing agency" registered under the Exchange Act, if so required by applicable law or regulation and a successor depository is not appointed by the Company within 90 days, or (y) an Event of Default has occurred and is continuing. In either case, the Company shall execute, and the Trustee shall, upon receipt of an Authentication Order (which the Company agrees to deliver promptly), authenticate and deliver Definitive Notes in an aggregate principal amount equal to the principal amount of such Global Notes in exchange therefor. Only Restricted Definitive Notes shall be issued in exchange for beneficial interests in Restricted Global Notes, and only Unrestricted Definitive Notes shall be issued in exchange for beneficial interests in Unrestricted Global Notes. Definitive Notes issued in exchange for beneficial interests in Global Notes shall be registered in such names and shall be in such authorized denominations as the Depository, pursuant to instructions from its direct or Indirect Participants or otherwise, shall instruct the Trustee. The Trustee shall deliver or cause to be delivered such Definitive Notes to the persons in whose names such Notes are so registered. Such exchange shall be effected in accordance with the Applicable Procedures.

(2) Notwithstanding any other provisions of this Indenture other than the provisions set forth in Section 2.12(a)(1), a Global Note may not be transferred as a whole except by the Depository to a nominee of the Depository or by a nominee of the Depository to the Depository or another nominee of the Depository or by the Depository or any such nominee to a successor Depository or a nominee of such successor Depository.

(b) *Transfer And Exchange Of Definitive Notes.* In the event that Definitive Notes are issued in exchange for beneficial interests in Global Notes in accordance with Section 2.12(a)(1) of this Indenture, on or after such event when Definitive Notes are presented by a Holder to a Registrar with a request:

- (x) to register the transfer of the Definitive Notes to a person who will take delivery thereof in the form of Definitive Notes only; or
- (y) to exchange such Definitive Notes for an equal principal amount of Definitive Notes of other authorized denominations,

such Registrar shall register the transfer or make the exchange as requested; provided, however, that the Definitive Notes presented or surrendered for register of transfer or exchange:

- (1) shall be duly endorsed or accompanied by a written instrument of transfer in accordance with the proviso to the first paragraph of Section 2.06(a); and
- (2) in the case of a Restricted Definitive Note, such request shall be accompanied by the following additional information and documents, as applicable:
  - (i) if such Restricted Definitive Note is being delivered to the Registrar by a Holder for registration in the name of such Holder, without transfer, or such Restricted Definitive Note is being transferred to the Company or a Subsidiary of the Company, a certification to that effect from such Holder (in

substantially the form set forth in the Transfer Certificate);

(ii) if such Restricted Definitive Note is being transferred to a person the Holder reasonably believes is a QIB in accordance with Rule 144A or is being transferred to a Non-U.S. Person in an offshore transaction in accordance with Rule 903 or Rule 904 or pursuant to an effective registration statement under the Securities Act, a certification to that effect from such Holder (in substantially the form set forth in the Transfer Certificate); or

(iii) if such Restricted Definitive Note is being transferred (A) pursuant to an exemption from the registration requirements of the Securities Act in accordance with Rule 144 or (B) pursuant to an exemption from the registration requirements of the Securities Act (other than pursuant to Rule 144A, Rule 144, Rule 903 or Rule 904) and as a result of which, in the case of a Note transferred pursuant to this clause (B), such Note shall cease to be a "restricted security" within the meaning of Rule 144, a certification to that effect from the Holder (in substantially the form set forth in the Transfer Certificate) and, if the Company or such Registrar so requests, a customary opinion of counsel, certificates and other information reasonably acceptable to the Company and such Registrar to the effect that such transfer is in compliance with the registration requirements of the Securities Act.

(c) *Transfer of a Beneficial Interest in a Restricted Global Note for a Beneficial Interest in an Unrestricted Global Note.* Any person having a beneficial interest in a Restricted Global Note may upon request, subject to the Applicable Procedures, transfer such beneficial interest to a person who is required or permitted to take delivery thereof in the form of a beneficial interest in an Unrestricted Global Note. Upon receipt by the Trustee of written instructions, or such other form of instructions as is customary for the Depository, from the Depository or its nominee on behalf of any person having a beneficial interest in a Restricted Global Note and the following additional information and documents in such form as is customary for the Depository from the Depository or its nominee on behalf of the person having such beneficial interest in the Restricted Global Note (all of which may be submitted by facsimile or electronically):

(1) if such beneficial interest is being transferred pursuant to an effective registration statement under the Securities Act, a certification to that effect from the transferor (in substantially the form set forth in the Transfer Certificate); or

(2) if such beneficial interest is being transferred (i) pursuant to an exemption from the registration requirements of the Securities Act in accordance with Rule 144 or (ii) pursuant to an exemption from the registration requirements of the Securities Act (other than pursuant to Rule 144A, Rule 144, Rule 903 or Rule 904) and as a result of which, in the case of a Note transferred pursuant to this clause (ii), such Note shall cease to be a "restricted security" within the meaning of Rule 144, a certification to that effect from the transferor (in substantially the form set forth in the Transfer Certificate) and, if the Company or the Trustee so requests, a customary opinion of counsel, certificates and other information reasonably acceptable to the Company and the Trustee to the effect that such transfer is in compliance with the registration requirements of the Securities Act.

The Trustee, as a Registrar and Custodian, shall reduce or cause to be reduced the aggregate principal amount of the Restricted Global Note by the appropriate principal amount and shall increase or cause to be increased the aggregate principal amount of the Unrestricted Global Note by a like principal amount. Such transfer shall otherwise be effected in accordance with the Applicable Procedures. If no Unrestricted Global Note is then outstanding, the Company shall execute and the Trustee shall, upon receipt of an Authentication Order (which the Company agrees to deliver promptly), authenticate and deliver an Unrestricted Global Note.

(d) *Transfer of a Beneficial Interest in an Unrestricted Global Note for a Beneficial Interest in a Restricted Global Note.* Any person having a beneficial interest in an Unrestricted Global Note may upon request, subject to the Applicable Procedures, transfer such beneficial interest to a person who is required or permitted to take delivery thereof in the form of a Restricted Global Note (it being understood that only QIBs may own beneficial interests in Restricted Global Notes). Upon receipt by the Trustee of written instructions or such other form of instructions as is customary for the Depository, from the Depository or its nominee, on behalf of any person having a beneficial interest in an Unrestricted Global Note and, in such form as is customary for the Depository, from the Depository or its nominee on behalf of the person having such beneficial interest in the Unrestricted Global Note (all of which may be submitted by facsimile or electronically) a certification from the transferor (in substantially the form set forth in the Transfer Certificate) to the effect that such beneficial interest is being transferred to a person that the transferor reasonably believes is a QIB in accordance with Rule 144A. The Trustee, as a Registrar and Custodian, shall reduce or cause to be reduced the aggregate principal amount of the Unrestricted Global Note by the appropriate principal amount and shall increase or cause to be increased the aggregate principal amount of the Restricted Global Note by a like principal amount. Such transfer shall otherwise be effected in accordance with the Applicable Procedures. If no Restricted Global Note is then outstanding, the Company shall execute and the Trustee shall, upon receipt of an Authentication Order (which the Company agrees to deliver promptly), authenticate and deliver a Restricted Global Note.

(e) *Transfers of Definitive Notes for Beneficial Interest in Global Notes.* In the event that Definitive Notes are issued in exchange for beneficial interests in Global Notes and, thereafter, the events or conditions specified in Section 2.12(a)(1) which required such exchange shall cease to exist, the Company shall mail notice to the Trustee and to the Holders stating that Holders may exchange Definitive Notes for interests in Global Notes by complying with the procedures set forth in this Indenture and briefly describing such procedures and the events or circumstances requiring that such notice be given. Thereafter, if Definitive Notes are presented by a Holder to a Registrar with a request:

(x) to register the transfer of such Definitive Notes to a person who will take delivery thereof in the form of a beneficial interest in a Global Note, which request shall specify whether such Global Note will be a Restricted Global Note or an Unrestricted Global Note; or

(y) to exchange such Definitive Notes for an equal principal amount of beneficial interests in a Global Note, which beneficial interests will be owned by the Holder transferring such Definitive Notes (provided that in the case of such an exchange, Restricted Definitive Notes may be exchanged only for Restricted Global Notes and Unrestricted Definitive Notes may be exchanged only for Unrestricted Global Notes),

the Registrar shall register the transfer or make the exchange as requested by canceling such Definitive Note and causing, or directing the Custodian to cause, the aggregate principal amount of the applicable Global Note to be increased accordingly and, if no such Global Note is then outstanding, the Company shall issue and the Trustee, upon receipt of an Authentication Order, shall authenticate and deliver a new Global Note; provided, however, that the Definitive Notes presented or surrendered for registration of transfer or exchange:

(1) shall be duly endorsed or accompanied by a written instrument of transfer in accordance with the proviso to Section 2.06; and

(2) in the case of a Definitive Note to be transferred or exchanged for a beneficial interest in a Global Note, such request need not be accompanied by any additional information or documents.

(f) *Legends.*

(1) Except as permitted by the following paragraphs (2) and (3), each Global Note and Definitive Note (and all Notes issued in exchange therefor or upon registration of transfer or replacement thereof) shall bear a Private Placement Legend (each a "Restricted Global Note" for so long as it is required by this Indenture to bear such legend). Each Restricted Global Note shall have attached thereto a certificate (a "Transfer Certificate") in substantially the form called for by Exhibit B hereto.

(2) Upon any sale or transfer of a Restricted Global Note (w) after the expiration of the holding period applicable to sales of the Notes under Rule 144(k) of the Securities Act, (x) pursuant to Rule 144, (y) pursuant to an effective registration statement under the Securities Act or (z) pursuant to any other available exemption (other than Rule 144A) from the registration requirements of the Securities Act and as a result of which, in the case of a Note transferred pursuant to this clause (z), such Note shall cease to be a "restricted security" within the meaning of Rule 144:

(i) in the case of any Restricted Definitive Note, any Registrar shall permit the Holder thereof to exchange such Restricted Definitive Note for an Unrestricted Definitive Note, or (under the circumstances described in Section 2.12(e)) to transfer such Restricted Definitive Note to a transferee who shall take such Note in the form of a beneficial interest in an Unrestricted Global Note, and in each case shall rescind any restriction on the transfer of such Note; provided, however, that the Holder of such Restricted Definitive Note shall, in connection with such exchange or transfer, comply with the other applicable provisions of this Section 2.12; and

(ii) in the case of any beneficial interest in a Restricted Global Note, the Trustee shall permit the beneficial owner thereof to transfer such beneficial interest to a transferee who shall take such interest in the form of a beneficial interest in an Unrestricted Global Note and shall rescind any restriction on transfer of such beneficial interest; provided, that such Unrestricted Global Note shall continue to be subject to the provisions of Section 2.12(a)(2); and provided, further, that the owner of such beneficial interest shall, in connection with such transfer, comply with the other applicable provisions of this Section 2.12.

(3) Upon the exchange, registration of transfer or replacement of Notes not bearing the legend described in paragraph (1) above, the Company shall execute, and the Trustee shall authenticate and deliver Notes that do not bear such legend and that do not have a Transfer Certificate attached thereto.

(4) After the expiration of the holding period pursuant to Rule 144(k) of the Securities Act, the Company may with the consent of the Holder of a Restricted Global Note or Restricted Definitive Note, remove any restriction of transfer on such Note, and the Company shall execute, and the Trustee shall authenticate and deliver Notes that do not bear such legend and that do not have a Transfer Certificate attached thereto.

(g) *Transfers to the Company.* Nothing in this Indenture or in the Notes shall prohibit the sale or other transfer of any Notes (including beneficial interests in Global Notes) to the Company or any of its Subsidiaries, which Notes shall thereupon be cancelled in accordance with Section 2.11.

#### *Section 2.13. CUSIP Numbers*

The Company in issuing the Notes may use "CUSIP" numbers (if then generally in use), and, if so, the Trustee shall use "CUSIP" numbers in notices of redemption or purchase as a convenience to Holders; provided that any such notice may state that no representation is made as to the correctness of such numbers either as printed on the Notes or as contained in any notice of a redemption or purchase and that reliance may be placed only on the other identification numbers printed on the Notes, and any such redemption or purchase shall not be affected by any defect in or omission of such numbers. The Company will promptly notify the Trustee of any change in the "CUSIP" numbers.

#### *Section 2.14. Defaulted Interest*

If the Company defaults in a payment of interest on the Notes, it shall pay the defaulted interest in any lawful manner plus, to the extent lawful, interest payable on the defaulted interest, to the Persons who are Holders on a subsequent special record date, in each case at the rate provided in the Notes and in Section 4.01 hereof. The Company shall notify the Trustee in writing of the amount of defaulted interest proposed to be paid on each Note and the date of the proposed payment. The Company shall fix or cause to be fixed each such special record date and payment date, *provided* that no such special record date shall be less than 10 days prior to the related payment date for such defaulted interest. At least 15 days before the special record date, the Company (or, upon the written request of the Company, the Trustee in the name and at the expense of the Company) shall mail or cause to be mailed to Holders a notice that states the special record date, the related payment date and the amount of such interest to be paid.

### ARTICLE 3.

#### REDEMPTION AND PREPAYMENT

##### *Section 3.01. Notices to Trustee*

If the Company elects to redeem Notes pursuant to the provisional or optional redemption provisions of Section 3.07 hereof, it shall furnish to the Trustee, at least 20 days but not more than 60 days before a redemption date, an Officers' Certificate setting forth (i) the clause of this Indenture pursuant to which the redemption shall occur, (ii) the redemption date, (iii) the principal amount of Notes to be redeemed and (iv) the redemption price.

##### *Section 3.02. Selection of Notes to Be Redeemed*

If less than all of the Notes are to be redeemed or purchased in an offer to purchase at any time, the Trustee shall select the Notes to be redeemed or purchased among the Holders of the Notes in compliance with the requirements of the principal national securities exchange, if any, on which the Notes are listed or, if the Notes are not so listed, on a *pro rata* basis, by lot or in accordance with any other method the Trustee considers fair and appropriate. In the event of partial redemption by lot, the particular Notes to be redeemed shall be selected, unless otherwise provided herein, not less than 20 nor more than 60 days prior to the redemption date by the Trustee from the outstanding Notes not previously called for redemption.

The Trustee shall promptly notify the Company in writing of the Notes selected for redemption and, in the case of any Note selected for partial redemption, the principal amount thereof to be redeemed. Notes and portions of Notes selected shall be in amounts of \$1,000 or whole multiples of \$1,000; except that if all of the Notes of a Holder are to be redeemed, the entire outstanding amount of Notes held by such Holder, even if not a multiple of \$1,000, shall be redeemed. Except as provided in the preceding sentence, provisions of this Indenture that apply to Notes called for redemption also apply to portions of Notes called for redemption.

##### *Section 3.03. Notice of Redemption*

At least 20 days but not more than 60 days before a redemption date, the Company shall mail or cause to be mailed, by first class mail, a notice of redemption to each Holder whose Notes are to be redeemed at its registered address.

The notice shall identify the Notes to be redeemed and shall state:

- (a) the redemption date;
- (b) the redemption price;
- (c) the then current Conversion Price;
- (d) if any Note is being redeemed in part, the portion of the principal amount of such Note to be redeemed and that, after the redemption date upon surrender of such Note, a new Note or Notes in principal amount equal to the unredeemed portion shall be issued upon cancellation of the original Note;
- (e) the name and address of the Paying Agent and Conversion Agent;

- (f) that Notes called for redemption must be surrendered to the Paying Agent to collect the redemption price;
- (g) that Notes called for redemption must be presented and surrendered to a Paying Agent to collect the Redemption Price;
- (h) that Holders who wish to convert Notes must surrender such Notes for conversion no later than the close of business on the Business Day immediately preceding the Redemption Date and must satisfy the other requirements in paragraph 8 of the Notes;
- (i) that, unless the Company defaults in making such redemption payment, interest on Notes called for redemption ceases to accrue on and after the redemption date;
- (j) the paragraph of the Notes and/or Section of this Indenture pursuant to which the Notes called for redemption are being redeemed; and
- (k) that no representation is made as to the correctness or accuracy of the CUSIP number, if any, listed in such notice or printed on the Notes.

At the Company's request, the Trustee shall give the notice of redemption in the Company's name and at its expense; *provided, however*, that the Company shall have delivered to the Trustee, at least 40 days prior to the redemption date, an Officers' Certificate requesting that the Trustee give such notice and setting forth the information to be stated in such notice as provided in the preceding paragraph.

#### *Section 3.04. Effect of Notice of Redemption*

Once notice of redemption is mailed in accordance with Section 3.03 hereof, Notes called for redemption become irrevocably due and payable on the redemption date at the redemption price. A notice of redemption may not be conditional.

#### *Section 3.05. Deposit of Redemption Price*

One Business Day prior to the redemption date, the Company shall deposit with the Trustee or with the Paying Agent money sufficient to pay the redemption price of and accrued interest on all Notes to be redeemed on that date. The Trustee or the Paying Agent shall promptly return to the Company any money deposited with the Trustee or the Paying Agent by the Company in excess of the amounts necessary to pay the redemption price of, and accrued interest on, all Notes to be redeemed.

If the Company complies with the provisions of the preceding paragraph, on and after the redemption date, interest shall cease to accrue on the Notes or the portions of Notes called for redemption. If a Note is redeemed on or after an interest record date but on or prior to the related interest payment date, then any accrued and unpaid interest shall be paid to the Person in whose name such Note was registered at the close of business on such record date. If any Note called for redemption shall not be so paid upon surrender for redemption because of the failure of the Company to comply with the preceding paragraph, interest shall be paid on the unpaid principal, from the redemption date until such principal is paid, and to the extent lawful on any interest not paid on such unpaid principal, in each case at the rate provided in the Notes and in Section 6.01 hereof.

#### *Section 3.06. Notes Redeemed in Part*

Upon surrender of a Note that is redeemed in part, the Company shall issue and, upon the Company's written request, the Trustee shall authenticate for the Holder at the expense of the Company a new Note equal in principal amount to the unredeemed portion of the Note surrendered.

#### *Section 3.07. Provisional Redemption*

(a) The Notes may be redeemed at the election of the Company, as a whole or in part from time to time, at any time (a "*Provisional Redemption*"), upon at least 20 and not more than 60 days' notice by mail to the Holders of the Notes (a "*Provisional Redemption Notice*") at a redemption price equal to \$1,000 per \$1,000 principal amount of the Notes redeemed plus accrued and unpaid interest, if any (such amount, together with the Early Call Premium described below, the "*Provisional Redemption Price*"), to but excluding the date of redemption (the "*Provisional Redemption Date*") if the Closing Sale Price of the Common Stock has exceeded 150% of the Conversion Price for at least 20 Trading Days within a period of any 30 consecutive Trading Days ending on the Trading Day prior to the date of mailing of the notice of Provisional Redemption (the "*Provisional Redemption Notice Date*").

(b) Except as set forth in clause (a) of this Section 3.07, the Company shall not have the option to redeem the Notes pursuant to this Section 3.07.

(c) Any redemption pursuant to this Section 3.07 shall be made pursuant to the provisions of Section 3.01 through 3.06 hereof.

#### *Section 3.08. Early Call Premium*

If the Company delivers a Provisional Redemption Notice pursuant to Section 3.07(a) on or prior to May 15, 2007, the Company shall make an additional payment, at its option, in cash or Common Stock or a combination of cash and Common Stock (the "*Early Call Premium*") with respect to the Notes called for redemption to holders on the Provisional Redemption Notice Date in an amount equal to \$150.00 per \$1,000 principal amount of the Notes, less the amount of any interest actually paid (including, if the Provisional Redemption Date occurs after a record date but before an interest payment date, any interest paid or to be paid in connection with such interest payment date) on such Notes prior to the Provisional Redemption Date. Payments made in Common Stock will be valued at 95% of the average closing sales prices of Common Stock for the five Trading Days ending on and including the third day prior to the Provisional Redemption Date. The Company shall pay the Early Call Premium on all Notes called for Provisional Redemption, including those Notes converted into Common Stock between the Provisional Redemption Notice Date and the Provisional Redemption Date.

#### *Section 3.09. Mandatory Redemption*

The Company shall not be required to make mandatory redemption payments with respect to the Notes.

## ARTICLE 4.

### Conversion

#### *Section 4.01. Conversion Privilege*

A Holder of a Note may convert it into fully paid and nonassessable shares of Common Stock at any time prior to maturity at the Conversion Price then in effect, except that, with respect to any Note called for redemption or submitted or presented for purchase pursuant to Section 6.08, such conversion right shall terminate at the close of business on the Business Day immediately preceding the Redemption Date or Change of Control Payment Date, as the case may be (unless the Company shall default in making the redemption payment or Change of Control Payment when it becomes due, in which case the conversion right shall terminate on the date such default is cured and such Note is redeemed or purchased, as the case may be). The number of shares of Common Stock issuable upon conversion of a Note is determined by dividing the principal amount of such Note by the conversion price in effect on the Conversion Date (the "*Conversion Price*").

The initial Conversion Price is stated in Section 9 of the Notes and is subject to adjustment as provided in this Article 4.

A Holder may convert a portion of a Note equal to any integral multiple of \$1,000. Provisions of this Indenture that apply to conversion of all of a Note also apply to conversion of a portion of it.

A Note in respect of which a Holder has delivered a Change of Control Payment Notice pursuant to Section 6.08 exercising the option of such Holder to require the Company to purchase such Note may be converted only if such Change of Control Payment Notice is withdrawn by a written notice of withdrawal delivered to a Paying Agent prior to the close of business on the Business Day immediately preceding the Change of Control Payment Date in accordance with Section 6.08.

A Holder of Notes is not entitled to any rights of a holder of Common Stock until such Holder has converted its Notes to Common Stock, and only to the extent such Notes are deemed to have been converted into Common Stock pursuant to this Article 4.

#### *Section 4.02. Conversion Procedure*

To convert a Note, a Holder must satisfy the requirements in Section 9 of the Notes. The date on which the Holder satisfies all of those requirements is the conversion date (the "Conversion Date"). As soon as practicable after the Conversion Date, the Company shall deliver to the Holder through the Conversion Agent a certificate for the number of whole shares of Common Stock issuable upon the conversion and a check for any fractional share determined pursuant to Section 4.03 hereof. The Person in whose name the certificate is registered shall become the stockholder of record on the Conversion Date and, as of such date, such Person's rights as a Holder shall cease; *provided, however*, that no surrender of a Note on any date when the stock transfer books of the Company shall be closed shall be effective to constitute the Person entitled to receive the shares of Common Stock upon such conversion as the stockholder of record of such shares of Common Stock on such date, but such surrender shall be effective to constitute the Person entitled to receive such shares of Common Stock as the stockholder of record thereof for all purposes at the close of business on the next succeeding day on which such stock transfer books are open; *provided further, however*, that such conversion shall be at the Conversion Price in effect on the date that such Note shall have been surrendered for conversion, as if the stock transfer books of the Company had not been closed.

No payment or other adjustment shall be made for accrued interest or dividends or distributions on any Common Stock issued upon conversion of the Notes. If any Notes are converted during any period after any record date for the payment of an installment of interest but before the next interest payment date, interest for such notes will be paid on the next interest payment date, notwithstanding such conversion, to the Holders of such Notes. Any Notes that are, however, delivered to the Company for conversion after any record date but before the next interest payment date must, except as described in the next sentence, be accompanied by a payment equal to the interest payable on such interest payment date on the principal amount of Notes being converted. The payment to the Company described in the preceding sentence shall not be required if, during that period between a record date and the next interest payment date, a conversion occurs on or after the date that the Company has issued a redemption notice or Change of Control Offer and prior to the date of redemption stated in such notice or the Change on Control Payment Date, as the case may be. No fractional shares will be issued upon conversion, but a cash adjustment will be made for any fractional shares.

If a Holder converts more than one Note at the same time, the number of whole shares of Common Stock issuable upon the conversion shall be based on the total principal amount of Notes converted.

Upon surrender of a Note that is converted in part, the Trustee shall authenticate for the Holder a new Note equal in principal amount to the unconverted portion of the Note surrendered.

#### *Section 4.03. Fractional Shares*

The Company will not issue fractional shares of Common Stock upon conversion of a Note. In lieu thereof, the Company will pay an amount in cash based upon the Closing Sale Price of the Common Stock on the last trading day prior to the date of conversion.

#### *Section 4.04. Taxes on Conversion*

The issuance of certificates for shares of Common Stock upon the conversion of any Note shall be made without charge to the converting Holder for such certificates or for any tax in respect of the issuance of such certificates, and such certificates shall be issued in the respective names of, or in such names as may be directed by, the Holder or Holders of the converted Note; *provided, however*, that in the event that certificates for shares of Common Stock are to be issued in a name other than the name of the Holder of the Note converted, such Note, when surrendered for conversion, shall be accompanied by an instrument of transfer, in form satisfactory to the Company, duly executed by the registered holder thereof or his duly authorized attorney; and *provided further, however*, that the Company shall not be required to pay any tax which may be payable in respect of any transfer involved in the issuance and delivery of any such certificates in a name other than that of the Holder of the converted Note, and the Company shall not be required to issue or deliver such certificates unless or until the Person or Persons requesting the issuance thereof shall have paid to the Company the amount of such tax or shall have established to the satisfaction of the Company that such tax has been paid or is not applicable.

#### *Section 4.05. Company to Provide Stock*

The Company shall at all times reserve and keep available, free from preemptive rights, out of its authorized but unissued Common Stock, solely for the purpose of issuance upon conversion of Notes as herein provided, a sufficient number of shares of Common Stock to permit the conversion of all outstanding Notes for shares of Common Stock. All shares of Common Stock which may be issued upon conversion of the Notes shall be duly authorized, validly issued, fully paid and nonassessable and free of preemptive rights and free of any lien or adverse claim when so issued.

The Company will endeavor promptly to comply with all federal and state securities laws regulating the offer and delivery of shares of Common Stock upon conversion of Notes, if any, and will list or cause to have quoted such shares of Common Stock on each national securities exchange or on The Nasdaq National Market or other over-the-counter market or such other market on which the Common Stock is then listed or quoted; *provided, however*, that if rules of such automated quotation system or exchange permit the Company to defer the listing of such Common Stock until the first conversion of the Notes into Common Stock in accordance with the provisions of this Indenture, the Company covenants to list such Common Stock issuable upon conversion of the Notes in accordance with the requirements of such automated quotation system or exchange at such time.

#### *Section 4.06. Adjustment of Conversion Price*

The Conversion Price shall be subject to adjustment from time to time as follows:

(a) *Stock split and combinations.* In case the Company, at any time or from time to time after the issuance date of the Notes (a) subdivides or splits the outstanding shares of its Common Stock, (b) combines or reclassifies the outstanding shares of its Common Stock into a smaller number of shares or (c) issues by reclassification of the shares of its Common Stock any shares of its capital stock, then the Conversion Price in effect immediately prior to that event or the record date for that event, whichever is earlier, will be adjusted so that the holder of any Notes thereafter surrendered for conversion will be entitled to receive the number of shares of the Company's Common Stock or of its other securities which the Holder would have owned or have been entitled to receive after the occurrence of any of the events described above, had those Notes been surrendered for conversion immediately before the occurrence of that event or the record date for that event, whichever is earlier.

(b) *Stock Dividends in Common Stock.* In case the Company, at any time or from time to time after the issuance date of the Notes, pays a dividend or makes a distribution in shares of its Common Stock on any class of its capital stock other than dividends or distributions of shares of Common Stock or other securities with respect to which adjustments are provided in paragraph (a) above or with respect to payments of interest or dividend obligations with respect to a particular series of capital stock in

accordance with the terms of such capital stock, the Conversion Price will be adjusted so that the Holder of each Note will be entitled to receive, upon conversion of that Note, the number of shares of the Company's Common Stock determined by multiplying (a) the Conversion Price by (b) a fraction, the numerator of which will be the number of shares of Common Stock outstanding and the denominator of which will be the sum of that number of shares and the total number of shares issued in that dividend or distribution;

(c) *Issuance of rights or warrants.* In case the Company issues to all holders of its Common Stock rights or warrants entitling those holders for a period of not more than 60 days to subscribe for or purchase its Common Stock or securities convertible into its Common Stock at a price per share or conversion price per share less than the Current Market Price, the Conversion Price in effect immediately before the close of business on the record date fixed for determination of shareholders entitled to receive those rights or warrants will be reduced by multiplying the Conversion Price by a fraction, the numerator of which is the sum of the number of shares of the Company's Common Stock outstanding at the close of business on that record date and the number of shares of Common Stock that the aggregate offering price of the total number of shares of the Company's Common Stock so offered for subscription or purchase would purchase at the Current Market Price and the denominator of which is the sum of the number of shares of Common Stock outstanding at the close of business on that record date and the number of additional shares of the Company's Common Stock so offered for subscription or purchase. For purposes of this paragraph (c), the issuance of rights or warrants to subscribe for or purchase securities convertible into shares of the Company's Common Stock will be deemed to be the issuance of rights or warrants to purchase shares of the Company's Common Stock into which those securities are convertible at an aggregate offering price equal to the sum of the aggregate offering price of those securities and the minimum aggregate amount, if any, payable upon conversion of those securities into shares of the Company's Common Stock. This adjustment will be made successively whenever any such event occurs.

(d) *Distribution of indebtedness, securities or assets.* In case the Company shall distribute to all or substantially all holders of its Common Stock any shares of capital stock of the Company (other than Common Stock), evidences of indebtedness or other non-cash assets (including securities of any person other than the Company but excluding (1) dividends or distributions paid exclusively in cash or (2) dividends or distributions referred to in subsection (b) of this Section 4.06), or shall distribute to all or substantially all holders of its Common Stock rights or warrants to subscribe for or purchase any of its securities (excluding those rights and warrants referred to in subsection (c) of this Section 4.06 and also excluding the distribution of rights to all holders of Common Stock pursuant to the adoption of a stockholders rights plan or the detachment of such rights under the terms of such stockholder rights plan), then in each such case the Conversion Price shall be adjusted so that the same shall equal the price determined by multiplying the current Conversion Price by a fraction of which the numerator shall be the current market price per share (as defined in subsection (g) of this Section 4.06) of the Common Stock on the record date mentioned below less the fair market value on such record date (as determined by the Board of Directors, whose determination shall be conclusive evidence of such fair market value and which shall be evidenced by an Officers' Certificate delivered to the Trustee) of the portion of the capital stock, evidences of indebtedness or other non-cash assets so distributed or of such rights or warrants applicable to one share of Common Stock (determined on the basis of the number of shares of Common Stock outstanding on the record date), and of which the denominator shall be the current market price per share (as defined in subsection (g) of this Section 4.06) of the Common Stock on such record date. Such adjustment shall be made successively whenever any such distribution is made and shall become effective immediately after the record date for the determination of shareholders entitled to receive such distribution.

(e) In case the Company shall, by dividend or otherwise, at any time distribute (a "*Triggering Distribution*") to all or substantially all holders of its Common Stock cash in an aggregate amount that, together with the aggregate amount of (A) any cash and the fair market value (as determined by the Board of Directors, whose determination shall be conclusive evidence thereof and which shall be evidenced by an Officers' Certificate delivered to the Trustee) of any other consideration payable in respect of any tender offer by the Company or a Subsidiary of the Company for Common Stock consummated within the 12 months preceding the date of payment of the Triggering Distribution and in respect of which no Conversion Price adjustment pursuant to this Section 4.06 has been made and (B) all other cash distributions to all or substantially all holders of its Common Stock made within the 12 months preceding the date of payment of the Triggering Distribution and in respect of which no Conversion Price adjustment pursuant to this Section 4.06 has been made, exceeds an amount equal to 10.0% of the product of the current market price per share of Common Stock (as determined in accordance with subsection (g) of this Section 4.06) on the Business Day (the "*Determination Date*") immediately preceding the day on which such Triggering Distribution is declared by the Company multiplied by the number of shares of Common Stock outstanding on the Determination Date (excluding shares held in the treasury of the Company), the Conversion Price shall be reduced so that the same shall equal the price determined by multiplying such Conversion Price in effect immediately prior to the Determination Date by a fraction of which the numerator shall be the current market price per share of the Common Stock (as determined in accordance with subsection (g) of this Section 4.06) on the Determination Date less the sum of the aggregate amount of cash and the aggregate fair market value (determined as aforesaid in this Section 4.06(d)) of any such other consideration so distributed, paid or payable within such 12 months (including, without limitation, the Triggering Distribution) applicable to one share of Common Stock (determined on the basis of the number of shares of Common Stock outstanding on the Determination Date) and the denominator shall be such current market price per share of the Common Stock (as determined in accordance with subsection (g) of this Section 4.06) on the Determination Date, such reduction to become effective immediately prior to the opening of business on the day following the date on which the Triggering Distribution is paid.

(f) In case any tender offer made by the Company or any of its Subsidiaries for Common Stock shall expire and such tender offer (as amended upon the expiration thereof) shall involve the payment of aggregate consideration in an amount (determined as the sum of the aggregate amount of cash consideration and the aggregate fair market value (as determined by the Board of Directors, whose determination shall be conclusive evidence thereof and which shall be evidenced by an Officers' Certificate delivered to the Trustee thereof) of any other consideration) that, together with the aggregate amount of (A) any cash and the fair market value (as determined by the Board of Directors, whose determination shall be conclusive evidence thereof and which shall be evidenced by an Officers' Certificate delivered to the Trustee) of any other consideration payable in respect of any other tender offers by the Company or any Subsidiary of the Company for Common Stock consummated within the 12 months preceding the date of the Expiration Date (as defined below) and in respect of which no Conversion Price adjustment pursuant to this Section 4.06 has been made and (B) all cash distributions to all or substantially all holders of its Common Stock made within the 12 months preceding the Expiration Date and in respect of which no Conversion Price adjustment pursuant to this Section 4.06 has been made, exceeds an amount equal to 10.0% of the product of the current market price per share of Common Stock (as determined in accordance with subsection (g) of this Section 4.06) as of the last date (the "*Expiration Date*") tenders could have been made pursuant to such tender offer (as it may be amended) (the last time at which such tenders could have been made on the Expiration Date is hereinafter sometimes called the "*Expiration Time*") multiplied by the number of shares of Common Stock outstanding (including tendered shares but excluding any shares held in the treasury of the Company) at the Expiration Time, then, immediately prior to the opening of business on the day after the Expiration Date, the Conversion Price shall be reduced so that the same shall equal the price determined by multiplying the Conversion Price in effect immediately prior to close of business on the Expiration Date by a fraction of which the numerator shall be the product of the number of shares of Common Stock outstanding (including tendered shares but excluding any shares held in the treasury of the Company) at the Expiration Time multiplied by the current market price per share of the Common Stock (as determined in accordance with subsection (g) of this Section 4.06) on the Trading Day next succeeding the Expiration Date and the denominator shall be the sum of (x) the aggregate consideration (determined as aforesaid) payable to stockholders based on the acceptance (up to any maximum specified in the terms of the tender offer) of all shares validly tendered and not withdrawn as of the Expiration Time (the shares deemed so accepted, up to any such maximum, being referred to as the "*Purchased Shares*") and (y) the product of the number of shares of Common Stock outstanding (less any Purchased Shares and excluding any shares held in the treasury of the Company) at the Expiration Time and the current market price per share of Common Stock (as determined in accordance with subsection (g) of this Section 4.06) on the Trading Day next succeeding the Expiration Date, such reduction to become effective immediately prior to the opening of business on the day following the Expiration Date. In the event that the Company is obligated to purchase shares pursuant to any such tender offer, but the Company is permanently prevented by applicable law from effecting any or all such purchases or any or all such purchases are rescinded, the Conversion Price shall again be adjusted to be the Conversion Price which would have been in effect based upon the number of shares actually purchased. If the application of this Section 4.06(f) to any tender offer would result in an increase in the Conversion Price, no adjustment shall be made for such tender offer under this Section 4.06(f).

For purposes of this Section 4.06(e), the term "tender offer" shall mean and include both tender offers and exchange offers, all references to "purchases" of shares in tender offers (and all similar references) shall mean and include both the purchase of shares in tender offers and the acquisition of shares pursuant to exchange offers, and all references to "tendered shares" (and all similar references) shall mean and include shares tendered in both tender offers and exchange offers.

(g) For the purpose of any computation under subsections (b), (c), (d) and (e) of this Section 4.06, the current market price per share of Common Stock on any date shall be deemed to be the average of the daily Closing Sale Prices for the 30 consecutive Trading Days commencing 45 Trading Days before (i) the Determination Date or the Expiration Date, as the case may be, with respect to distributions or tender offers under subsections (d) and (e) of this Section 4.06 or (ii) the record date with respect to distributions, issuances or other events requiring such computation under subsection (c), (d) or (e) of this Section 4.06. If no such prices are available, the current market price per share shall be the fair value of share of Common Stock as determined by the Board of Directors (which shall be evidenced by an Officers' Certificate delivered to the Trustee).

(h) If any distribution in respect of which an adjustment to the Conversion Price is required to be made as of the record date or Determination Date or Expiration Date therefor is not thereafter made or paid by the Company for any reason, the Conversion Price shall be readjusted to the Conversion Price which would then be in effect if such record date had not been fixed or such effective date or Determination Date or Expiration Date had not occurred.

#### *Section 4.07. No Adjustment*

No adjustment in the Conversion Price shall be required until cumulative adjustments amount to 1% or more of the Conversion Price as last adjusted; *provided, however*, that any adjustments which by reason of this Section 4.07 are not required to be made shall be carried forward and taken into account in any subsequent adjustment. All calculations under this Article 4 shall be made to the nearest cent or to the nearest one-hundredth of a share, as the case may be. No adjustment need be made for rights to purchase Common Stock pursuant to a Company plan for reinvestment of dividends or interest. No adjustment need be made for a change in the par value or no par value of the Common Stock.

#### *Section 4.08. Other Adjustments*

(a) In the event that, as a result of an adjustment made pursuant to Section 4.06 hereof, the Holder of any Note thereafter surrendered for conversion shall become entitled to receive any shares of Capital Stock of the Company other than shares of its Common Stock, thereafter the Conversion Price of such other shares so receivable upon conversion of any Note shall be subject to adjustment from time to time in a manner and on terms as nearly equivalent as practicable to the provisions with respect to Common Stock contained in this Article 4.

(b) In the event that shares of Common Stock are not delivered after the expiration of any of the rights or warrants referred to in Section 4.06(b) and Section 4.06(c) hereof, the Conversion Price shall be readjusted to the Conversion Price which would otherwise be in effect had the adjustment made upon the issuance of such rights or warrants been made on the basis of delivery of only the number of shares of Common Stock actually delivered.

#### *Section 4.09. Adjustments for Tax Purposes*

The Company may make such reductions in the Conversion Price, in addition to those required by Section 4.06 hereof, as it determines in its discretion to be advisable in order that any stock dividend, subdivision of shares, distribution or rights to purchase stock or securities or distribution of securities convertible into or exchangeable for stock made by the Company to its stockholders will not be taxable to the recipients thereof.

#### *Section 4.10. Notice of Adjustment*

Whenever the Conversion Price is adjusted, the Company shall promptly mail to Holders at the addresses appearing on the Registrar's books a notice of the adjustment and file with the Trustee an Officers' Certificate briefly stating the facts requiring the adjustment and the manner of computing it. The certificate shall be conclusive evidence of the correctness of such adjustment. Unless and until a Trust Officer of the Trustee shall receive written notice of an adjustment of the Conversion Price, the Trustee may assume without inquiry that the Conversion Price has not been adjusted and that the last Conversion Price of which it has knowledge remains in effect.

#### *Section 4.11. Notice of Certain Transactions*

In the event that:

- (1) the Company takes any action which would require an adjustment in the Conversion Price;
- (2) the Company takes any action that would require a supplemental indenture pursuant to Section 4.12; or
- (3) there is a dissolution or liquidation of the Company;

the Company shall mail to Holders at the addresses appearing on the Registrar's books and the Trustee a notice stating the proposed record or effective date, as the case may be, to permit a Holder of a Note to convert such Note into shares of Common Stock prior to the record date for or the effective date of the transaction in order to receive the rights, warrants, securities or assets which a holder of shares of Common Stock on that date may receive. The Company shall mail the notice at least 15 days before such date; however, failure to mail such notice or any defect therein shall not affect the validity of any transaction referred to in clause (1), (2) or (3) of this Section 4.11.

#### *Section 4.12. Effect of Reclassifications, Consolidations, Mergers or Sales on Conversion Privilege*

If any of the following shall occur, namely: (i) any reclassification or change of outstanding shares of Common Stock issuable upon conversion of Notes (other than a change in par value, or from par value to no par value, or from no par value to par value, or as a result of a subdivision or combination or as a result of a reincorporation of the Company in another jurisdiction), (ii) any consolidation or merger to which the Company is a party other than a merger in which the Company is the continuing corporation and which does not result in any reclassification of, or change (other than a change in name, or par value, or from par value to no par value, or from no par value to par value or as a result of a subdivision or combination) in, outstanding shares of Common Stock or (iii) any sale or conveyance of all or substantially all of the property or business of the Company as an entirety, then the Company, or such successor or purchasing corporation, as the case may be, shall, as a condition precedent to such reclassification, change, consolidation, merger, sale or conveyance, execute and deliver to the Trustee a supplemental indenture in form reasonably satisfactory to the Trustee providing that the Holder of each Note then outstanding shall have the right to convert such Note into the kind and amount of shares of stock and other securities and property (including cash) receivable upon such reclassification, change, consolidation, merger, sale or conveyance by a Holder of the number of shares of Common Stock deliverable upon conversion of such Note immediately prior to such reclassification, change, consolidation, merger, sale or conveyance. In the event that the shares of Common Stock are exchanged or substituted for other securities in connection with any such reclassification, change, consolidation, merger, sale or conveyance, such supplemental indenture shall provide for adjustments of the Conversion Price which shall be as nearly equivalent as may be practicable to the adjustments of the Conversion Price provided for in this Article 4. If, in the case of any such consolidation, merger, sale or conveyance, the stock or other securities and property (including cash) receivable thereupon by a Holder of Common Stock includes shares of stock or other securities and property of a corporation other than the successor or purchasing corporation, as the case may be, in such consolidation, merger, sale or conveyance, then such supplemental indenture shall also be executed by such other corporation and shall contain such additional provisions to protect the interests of the Holders of the Notes as the Board of Directors of the Company shall reasonably consider necessary by reason of the foregoing. The provision of this Section 4.12 shall similarly apply to successive consolidations, mergers, sales or conveyances.

In the event the Company shall execute a supplemental indenture pursuant to this Section 4.12, the Company shall promptly file with the Trustee an Officers' Certificate briefly stating the reasons therefor, the kind or amount of shares of stock or securities or property (including cash) receivable by Holders of the Notes upon the conversion of their Notes after any such reclassification, change, consolidation, merger, sale or conveyance and any adjustment to be made with respect thereto.

#### *Section 4.13. Trustee's Disclaimer*

The Trustee has no duty to determine when an adjustment under this Article 4 should be made, how it should be made or what such adjustment should be, but may accept as conclusive evidence of the correctness of any such adjustment, and shall be protected in relying upon, the Officers' Certificate with respect thereto which the Company is obligated to file with the Trustee pursuant to Section 4.10 hereof. The Trustee makes no representation as to the validity or value of any securities or assets issued upon conversion of Notes, and the Trustee shall not be responsible for the Company's failure to comply with any provisions of this Article 4.

The Trustee shall not be under any responsibility to determine the correctness of any provisions contained in any supplemental indenture executed pursuant to Section 4.12, but may accept as conclusive evidence of the correctness thereof, and shall be protected in relying upon, the Officers' Certificate with respect thereto which the Company is obligated to file with the Trustee pursuant to Section 4.12 hereof.

#### *Section 4.14. Voluntary Reduction*

The Company from time to time may reduce the Conversion Price by any amount for any period of time if the period is at least 20 days and if the reduction is irrevocable during the period if the Board of Directors determines that such reduction would be in the best interest of the Company and the Company provides 15 days prior notice of any reduction in the Conversion Price; provided, however, that in no event may the Company reduce the Conversion Price to be less than the par value of a share of Common Stock.

### ARTICLE 5.

#### SUBORDINATION

##### *Section 5.01. Agreement to Subordinate*

(a) The Company agrees, and each Holder by accepting a Note agrees, that the Indebtedness evidenced by the Notes (including the principal of, premium, if any, and interest on all the Notes and the redemption price and Early Call Premium, if any, with respect to any Notes being called for redemption and the Change of Control Payment with respect to all Notes subject to purchase pursuant to Section 6.08 hereof) is subordinated in right of payment, to the extent and in the manner provided in this Article 5, to the prior payment in full of all Senior Indebtedness (whether outstanding on the date hereof or hereafter created, incurred, assumed or guaranteed), and that the subordination is for the benefit of the holders of Senior Indebtedness. No provision of this Section 5 shall prevent the occurrence of any Default or Event of Default.

(b) The Notes issued under this Indenture shall be "Senior Indebtedness" (as such term is defined in the Existing Notes Indenture) for purposes of the Existing 2006 Notes and the Existing 2006 Notes Indenture, and in furtherance thereof, the Company agrees that the Notes shall be senior to the Existing 2006 Notes, and that nothing contained in this Indenture or in the definition of Senior Indebtedness under this Indenture is meant or shall be construed to provide that the Notes issued under this Indenture are not senior to the Existing 2006 Notes.

(c) The Notes issued under this Indenture shall rank *pari passu* with the Existing 2011 Notes.

##### *Section 5.02. Liquidation; Dissolution; Bankruptcy*

Upon any distribution to creditors of the Company in a liquidation or dissolution of the Company or in a bankruptcy, reorganization, insolvency, receivership or similar proceeding relating to the Company or its property, in an assignment for the benefit of creditors or any marshaling of the Company's assets and liabilities:

(i) holders of Senior Indebtedness shall be entitled to receive payment in full of all Obligations due in respect of such Senior Indebtedness (including interest after the commencement of any such proceeding at the rate specified in the applicable Senior Indebtedness) before Holders of the Notes shall be entitled to receive any payment with respect to the Notes (except that Holders may receive Permitted Junior Securities); and

(ii) until all Obligations with respect to Senior Indebtedness (as provided in clause (i) above) are paid in full, any distribution to which Holders would be entitled but for this Article 5 shall be made to holders of Senior Indebtedness (except that Holders of Notes may receive Permitted Junior Securities), as their interests may appear.

##### *Section 5.03. Default on Designated Senior Indebtedness*

(a) The Company may not make any payment or distribution to the Trustee or any Holder in respect of Obligations with respect to the Notes and may not acquire from the Trustee or any Holder any Notes for cash or property (other than Permitted Junior Securities) until all principal and other Obligations with respect to the Senior Indebtedness have been paid in full if:

(i) a default in the payment of any principal or other Obligations with respect to Designated Senior Indebtedness occurs and is continuing beyond any applicable grace period in the agreement, indenture or other document governing such Designated Senior Indebtedness; or

(ii) a default, other than a payment default, on Designated Senior Indebtedness occurs and is continuing that then permits holders of the Designated Senior Indebtedness to accelerate its maturity and the Trustee receives a notice of the default (a "Payment Blockage Notice") from a Person who may give it pursuant to Section 5.12 hereof. If the Trustee receives any such Payment Blockage Notice, no subsequent Payment Blockage Notice shall be effective for purposes of this Section unless and until (A) at least 360 days shall have elapsed since the issuance of the immediately prior Payment Blockage Notice and (B) all scheduled payments of principal, premium, if any, and interest on the Notes that have come due have been paid in full in cash. No nonpayment default that existed or was continuing on the date of delivery of any Payment Blockage Notice to the Trustee shall be, or be made, the basis for a subsequent Payment Blockage Notice unless such default shall have been waived for a period of not less than 180 days.

(b) The Company may and shall resume payments on and distributions in respect of the Notes and may acquire them upon the earlier of:

(i) the date upon which the Trustee receives notice from the Company that the default is cured or waived or ceases to exist, or

(ii) in the case of a default referred to in clause (ii) of Section 5.03(a) hereof, 179 days pass after the Payment Blockage Notice is received if the maturity of such Designated Senior Indebtedness has not been accelerated,

if this Article 5 otherwise permits the payment, distribution or acquisition at the time of such payment or acquisition.

##### *Section 5.04. Acceleration of Notes*

If payment of the Notes is accelerated because of an Event of Default, the Company shall promptly notify holders of Senior Indebtedness of the acceleration.

##### *Section 5.05. When Distribution Must Be Paid Over*

In the event that the Trustee or any Holder receives any payment of any Obligations or distribution of assets of the Company of any kind or character (other than Permitted Junior Securities pursuant to Section 5 hereof), whether in cash, property or securities (including, without limitation, by way of setoff or otherwise) with respect to the Notes at a time when the Trustee or such Holder, as applicable, has actual knowledge that such payment is prohibited by Section 5.03 hereof, such payment shall be held by the Trustee or such Holder, in trust for the benefit of, and shall be paid forthwith over and delivered, upon written request, to, the holders of Senior Indebtedness as their interests may appear or

their Representative under the indenture or other agreement (if any) pursuant to which Senior Indebtedness may have been issued, as their respective interests may appear, for application to the payment of all Obligations with respect to Senior Indebtedness remaining unpaid to the extent necessary to pay such Obligations in full in accordance with their terms, after giving effect to any concurrent payment or distribution to or for the holders of Senior Indebtedness.

With respect to the holders of Senior Indebtedness, the Trustee undertakes to perform only such obligations on the part of the Trustee as are specifically set forth in this Article 5, and no implied covenants or obligations with respect to the holders of Senior Indebtedness shall be read into this Indenture against the Trustee. The Trustee shall not be deemed to owe any fiduciary duty to the holders of Senior Indebtedness, and shall not be liable to any such holders if the Trustee shall pay over or distribute to or on behalf of Holders or the Company or any other Person money or assets to which any holders of Senior Indebtedness shall be entitled by virtue of this Article 5, except if such payment is made as a result of the willful misconduct or gross negligence of the Trustee.

#### *Section 5.06. Notice by Company*

The Company shall promptly notify the Trustee and the Paying Agent of any facts known to the Company that would cause a payment of any Obligations with respect to the Notes to violate this Article 5, but failure to give such notice shall not affect the subordination of the Notes to the Senior Indebtedness as provided in this Article 5.

#### *Section 5.07. Subrogation*

After all Senior Indebtedness is paid in full in cash or other payment satisfactory to the holders of the Senior Indebtedness and until the Notes are paid in full, Holders of Notes shall be subrogated (equally and ratably with all other Indebtedness *pari passu* with the Notes and entitled to similar rights of subrogation) to the rights of holders of Senior Indebtedness to receive payments or distributions applicable to Senior Indebtedness to the extent that payments or distributions otherwise payable to the Holders of Notes have been applied to the payment of Senior Indebtedness. A distribution made under this Article 5 to holders of Senior Indebtedness that otherwise would have been made to Holders of Notes (whether by the Company, any Holder, the Trustee or otherwise) is not, as between the Company and Holders, a payment by the Company on the Notes.

#### *Section 5.08. Relative Rights*

This Article 5 defines the relative rights of Holders of Notes and holders of Senior Indebtedness. Nothing in this Indenture shall:

- (i) impair, as between the Company and Holders of Notes, the obligation of the Company, which is absolute and unconditional, to pay principal of, premium, if any, and interest on the Notes in accordance with their terms;
- (ii) affect the relative rights of Holders of Notes and creditors of the Company other than their rights in relation to holders of Senior Indebtedness; or
- (iii) prevent the Trustee or any Holder of Notes from exercising its available remedies upon a Default or Event of Default, subject to the rights of holders and owners of Senior Indebtedness to receive distributions and payments otherwise payable to Holders of Notes.

If the Company fails because of this Article 5 to pay principal of, premium, if any, or interest on a Note on the due date, the failure is still a Default or Event of Default.

#### *Section 5.09. Subordination May Not Be Impaired by Company*

No right of any holder of Senior Indebtedness to enforce the subordination of the Indebtedness evidenced by the Notes shall be impaired by any act or failure to act by the Company or any Holder or by the failure of the Company or any Holder to comply with this Indenture.

#### *Section 5.10. Distribution or Notice to Representative*

Whenever a distribution is to be made or a notice given to holders of Senior Indebtedness, the distribution may be made and the notice given to their Representative.

Upon any payment or distribution of assets of the Company referred to in this Article 5, the Trustee and the Holders of Notes shall be entitled to rely upon any order or decree made by any court of competent jurisdiction or upon any certificate of such Representative or of the liquidating trustee or agent or other Person making any distribution to the Trustee or to the Holders of Notes for the purpose of ascertaining the Persons entitled to participate in such distribution, the holders of the Senior Indebtedness and other Indebtedness of the Company, the amount thereof or payable thereon, the amount or amounts paid or distributed thereon and all other facts pertinent thereto or to this Article 5.

#### *Section 5.11. Rights of Trustee and Paying Agent*

Notwithstanding the provisions of this Article 5 or any other provision of this Indenture, the Trustee shall not at any time be charged with knowledge of the existence of any facts that would prohibit the making of any payment or distribution by the Trustee, and the Trustee and the Paying Agent may continue to make payments on the Notes, unless the Trustee shall have received at its Corporate Trust Office at least five Business Days prior to the date of such payment written notice of facts that would cause the payment of any Obligations with respect to the Notes to violate this Article 5. Only the Company or a Representative may give the notice. Nothing in this Article 5 shall impair the claims of, or payments to, the Trustee under or pursuant to Section 9.07 hereof.

The Trustee in its individual or any other capacity may hold Senior Indebtedness with the same rights it would have if it were not Trustee. Any Agent may do the same with like rights.

#### *Section 5.12. Authorization to Effect Subordination*

Each Holder of Notes, by the Holder's acceptance thereof, authorizes and directs the Trustee on such Holder's behalf to take such action as may be necessary or appropriate to effectuate the subordination as provided in this Article 5, and appoints the Trustee to act as such Holder's attorney-in-fact for any and all such purposes. If the Trustee does not file a proper proof of claim or proof of debt in the form required in any proceeding referred to in Section 8.09 hereof at least 30 days before the expiration of the time to file such claim, the holders of any Designated Senior Indebtedness are hereby authorized to file an appropriate claim for and on behalf of the Holders of the Notes.

#### *Section 5.13. Amendments*

The provisions of this Article 5 shall not be amended or modified without the written consent of the holders of all Senior Indebtedness.

#### *Section 5.14. Agreement to Subordinate Unaffected*

The provisions of this Article 5 shall remain in full force and effect irrespective of (a) any amendment, modification, or supplement of, or any waiver or consent to, any of the terms of the Senior Indebtedness or the agreement or instrument governing the Senior Indebtedness, (b) the release or non-perfection of any collateral securing the Senior Indebtedness or (c) the manner of sale or other disposition of the collateral securing the Senior Indebtedness or the application of the proceeds upon such sale.

#### *Section 5.15. Certain Conversions Deemed Payment*

For the purposes of this Article 5 only, (1) the issuance and delivery of Permitted Junior Securities upon conversion of Notes in accordance with Article 4 shall not be deemed to constitute a payment or distribution on account of the principal of, or premium, if any, or interest on the Notes or on account of the purchase or other acquisition of Notes, and (2) the payment, issuance or delivery of cash (except in satisfaction of fractional shares pursuant to Section 4.03), property or securities (other than Permitted Junior Securities) upon conversion of a Note shall be deemed to constitute payment on account of the principal of such Note. Nothing contained in this Article 5 or elsewhere in this Indenture or in the Notes is intended to or shall impair, as among the Company, its creditors other than holders of Senior Indebtedness and the Holders, the right, which is absolute and unconditional, of the Holder of any Note to convert such Note in accordance with Article 4.

## ARTICLE 6.

### COVENANTS

#### *Section 6.01. Payment of Notes*

The Company shall pay or cause to be paid the principal of, premium, if any, and interest on the Notes on the dates and in the manner provided in the Notes. Principal, premium, if any, and interest shall be considered paid on the date due if the Paying Agent, if other than the Company or a Subsidiary thereof, holds as of 10:00 a.m. Eastern Time on the due date money deposited by the Company in immediately available funds and designated for and sufficient to pay all principal, premium, if any, and interest then due.

The Company shall pay interest (including post-petition interest in any proceeding under any Bankruptcy Law) on overdue principal at the rate borne by the Notes to the extent lawful; it shall pay interest (including post-petition interest in any proceeding under any Bankruptcy Law) on overdue installments of interest (without regard to any applicable grace period) at the same rate to the extent lawful.

#### *Section 6.02. Maintenance of Office or Agency*

The Company shall maintain in the Borough of Manhattan, the City of New York, a Paying Agent, Conversion Agent, Registrar and an office or agency (which may be an office of the Trustee or an affiliate of the Trustee, Registrar or co-registrar) where Notes may be surrendered for registration of transfer or for exchange and where notices and demands to or upon the Company in respect of the Notes and this Indenture may be served. The Company shall give prompt written notice to the Trustee of the location, and any change in the location, of such office or agency. If at any time the Company shall fail to maintain any such required office or agency or shall fail to furnish the Trustee with the address thereof, such presentations, surrenders, notices and demands may be made or served at the Corporate Trust Office of the Trustee.

The Company may also from time to time designate one or more other offices or agencies where the Notes may be presented or surrendered for any or all such purposes and may from time to time rescind such designations; *provided, however*, that no such designation or rescission shall in any manner relieve the Company of its obligation to maintain an office or agency in the Borough of Manhattan, the City of New York for such purposes. The Company shall give prompt written notice to the Trustee of any such designation or rescission and of any change in the location of any such other office or agency.

The Company hereby designates the Corporate Trust Office of the Trustee as one such office or agency of the Company in accordance with Section 2.03.

#### *Section 6.03. Reports*

The Company shall furnish to the Holders of Notes copies of the annual reports and of the information, documents and other reports (or copies of such portions of any of the foregoing as the SEC may from time to time by rules and regulations prescribe) which the Company may be required to file with the SEC pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934; or, if the Company is not required to file information, documents or reports pursuant to either of said Sections, then it shall file with the Trustee and the SEC, in accordance with rules and regulations prescribed from time to time by the SEC, such of the supplementary and periodic information, documents and reports which may be required pursuant to Section 13 of the Securities Exchange Act of 1934 in respect of a security listed and registered on a national securities exchange as may be prescribed from time to time in such rules and regulations; *provided*, that if the Company files the reports required by this Section 6.03 with the SEC and such reports are publicly available, it shall be deemed to have satisfied its obligation to furnish such reports to the Holders pursuant to this Section 6.03. The Company shall at all times comply with TIA § 314(a).

#### *Section 6.04. Information Requirement*

Within the period prior to the expiration of the holding period applicable to sales thereof under Rule 144(k) under the Securities Act (or any successor provision), the Company covenants and agrees that it shall, during any period in which it is not subject to Section 13 or 15(d) under the Exchange Act, make available to any Holder or beneficial holder of Notes or any Common Stock issued upon conversion thereof which continue to be Restricted Notes in connection with any sale thereof and any prospective purchaser of Notes or such Common Stock designated by such Holder or beneficial holder, the information required pursuant to Rule 144A(d)(4) under the Securities Act upon the request of any Holder or beneficial holder of the Notes or such Common Stock and it will take such further action as any Holder or beneficial holder of such Notes or such Common Stock may reasonably request, all to the extent required from time to time to enable such Holder or beneficial holder to sell its Notes or Common Stock without registration under the Securities Act within the limitation of the exemption provided by Rule 144A, as such Rule may be amended from time to time. Upon the request of any Holder or any beneficial holder of the Notes or such Common Stock, the Company will deliver to such Holder a written statement as to whether it has complied with such requirements.

#### *Section 6.05. Compliance Certificate*

(a) The Company shall deliver to the Trustee, within 90 days after the end of each fiscal year, an Officers' Certificate stating that a review of the activities of the Company and its Subsidiaries during the preceding fiscal year has been made under the supervision of the signing Officers with a view to determining whether the Company has kept, observed, performed and fulfilled its obligations under this Indenture, and further stating, as to each such Officer signing such certificate, that to the best of his or her knowledge the Company has kept, observed, performed and fulfilled each and every covenant contained in this Indenture and is not in default in the performance or observance of any of the terms, provisions and conditions of this Indenture (or, if a Default or Event of Default shall have occurred, describing all such Defaults or Events of Default of which he or she may have knowledge and what action the Company is taking or proposes to take with respect thereto) and that to the best of his or her knowledge no event has occurred and remains in existence by reason of which payments on account of the principal of or interest, if any, on the Notes is prohibited or if such event has occurred, a description of the event and what action the Company is taking or proposes to take with respect thereto.

(b) The Company shall, so long as any of the Notes are outstanding, deliver to the Trustee, forthwith upon any Officer becoming aware of any Default or Event of Default, an Officers' Certificate specifying such Default or Event of Default and what action the Company is taking or proposes to take with respect thereto.

#### *Section 6.06. Taxes*

The Company shall pay, and shall cause each of its Subsidiaries to pay, prior to delinquency, all material taxes, assessments, and governmental levies except such as are contested in good faith and by appropriate proceedings or where the failure to effect such payment is not adverse in any material respect to the Holders of the Notes.

#### *Section 6.07. Stay, Extension and Usury Laws*

The Company covenants (to the extent that it may lawfully do so) that it shall not at any time insist upon, plead, or in any manner whatsoever claim or take the benefit or advantage of, any stay, extension or usury law wherever enacted, now or at any time hereafter in force, that may affect the covenants or the performance of this Indenture; and the Company (to the extent that it may lawfully do so) hereby expressly waives all benefit or advantage of any such law, and covenants that it shall not, by resort to any such law, hinder, delay or impede the execution of any power herein granted to the Trustee, but shall suffer and permit the execution of every such power as though no such law has been enacted.

#### Section 6.08. Corporate Existence

Subject to Article 7 hereof, the Company shall do or cause to be done all things necessary to preserve and keep in full force and effect (i) its corporate existence, and the corporate, partnership or other existence of each of its Subsidiaries, in accordance with the respective organizational documents (as the same may be amended from time to time) of the Company or any such Subsidiary and (ii) the rights (charter and statutory), licenses and franchises of the Company and its Subsidiaries; *provided, however*, that the Company shall not be required to preserve any such right, license or franchise, or the corporate, partnership or other existence of any of its Subsidiaries, if the Board of Directors shall determine that the preservation thereof is no longer desirable in the conduct of the business of the Company and its Subsidiaries, taken as a whole, and that the loss thereof is not adverse in any material respect to the Holders of the Notes.

#### Section 6.09. Offer to Repurchase Upon Change of Control

(a) Upon the occurrence of a Change of Control, the Company shall make an offer (a “*Change of Control Offer*”) to each Holder to repurchase all or any part (equal to \$1,000 or an integral multiple thereof) of each Holder’s Notes at a purchase price equal to 100% of the aggregate principal amount thereof plus accrued and unpaid interest thereon, if any, to, but excluding, the date of purchase (the “*Change of Control Payment*”). Within 10 business days following any Change of Control, the Company shall mail a notice to each Holder stating: (1) that the Change of Control Offer is being made pursuant to this Section 6.09 and that all Notes tendered will be accepted for payment; (2) the purchase price and the purchase date, which shall be 30 business days after the occurrence of a Change of Control (the “*Change of Control Payment Date*”); (3) that any Note not tendered will continue to accrue interest; (4) the name and address of each Paying Agent and Conversion Agent, (5) the Conversion Price and any adjustments thereto, (6) that Notes as to which a Change of Control Payment Notice has been given may be converted into Common Stock pursuant to Article 4 of this Indenture only to the extent that the Change of Control Payment Notice has been withdrawn in accordance with the terms of this Indenture, (7) that, unless the Company defaults in the payment of the Change of Control Payment, all Notes accepted for payment pursuant to the Change of Control Offer shall cease to accrue interest after the Change of Control Payment Date; (8) that Holders electing to have any Notes purchased pursuant to a Change of Control Offer will be required to surrender the Notes, with the form entitled “Option of Holder to Elect Purchase” on the reverse of the Notes completed, to the Paying Agent at the address specified in the notice prior to the close of business on the Business Day preceding the Change of Control Payment Date; (9) that Holders will be entitled to withdraw their election if the Paying Agent receives, not later than the close of business on the Business Day preceding the Change of Control Payment Date, a telegram, telex, facsimile transmission, letter or any other written form setting forth the name of the Holder, the principal amount of Notes delivered for purchase, and a statement that such Holder is withdrawing his election to have the Notes purchased; and (10) that Holders whose Notes are being purchased only in part will be issued new Notes equal in principal amount to the unpurchased portion of the Notes surrendered, which unpurchased portion must be equal to \$1,000 in principal amount or an integral multiple thereof. The Company shall comply with the requirements of Rule 13e-4 and Rule 14e-1 under the Exchange Act and any other securities laws and regulations thereunder to the extent such laws and regulations are applicable in connection with the repurchase of Notes in connection with a Change of Control.

A “Change of Control” shall be deemed to have occurred if any of the following occurs after the date hereof:

(i) any “person” or “group” (as such terms are defined below) is or becomes the “beneficial owner” (as defined below), directly or indirectly (other than as a direct result of repurchases of stock by the Company), of shares of Voting Stock of the Company representing 50% or more of the total voting power of all outstanding classes of Voting Stock of the Company or such person or group (other than the “management group”) has the power, directly or indirectly, to elect a majority of the members of the Board of Directors of the Company; provided, that Voting Stock acquired in an exempt transaction shall not constitute a Change of Control;

(ii) the Company consolidates with, or merges with or into, another Person or the Company sells, assigns, conveys, transfers, leases or otherwise disposes of all or substantially all of the assets of the Company, or any Person consolidates with, or merges with or into, the Company, in any such event other than (a) pursuant to a transaction in which the Persons that “beneficially owned” (as defined below), directly or indirectly, shares of Voting Stock of the Company immediately prior to such transaction “beneficially own” (as defined below), directly or indirectly, shares of Voting Stock of the Company representing at least a majority of the total voting power of all outstanding classes of Voting Stock of the surviving or transferee Person or (b) an exempt transaction; or

(iii) there shall occur the liquidation or dissolution of the Company.

For the purpose of the definition of “Change of Control”, (i) “person” and “group” have the meanings given such terms under Section 13(d) and 14(d) of the Exchange Act or any successor provision to either of the foregoing, and the term “group” includes any group acting for the purpose of acquiring, holding or disposing of securities within the meaning of Rule 13d-5(b)(1) under the Exchange Act (or any successor provision thereto), (ii) a “beneficial owner” shall be determined in accordance with Rule 13d-3 under the Exchange Act, as in effect on the date of this Indenture, except that the number of shares of Voting Stock of the Company shall be deemed to include, in addition to all outstanding shares of Voting Stock of the Company and Unissued Shares deemed to be held by the “person” or “group” (as such terms are defined above) or other Person with respect to which the Change of Control determination is being made, all Unissued Shares deemed to be held by all other Persons, and (iii) the terms “beneficially owned” and “beneficially own” shall have meanings correlative to that of “beneficial owner”. The term “Unissued Shares” means shares of Voting Stock not outstanding that are subject to options, warrants, rights to purchase or conversion privileges exercisable within 60 days of the date of determination of a Change of Control. The term “exempt transaction” means any purchase from the Company of equity interests in the Company by the management group; provided that the management group does not collectively beneficially own more than 65% of the total Voting Stock of all outstanding classes of Voting Stock of the Company following such purchase. The term “management group” means any of Thomas Russell, The AER 1997 Trust, Robert Louis - Dreyfus, Gallium Enterprises, Inc. and Reuben Richards.

Notwithstanding anything to the contrary set forth in this Section 6.08, a Change of Control will not be deemed to have occurred if either:

(i) the Closing Sale Price of the Common Stock for any five Trading Days during the period of the ten Trading Days immediately preceding the Change of Control is at least equal to 105% of the Conversion Price in effect on such day; or

(ii) in the case of a merger or consolidation, all of the consideration (excluding cash payments for fractional shares in the merger or consolidation constituting the Change of Control) consists of common stock traded on a United States national securities exchange or quoted on The Nasdaq National Market (or which will be so traded or quoted when issued or exchanged in connection with such Change of Control) and as a result of such transaction or transactions the Notes become convertible solely into such common stock.

(b) A Holder may exercise its rights pursuant to this Section 6.09 upon delivery of a written notice (which shall be in substantially the form entitled “Option of Holder to Elect Purchase” on the reverse of the Notes and which may be delivered by letter, overnight courier, hand delivery, facsimile transmission or in any other written form and, in the case of Global Notes, may be delivered electronically or by other means in accordance with the Depository’s customary procedures) of the exercise of such rights (a “*Change of Control Payment Notice*”) to any Paying Agent at any time prior to the close of business on the Business Day next preceding the Change of Control Purchase Date.

Notwithstanding anything herein to the contrary, any Holder delivering to a Paying Agent the Change of Control Payment Notice contemplated by this Section 6.09(b) shall have the right to withdraw such Change of Control Payment Notice in whole or in a portion thereof that is a principal amount of \$1,000 or in an integral multiple thereof at any time prior to the close of business on the Business Day next preceding the Change of Control Payment Date by delivery of a written notice of withdrawal to the Paying Agent in accordance with Section 6.09(a) hereof.

Upon receipt by any Paying Agent of the Change of Control Payment Notice specified in this Section 6.09(b), the Holder of the Security in respect of which such Change of Control Payment Notice was given shall (unless such Change of Control Payment Notice is withdrawn as specified below) thereafter be entitled to receive the Change of Control Payment Price with respect to such Note. Such Change of Control Payment Price shall be paid to such Holder promptly following the later of (i) the Change of Control Payment Date with respect to such Note (provided the conditions in this Section 6.08(b) have been satisfied) and (ii) the time of delivery of such Note to a Paying Agent by the Holder thereof in the manner required by this Section 6.09(b). Notes in respect of which a Change of Control Payment Notice has been given by the Holder thereof may not be converted into shares of Common Stock on or after the date of the delivery of such Change of Control Payment Notice unless such Change of Control Payment Notice has first been validly withdrawn.

(c) On the Change of Control Payment Date, the Company shall, to the extent lawful, (1) accept for payment all Notes or portions thereof properly tendered pursuant to the Change of Control Offer, (2) deposit with the Paying Agent an amount equal to the Change of Control Payment in respect of all Notes or portions thereof so tendered and (3) deliver or cause to be delivered to the Trustee the Notes so accepted together with an Officers' Certificate stating the aggregate principal amount of Notes or portions thereof being purchased by the Company. The Paying Agent shall promptly mail to each Holder of Notes so tendered payment in an amount equal to the purchase price for the Notes, and the Trustee shall promptly authenticate and mail (or cause to be transferred by book entry) to each Holder a new Note equal in principal amount to any unpurchased portion of the Notes surrendered by such Holder, if any; *provided*, that each such new Note shall be in a principal amount of \$1,000 or an integral multiple thereof. The Company shall publicly announce the results of the Change of Control Offer on or as soon as practicable after the Change of Control Payment Date.

If a Paying Agent holds, in accordance with the terms hereof, money sufficient to pay the Change of Control Payment Price of any Note for which a Change of Control Payment Notice has been tendered and not withdrawn in accordance with this Indenture then, on the Change of Control Payment Date, such Note will cease to be outstanding and the rights of the Holder in respect thereof shall terminate (other than the right to receive the Change of Control Payment Price as aforesaid).

(d) Notwithstanding anything to the contrary in this Section 6.09, the Company shall not be required to make a Change of Control Offer upon a Change of Control if a third party makes the Change of Control Offer in the manner, at the times and otherwise in compliance with the requirements set forth in this Section 6.09 hereof and all other provisions of this Indenture applicable to a Change of Control Offer made by the Company and purchases all Notes validly tendered and not withdrawn under such Change of Control Offer.

## ARTICLE 7.

### SUCCESSORS

#### *Section 7.01. Merger, Consolidation, or Sale of Assets*

The Company shall not, directly or indirectly, consolidate or merge with or into (whether or not the Company is the surviving corporation), or sell, assign, transfer, convey or otherwise dispose of all or substantially all of its properties or assets in one or more related transactions to, another Person unless (i) the Company is the surviving corporation or the Person formed by or surviving any such consolidation or merger (if other than the Company) or to which such sale, assignment, transfer, conveyance or other disposition shall have been made is a corporation organized or existing under the laws of the United States, any state thereof or the District of Columbia, (ii) the Person formed by or surviving any such consolidation or merger (if other than the Company) or the Person to which such sale, assignment, transfer, conveyance or other disposition shall have been made assumes all the obligations of the Company under the Registration Rights Agreement, the Notes and this Indenture pursuant to a supplemental indenture in a form reasonably satisfactory to the Trustee, (iii) immediately after such transaction, no Default or Event of Default exists and (iv) the Company or the surviving corporation, as the case may be, shall have delivered to the Trustee and Officers' Certificate and an Opinion of Counsel, each stating that such merger, consolidation, conveyance, transfer or lease comply with this Article Seven and that all conditions precedent herein provided for relating to such transaction have been satisfied.

#### *Section 7.02. Successor Corporation Substituted*

Upon any consolidation or merger, or any sale, assignment, transfer, lease, conveyance or other disposition of all or substantially all of the assets of the Company in accordance with Section 7.01 hereof, the successor corporation formed by such consolidation or into or with which the Company is merged or to which such sale, assignment, transfer, lease, conveyance or other disposition is made shall succeed to, and be substituted for (so that from and after the date of such consolidation, merger, sale, lease, conveyance or other disposition, the provisions of this Indenture referring to the "Company" shall refer instead to the successor corporation and not to the Company), and may exercise every right and power of the Company under this Indenture with the same effect as if such successor Person had been named as the Company herein; *provided, however*, that the predecessor Company shall not be relieved from the obligation to pay the principal of and interest on the Notes except in the case of a sale, assignment, transfer, conveyance or other disposition of all of the Company's assets that meets the requirements of Section 7.01 hereof.

## ARTICLE 8.

### DEFAULTS AND REMEDIES

#### *Section 8.01. Events of Default*

An "Event of Default" occurs if:

- (a) the Company defaults in the payment when due of interest on the Notes and such default continues for a period of 30 days;
- (b) the Company defaults in the payment when due of principal of or premium, if any, on the Notes when the same becomes due and payable at maturity, upon redemption (including in connection with an offer to purchase) or otherwise;
- (c) the Company fails to comply with any of the provisions of Section 6.08 hereof;
- (d) the Company fails to observe or perform any other covenant, representation, warranty or other agreement in this Indenture or the Notes for 60 days after notice to the Company by the Trustee or the Holders of at least 25% in aggregate principal amount of the Notes then outstanding voting as a single class;
- (e) the Company fails to provide timely notice of a Change of Control;
- (f) the Company:
  - (i) commences a voluntary case,
  - (ii) consents to the entry of an order for relief against it in an involuntary case,
  - (iii) consents to the appointment of a custodian of it or for all or substantially all of its property,

- (iv) makes a general assignment for the benefit of its creditors, or
- (v) generally is not paying its debts as they become due; or
- (g) a court of competent jurisdiction enters an order or decree under any Bankruptcy Law that:
  - (i) is for relief against the Company in an involuntary case;
  - (ii) appoints a custodian of the Company or for all or substantially all of the property of the Company; or
  - (iii) orders the liquidation of the Company;

and the order or decree remains unstayed and in effect for 60 consecutive days.

#### *Section 8.02. Acceleration*

If any Event of Default (other than an Event of Default specified in clause (f) or (g) of Section 8.01 hereof with respect to the Company) occurs and is continuing, the Trustee or the Holders of at least 25% in principal amount of the then outstanding Notes may declare all the Notes to be due and payable immediately. Upon any such declaration, the Notes shall become due and payable immediately. Notwithstanding the foregoing, if an Event of Default specified in clause (f) or (g) of Section 8.01 hereof occurs with respect to the Company, all outstanding Notes shall be due and payable immediately without further action or notice. The Holders of a majority in aggregate principal amount of the then outstanding Notes by written notice to the Trustee may on behalf of all of the Holders rescind an acceleration and its consequences if the rescission would not conflict with any judgment or decree and if all existing Events of Default (except nonpayment of principal, interest or premium that has become due solely because of the acceleration) have been cured or waived.

#### *Section 8.03. Other Remedies*

If an Event of Default occurs and is continuing, the Trustee may pursue any available remedy to collect the payment of principal, premium, if any, and interest on the Notes or to enforce the performance of any provision of the Notes or this Indenture.

The Trustee may maintain a proceeding even if it does not possess any of the Notes or does not produce any of them in the proceeding. A delay or omission by the Trustee or any Holder of a Note in exercising any right or remedy accruing upon an Event of Default shall not impair the right or remedy or constitute a waiver of or acquiescence in the Event of Default. All remedies are cumulative to the extent permitted by law.

#### *Section 8.04. Waiver of Past Defaults*

Subject to Section 8.02, Holders of not less than a majority in aggregate principal amount of the then outstanding Notes by notice to the Trustee may on behalf of the Holders of all of the Notes waive an existing Default or Event of Default and its consequences hereunder, except a continuing Default or Event of Default in the payment of the principal of, premium, if any, or interest on, the Notes (including in connection with an offer to purchase) or a failure by the Company to convert any Notes into Common Stock (*provided, however*, that the Holders of a majority in aggregate principal amount of the then outstanding Notes may rescind an acceleration and its consequences, including any related payment default that resulted from such acceleration). Upon any such waiver, such Default shall cease to exist, and any Event of Default arising therefrom shall be deemed to have been cured for every purpose of this Indenture; but no such waiver shall extend to any subsequent or other Default or impair any right consequent thereon.

#### *Section 8.05. Control by Majority*

Holders of a majority in principal amount of the then outstanding Notes may direct the time, method and place of conducting any proceeding for exercising any remedy available to the Trustee or exercising any trust or power conferred on it. However, the Trustee may refuse to follow any direction that conflicts with law or this Indenture that the Trustee determines may be unduly prejudicial to the rights of other Holders of Notes or that may involve the Trustee in personal liability.

#### *Section 8.06. Limitation on Suits*

A Holder of a Note may pursue a remedy with respect to this Indenture or the Notes only if:

- (a) the Holder of a Note gives to the Trustee written notice of a continuing Event of Default;
- (b) the Holders of at least 25% in principal amount of the then outstanding Notes make a written request to the Trustee to pursue the remedy;
- (c) such Holder of a Note or Holders of Notes offer and, if requested, provide to the Trustee indemnity satisfactory to the Trustee against any loss, liability or expense;
- (d) the Trustee does not comply with the request within 60 days after receipt of the request and the offer and, if requested, the provision of indemnity; and
- (e) during such 60-day period the Holders of a majority in principal amount of the then outstanding Notes do not give the Trustee a direction inconsistent with the request.

A Holder of a Note may not use this Indenture to prejudice the rights of another Holder of a Note or to obtain a preference or priority over another Holder of a Note.

#### *Section 8.07. Rights of Holders of Notes to Receive Payment*

Notwithstanding any other provision of this Indenture, the right of any Holder of a Note to receive payment of principal, premium and interest on the Note, on or after the respective due dates expressed in the Note (including in connection with an offer to purchase), to convert such Note in accordance with Article 4 or to bring suit for the enforcement of any such payment on or after such respective dates, shall not be impaired or affected without the consent of such Holder.

#### *Section 8.08. Collection Suit by Trustee*

If an Event of Default specified in Section 8.01(a) or (b) occurs and is continuing, the Trustee is authorized to recover judgment in its own name and as trustee of an express trust against the Company for the whole amount of principal of, premium and interest remaining unpaid on the Notes and interest on overdue principal and, to the extent lawful, interest and such further amount as shall be sufficient to cover the costs and expenses of collection, including the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel.

*Section 8.09. Trustee May File Proofs of Claim*

The Trustee is authorized to file such proofs of claim and other papers or documents as may be necessary or advisable in order to have the claims of the Trustee (including any claim for the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel) and the Holders of the Notes allowed in any judicial proceedings relative to the Company (or any other obligor upon the Notes), its creditors or its property and shall be entitled and empowered to collect, receive and distribute any money or other property payable or deliverable on any such claims and any custodian in any such judicial proceeding is hereby authorized by each Holder to make such payments to the Trustee, and in the event that the Trustee shall consent to the making of such payments directly to the Holders, to pay to the Trustee any amount due to it for the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel, and any other amounts due the Trustee under Section 9.07 hereof. To the extent that the payment of any such compensation, expenses, disbursements and advances of the Trustee, its agents and counsel, and any other amounts due the Trustee under Section 9.07 hereof out of the estate in any such proceeding, shall be denied for any reason, payment of the same shall be secured by a Lien on, and shall be paid out of, any and all distributions, dividends, money, securities and other properties that the Holders may be entitled to receive in such proceeding whether in liquidation or under any plan of reorganization or arrangement or otherwise. Nothing herein contained shall be deemed to authorize the Trustee to authorize or consent to or accept or adopt on behalf of any Holder any plan of reorganization, arrangement, adjustment or composition affecting the Notes or the rights of any Holder, or to authorize the Trustee to vote in respect of the claim of any Holder in any such proceeding.

*Section 8.10. Priorities*

If the Trustee collects any money pursuant to this Article, it shall pay out the money in the following order:

*First:* to the Trustee, its agents and attorneys for amounts due under Section 9.07 hereof, including payment of all compensation, expense and liabilities incurred, and all advances made, by the Trustee and the costs and expenses of collection;

*Second:* to Holders of Notes for amounts due and unpaid on the Notes for principal, premium and interest, ratably, without preference or priority of any kind, according to the amounts due and payable on the Notes for principal, premium and interest, respectively; and

*Third:* to the Company or to such party as a court of competent jurisdiction shall direct.

The Trustee may fix a record date and payment date for any payment to Holders of Notes pursuant to this Section 8.10.

*Section 8.11. Undertaking for Costs*

In any suit for the enforcement of any right or remedy under this Indenture or in any suit against the Trustee for any action taken or omitted by it as a Trustee, a court in its discretion may require the filing by any party litigant in the suit of an undertaking to pay the costs of the suit, and the court in its discretion may assess reasonable costs, including reasonable attorneys' fees, against any party litigant in the suit, having due regard to the merits and good faith of the claims or defenses made by the party litigant. This Section does not apply to a suit by the Trustee, a suit by a Holder of a Note pursuant to Section 8.07 hereof, or a suit by Holders of more than 10% in principal amount of the then outstanding Notes.

ARTICLE 9.

TRUSTEE

*Section 9.01. Duties of Trustee*

(a) If an Event of Default has occurred and is continuing, the Trustee shall exercise such of the rights and powers vested in it by this Indenture, and use the same degree of care and skill in its exercise, as a prudent person would exercise or use under the circumstances in the conduct of such person's own affairs.

(b) Except during the continuance of an Event of Default:

(i) the duties of the Trustee shall be determined solely by the express provisions of this Indenture and the Trustee need perform only those duties that are specifically set forth in this Indenture and no others, and no implied covenants or obligations shall be read into this Indenture against the Trustee; and

(ii) in the absence of bad faith on its part, the Trustee may conclusively rely, as to the truth of the statements and the correctness of the opinions expressed therein, upon certificates or opinions furnished to the Trustee and conforming to the requirements of this Indenture. However, the Trustee shall examine the certificates and opinions to determine whether or not they conform to the requirements of this Indenture.

(c) The Trustee may not be relieved from liabilities for its own negligent action, its own negligent failure to act, or its own willful misconduct, except that:

(i) this paragraph does not limit the effect of paragraph (b) of this Section;

(ii) the Trustee shall not be liable for any error of judgment made in good faith by a Responsible Officer, unless it is proved that the Trustee was negligent in ascertaining the pertinent facts; and

(iii) the Trustee shall not be liable with respect to any action it takes or omits to take in good faith in accordance with a direction received by it pursuant to Section 7.05 hereof.

(d) Whether or not therein expressly so provided, every provision of this Indenture that in any way relates to the Trustee is subject to paragraphs (a), (b), and (c) of this Section.

(e) No provision of this Indenture shall require the Trustee to expend or risk its own funds or incur any liability. The Trustee shall be under no obligation to exercise any of its rights and powers under this Indenture at the request of any Holders, unless such Holder shall have offered to the Trustee security and indemnity satisfactory to it against any loss, liability or expense.

(f) The Trustee shall not be liable for interest on any money received by it except as the Trustee may agree in writing with the Company. Money held in trust by the Trustee need not be segregated from other funds except to the extent required by law.

*Section 9.02. Rights of Trustee*

(a) The Trustee may conclusively rely upon any document believed by it to be genuine and to have been signed or presented by the proper Person. The Trustee need not investigate any fact or matter stated in the document.

(b) Before the Trustee acts or refrains from acting, it may require an Officers' Certificate or an Opinion of Counsel or both. The Trustee shall not be liable for any action it takes or omits to take in good faith in reliance on such Officers' Certificate or Opinion of Counsel. The Trustee may consult with counsel and the written advice of such counsel or any Opinion of Counsel shall be full and complete authorization and protection from liability in respect of any action taken, suffered or omitted by it hereunder in good faith and in reliance thereon.

(c) The Trustee may act through its attorneys and agents and shall not be responsible for the misconduct or negligence of any agent appointed with due care.

(d) The Trustee shall not be liable for any action it takes or omits to take in good faith that it believes to be authorized or within the rights or powers conferred upon it by this Indenture.

(e) Unless otherwise specifically provided in this Indenture, any demand, request, direction or notice from the Company shall be sufficient if signed by an Officer of the Company.

(f) The Trustee shall be under no obligation to exercise any of the rights or powers vested in it by this Indenture at the request or direction of any of the Holders unless such Holders shall have offered to the Trustee reasonable security or indemnity against the costs, expenses and liabilities that might be incurred by it in compliance with such request or direction.

(g) The Trustee shall not be charged with knowledge of any Default or Event of Default with respect to the Notes unless either (1) a Responsible Officer shall have actual knowledge of such Default or Event of Default or (2) written notice of such Default or Event of Default shall have been given to the Trustee by the Company or by any Holder of the Notes.

#### *Section 9.03. Individual Rights of Trustee*

The Trustee in its individual or any other capacity may become the owner or pledgee of Notes and may otherwise deal with the Company or any Affiliate of the Company with the same rights it would have if it were not Trustee. However, in the event that the Trustee acquires any conflicting interest it must eliminate such conflict within 90 days, apply to the SEC for permission to continue as trustee or resign. Any Agent may do the same with like rights and duties. The Trustee is also subject to Sections 9.10 and 9.11 hereof.

#### *Section 9.04. Trustee's Disclaimer*

The Trustee shall not be responsible for and makes no representation as to the validity or adequacy of this Indenture or the Notes, it shall not be accountable for the Company's use of the proceeds from the Notes or any money paid to the Company or upon the Company's direction under any provision of this Indenture, it shall not be responsible for the use or application of any money received by any Paying Agent other than the Trustee, and it shall not be responsible for any statement or recital herein or any statement in the Notes or any other document in connection with the sale of the Notes or pursuant to this Indenture other than its certificate of authentication.

#### *Section 9.05. Notice of Defaults*

If a Default or Event of Default occurs and is continuing and if it is known to the Trustee, the Trustee shall mail to Holders of Notes a notice of the Default or Event of Default within 90 days after it occurs. Except in the case of a Default or Event of Default in payment of principal of, premium, if any, or interest on any Note, the Trustee may withhold the notice if and so long as a committee of its Responsible Officers in good faith determines that withholding the notice is in the interests of the Holders of the Notes.

#### *Section 9.06. Reports by Trustee to Holders of the Notes*

Within 60 days after each May 15 beginning with the May 15 following the date of this Indenture, and for so long as Notes remain outstanding, the Trustee shall mail to the Holders of the Notes a brief report dated as of such reporting date that complies with TIA § 313(a) (but if no event described in TIA § 313(a) has occurred within the twelve months preceding the reporting date, no report need be transmitted). The Trustee also shall comply with TIA § 313(b)(2). The Trustee shall also transmit by mail all reports as required by TIA § 313(c).

A copy of each report at the time of its mailing to the Holders of Notes shall be mailed to the Company and filed with the SEC and each stock exchange on which the Notes are listed in accordance with TIA § 313(d). The Company shall promptly notify the Trustee when the Notes are listed on any stock exchange.

#### *Section 9.07. Compensation and Indemnity*

The Company shall pay to the Trustee from time to time reasonable compensation for its acceptance of this Indenture and services hereunder. The Trustee's compensation shall not be limited by any law on compensation of a trustee of an express trust. The Company shall reimburse the Trustee promptly upon request for all reasonable disbursements, advances and expenses incurred or made by it in addition to the compensation for its services. Such expenses shall include the reasonable compensation, disbursements and expenses of the Trustee's agents and counsel.

The Company shall indemnify the Trustee and its officers, directors, employees, representatives and agents against any and all losses, liabilities or expenses incurred by it, including in any Agent capacity in which it acts, arising out of or in connection with the acceptance or administration of its duties under this Indenture, including the costs and expenses of enforcing this Indenture against the Company (including this Section 9.07) and defending itself against any claim (whether asserted by the Company or any Holder or any other person) or liability in connection with the exercise or performance of any of its powers or duties hereunder, except to the extent any such loss, liability or expense may be attributable to its negligence or bad faith. The Trustee shall notify the Company promptly of any claim for which it may seek indemnity. Failure by the Trustee to so notify the Company shall not relieve the Company of its obligations hereunder. The Company shall defend the claim and the Trustee shall cooperate in the defense. The Trustee may have separate counsel and the Company shall pay the reasonable fees and expenses of such counsel. The Company need not pay for any settlement made without its consent, which consent shall not be unreasonably withheld.

The obligations of the Company under this Section 9.07 shall survive the resignation or removal of the Trustee and the satisfaction and discharge of this Indenture.

To secure the Company's payment obligations in this Section, the Trustee shall have a Lien prior to the Notes on all money or property held or collected by the Trustee, except that held in trust to pay principal and interest on particular Notes. Such Lien shall survive the satisfaction and discharge of this Indenture.

When the Trustee incurs expenses or renders services after an Event of Default specified in Section 8.01(g) or (h) hereof occurs, the expenses and the compensation for the services (including the fees and expenses of its agents and counsel) are intended to constitute expenses of administration under any Bankruptcy Law.

The Trustee shall comply with the provisions of TIA § 313(b)(2) to the extent applicable.

#### *Section 9.08. Replacement of Trustee*

A resignation or removal of the Trustee and appointment of a successor Trustee shall become effective only upon the successor Trustee's acceptance of appointment as provided in this Section.

The Trustee may resign in writing at any time and be discharged from the trust hereby created by so notifying the Company. The Holders of a majority in principal amount of the then outstanding Notes may remove the Trustee by so notifying the Trustee and the Company in writing. The Company may remove the Trustee if:

- (a) the Trustee fails to comply with Section 9.10 hereof;
- (b) the Trustee is adjudged a bankrupt or an insolvent or an order for relief is entered with respect to the Trustee under any Bankruptcy Law;
- (c) a custodian or public officer takes charge of the Trustee or its property; or
- (d) the Trustee becomes incapable of acting.

If the Trustee resigns or is removed or if a vacancy exists in the office of Trustee for any reason, the Company shall promptly appoint a successor Trustee. Within one year after the successor Trustee takes office, the Holders of a majority in principal amount of the then outstanding Notes may appoint a successor Trustee to replace the successor Trustee appointed by the Company.

If a successor Trustee does not take office within 60 days after the retiring Trustee resigns or is removed, the retiring Trustee, the Company, or the Holders of at least 10% in principal amount of the then outstanding Notes may petition any court of competent jurisdiction for the appointment of a successor Trustee.

If the Trustee, after written request by any Holder who has been a Holder for at least six months, fails to comply with Section 9.10, such Holder may petition any court of competent jurisdiction for the removal of the Trustee and the appointment of a successor Trustee.

A successor Trustee shall deliver a written acceptance of its appointment to the retiring Trustee and to the Company. Thereupon, the resignation or removal of the retiring Trustee shall become effective, and the successor Trustee shall have all the rights, powers and duties of the Trustee under this Indenture. The successor Trustee shall mail a notice of its succession to Holders. The retiring Trustee shall promptly transfer all property held by it as Trustee to the successor Trustee, *provided* all sums owing to the Trustee hereunder have been paid and subject to the Lien provided for in Section 9.07 hereof. Notwithstanding replacement of the Trustee pursuant to this Section 9.08, the Company's obligations under Section 9.07 hereof shall continue for the benefit of the retiring Trustee.

#### *Section 9.09. Successor Trustee by Merger, etc*

If the Trustee consolidates, merges or converts into, or transfers all or substantially all of its corporate trust business or assets to, another corporation or banking association, the successor corporation or banking association without any further act shall be the successor Trustee; provided, however, that such corporation or banking association shall be otherwise eligible under Section 9.10 of the Indenture.

#### *Section 9.10. Eligibility; Disqualification*

There shall at all times be a Trustee hereunder that is a corporation organized and doing business under the laws of the United States of America or of any state thereof that is authorized under such laws to exercise corporate trustee power, that is subject to supervision or examination by federal or state authorities and that has a combined capital and surplus of at least \$100 million as set forth in its most recent published annual report of condition.

This Indenture shall always have a Trustee who satisfies the requirements of TIA § 310(a)(1), (2) and (5). The Trustee is subject to TIA § 310(b).

#### *Section 9.11. Preferential Collection of Claims Against Company*

The Trustee is subject to TIA § 311(a), excluding any creditor relationship listed in TIA § 311(b). A Trustee who has resigned or been removed shall be subject to TIA § 311(a) to the extent indicated therein.

## ARTICLE 10.

### SATISFACTION AND DISCHARGE

#### *Section 10.01. Satisfaction and Discharge*

This Indenture will be discharged and will cease to be of further effect as to all Notes issued hereunder, when:

- (1) either:
  - (a) all Notes that have been authenticated (except lost, stolen or destroyed Notes that have been replaced or paid and Notes for whose payment money has theretofore been deposited in trust and thereafter repaid to the Company) have been delivered to the Trustee for cancellation; or
  - (b) all Notes that have not been delivered to the Trustee for cancellation have become due and payable by reason of the making of a notice of redemption or otherwise or will become due and payable within one year and the Company has irrevocably deposited or caused to be deposited with the Trustee as trust funds in trust solely for the benefit of the Holders, cash in U.S. dollars, non-callable Government Securities, or a combination thereof, in such amounts as will be sufficient without consideration of any reinvestment of interest, to pay and discharge the entire indebtedness on the Notes not delivered to the Trustee for cancellation for principal, premium and accrued interest to the date of maturity or redemption;
- (2) no Default or Event of Default shall have occurred and be continuing on the date of such deposit or shall occur as a result of such deposit and such deposit will not result in a breach or violation of, or constitute a default under, any other instrument to which the Company is a party or by which the Company is bound;
- (3) the Company has paid or caused to be paid all sums payable by it under this Indenture; and
- (4) the Company has delivered irrevocable instructions to the Trustee under this Indenture to apply the deposited money toward the payment of the Notes at maturity or the redemption date, as the case may be.

In addition, the Company must deliver an Officers' Certificate and an Opinion of Counsel to the Trustee stating that all conditions precedent to satisfaction and discharge have been satisfied.

Notwithstanding the satisfaction and discharge of this Indenture, if money shall have been deposited with the Trustee pursuant to subclause (b) of clause (1) of this Section, the provisions of Section 10.02 shall survive.

#### *Section 10.02. Application of Trust Money*

All money deposited with the Trustee pursuant to Section 10.01 shall be held in trust and applied by it, in accordance with the provisions of the Notes and this Indenture, to the payment, either directly or through any Paying Agent (including the Company acting as its own Paying Agent) as the Trustee may determine, to the Persons entitled thereto, of the principal (and premium, if any) and interest for whose payment such money has been deposited with the Trustee; but such money need not be segregated from other funds except to the extent required by law.

If the Trustee or Paying Agent is unable to apply any money or Government Securities in accordance with Section 10.01 by reason of any legal proceeding or by reason of any order or judgment of any court or governmental authority enjoining, restraining or otherwise prohibiting such application, the Company's obligations under this Indenture and the Notes shall be revived and reinstated as though no deposit had occurred pursuant to Section 10.01; *provided* that if the Company has made any payment of principal of, premium, if any, or interest on any Notes because of the reinstatement of its obligations, the Company shall be subrogated to the rights of the Holders of such Notes to receive such payment from the money or Government Securities held by the Trustee or Paying Agent.

#### *Section 10.03. Repayment to Company*

The Trustee and each Paying Agent shall promptly pay to the Company upon request any excess money (i) deposited with them pursuant to Section 10.1 and (ii) held by them at any time.

The Trustee and each Paying Agent shall pay to the Company upon request any money held by them for the payment of principal or interest that remains unclaimed for two years after a right to such money has matured; *provided*, however, that the Trustee or such Paying Agent, before being required to make any such payment, may at the expense of the Company cause to be mailed to each Holder entitled to such money notice that such money remains unclaimed and that after a date specified therein, which shall be at least 30 days from the date of such mailing, any unclaimed balance of such money then remaining will be repaid to the Company. After payment to the Company, Holders entitled to money must look to the Company for payment as general unsecured creditors.

#### *Section 10.04. Reinstatement*

If the Trustee or any Paying Agent is unable to apply any money in accordance with Section 10.2 by reason of any legal proceeding or by reason of any order or judgment of any court or governmental authority enjoining, restraining or otherwise prohibiting such application, then the Company's obligations under this Indenture and the Notes shall be revived and reinstated as though no deposit had occurred pursuant to Section 10.1 until such time as the Trustee or such Paying Agent is permitted to apply all such money in accordance with Section 10.2; *provided*, however, that if the Company has made any payment of the principal of or interest on any Notes because of the reinstatement of its obligations, the Company shall be subrogated to the rights of the Holders of such Notes to receive any such payment from the money held by the Trustee or such Paying Agent.

### ARTICLE 11.

#### AMENDMENT, SUPPLEMENT AND WAIVER

##### *Section 11.01. Without Consent of Holders of Notes*

Notwithstanding Section 11.02 of this Indenture, the Company and the Trustee may amend or supplement this Indenture or the Notes without the consent of any Holder of a Note:

- (a) to cure any ambiguity, defect or inconsistency;
- (b) to provide for uncertificated Notes in addition to or in place of certificated Notes or to alter the provisions of Article 2 hereof (including the related definitions) in a manner that does not materially adversely affect any Holder;
- (c) to provide for the assumption of the Company's obligations to the Holders of the Notes by a successor to the Company pursuant to Article 7 hereof;
- (d) to make any change that would provide any additional rights or benefits to the Holders of the Notes or that does not adversely affect the legal rights hereunder of any Holder of the Note;
- (e) to comply with requirements of the SEC in order to effect or maintain the qualification of this Indenture under the TIA; or
- (f) to provide for the issuance of additional Notes pursuant to the purchasers option set forth in the Purchase Agreement.

Upon the request of the Company accompanied by a resolution of its Board of Directors authorizing the execution of any such amended or supplemental Indenture, and upon receipt by the Trustee of the documents described in Section 9.02 hereof, the Trustee shall join with the Company in the execution of any amended or supplemental Indenture authorized or permitted by the terms of this Indenture and to make any further appropriate agreements and stipulations that may be therein contained, but the Trustee shall not be obligated to enter into such amended or supplemental Indenture that affects its own rights, duties or immunities under this Indenture or otherwise.

##### *Section 11.02. With Consent of Holders of Notes*

Except as provided below in this Section 11.02, the Company and the Trustee may amend or supplement this Indenture (including Section 6.08 hereof) and the Notes with the consent of the Holders of at least a majority in principal amount of the Notes then outstanding voting as a single class (including consents obtained in connection with a tender offer or exchange offer for, or purchase of, the Notes), and, subject to Sections 8.04 and 8.07 hereof, any existing Default or Event of Default (other than a Default or Event of Default in the payment of the principal of, premium, if any, or interest on the Notes, except a payment default resulting from an acceleration that has been rescinded) or compliance with any provision of this Indenture or the Notes may be waived with the consent of the Holders of a majority in principal amount of the then outstanding Notes voting as a single class (including consents obtained in connection with a tender offer or exchange offer for, or purchase of, the Notes). Section 2.08 hereof shall determine which Notes are considered to be "outstanding" for purposes of this Section 11.02.

Upon the request of the Company accompanied by a resolution of its Board of Directors authorizing the execution of any such amended or supplemental Indenture, and upon the filing with the Trustee of evidence satisfactory to the Trustee of the consent of the Holders of Notes as aforesaid, and upon receipt by the Trustee of the documents described in Section 9.02 hereof, the Trustee shall join with the Company in the execution of such amended or supplemental Indenture unless such amended or supplemental Indenture directly affects the Trustee's own rights, duties or immunities under this Indenture or otherwise, in which case the Trustee may in its discretion, but shall not be obligated to, enter into such amended or supplemental Indenture.

It shall not be necessary for the consent of the Holders of Notes under this Section 11.02 to approve the particular form of any proposed amendment or waiver, but it shall be sufficient if such consent approves the substance thereof.

After an amendment, supplement or waiver under this Section becomes effective, the Company shall mail to the Holders of Notes affected thereby a notice briefly describing the amendment, supplement or waiver. Any failure of the Company to mail such notice, or any defect therein, shall not, however, in any way impair or affect the validity of any such amended or supplemental Indenture or waiver. Subject to Sections 8.04 and 8.07 hereof, the Holders of a majority in aggregate principal amount of the Notes then outstanding voting as a single class may waive compliance in a particular instance by the Company with any provision of this Indenture or the Notes. However, without the consent of each Holder affected, an amendment or waiver under this Section 11.02 may not (with respect to any Notes held by a non-consenting Holder):

- (a) reduce the principal amount of Notes whose Holders must consent to an amendment, supplement or waiver;
- (b) reduce the principal of or change the fixed maturity of any Note or alter or waive any of the provisions with respect to the redemption of the Notes except as provided above with respect to Section 6.08 hereof;
- (c) reduce the rate of or change the time for payment of interest, including default interest, on any Note;
- (d) waive a Default or Event of Default in the payment of principal of or premium, if any, or interest on the Notes (except a rescission of acceleration of the Notes by the Holders of at least a majority in aggregate principal amount of the then outstanding Notes and a waiver of the payment default that resulted from such acceleration);
- (e) make any Note payable in money other than that stated in the Notes;
- (f) make any change in the provisions of this Indenture relating to waivers of past Defaults or the rights of Holders of Notes to receive payments of principal of or interest on the Notes; or
- (g) make any change in Section 8.04 or 8.07 hereof or in the foregoing amendment and waiver provisions.

#### *Section 11.03. Compliance with Trust Indenture Act*

Every amendment or supplement to this Indenture or the Notes shall be set forth in an amended or supplemental Indenture that complies with the TIA as then in effect.

#### *Section 11.04. Revocation and Effect of Consents*

Until an amendment, supplement or waiver becomes effective, a consent to it by a Holder of a Note is a continuing consent by the Holder of a Note and every subsequent Holder of a Note or portion of a Note that evidences the same debt as the consenting Holder's Note, even if notation of the consent is not made on any Note. However, any such Holder of a Note or subsequent Holder of a Note may revoke the consent as to its Note if the Trustee receives written notice of revocation before the date the waiver, supplement or amendment becomes effective. An amendment, supplement or waiver becomes effective in accordance with its terms and thereafter binds every Holder.

#### *Section 11.05. Notation on or Exchange of Notes*

The Trustee may place an appropriate notation about an amendment, supplement or waiver on any Note thereafter authenticated. The Company in exchange for all Notes may issue and the Trustee shall, upon receipt of an Authentication Order, authenticate new Notes that reflect the amendment, supplement or waiver.

Failure to make the appropriate notation or issue a new Note shall not affect the validity and effect of such amendment, supplement or waiver.

#### *Section 11.06. Trustee to Sign Amendments, etc.*

The Trustee shall sign any amended or supplemental Indenture authorized pursuant to this Article Nine if the amendment or supplement does not adversely affect the rights, duties, liabilities or immunities of the Trustee. The Company may not sign an amendment or supplemental Indenture until the Board of Directors approves it. In executing any amended or supplemental indenture, the Trustee shall be entitled to receive and (subject to Section 9.01 hereof) shall be fully protected in relying upon, in addition to the documents required by Section 12.04 hereof, an Officer's Certificate and an Opinion of Counsel stating that the execution of such amended or supplemental indenture is authorized or permitted by this Indenture.

## ARTICLE 12.

### MISCELLANEOUS

#### *Section 12.01. Trust Indenture Act Controls*

If any provision of this Indenture limits, qualifies or conflicts with the duties imposed by TIA §318(c), the imposed duties shall control.

#### *Section 12.02. Notices*

Any notice or communication by the Company or the Trustee to the others is duly given if in writing and delivered in Person or mailed by first class mail (registered or certified, return receipt requested), telex, telecopier or overnight air courier guaranteeing next day delivery, to the others' address:

If to the Company:  
EMCORE Corporation  
145 Belmont Drive  
Somerset, New Jersey 08873  
Telecopier No.: (732) 271-9686  
Attention: Chief Financial Officer

With a copy to:  
Jenner & Block LLP  
601 Thirteenth Street, N.W.  
Washington, D.C. 20005  
Telecopier No.: (202) 637-6374  
Attention: John E. Welch, Esq.

If to the Trustee:  
Deutsche Bank Trust Company Americas  
60 Wall Street  
27th Floor - MSNYC60-2710  
New York, NY 10005  
Telecopier No.: (212) 454-2223  
Attention: Corporate Trust & Services Agency

The Company or the Trustee, by notice to the others may designate additional or different addresses for subsequent notices or communications.

All notices and communications (other than those sent to Holders) shall be deemed to have been duly given: at the time delivered by hand, if personally delivered; five Business Days after being deposited in the mail, postage prepaid, if mailed; when answered back, if telexed; when receipt acknowledged, if telecopied; and the next Business Day after timely delivery to the courier, if sent by overnight air courier guaranteeing next day delivery.

Any notice or communication to a Holder shall be mailed by first class mail, certified or registered, return receipt requested, or by overnight air courier guaranteeing next day delivery to its address shown on the register kept by the Registrar. Any notice or communication shall also be so mailed to any Person described in TIA § 313(c), to the extent required by the TIA. Failure to mail a notice or communication to a Holder or any defect in it shall not affect its sufficiency with respect to other Holders.

If a notice or communication is mailed in the manner provided above within the time prescribed, it is duly given, whether or not the addressee receives it.

If the Company mails a notice or communication to Holders, it shall mail a copy to the Trustee and each Agent at the same time.

#### *Section 12.03. Communication by Holders of Notes with Other Holders of Notes*

Holders may communicate pursuant to TIA § 312(b) with other Holders with respect to their rights under this Indenture or the Notes. The Company, the Trustee, the Registrar and anyone else shall have the protection of TIA § 312(c).

#### *Section 12.04. Certificate and Opinion as to Conditions Precedent*

Upon any request or application by the Company to the Trustee to take any action under this Indenture, the Company shall furnish to the Trustee:

- (a) an Officers' Certificate in form and substance reasonably satisfactory to the Trustee (which shall include the statements set forth in Section 12.05 hereof) stating that, in the opinion of the signers, all conditions precedent and covenants, if any, provided for in this Indenture relating to the proposed action have been satisfied; and
- (b) an Opinion of Counsel in form and substance reasonably satisfactory to the Trustee (which shall include the statements set forth in Section 12.05 hereof) stating that, in the opinion of such counsel, all such conditions precedent and covenants have been satisfied.

#### *Section 12.05. Statements Required in Certificate or Opinion*

Each certificate or opinion with respect to compliance with a condition or covenant provided for in this Indenture (other than a certificate provided pursuant to TIA § 314(a)(4)) shall comply with the provisions of TIA § 314(e) and shall include:

- (a) a statement that the Person making such certificate or opinion has read such covenant or condition;
- (b) a brief statement as to the nature and scope of the examination or investigation upon which the statements or opinions contained in such certificate or opinion are based;
- (c) a statement that, in the opinion of such Person, he or she has made such examination or investigation as is necessary to enable him to express an informed opinion as to whether or not such covenant or condition has been satisfied; and
- (d) a statement as to whether or not, in the opinion of such Person, such condition or covenant has been satisfied.

#### *Section 12.06. Rules by Trustee and Agents*

The Trustee may make reasonable rules for action by or at a meeting of Holders. The Registrar or Paying Agent may make reasonable rules and set reasonable requirements for its functions.

#### *Section 12.07. No Personal Liability of Directors, Officers, Employees and Stockholders*

No past, present or future director, officer, employee, incorporator or stockholder of the Company, as such, shall have any liability for any obligations of the Company under the Notes, this Indenture or for any claim based on, in respect of, or by reason of, such obligations or their creation. Each Holder by accepting a Note waives and releases all such liability. The waiver and release are part of the consideration for issuance of the Notes.

#### *Section 12.08. Governing Law*

THE INTERNAL LAW OF THE STATE OF NEW YORK SHALL GOVERN AND BE USED TO CONSTRUE THIS INDENTURE THE NOTES WITHOUT GIVING EFFECT TO APPLICABLE PRINCIPLES OF CONFLICTS OF LAW TO THE EXTENT THAT THE APPLICATION OF THE LAWS OF ANOTHER JURISDICTION WOULD BE REQUIRED THEREBY.

#### *Section 12.09. No Adverse Interpretation of Other Agreements*

This Indenture may not be used to interpret any other indenture, loan or debt agreement of the Company or its Subsidiaries or of any other Person. Any such indenture, loan or debt agreement may not be used to interpret this Indenture.

#### *Section 12.10. Successors*

All agreements of the Company in this Indenture and the Notes shall bind its successors. All agreements of the Trustee in this Indenture shall bind its successors.

#### *Section 12.11. Severability*

In case any provision in this Indenture or in the Notes shall be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

*Section 12.12. Counterpart Originals*

The parties may sign any number of copies of this Indenture. Each signed copy shall be an original, but all of them together represent the same agreement.

*Section 12.13. Table of Contents, Headings, etc*

The Table of Contents, Cross-Reference Table and Headings of the Articles and Sections of this Indenture have been inserted for convenience of reference only, are not to be considered a part of this Indenture and shall in no way modify or restrict any of the terms or provisions hereof.

[Signature page follows]

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SIGNATURES

Dated as of November 16, 2005

EMCORE Corporation

By: /s/ Howard W. Brodie

Howard W. Brodie  
Executive Vice President and Chief Legal Officer

Deutsche Bank Trust Company Americas,  
as Trustee

By: /s/ Wanda Camacho

Wanda Camacho  
Vice President

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**Exhibit A**

**Form of Note**

**[Global Note Legend]**

UNLESS THIS CERTIFICATE IS PRESENTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY TO THE COMPANY OR ITS AGENT FOR REGISTRATION OF TRANSFER, EXCHANGE OR PAYMENT, AND ANY CERTIFICATE ISSUED IS REGISTERED IN THE NAME OF CEDE & CO. OR IN SUCH OTHER NAME AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY (AND ANY PAYMENT HEREON IS MADE TO CEDE & CO. OR TO SUCH OTHER ENTITY AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY), ANY TRANSFER, PLEDGE OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL SINCE THE REGISTERED OWNER HEREOF, CEDE & CO., HAS AN INTEREST HEREIN. THIS NOTE IS A GLOBAL NOTE WITHIN THE MEANING OF THE INDENTURE HEREINAFTER REFERRED TO AND IS REGISTERED IN THE NAME OF A DEPOSITARY OR A NOMINEE THEREOF. THIS NOTE IS EXCHANGEABLE FOR SECURITIES REGISTERED IN THE NAME OF A PERSON OTHER THAN THE DEPOSITARY OR ITS NOMINEE ONLY IN THE LIMITED CIRCUMSTANCES DESCRIBED IN THE INDENTURE AND, UNLESS AND UNTIL IT IS EXCHANGED IN WHOLE OR IN PART FOR SECURITIES IN DEFINITIVE FORM, THIS NOTE MAY NOT BE TRANSFERRED EXCEPT AS A WHOLE BY THE DEPOSITARY TO A NOMINEE OF THE DEPOSITARY OR BY A NOMINEE OF THE DEPOSITARY TO THE DEPOSITARY OR ANOTHER NOMINEE OF THE DEPOSITARY OR BY THE DEPOSITARY OR ANY SUCH NOMINEE TO A SUCCESSOR DEPOSITARY OR A NOMINEE OF SUCH SUCCESSOR DEPOSITARY AND TRANSFERS OF PORTIONS OF THIS GLOBAL NOTE SHALL BE LIMITED TO TRANSFERS MADE IN ACCORDANCE WITH SECTION 2.12 OF THE INDENTURE.

**[Private Placement Legend]**

THIS NOTE (OR ITS PREDECESSOR) WAS ORIGINALLY ISSUED IN A TRANSACTION EXEMPT FROM REGISTRATION UNDER THE UNITED STATES SECURITIES ACT OF 1933 (THE "SECURITIES ACT"), AND THIS NOTE AND THE COMMON STOCK ISSUABLE UPON CONVERSION THEREOF MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED IN THE ABSENCE OF SUCH REGISTRATION OR AN APPLICABLE EXEMPTION THEREFROM. EACH PURCHASER OF THIS NOTE IS HEREBY NOTIFIED THAT THE SELLER OF THIS NOTE MAY BE RELYING ON THE EXEMPTION FROM THE PROVISIONS OF SECTION 5 OF THE SECURITIES ACT PROVIDED BY RULE 144A THEREUNDER.

THE HOLDER OF THIS NOTE AGREES FOR THE BENEFIT OF THE COMPANY THAT (A) THIS NOTE AND THE NOTE COMMON STOCK ISSUABLE UPON CONVERSION THEREOF MAY BE OFFERED, RESOLD, PLEDGED OR OTHERWISE TRANSFERRED, ONLY (I) IN THE UNITED STATES TO A PERSON WHOM THE SELLER REASONABLY BELIEVES IS A QUALIFIED INSTITUTIONAL BUYER (AS DEFINED IN RULE 144A UNDER THE SECURITIES ACT) IN A TRANSACTION MEETING THE REQUIREMENTS OF RULE 144A, (II) OUTSIDE THE UNITED STATES IN AN OFFSHORE TRANSACTION IN ACCORDANCE WITH RULE 904 UNDER THE SECURITIES ACT, (III) PURSUANT TO AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT PROVIDED BY RULE 144 THEREUNDER (IF AVAILABLE) OR (IV) PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT, IN EACH OF CASES (I) THROUGH (IV) IN ACCORDANCE WITH ANY APPLICABLE SECURITIES LAWS OF ANY STATE OF THE UNITED STATES, AND (B) THE HOLDER WILL, AND EACH SUBSEQUENT HOLDER IS REQUIRED TO, NOTIFY ANY PURCHASER OF THIS NOTE FROM IT OF THE RESALE RESTRICTIONS REFERRED TO IN (A) ABOVE. IN ANY CASE, THE HOLDER HEREOF WILL NOT, DIRECTLY OR INDIRECTLY, ENGAGE IN ANY HEDGING TRANSACTIONS WITH REGARD TO THE NOTES EXCEPT AS PERMITTED UNDER THE SECURITIES ACT.

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EMCORE CORPORATION

CUSIP: [\_\_\_\_\_]

R-1

5% CONVERTIBLE SENIOR SUBORDINATED NOTES DUE 2011

EMCORE Corporation, a New Jersey corporation (the "Company", which term shall include any successor corporation under the Indenture referred to on the reverse hereof), promises to pay to Cede & Co., or registered assigns, the principal sum of [\_\_\_\_\_] Dollars (\$[\_\_\_\_\_] on [\_\_\_\_\_] 2011 or such greater or lesser amount as is indicated on the Schedule of Exchanges of Notes on the other side of this Note.

Interest Payment Dates: May 15 and November 15

Record Dates: May 1 and November 1

This Note is convertible as specified on the other side of this Note. Additional provisions of this Note are set forth on the other side of this Note.

IN WITNESS WHEREOF, the Company has caused this instrument to be duly executed.

EMCORE Corporation

By:  
Name:  
Title

Attest:

By:  
Name:  
Title:

Dated:

Trustee's Certificate of Authentication: This is one of the Notes referred to in the within-mentioned Indenture.

DEUTSCHE BANK TRUST COMPANY AMERICAS,  
as Trustee

By:  
Name:  
Title: Authorized Signer

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EMCORE CORPORATION  
5% CONVERTIBLE SENIOR SUBORDINATED NOTES DUE 2011

1. INTEREST

EMCORE Corporation, a New Jersey corporation (the "Company," which term shall include any successor corporation under the Indenture hereinafter referred to), promises to pay interest on the principal amount of this Note at the rate of 5% per annum. The Company shall pay interest semiannually on May 15 and November 15 of each year, commencing May 15, 2006, unless such date is not a business day, in which case, we shall pay interest on the next succeeding business day and such payment shall be deemed to have been paid on such interest payment date and no interest shall accrue during the additional period of time. Interest on the Notes shall accrue from the most recent date to which interest has been paid or, if no interest has been paid, from [\_\_\_\_], 2006; provided, however, that if there is not an existing default in the payment of interest and if this Note is authenticated between a record date referred to on the face hereof and the next succeeding interest payment date, interest shall accrue from such interest payment date. Interest will be computed on the basis of a 360-day year of twelve 30-day months.

2. METHOD OF PAYMENT

The Company shall pay interest on this Note (except defaulted interest) to the person who is the Holder of this Note at the close of business on May 1 or November 1, as the case may be, next preceding the related interest payment date. The Holder must surrender this Note to a Paying Agent to collect payment of principal. The Company will pay principal and interest in money of the United States that at the time of payment is legal tender for payment of public and private debts. The Company may, however, pay principal and interest in respect of any Definitive Note by check or wire payable in such money; provided, however, that a Holder with an aggregate principal amount in excess of \$2,000,000 will be paid by wire transfer in immediately available funds at the election of such Holder. The Company may mail an interest check to the Holder's registered address. Notwithstanding the foregoing, so long as this Note is registered in the name of a Depository or its nominee, all payments hereon shall be made by wire transfer of immediately available funds to the account of the Depository or its nominee.

3. PAYING AGENT, REGISTRAR AND CONVERSION AGENT

Initially, Deutsche Bank Trust Company Americas (the "Trustee," which term shall include any successor trustee under the Indenture hereinafter referred to) will act as Paying Agent, Registrar and Conversion Agent. The Company may change any Paying Agent, Registrar or Conversion Agent without notice to the Holder. The Company or any of its Subsidiaries may, subject to certain limitations set forth in the Indenture, act as Paying Agent or Registrar.

4. INDENTURE, LIMITATIONS

This Note is one of a duly authorized issue of Notes of the Company designated as its 5% Convertible Senior Subordinated Notes due 2011 (the "Notes"), issued under an Indenture dated as of [\_\_\_\_], 2005 (together with any supplemental indentures thereto, the "Indenture"), between the Company and the Trustee. The terms of this Note include those stated in the Indenture and those required by or made part of the Indenture by reference to the Trust Indenture Act of 1939, as amended, as in effect on the date of the Indenture. This Note is subject to all such terms, and the Holder of this Note is referred to the Indenture and said Act for a statement of them. All capitalized terms used but not defined herein shall have the meaning ascribed to such term in the Indenture.

The Notes are subordinated unsecured obligations of the Company. The aggregate principal amount of Notes which may be authenticated and delivered pursuant to the Indenture is unlimited. The Indenture does not limit other debt of the Company, secured or unsecured, including Senior Indebtedness.

5. PROVISIONAL REDEMPTION

The Notes may be redeemed at the election of the Company, as a whole or in part from time to time, at any time (a "Provisional Redemption"), upon at least 20 and not more than 60 days' notice by mail to the Holders of the Notes (a "Provisional Redemption Notice") at a redemption price equal to \$1,000 per \$1,000 principal amount of the Notes redeemed plus accrued and unpaid interest, if any (such amount, together with the Early Call Premium described below, the "Provisional Redemption Price"), to but excluding the date of redemption (the "Provisional Redemption Date") if the Closing Sale Price of the Common Stock has exceeded 150% of the Conversion Price for at least 20 Trading Days within a period of any 30 consecutive Trading Days ending on the Trading Day prior to the date of mailing of the notice of Provisional Redemption (the "Provisional Redemption Notice Date").

Except as set forth above, the Company shall not have the option to redeem the Notes.

6. EARLY CALL PREMIUM

If the Company delivers a Provisional Redemption Notice on or prior to January [ ], 2007, the Company shall make an additional payment, at its option, in cash or Common Stock or a combination of cash and Common Stock (the "Early Call Premium") with respect to the Notes called for redemption to holders on the Provisional Redemption Notice Date in an amount equal to \$150.00 per \$1,000 principal amount of the Notes, less the amount of any interest actually paid (including, if the Provisional Redemption Date occurs after a record date but before an interest payment date, any interest paid or to be paid in connection with such interest payment date) on such Notes prior to the Provisional Redemption Date. Payments made in Common Stock will be valued at 95% of the average closing sales prices of Common Stock for the five Trading Days ending on the third day prior to the Provisional Redemption Date. The Company shall pay the Early Call Premium on all Notes called for Provisional Redemption on or prior to January [ ], 2007, including those Notes converted into Common Stock between the Provisional Redemption Notice Date and the Provisional Redemption Date.

7. NOTICE OF REDEMPTION

Notice of redemption will be mailed by first-class mail at least 20 days but not more than 60 days before the Redemption Date to each Holder of Notes to be redeemed at its registered address. Notes in denominations larger than \$1,000 may be redeemed in part, but only in whole multiples of \$1,000. On and after the Redemption Date, subject to the deposit with the Paying Agent of funds sufficient to pay the Redemption Price plus accrued interest, if any, accrued to, but not including, the Redemption Date, interest shall cease to accrue on Notes or portions of them called for redemption.

8. PURCHASE OF NOTES AT OPTION OF HOLDER UPON A CHANGE OF CONTROL

At the option of the Holder and subject to the terms and conditions of the Indenture, the Company shall become obligated to purchase all or any part specified by the Holder (so long as the principal amount of such part is \$1,000 or an integral multiple of \$1,000 in excess thereof) of the Notes held by such Holder on the date that is 30 Business Days after the occurrence of a Change of Control, at a purchase price equal to 100% of the principal amount thereof together with accrued interest up to, but excluding, the Change of Control Purchase Date. The Holder shall have the right to withdraw any Change of Control Purchase Notice (in whole or in a portion thereof that is \$1,000 or an integral multiple thereof) at any time prior to the close of business on the Business Day next preceding the Change of Control Purchase Date by delivering a written notice of withdrawal to the Paying Agent in accordance with the terms of the Indenture.

9. CONVERSION

A Holder of a Note may convert the principal amount of such Note (or any portion thereof equal to \$1,000 or any integral multiple of \$1,000 in excess thereof) into shares of Common Stock at any time prior to the close of business on May 15, 2011; provided, however, that if the Note is called for redemption or subject to purchase upon a Change of Control, the conversion right will terminate at the close of business on the Business Day immediately preceding the redemption date or the Change of Control Purchase Date, as the case may be, for such Note or such earlier date as the Holder presents such Note for redemption or purchase (unless the Company shall default in making the redemption payment or Change of Control Purchase Price, as the case may be, when due, in which case the conversion right shall terminate at the close of business on the date such default is cured and such Note is redeemed or purchased).

The initial Conversion Price is \$[ ] per share, subject to adjustment under certain circumstances. The number of shares of Common Stock issuable upon conversion of a Note is determined by dividing the principal amount of the Note or portion thereof converted by the Conversion Price in effect on the Conversion Date. No fractional shares will be issued upon conversion; in lieu thereof, an amount will be paid in cash based upon the Closing Price (as defined in the Indenture) of the Common Stock on the Trading Day immediately prior to the Conversion Date.

To convert a Note, a Holder must (a) complete and manually sign the conversion notice set forth below and deliver such notice to a Conversion Agent, (b) surrender the Note to a Conversion Agent, (c) furnish appropriate endorsements and transfer documents if required by a Registrar or a Conversion Agent, and (d) pay any transfer or similar tax, if required. Notes so surrendered for conversion (in whole or in part) during the period from the close of business on any regular record date to the opening of business on the next succeeding interest payment date (excluding Notes or portions thereof called for redemption or subject to purchase upon a Change of Control on a Redemption Date or Change of Control Purchase Date, as the case may be, during the period beginning at the close of business on a regular record date and ending at the opening of business on the first Business Day after the next succeeding interest payment date, or if such interest payment date is not a Business Day, the second such Business Day) shall also be accompanied by payment in funds acceptable to the Company of an amount equal to the interest payable on such interest payment date on the principal amount of such Note then being converted, and such interest shall be payable to such registered Holder notwithstanding the conversion of such Note, subject to the provisions of this Indenture relating to the payment of defaulted interest by the Company. If the Company defaults in the payment of interest payable on such interest payment date, the Company shall promptly repay such funds to such Holder. A Holder may convert a portion of a Note equal to \$1,000 or any integral multiple thereof.

A Note in respect of which a Holder had delivered a Change of Control Purchase Notice exercising the option of such Holder to require the Company to purchase such Note may be converted only if the Change of Control Purchase Notice is withdrawn in accordance with the terms of the Indenture.

#### 10. SUBORDINATION

The indebtedness evidenced by the Notes is, to the extent and in the manner provided in the Indenture, subordinate and junior in right of payment to the prior payment in full in cash of all Senior Indebtedness. Any Holder by accepting this Note agrees to and shall be bound by such subordination provisions and authorizes the Trustee to give them effect. In addition to all other rights of Senior Indebtedness described in the Indenture, the Senior Indebtedness shall continue to be Senior Indebtedness and entitled to the benefits of the subordination provisions irrespective of any amendment, modification or waiver of any terms of any instrument relating to the Senior Indebtedness or any extension or renewal of the Senior Indebtedness. The indebtedness evidenced by the Notes shall rank *pari passu* with the Company's 5% Convertible Senior Subordinated Notes due 2011 issued under that certain Indenture dated as of February 24, 2004, between the Company and the Trustee.

#### 11. DENOMINATIONS, TRANSFER, EXCHANGE

The Notes are in registered form without coupons in denominations of \$1,000 and integral multiples thereof. A Holder may register the transfer of or exchange Notes in accordance with the Indenture. The Registrar may require a Holder, among other things, to furnish appropriate endorsements and transfer documents and to pay any taxes or other governmental charges that may be imposed in relation thereto by law or permitted by the Indenture.

#### 12. PERSONS DEEMED OWNERS

The Holder of a Note may be treated as the owner of it for all purposes.

#### 13. UNCLAIMED MONEY

If money for the payment of principal or interest remains unclaimed for two years, the Trustee or Paying Agent will pay the money back to the Company at its written request. After that, Holders entitled to money must look to the Company for payment.

#### 14. AMENDMENT, SUPPLEMENT AND WAIVER

Subject to certain exceptions, the Indenture or the Notes may be amended or supplemented with the consent of the Holders of at least a majority in principal amount of the Notes then outstanding, and an existing default or Event of Default and its consequence or compliance with any provision of the Indenture or the Notes may be waived in a particular instance with the consent of the Holders of a majority in principal amount of the Notes then outstanding. Without the consent of or notice to any Holder, the Company and the Trustee may amend or supplement the Indenture or the Notes to, among other things, cure any ambiguity, defect or inconsistency or make any other change that does not adversely affect the rights of any Holder.

#### 15. SUCCESSOR CORPORATION

When a successor corporation assumes all the obligations of its predecessor under the Notes and the Indenture in accordance with the terms and conditions of the Indenture, the predecessor corporation will (except in certain circumstances specified in the Indenture) be released from those obligations.

#### 16. DEFAULTS AND REMEDIES

Under the Indenture, an Event of Default includes: (i) default for 30 days in payment of any interest on any Notes; (ii) default in payment of any principal (including, without limitation, any premium, if any) on the Notes when due; (iii) failure by the Company for 60 days after notice, given in accordance with the terms of the indenture, to it to comply with any of its other agreements contained in the Indenture or the Notes; (iv) the Company fails to comply with any of the provisions of Section 6.08 of the Indenture; (v) the Company fails to provide timely notice of a change of control; and (vi) certain events of bankruptcy, insolvency or reorganization of the Company. If an Event of Default (other than as a result of certain events of bankruptcy, insolvency or reorganization of the Company) occurs and is continuing, the Trustee or the Holders of at least 25% in principal amount of the Notes then outstanding may declare all unpaid principal to the date of acceleration on the Notes then outstanding to be due and payable immediately, all as and to the extent provided in the Indenture. If an Event of Default occurs as a result of certain events of bankruptcy, insolvency or reorganization of the Company, unpaid principal of the Notes then outstanding shall become due and payable immediately without any declaration or other act on the part of the Trustee or any Holder, all as and to the extent provided in the Indenture. Holders may not enforce the Indenture or the Notes except as provided in the Indenture. The Trustee may require indemnity satisfactory to it before it enforces the Indenture or the Notes. Subject to certain limitations, Holders of a majority in principal amount of the Notes then outstanding may direct the Trustee in its exercise of any trust or power. The Trustee may withhold from Holders notice of any continuing default (except a default in payment of principal or interest) if it determines that withholding notice is in their interests. The Company is required to file periodic reports with the Trustee as to the absence of default.

#### 17. TRUSTEE DEALINGS WITH THE COMPANY

Deutsche Bank Trust Company Americas, the Trustee under the Indenture, in its individual or any other capacity, may make loans to, accept deposits from and perform services for the Company or an Affiliate of the Company, and may otherwise deal with the Company or an Affiliate of the Company, as if it were not the Trustee.

#### 18. NO RECOURSE AGAINST OTHERS

A director, officer, employee or shareholder, as such, of the Company shall not have any liability for any obligations of the Company under the Notes or the Indenture nor for any claim based on, in respect of or by reason of such obligations or their creation. The Holder of this Note by accepting this Note waives and releases all such liability. The waiver and release are part of the consideration for the issuance of this Note.

#### 19. AUTHENTICATION

This Note shall not be valid until the Trustee or an authenticating agent manually signs the certificate of authentication on the other side of this Note.

#### 20. ABBREVIATIONS AND DEFINITIONS

Customary abbreviations may be used in the name of the Holder or an assignee, such as: TEN COM (= tenants in common), TEN ENT (= tenants by the entireties), JT TEN (= joint tenants with right of survivorship and not as tenants in common), CUST (= Custodian) and UGMA (= Uniform Gifts to Minors Act).

All terms defined in the Indenture and used in this Note but not specifically defined herein are defined in the Indenture and are used herein as so defined.

#### 21. INDENTURE TO CONTROL; GOVERNING LAW

In the case of any conflict between the provisions of this Note and the Indenture, the provisions of the Indenture shall control. This Note shall be governed by, and construed in accordance with, the laws of the State of New York, without regard to principles of conflicts of law.

The Company will furnish to any Holder, upon written request and without charge, a copy of the Indenture. Requests may be made to: EMCORE Corporation, 145 Belmont Drive, Somerset, New Jersey 08873, Attention: Chief Financial Officer.

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ASSIGNMENT FORM

To assign this Note, fill in the form below:

I or we assign and transfer this Note to

(Insert assignee's soc. sec. or tax I.D. no.)

(Print or type assignee's name, address and zip code)

and irrevocably appoint

agent to transfer this Note on the books of the Company. The agent may substitute another to act for him or her.

Your Signature:

Date:

(Sign exactly as your name appears on the other side of this Note)

\*Signature guaranteed by:

By:

\* The signature must be guaranteed by an institution which is a member of one of the following recognized signature guaranty programs: (i) the Securities Transfer Agent Medallion Program (STAMP); (ii) the New York Stock Exchange Medallion Program (MSP); (iii) the Stock Exchange Medallion Program (SEMP); or (iv) such other guaranty program acceptable to the Trustee.

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CONVERSION NOTICE

To convert this Note into Common Stock of the Company, check the box:

To convert only part of this Note, state the principal amount to be converted (must be \$1,000 or an integral multiple thereof): \$\_\_\_\_\_.

If you want the stock certificate made out in another person's name, fill in the form below:

(Insert assignee's soc. sec. or tax I.D. no.)

(Print or type assignee's name, address and zip code)

Your Signature:

Date:

(Sign exactly as your name appears on the other side of this Note)

\*Signature guaranteed by:

By:

\* The signature must be guaranteed by an institution which is a member of one of the following recognized signature guaranty programs: (i) the Securities Transfer Agent Medallion Program (STAMP); (ii) the New York Stock Exchange Medallion Program (MSP); (iii) the Stock Exchange Medallion Program (SEMP); or (iv) such other guaranty program acceptable to the Trustee. OPTION TO ELECT REPURCHASE UPON A CHANGE OF CONTROL

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To: EMCORE Corporation

The undersigned registered owner of this Note hereby irrevocably acknowledges receipt of a notice from EMCORE Corporation (the "Company") as to the occurrence of a Change of Control with respect to the Company and requests and instructs the Company to redeem the entire principal amount of this Note, or the portion thereof (which is \$1,000 or an integral multiple thereof) below designated, in accordance with the terms of the Indenture referred to in this Note at the Change of Control Purchase Price, together with accrued interest to, but excluding, such date.

Dated:

Signature(s)

Signature(s) must be guaranteed by a qualified guarantor institution with membership in an approved signature guarantee program pursuant to Rule 17Ad-15 under the Securities Exchange Act of 1934.

Signature Guaranty

Principal amount to be redeemed  
(in an integral multiple of \$1,000, if less than all):

NOTICE: The signature to the foregoing Election must correspond to the Name as written upon the face of this Note in every particular, without alteration or any change whatsoever.

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SCHEDULE OF EXCHANGES OF NOTES

The following exchanges, redemptions, repurchases or conversions of a part of this global Note have been made:

<b>Principal Amount of this Global Note Following Such Decrease Date of Exchange (or Increase)</b>	<b>Authorized Signatory of Custodian</b>	<b>Amount of Decrease in Principal Amount of this Global Note</b>	<b>Amount of Increase in Principal Amount of this Global Note</b>
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**Exhibit B**

**CERTIFICATE TO BE DELIVERED UPON EXCHANGE OR REGISTRATION  
OF TRANSFER OF TRANSFER RESTRICTED SECURITIES**

Re: 5% Convertible Subordinated Notes due 2011 (the "Notes") of EMCORE Corporation.

This certificate relates to \$\_\_\_\_\_ principal amount of Notes owned in (check applicable box)

book-entry or  definitive form by \_\_\_\_\_ (the "Transferor").

The Transferor has requested a Registrar or the Trustee to exchange or register the transfer of such Notes.

In connection with such request and in respect of each such Note, the Transferor does hereby certify that the Transferor is familiar with transfer restrictions relating to the Notes as provided in Section 2.12 of the Indenture dated as of November \_\_, 2005 between EMCORE Corporation and Deutsche Bank Trust Company Americas, (the "Indenture"), and the transfer of such Note is being made pursuant to an effective registration statement under the Securities Act of 1933, as amended (the "Securities Act") (check applicable box) or the transfer or exchange, as the case may be, of such Note does not require registration under the Securities Act because (check applicable box):

Such Note is being transferred pursuant to an effective registration statement under the Securities Act.

Such Note is being acquired for the Transferor's own account, without transfer.

Such Note is being transferred to the Company or a Subsidiary (as defined in the Indenture) of the Company.

Such Note is being transferred to a person the Transferor reasonably believes is a "qualified institutional buyer" (as defined in Rule 144A or any successor provision thereto ("Rule 144A") under the Securities Act) that is purchasing for its own account or for the account of a "qualified institutional buyer", in each case to whom notice has been given that the transfer is being made in reliance on such Rule 144A, and in each case in reliance on Rule 144A.

Such Note is being transferred pursuant to and in accordance with Rule 903 or Rule 904 under the Securities Act and, accordingly, the Transferor hereby further certifies that (i) the transfer is not being made to a person in the United States and (x) at the time the buy order was originated, the transferee was outside the United States or such Transferor and any Person acting on its behalf reasonably believed and believes that the transferee was outside the United States or (y) the transaction was executed in, on or through the facilities of a designated offshore securities market and neither such Transferor nor any Person acting on its behalf knows that the transaction was prearranged with a buyer in the United States, (ii) no directed selling efforts have been made in contravention of the requirements of Rule 903(b) or Rule 904(b) of Regulation S under the Securities Act and (iii) the transaction is not part of a plan or scheme to evade the registration requirements of the Securities Act and (iv) if the proposed transfer is being made prior to the expiration of the Restricted Period, the transfer is not being made to a U.S. Person or for the account or benefit of a U.S. Person (other than an Initial Purchaser).

Such Note is being transferred pursuant to and in compliance with an exemption from the registration requirements under the Securities Act in accordance with Rule 144 (or any successor thereto) ("Rule 144") under the Securities Act.

Such Note is being transferred pursuant to and in compliance with an exemption from the registration requirements of the Securities Act (other than an exemption referred to above) and as a result of which such Note will, upon such transfer, cease to be a "restricted security" within the meaning of Rule 144 under the Securities Act.

The Transferor acknowledges and agrees that, if the transferee will hold any such Notes in the form of beneficial interests in a global Note which is a "restricted security" within the meaning of Rule 144 under the Securities Act, then such transfer can only be made pursuant to Rule 144A under the Securities Act and such transferee must be a "qualified institutional buyer" (as defined in Rule 144A).

Date:

(Insert Name of Transferor)

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## NON-RECOURSE RECEIVABLES PURCHASE AGREEMENT

This **NON-RECOURSE RECEIVABLES PURCHASE AGREEMENT** (the "Agreement"), dated as of September 23, 2005, is between **SILICON VALLEY BANK** ("Buyer") having a place of business at 3003 Tasman Drive, Santa Clara, California 95054 and **EMCORE CORPORATION** ("Seller"), a New Jersey corporation, with its chief executive office at 145 Belmont Drive, Somerset, New Jersey 08873.

### 1 Definitions.

When used herein, the following terms have the following meanings.

- 1.1 "Account Debtor"** has the meaning set forth in the Massachusetts Uniform Commercial Code and shall include any person liable on any Purchased Receivable, including without limitation, any guarantor of the Purchased Receivable and any issuer of a letter of credit or banker's acceptance.
- 1.2 "Adjustments"** means all discounts, allowances, returns, disputes, counterclaims, offsets, defenses, rights of recoupment, rights of return, warranty claims, or short payments, asserted by or on behalf of any Account Debtor with respect to any Purchased Receivable other than by reason of an Insolvency Event.
- 1.3 "Administrative Fee"** means for any Purchase the percentage of the Total Purchased Receivables Amount set forth in the Schedule for such Purchase.
- 1.4 "Business Day"** means any day other than a Saturday, Sunday, or other day on which banks in California or Massachusetts are required or authorized by law to close.
- 1.5 "Discount Rate"** means for any Purchase the "Discount Rate" set forth in the Schedule for such Purchase.
- 1.6 "Due Date"** means for any Purchase the "Due Date" set forth in the Schedule for such Purchase.
- 1.7 "Event of Default"** has the meaning set forth in Section 10 hereof.
- 1.8 "Insolvency Event"** means, with respect to any Account Debtor, (a) the commencement of a case, action or proceeding with respect to such Account Debtor before any court or other governmental authority relating to bankruptcy, reorganization, insolvency, liquidation, receivership, dissolution, winding-up or relief of debtors, (b) such Account Debtor is generally not paying its debts when due, (c) the financial inability to make payment on a Purchased Receivable, or (d) the making or commencement of any general assignment for the benefit of creditors, composition, marshaling of assets for creditors, or other similar arrangement in respect of the creditors generally or any substantial portion of the creditors of such Account Debtor.
- 1.9 "Invoice Amount"** means for any Purchase, the "Invoice Amount" set forth in the Schedule for such Purchase.
- 1.10 "Late Payment Settlement Fee"** has the meaning set forth in Section 2.2.
- 1.11 "Open Amount"** means the portion of any Purchased Receivable which has been pre-paid to the Seller.
- 1.12 "Payment in Full"** means the receipt by Buyer of one or more payments in respect of a Purchased Receivable equal to the Purchased Receivable Amount.
- 1.13 "Prime Rate"** means per annum rate of interest from time to time announced and made effective by Buyer as its Prime Rate (which rate may or may not be the lowest rate available from Buyer at any given time).
- 1.14 "Purchase"** means the purchase by Buyer from Seller of one or more Purchased Receivables on a Purchase Date as listed in the Schedule applicable to such Purchase.
- 1.15 "Purchase Date"** means for any Purchase the date set forth as the "Purchase Date" in the Schedule for such Purchase.
- 1.16 "Purchase Price"** means for any Purchase the "Purchase Price" set forth on the Schedule for such Purchase.
- 1.17 "Purchased Receivable"** means for any Purchase a Receivable identified on the Schedule for such Purchase.
- 1.18 "Purchased Receivable Amount"** means for any Purchased Receivable, the "Invoice Amount" set forth with respect to such Purchased Receivable on the applicable Schedule minus the Open Amount.
- 1.19 "Receivable"** means an account, receivable, chattel paper, instrument, contract right, documents, general intangible, letter of credit, draft, bankers acceptances, and other right to payment, and all proceeds thereof.
- 1.20 "Related Property"** has the meaning as set forth in Section 9 hereof.
- 1.21 "Repurchase Amount"** has the meaning set forth in Section 4.2 hereof.
- 1.22 "Schedule"** means for each Purchase a schedule executed by the parties in the form of Exhibit A hereto identifying each Purchased Receivable subject to such Purchase and setting forth financial and other details relating to such Purchase, all as contemplated by Exhibit A.
- 1.23 "Settlement Date"** has the meaning set forth in Section 3.2 hereof.
- 1.24 "Total Purchased Receivables Amount"** means for any Purchase the total of the Purchased Receivable Amounts for all Purchased Receivables subject to such Purchase as set forth on the applicable Schedule.

### 2 Purchase and Sale of Receivables.

**2.1 Sale and Purchase.** Subject to the terms and conditions of this Agreement, with respect to each Purchase, effective on each applicable Purchase Date, Seller agrees to sell to Buyer and Buyer agrees to buy from Seller all right, title, and interest (but none of the obligations with respect to) of the Seller to the payment of all sums owing or to be owing from the Account Debtors under each Purchased Receivable to the extent of the Purchased Receivable Amount for such Purchased Receivable.

Each purchase and sale hereunder shall be in the sole discretion of Buyer and Seller. In any event, Buyer will not (i) purchase any Receivables in excess of an aggregate outstanding amount of Twenty Million Dollars (\$20,000,000.00), or (ii) purchase any Receivables under this Agreement after December 31, 2006, unless the term of this Agreement has been extended by mutual written agreement of the parties. The purchase of each Purchased Receivable may be evidenced by an assignment or bill of sale in a form acceptable to Buyer.

**2.2 Purchase Price and Related Matters.** With respect to each Purchase:

(a) **Payment of Purchase Price.** On the Purchase Date, the Purchase Price, less the Administrative Fee and legal fees and expenses of counsel related thereto, shall be paid by Buyer to Seller.

(b) **Late Payment Settlement Fee.** In the event that Payment in Full of any Purchased Receivable is not received on or before the Due Date, Seller agrees to pay to Buyer an additional amount on any unpaid amount, calculated at the Discount Rate, through the earlier to occur of (i) such date that Buyer receives Payment in Full, and (ii) an additional ninety (90) days past the Due Date ("Late Payment Settlement Fee") (subject to Section 4.2 (Seller's Agreement to Repurchase) herein). In the event that such Purchased Receivable is uncollectible (due to an Account Debtor Insolvency Event), then the Late Payment Settlement Fee period shall be the lesser of forty-five (45) days, and the date on which such Purchased Receivable becomes uncollectible due to such Insolvency Event.

**2.3 Facility Fee.** A fully earned, non-refundable facility fee of Seventy Thousand Dollars (\$70,000.00) is earned by Buyer upon execution of this Agreement and is payable from Seller as follows: (i) Forty Thousand Dollars (\$40,000.00) on the date hereof, and (ii) Thirty Thousand Dollars (\$30,000.00) on the earlier to occur of (a) the termination of this Agreement by Seller, or (b) December 30, 2005. In addition, Seller shall pay to Buyer a facility fee of Seventy Thousand Dollars (\$70,000.00) on December 30<sup>th</sup> of each year after December 30, 2005, provided that the term has been extended by mutual written agreement of the parties.

**2.4 Nature of Transaction.** It is the intent of the parties hereto that each purchase and sale of Receivables hereunder is and shall be a true sale of such Receivables for all purposes (including, without limitation, accounting and tax treatment) and not a loan arrangement. Each such sale shall be, subject to the terms hereof, absolute and irrevocable, providing Buyer with the full risks and benefits of ownership of the Purchased Receivables (such that the Purchased Receivables would not be property of the Seller's estate in the event of the Seller's bankruptcy). The parties agree that appropriate UCC financing statements have been or shall promptly be filed to reflect that Seller is the seller and Buyer is the purchaser of Receivables hereunder.

**2.5 Good Faith Deposit.** Seller has paid to Buyer a good faith deposit of Fifteen Thousand Dollars (\$15,000.00) (the "Good Faith Deposit") to initiate the Buyer's due diligence review process, which Good Faith Deposit shall be applied to the facility fee and/or other expenses (including attorneys' fees) of the Buyer and closing costs;

**3 Collections, Charges and Remittances.**

**3.1 Application of Payments.** All payments in respect of any Purchased Receivable, whether received from an Account Debtor or any other source and whether received by Seller or Buyer, shall be the property of Buyer and Seller shall have no ownership interest therein.

**3.2 Collection by Seller.** In order to facilitate the collection of the Purchased Receivables in the ordinary course of business, Seller agrees to act as Buyer's agent for collection of the Purchased Receivables. Accordingly, Buyer hereby appoints the Seller its attorney-in-fact to ask for, demand, take, collect, sue for and receive all payments made in respect of the Purchased Receivables and to enforce all rights and remedies thereunder and designates Seller as Buyer's assignee for collection; provided that such appointment of Seller as such attorney-in-fact or assignee for collection may be revoked by Buyer at any time following an Event of Default (and any applicable cure period) or the failure of a Purchased Receivable to be paid on the Due Date. Seller, as such attorney-in-fact, shall use due diligence and commercially reasonable lawful efforts in accordance with its usual policies and practices to collect all amounts owed by the Account Debtors on each Purchased Receivable when the same become due. In the enforcement or the collection of Purchased Receivables, Seller shall commence any legal proceedings only in its own name as an assignee for collection or on behalf of Buyer or, with Buyer's prior written consent, in Buyer's name. Seller shall have no obligation to commence any such legal proceedings unless Buyer has agreed to assume the legal fees and other expenses to be incurred in such proceedings. In no event shall Seller take any action which would make Buyer a party to any litigation or arbitration proceeding without Buyer's prior written consent. Until Buyer has received Payment in Full as to any Purchase, Seller shall (i) hold in trust for Buyer and turn over to Buyer forthwith upon receipt all payments made to Seller by Account Debtors with respect to the Purchased Receivables subject to such Purchase and (ii) turn over to Buyer forthwith on receipt all instruments, chattel paper and other proceeds of the Purchased Receivables; provided that unless an Event of Default has occurred and is continuing, Seller shall remit amounts received by Seller and due to Buyer on a weekly basis on Friday of each week (each a "Settlement Date"), commencing on the last business day of the second week after the Purchase Date. On each Settlement Date, Seller shall deliver to Buyer a report, in form and substance acceptable to Buyer, of the account activity (including dates and amounts of payments) and changes in account status for each Purchased Receivable.

**3.3 No Obligation to Take Action.** Buyer shall have no obligation to perform any of Seller's obligations under any Purchased Receivables or to take any action or commence any proceedings to realize upon any Purchased Receivables (including without limitation any defaulted Purchased Receivables), or to enforce any of its rights or remedies with respect thereto.

**4 Non-Recourse; Repurchase Obligations.**

**4.1 Non-Recourse.** Except as otherwise set forth in this Agreement, Buyer's acquisition of Purchased Receivables from Seller hereunder shall be without recourse against Seller.

**4.2 Seller's Agreement to Repurchase.** In the event that (A) with respect to any Purchased Receivable there has been any breach of warranty or representation set forth in Section 6.1 hereof (except for breaches of warranty or representations which are permitted to be, and have been, cured pursuant to Section 7 hereof) or any breach of any covenant contained in this Agreement with respect to such Purchased Receivable; or (B) with respect to such Purchased Receivable the Account Debtor asserts any Adjustment (except for such matters as are permitted to be, and have been, cured pursuant to Section 7 hereof), Seller shall, at its option, either (X) pay to Buyer on demand, the full face amount, or any unpaid portion, of such Purchased Receivable; together with, in the case of (A) or (B), all reasonable attorneys' fees and expenses and all court costs incurred by Buyer in collecting such Purchased Receivable and/or enforcing its rights under, or collecting amounts owed by Seller in connection with this Agreement (collectively, the "Repurchase Amount"), (Y) shall substitute another Receivable acceptable to Buyer in its sole and absolute discretion that is equal in amount to such Purchased Receivable or, with respect to (B) above only, (Z) shall pay to Buyer the amount of any Adjustment in accordance with Section 7 hereof; provided, however, that Seller shall have no obligation to pay the Repurchase Amount, substitute another Receivable or, with respect to (B) above only, pay the amount of any Adjustment if there has been an Account Debtor Insolvency Event with respect to such Purchased Receivable. Upon payment of the Repurchase Amount or substitution of another Receivable, the Purchased Receivable subject to the preceding paragraph shall be deemed property of and owned solely by the Seller (and shall not be deemed to be a Purchased Receivable hereunder).

**4.3 Seller's Payment of the Amounts Due Buyer.** All amounts due from Seller to Buyer shall be paid by Seller to Buyer in immediately available funds by fedwire to the account listed in the attached Schedule.

**5 Power of Attorney.**

Seller does hereby irrevocably appoint Buyer and its successors and assigns as Seller's true and lawful attorney-in-fact, and hereby authorizes Buyer: (a) to sell, assign, transfer, pledge, compromise, or discharge the whole or any part of the Purchased Receivables; (b) to demand, collect, receive, sue, and give releases to any Account Debtor for the monies due or which may become due upon or with respect to the Purchased Receivables and to compromise, prosecute, or defend any action, claim, case or proceeding relating to the Purchased Receivables, including the filing of a claim or the voting of such claims in any bankruptcy case, all in Buyer's name or Seller's name, as Buyer may choose; (c) to prepare, file and sign Seller's name on any notice, claim, assignment, demand, draft, or notice of or satisfaction of lien or mechanics' lien or similar document with respect to Purchased Receivables; (d) to notify all Account Debtors with respect to the Purchased Receivables to pay Buyer directly; (e) to receive, open, and dispose of all mail addressed to Seller for the purpose of collecting the Purchased Receivables; (f) to endorse Seller's name on any checks or other forms of payment on the Purchased Receivables; (g) to execute on behalf of Seller any and all instruments, documents, financing statements and the like to perfect Buyer's interests in the Purchased Receivables; and (h) to do all acts and things necessary or expedient, in furtherance of any such purposes.

## **6 Representations, Warranties and Covenants.**

**6.1 Receivables' Warranties, Representations and Covenants.** To induce Buyer to purchase the Purchased Receivables and to render its services to Seller, and with full knowledge that the truth and accuracy of the following are being relied upon by the Buyer in determining whether to accept receivables as Purchased Receivables, Seller represents, warrants, covenants and agrees, with respect to each Purchased Receivable, that, as of the date of the applicable Purchase pertaining to such Purchased Receivable:

(a) Seller is the absolute owner of each of the Purchased Receivables and has full legal right to sell, transfer and assign such receivables;

(b) The correct amount of each Purchased Receivable is as set forth on the applicable Schedule and is not in dispute;

(c) The payment of each Purchased Receivable is not contingent upon the fulfillment of any obligation or contract, and any and all obligations required of the Seller have been fulfilled as of the applicable Purchase Date;

(d) Such Purchased Receivable is based on an actual sale and delivery of goods and/or services actually rendered, is due no later than the applicable Due Date and is owing to Seller, is not past due or in default, has not been previously sold, assigned, transferred, or pledged, and is free of any and all liens, security interests and encumbrances other than liens, security interests or encumbrances in favor of Buyer or any other division or affiliate of Silicon Valley Bank;

(e) There are no defenses, offsets, or counterclaims against such Purchased Receivable, and no agreement has been made under which the Account Debtor may claim any deduction or discount, except as otherwise stated on the applicable Schedule;

(f) Seller is not insolvent as that term is defined in the United States Bankruptcy Code, and Seller has not filed or had filed against it a voluntary or involuntary petition for relief under the United States Bankruptcy Code; and

(g) No Account Debtor set forth on the applicable Schedule with respect to such Purchased Receivable has objected to the payment for, or the quality or the quantity of the subject matter of, the Purchased Receivable, each such Account Debtor is liable for the amount set forth on such Schedule.

**6.2 Additional Warranties, Representations and Covenants.** In addition to the foregoing warranties, representations and covenants, to induce Buyer to buy the Purchased Receivables, Seller hereby represents, warrants, covenants and agrees that:

(a) Seller will not assign, transfer, sell, or grant, or permit any lien or security interest in any interest the Seller may have in any Purchased Receivables to or in favor of any other party, without Buyer's prior written consent.

(b) The Seller's name, form of organization, chief executive office, and the place where the records concerning all Purchased Receivables are kept is set forth at the beginning of this Agreement or, if located at any additional location, as set forth on a schedule attached to this Agreement, and Seller will give Buyer at least five (5) Business Days prior written notice if such name, organization, chief executive office or records concerning Purchased Receivables is changed or added and shall execute any documents necessary to perfect Buyer's interest in the Purchased Receivables.

(c) If Payment in Full of any Purchased Receivable has not occurred by the applicable Due Date, then Seller shall within twenty (20) days of such date provide a written report to Buyer setting forth the reasons for such delay in payment.

(d) So long as any Purchased Receivable is outstanding, to the extent not available online from the SEC EDGAR website, Seller shall deliver to Buyer:

(i) within five (5) days of filing, copies or electronic notice of links to of all statements, reports and notices made available to Seller's security holders and all reports on Form 10-K, 10-Q and 8-K filed with the Securities and Exchange Commission; and

(ii) any other financial information reasonably requested by Buyer.

## **7 Adjustments.**

In the event any Adjustment is asserted by any Account Debtor, Seller shall promptly advise Buyer and Seller shall, subject to the Buyer's approval, resolve such disputes and advise Buyer of any Adjustments and promptly remit to Buyer the difference between the Invoice Amount on the Purchase Date and the Invoice Amount after such Adjustment. Subject to Section 9 and Section 4.2, Buyer shall remain the absolute owner of any Purchased Receivable which is subject to Adjustment, and, until the amount of such Adjustment (as set forth above) is paid by Seller to Buyer, any rejected, returned, or recovered personal property, with the right to take possession thereof at any time, and if such possession is not taken by Buyer, Seller agrees to resell it for Buyer's account at Seller's expense with the proceeds made payable to Buyer. While Seller retains possession of said returned goods and such goods are the property of Buyer, Seller shall segregate said goods and mark them "property of Silicon Valley Bank."

## **8 Indemnification.**

(a) Seller hereby agrees that in the event any Account Debtor is released from all or any part of its payment obligations with respect to any Purchased Receivable by reason of: (1) any act or omission of Seller not permitted by this Agreement or consented to in writing by Buyer; or (2) the operation of any of the provisions of the documentation pertaining to such Purchased Receivables, which result in the termination of the Account Debtor's obligation to pay all or any part of the Purchased Receivables, then, upon the happening of any such event, Seller shall thereafter pay to Buyer on the date when the Account Debtor would otherwise have paid the Purchased Receivable to Buyer an amount equal to the lesser of (a) the amount of the Purchased Receivable not payable by the Account Debtor as a result of such event and (b) the unpaid portion of the Purchased Receivable Amount for such Purchased Receivable.

(b) Seller hereby agrees to pay, and to indemnify and hold harmless Buyer from and against, any taxes which may at any time be asserted in respect of this transaction or the subject matter thereof (including, without limitation, any sales, occupational, excise, or gross receipts taxes, but not including taxes imposed upon the Buyer with respect to its income arising out of this transaction) and reasonable counsel fees in defending against the same, whether arising by reason of the acts to be performed by Seller

hereunder or imposed against Buyer, Seller, the property involved or otherwise; provided that with respect to any of the foregoing for which Seller shall be liable, Seller shall receive prompt notice from Buyer of this assertion of any such taxes on Buyer of which Buyer has notice.

## **9 Additional Rights.**

To secure the obligations of Seller hereunder, Seller hereby grants to Buyer a continuing lien upon and security interest in all of Seller's now existing or hereafter arising rights and interest in the following, whether now owned or existing or hereafter created, acquired, or arising, and wherever located (the "Related Property"): (A) Seller's rights to any returned or rejected goods in respect of the Purchased Receivables, with respect to which Buyer has all the rights of any unpaid seller, including the rights of replevin, claim and delivery, reclamation, and stoppage in transit; (B) All books and records pertaining to the Purchased Receivables or the foregoing goods; and (C) All proceeds of the foregoing, whether due to voluntary or involuntary disposition, including insurance proceeds. Notwithstanding the security interest in favor of Buyer, unless there is an Event of Default (after expiration of any cure periods), Seller is authorized to sell, assign, transfer, dispose of, reuse components of, rework, or otherwise convey any interest in any Related Property without Buyer's prior written consent. Seller agrees to sign UCC financing statements, in a form acceptable to Buyer, and any other instruments and documents requested by Buyer to evidence, perfect, or protect the interests of Buyer in the Purchased Receivables and the Related Property. Seller agrees to deliver to Buyer the originals of all instruments, chattel paper and documents evidencing or related to Purchased Receivables and Related Property. Buyer agrees that it shall only exercise its rights as a secured party upon an Event of Default (after expiration of any cure periods) and shall not attempt to exercise such rights if Seller has, prior to such Event of Default, sold, assigned, transferred, disposed of, reused components of, reworked or otherwise conveyed an interest in the Related Property. In addition, to the extent practicable, before taking any actions permitted by law as a secured party, including the rights of replevin, claim and delivery, reclamation, and stoppage in transit, Buyer shall give Seller five (5) Business Days notice during which period Seller may pay Buyer the full face amount, or any unpaid portion, of any Purchased Receivable plus any accrued and unpaid interest thereon. In the event that Seller makes Payment in Full with respect to the subject Purchased Receivable, Buyer shall not take any of the aforementioned actions with respect to the subject Purchased Receivable.

## **10 Default.**

The occurrence of any one or more of the following shall constitute an Event of Default hereunder:

(a) Seller fails to pay any amount owed to Buyer as and when due;

(b) There shall be commenced by or against Seller any voluntary or involuntary case under the United States Bankruptcy Code and the petition is not controverted within twenty (20) days, or is not dismissed within sixty (60) days after commencement of the case; or Seller makes any assignment for the benefit of creditors, or suffers appointment of a receiver or custodian for any of its assets;

(c) Seller shall become insolvent in that its assets do not have a fair value in excess of the amount required to pay its probable liabilities on its existing debts as they become absolute and mature (taking into account the timing of and amounts of cash to be received by it and the timing of and amounts of cash to be payable on or in respect of such liabilities), or Seller is generally not paying its debts as they become due;

(d) Any involuntary lien, garnishment, attachment or the like is issued against or attaches to the Purchased Receivables or any Related Property (provided that Seller shall have ten (10) Business Days to have removed any involuntary lien, garnishment, attachment or the like against any of the Related Property);

(e) Seller shall breach any covenant, agreement, warranty, or representation set forth herein, and the same is not cured (whether pursuant to the provisions of Section 6 hereof, if applicable, or otherwise) to Buyer's reasonable satisfaction within 10 Business Days after Buyer has given Seller written notice thereof; provided, that if such breach is incapable of being cured it shall constitute an immediate default hereunder; or

(f) Seller is not in compliance with, or otherwise is in default under, any term of any document, instrument or agreement evidencing a debt, obligation or liability of any kind or character of Seller, now or hereafter existing, in favor of Buyer or any division or affiliate of Silicon Valley Bank, regardless of whether such debt, obligation or liability is direct or indirect, primary or secondary, joint, several or joint and several, or fixed or contingent, together with any and all renewals and extensions of such debts, obligations and liabilities, or any part thereof.

## **11 Remedies Upon Default.**

Upon the occurrence of an Event of Default, Buyer has and may exercise all the rights and remedies under this Agreement and under applicable law, including the rights and remedies of a secured party under the Massachusetts Uniform Commercial Code, all the power of attorney rights described in Section 5 with respect to all Purchased Receivables and, subject to the restrictions in Section 9, Related Property, and the right to collect, dispose of, sell, lease, use, and realize upon all Purchased Receivables and, subject to the restrictions in Section 9, all Related Property; PROVIDED THAT Buyer shall use due diligent and commercially lawful efforts in accordance with its usual policies and practices to collect all amounts owed by the Account Debtors on each Purchased Receivable when the same become due. An Event of Default shall not, by itself, give rise to an obligation of Seller to repurchase or substitute Receivables or make any Adjustment.

## **12 TERM AND TERMINATION.**

The term of this Agreement shall be through December 31, 2006 unless terminated in writing by Buyer or Seller. Seller and Buyer may extend the term of this Agreement beyond December 31, 2006 by mutual written agreement in each of the parties' sole and absolute discretion. Notwithstanding the foregoing, any termination of this Agreement shall not affect Buyer's ownership of the Purchased Receivables, and this Agreement shall continue to be effective, and Buyer's rights and remedies hereunder shall survive such termination until Payment in Full has been received on all Purchased Receivables other than those Purchased Receivables in respect of which the Account Debtor has experienced an Insolvency Event.

## **13 Accrual of Interest.**

If any amount owed by Seller to Buyer hereunder is not paid when due, such amount shall bear interest from such due date until paid at a per annum rate equal to the Discount Rate plus 2.0%.

## **14 Fees, Costs and Expenses.**

The Seller will pay to Buyer immediately upon demand all reasonable fees, costs and expenses (including reasonable fees of attorneys and their costs and expenses) that Buyer incurs with any of the following: (a) preparing and negotiating this Agreement, provided that without the prior written consent of Seller such fees shall not exceed Ten Thousand Dollars (\$10,000.00), (b) enforcing this Agreement or any other agreement executed by Buyer and Seller in connection herewith, including any amendments, waivers or consents in connection with any of the foregoing, (c) enforcing Buyer's rights under, or collecting amounts owed by Seller to Buyer in connection with this Agreement other than relating solely to an Account Debtor Insolvency Event, including, without limitation, to enforce (i) Seller's agreement to repurchase as set forth in Section 4.2, (ii) Seller's payment of any amounts owing by Seller pursuant to Section 7 hereof, or (iii) Seller's payment of any amounts owing by Seller pursuant to Section 8 hereof, (d) enforcing any other rights against Seller hereunder, (e) protecting or enforcing its title to the Purchased Receivables or its security interest in the Related Property, and (f) the representation of Buyer in connection with any bankruptcy case or insolvency proceeding involving Seller or any guarantor. Seller shall indemnify and hold Buyer harmless from and against any and all claims, actions, damages, costs, expenses, and liabilities of any nature whatsoever arising in connection with any of the foregoing, except to the extent arising as a result of Buyer's own gross negligence or willful misconduct.

**15 Severability, Waiver, and Choice of Law.**

In the event that any provision of this Agreement is deemed invalid by reason of law, this Agreement will be construed as not containing such provision and the remainder of the Agreement shall remain in full force and effect. If Buyer waives a default it may enforce a later default. Any consent or waiver under, or amendment of, this Agreement must be in writing. Nothing contained herein, or any action taken or not taken by Buyer at any time, shall be construed at any time to be indicative of any obligation or willingness on the part of Buyer to amend this Agreement or to grant to Seller any waivers or consents. This Agreement has been transmitted by Seller to Buyer at Buyer's office in the Commonwealth of Massachusetts and has been executed and accepted by Buyer in the Commonwealth of Massachusetts. This Agreement shall be governed by and interpreted in accordance with the internal laws of the Commonwealth of Massachusetts.

**16 Notices.**

All notices under this Agreement shall be deemed to have been delivered and received: (a) if mailed, three (3) Business Days after deposited in the United States mail, first class, postage pre-paid, (b) one (1) Business Day after deposit with an overnight mail or messenger service; or (c) on the same Business Day of confirmed transmission if sent by hand delivery or confirmed facsimile transmission, in each case addressed as follows:

If to Seller, to:

Emcore Corporation  
145 Belmont Drive  
Somerset, New Jersey 08873  
Telephone: (732) 302-4077  
Facsimile: (732) 302-9783  
Attn: Howard W. Brodie, Esq.

If to Buyer, to:

Silicon Valley Bank  
One Newton Executive Park, Suite 200  
Newton, MA 02462  
Telephone: (617) 630-4161  
Facsimile: (617) 969-5965  
Attn: David Reich

**17 Jury Trial.**

SELLER AND BUYER EACH HEREBY (a) WAIVE THEIR RESPECTIVE RIGHTS TO A JURY TRIAL ON ANY CLAIM OR ACTION ARISING OUT OF OR IN CONNECTION WITH THIS AGREEMENT, ANY RELATED AGREEMENTS, OR ANY OF THE TRANSACTIONS CONTEMPLATED HEREBY OR THEREBY; (b) RECOGNIZE AND AGREE THAT THE FOREGOING WAIVER CONSTITUTES A MATERIAL INDUCEMENT FOR IT TO ENTER INTO THIS AGREEMENT; AND (c) REPRESENT AND WARRANT THAT IT HAS REVIEWED THIS WAIVER, HAS DETERMINED FOR ITSELF THE NECESSITY TO REVIEW THE SAME WITH ITS LEGAL COUNSEL, AND KNOWINGLY AND VOLUNTARILY WAIVES ALL RIGHTS TO A JURY TRIAL.

**18 Titles and Section Headings.**

The titles and section headings used herein are for convenience only and shall not be used in interpreting this Agreement.

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IN WITNESS WHEREOF, Seller and Buyer have executed this Agreement under seal as of the date first written above.

SELLER:

**EMCORE CORPORATION**

By       /s/ Howard Brodie      

Title       Executive Vice President      

BUYER:

**SILICON VALLEY BANK**

By       /s/ David Reich      

Title       SVP      

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EXHIBIT A

SCHEDULE

SCHEDULE DATED \_\_\_\_\_

TO

NON-RECOURSE RECEIVABLES PURCHASE AGREEMENT

DATED AS OF \_\_\_\_\_, 2005

**Seller:** EMCORE Corporation

**Buyer:** Silicon Valley Bank

**Purchase Date:** \_\_\_\_\_

**Due Date:** \_\_\_\_\_ days from Purchase Date (not less than 30 days or more than 180 days)

**Total Purchased Receivables:** \$ \_\_\_\_\_ (List of Receivables total)

**Discount Rate:** \_\_\_\_\_% (calculated as follows: (i) the Prime Rate plus 1.0% per annum for Receivables with Due Dates less than 90 days, or (ii) such other Discount Rate for invoices with Due Dates over 90 days or for which the Account Debtor is located outside of the United States, as determined by Buyer in its sole discretion).

**Purchase Price:** \$ \_\_\_\_\_ (is \_\_\_\_\_% of the Total Purchased Receivables Amount which is the straight discount of the Total Purchased Receivables Amount discounted from the Due Date to the Purchase Date at the Discount Rate).

**Administrative Fee:** \_\_\_\_\_% multiplied by the Total Purchased Receivables Amount (calculated based upon the following: (i) with respect to Receivables owing from an Account Debtor located in the United States, 0.375% of the Total Purchased Receivables Amount set forth in the Schedule for such Purchase and (ii) with respect to Receivables owing from an Account Debtor located outside of the United States, 0.50% of the Total Purchased Receivables Amount set forth in the Schedule for such Purchase).

**Late Payment Settlement Fee.** In the event that Payment in Full of any Purchased Receivable is not received on or before the Due Date, Seller agrees to pay to Buyer an additional amount on any unpaid amount, calculated at the Discount Rate, through the earlier to occur of (i) such date that Buyer receives Payment in Full, and (ii) an additional ninety (90) days past the Due Date ("Late Payment Settlement Fee") (subject to Section 4.2 (Seller's Agreement to Repurchase) herein). In the event that such Purchased Receivable is uncollectible (due to an Account Debtor Insolvency Event), then the Late Payment Settlement Fee period shall be the lesser of forty-five (45) days, and the date on which such Purchased Receivable becomes uncollectible due to such Insolvency Event.

**Buyer Wire Instructions:**

**Seller Wire Instructions:**

Seller warrants and represents that (a) with respect to the Purchased Receivables that are the subject of this Schedule, its warranties and representations in the Agreement are true and correct as of the date of this Schedule and (b) no Event of Default has occurred under the Agreement.

SELLER: EMCORE CORPORATION

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

Name: \_\_\_\_\_

Title: \_\_\_\_\_

BUYER: SILICON VALLEY BANK

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

Name: \_\_\_\_\_

Title: \_\_\_\_\_

\_\_\_\_\_

**EXCHANGE AGREEMENT**

**dated as of November 10, 2005**

**by and between**

**EMCORE CORPORATION**

**and**

**ALEXANDRA GLOBAL MASTER FUND LTD.**

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EMCORE CORPORATION

EXCHANGE AGREEMENT

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## EXCHANGE AGREEMENT

**THIS EXCHANGE AGREEMENT**, dated as of November 10, 2005 (this "Agreement"), by and between **EMCORE CORPORATION**, a New Jersey corporation (the "Company"), and **ALEXANDRA GLOBAL MASTER FUND LTD.**, a British Virgin Islands international business company (the "Holder").

### WITNESSETH:

**WHEREAS**, the Holder currently holds beneficial interests in an aggregate of \$14,425,000 principal amount of Existing Notes (such capitalized term and all other capitalized terms used in this Agreement having the meanings provided in Section 1);

**WHEREAS**, upon the terms and subject to the conditions of this Agreement, the Holder wishes to exchange the Existing Notes with the Company for New Notes, and the Company wishes to issue New Notes to the Holder in exchange for the Existing Notes; and

**WHEREAS**, the parties hereto intend that the New Notes to be issued in exchange for the Existing Notes be exempt from registration pursuant to Section 4(2) of the 1933 Act and Rule 506 of Regulation D thereunder;

**NOW THEREFORE**, in consideration of the premises and the mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

#### 1. Definitions.

(a) As used in this Agreement, the terms "Agreement", "Company" and "Holder" shall have the respective meanings assigned to such terms in the introductory paragraph of this Agreement.

(b) All the agreements or instruments herein defined shall mean such agreements or instruments as the same may from time to time be supplemented or amended or the terms thereof waived or modified to the extent permitted by, and in accordance with, the terms thereof and of this Agreement.

(c) The following terms shall have the following meanings (such meanings to be equally applicable to both the singular and plural forms of the terms defined):

"Claims" means any losses, claims, damages, liabilities or expenses (joint or several), incurred by a Person.

"Closing Date" means 12:00 noon, New York City time, on November 16, 2005 or such other mutually agreed to time.

"Common Stock" means the Common Stock, no par value per share, of the Company.

"Common Stock Equivalents" means any warrant, option, subscription or purchase right with respect to shares of Common Stock, any security convertible into, exchangeable for, or otherwise entitling the holder thereof to acquire, shares of Common Stock or any warrant, option, subscription or purchase right with respect to any such convertible, exchangeable or other security.

"Conversion Shares" means the shares of Common Stock issuable or issued upon conversion of the New Notes.

"DTC" means The Depository Trust Company.

"Excess Interest Payment" shall have the meaning provided in Section 5(b).

"Existing Notes" means \$14,425,000.00 aggregate principal amount of the Company's 5% Convertible Subordinated Debentures due May 15, 2006, owned by the Holder and registered in the name of the Holder or its nominee.

"Existing Note Indenture" means the Indenture, dated as of May 7, 2001, between the Company and Wilmington Trust Company, as Trustee, relating to the Company's 5% Convertible Subordinated Debentures due May 15, 2006.

"Indemnified Person" means the Holder and each of its affiliates and their respective officers, directors, stockholders and members and each Person who controls the Holder within the meaning of the 1933 Act or the 1934 Act.

"Interest Payment" shall have the meaning provided in Section 5(b).

"NASD" means the National Association of Securities Dealers, Inc.

"New Note Indenture" means the Indenture, dated as of November 16, 2005, between the Company and Deutsche Bank Trust Company Americas, as Trustee, relating to the New Notes.

"New Notes" means the \$16,580,460 aggregate principal amount of the Company's 5% Convertible Senior Subordinated Notes due 2011 in substantially the form set forth in the New Note Indenture.

"1934 Act" means the Securities Exchange Act of 1934, as amended.

"1939 Act" means the Trust Indenture Act of 1939, as amended.

"1933 Act" means the Securities Act of 1933, as amended.

"Person" means any natural person, corporation, partnership, limited liability company, trust, incorporated organization, unincorporated association, or similar entity or any government, governmental agency or political subdivision.

"PORTAL" means the Private Offerings, Resales and Trading through Automated Linkages system of the NASD.

"Principal Market" means the Nasdaq National Market or such other U.S. market or exchange which is the principal market on which the Common Stock is then listed for trading.

“Rule 144” means Rule 144 under the 1933 Act or any other similar rule or regulation of the SEC that may at any time provide a “safe harbor” exemption from registration under the 1933 Act so as to permit a holder of any securities to sell securities of the Company to the public without registration under the 1933 Act.

“Rule 144A” means Rule 144A as promulgated under the 1933 Act.

“SEC” means the Securities and Exchange Commission.

“SEC Reports” means all annual reports, quarterly reports, proxy statements and other reports filed by the Company under the 1934 Act, in each case as filed with the SEC and including the information and documents (other than exhibits) incorporated therein by reference.

“Subsidiary” means any corporation or other entity of which a majority of the capital stock or other ownership interests having ordinary voting power to elect a majority of the board of directors or other persons performing similar functions are at the time directly or indirectly owned by the Company.

“Trading Day” means a day on which the Principal Market is open for the general trading of securities.

“Transaction Documents” means this Agreement, the New Note Indenture and the New Notes.

“Trustee” shall have the meaning provided in the New Note Indenture.

“Violation” means

any violation or alleged violation by the Company of the 1933 Act, the 1934 Act, any state securities law or any rule or regulation under the 1933 Act, the 1934 Act or any state securities law, or

any breach or alleged breach by any Person other than the Holder of any representation, warranty, covenant, agreement or other term of this Agreement.

## **2. Agreement to Exchange; Exchange Value.**

### **(a) Agreement to Exchange.**

Upon the terms and subject to the conditions of this Agreement,

(1) the Holder agrees to sell, assign, transfer and deliver the Existing Notes to the Company in exchange for the issuance by the Company to the Holder of the New Notes; and

(2) the Company agrees to issue to the Holder the New Notes in exchange for the Existing Notes.

The Company agrees to cancel the Existing Notes in full immediately after the closing.

### **(b) Closing.**

The closing of the exchange provided for in Section 2(a) shall occur on the Closing Date at the Law Offices of Brian W. Pusch, Penthouse Suite, 29 West 57th Street, New York, New York. At the closing, upon the terms and subject to the conditions of this Agreement, (1) the Company shall deliver to the Trustee, against evidence of cancellation of the Holders’ beneficial interest in the Existing Notes, one or more permanent global securities, registered in the name of Cede & Co., as nominee for DTC, and (2) the Holder shall cancel its beneficial interest in the Existing Notes and deliver to the Company evidence that such beneficial interest has been cancelled on records maintained in book-entry form by DTC and its participants. The Holders’ beneficial interests in the New Notes will be shown on records maintained in book-entry form by DTC and its participants.

## **3. Representations, Warranties, Covenants, Etc. of the Holder.**

The Holder represents and warrants to, and covenants and agrees with, the Company as follows:

### **(a) Ownership of Securities.**

The Holder has all right, title and interest in its beneficial interest in the Existing Notes, and has not endorsed, assigned, sold, transferred or otherwise in any manner disposed of the Holder’s beneficial interest in the Existing Notes or any interest therein. No person or entity other than the Holder has any interest in the Holder’s beneficial interest in the Existing Notes.

### **(b) Authority.**

The execution, delivery and performance by the Holder of this Agreement are within the powers of the Holder and have been duly authorized by all necessary action on the part of the Holder. This Agreement constitutes a valid and binding agreement of the Holder, enforceable against the Holder in accordance with its terms, subject to the effect of any applicable bankruptcy, insolvency, reorganization, moratorium or other similar laws now or hereafter in effect relating to or affecting creditors’ rights generally and general principles of equity, regardless of whether such enforceability is considered in a proceeding in equity or at law.

### **(c) Investment Representations.**

The Holder understands that the New Notes and Conversion Shares have not been registered under the 1933 Act and that the Company has no intention of registering the New Notes or the Conversion Shares under the 1933 Act. The Holder also understands that the New Notes and Conversion Shares are being offered and sold pursuant to an exemption from registration contained in the 1933 Act based in part upon the Holder’s representations contained in the Agreement. The Holder hereby represents and warrants as follows:

#### **(1) The Holder Bears Economic Risk.**

The Holder has substantial experience in evaluating and investing in private placement transactions of securities in companies similar to the Company so that it is capable of evaluating the merits and risks of its investment in the Company and has the capacity to protect its own interests. The Holder must bear the economic risk of this investment indefinitely unless the New Notes and the Conversion Shares are registered pursuant to the Securities Act, or an exemption from registration is available. The Holder also understands that there is no assurance that any exemption from registration under the Securities Act will be available and that, even if available, such exemption may not allow the Holder to transfer all or any portion of the New Notes and the Conversion Shares under the circumstances, in the amounts or at the times the Holder might propose.

**(2) Acquisition for Own Account.**

The Holder is acquiring the New Notes and Conversion Shares for the Holder's own account.

**(3) Qualified Institutional Buyer.**

The Holder represents that it is a qualified institutional buyer as defined in Rule 144A.

**(4) The Holder Can Protect Its Interest.**

The Holder represents that by reason of its, or of its management's, business or financial experience, the Holder has the capacity to protect its own interests in connection with the transactions contemplated in this Agreement. Further, the Holder is aware of no publication of any advertisement in connection with the transactions contemplated in this Agreement.

**(5) Company Information.**

The Holder has had an opportunity to discuss the Company's business, management and financial affairs with directors, officers and management of the Company and has had the opportunity to review the Company's operations and facilities. The Holder has also had the opportunity to ask questions of and receive answers from, the Company and its management regarding the terms and conditions of this investment.

**(6) Residence.**

The office or offices of the Holder in which its investment decision was made is located at the address or addresses of the Holder set forth on the signature page.

**(7) Foreign Investors.**

If the Holder is not a United States person (as defined by Section 7701(a)(30) of the Internal Revenue Code of 1986, as amended), the Holder hereby represents that it has satisfied itself as to the full observance of the laws of its jurisdiction in connection with any invitation to subscribe for the New Notes and Conversion Shares or any use of this Agreement, including (i) the legal requirements within its jurisdiction for the exchange of the New Notes and Conversion Shares for the Existing Notes, (ii) any foreign exchange restrictions applicable to such exchange, (iii) any government or other consents that may need to be obtained, and (iv) the income tax and other tax consequences, if any, that may be relevant to the purchase, holding, redemption, sale or transfer of the New Notes and Conversion Shares. The exchange of New Notes and Conversion Shares for the Existing Notes and the continued ownership by the Holder of the New Notes and Conversion Shares will not violate any applicable securities or other laws of the Holder's jurisdiction.

**(8) Transfer Restrictions.**

The Holder understands that the New Notes and Conversion Shares are being offered in a transaction not involving any public offering in the United States within the meaning of the 1933 Act, that the New Notes and Conversion Shares will not be registered under the 1933 Act and agrees that (A) if in the future it decides to offer, resell, pledge or otherwise transfer any of the New Notes and Conversion Shares, it shall offer, resell, pledge or otherwise transfer such New Notes and Conversion Shares only (i) in the United States to a person whom the seller reasonably believes is a qualified institutional buyer in a transaction meeting the requirements of Rule 144A, (ii) outside the United States in an offshore transaction complying with the provisions of Rule 904 under the 1933 Act, (iii) pursuant to an exemption from registration under the 1933 Act provided by Rule 144 (if available), or (iv) pursuant to an effective registration statement under the 1933 Act, in each of cases (i) through (iv) in accordance with any applicable securities laws of any States of the United States, and (B) the Holder will notify any subsequent purchaser of the New Notes and Conversion Shares from it of the resale restrictions referred to in (A) above. The Holder acknowledges and agrees that the New Notes and Conversion Shares shall be subject to restrictions on transfer as set forth in the New Note Indenture. The Company acknowledges that a transfer in circumstances covered by the opinion contemplated in Section 6(c) will meet the requirements of clause (iii) of the second preceding sentence; *provided, however*, that the Company may require a confirmation of the opinion contemplated by Section 6(c) at the time of a particular transfer which confirmation the Holder may provide from the counsel who rendered the opinion or the opinion of other counsel to the Holder reasonably acceptable to the Company.

**(d) Non-Affiliate Status.**

The Holder is not an "affiliate" (as that term is defined under Rule 144(a) of the 1933 Act and Rule 13e-3 of the 1934 Act of the Company. To the best of the Holder's knowledge, the Holder did not acquire its beneficial interest in the Existing Notes from an "affiliate" of the Company.

**(e) Tax Advice.**

The Holder has had the opportunity to review with its own tax advisors the U.S. Federal, state, local and foreign tax consequences of the transactions contemplated by this Agreement. With respect to such tax matters, the Holder has relied and relies solely on such advisors and not on any statements or representations of the Company or any of its agents, written or oral. The Holder understands that it (and not the Company or any of its agents) shall be responsible for its own tax liability that may arise as a result of the transactions contemplated by this Agreement.

**4. Representations, Warranties, Covenants, Etc. of the Company.**

The Company represents and warrants to the Holder that the following matters are true and correct on the date of execution and delivery of this Agreement, will be true and correct on the Closing Date and the Company covenants and agrees with the Holder as follows:

**(a) Organization and Authority.**

The Company is a corporation duly organized, validly existing and in good standing under the laws of the State of New Jersey and has all requisite corporate power and authority (i) to own, lease and operate its properties and to carry on its business as described in the SEC Reports and as currently conducted, and (ii) to execute, deliver and perform its obligations under the Transaction Documents and to consummate the transactions contemplated hereby and thereby.

**(b) Concerning the Conversion Shares.**

The Conversion Shares have been duly and validly authorized and when issued upon conversion of the New Notes will be duly and validly issued, fully paid and non-assessable. The holders of outstanding shares of capital stock of the Company are not entitled to preemptive or other rights to subscribe for the Conversion Shares. The Common Stock is listed for trading on the Principal Market and (1) the Company and the Common Stock meet the criteria for continued listing and trading on the Principal Market; (2) the Company has not been notified since December 31, 2003 of any failure or potential failure to meet the criteria for continued listing and trading on the Principal

Market; and (3) no suspension of trading in the Common Stock is in effect. The Company knows of no reason that the Conversion Shares will not be eligible for listing on the Principal Market.

**(c) Authorization and Binding Obligations of the Agreement.**

This Agreement has been duly authorized, executed and delivered by the Company and (assuming due authorization, execution and delivery by the Holder) constitutes a legally valid and binding agreement of the Company enforceable against the Company in accordance with its terms, subject to the effect of any bankruptcy, insolvency, reorganization, moratorium or other similar laws now or hereafter in effect relating to or affecting creditors' rights generally and general principles of equity, regardless of whether such enforceability is considered in a proceeding in equity or at law.

**(d) Authorization and Binding Obligations of the New Note Indenture.**

The New Note Indenture has been duly authorized by the Company, and when the New Note Indenture is duly executed and delivered by the Company (assuming due authorization, execution and delivery of the New Note Indenture by the Trustee) will constitute a legally valid and binding agreement of the Company enforceable against the Company in accordance with its terms, subject to the effect of any bankruptcy, insolvency, reorganization, moratorium or other similar laws now or hereafter in effect relating to or affecting creditors' rights generally and general principles of equity, regardless of whether such enforceability is considered in a proceeding in equity or at law.

**(e) Authorization and Binding Obligations of the New Notes.**

The New Notes have been duly authorized by the Company, and when the New Notes are executed, authenticated and issued in accordance with the terms of the Indenture and subject to the terms and conditions set forth herein delivered pursuant to this Agreement at the Closing (assuming due authentication of the New Notes by the Trustee), such New Notes will constitute legally valid and binding obligations of the Company, entitled to the benefits of the Indenture and enforceable against the Company in accordance with their terms, subject to the effect of any bankruptcy, insolvency, reorganization, moratorium or other similar laws now or hereafter in effect relating to or affecting creditors' rights generally and general principles of equity, regardless of whether such enforceability is considered in a proceeding in equity or at law.

**(f) Non-contravention.**

The execution and delivery of the Transaction Documents by the Company and the consummation by the Company of the transactions contemplated herein and therein do not and will not, with or without the giving of notice or the lapse of time, or both, (i) result in any violation of any provision of the certificate of incorporation or by-laws or similar instruments of the Company or any Subsidiary, (ii) conflict with or result in a breach by the Company or any Subsidiary of any of the terms or provisions of, or constitute a default under, or result in the modification of, or result in the creation or imposition of any lien, security interest, charge or encumbrance upon any of the properties or assets of the Company pursuant to, any indenture, mortgage, deed of trust or other agreement or instrument to which the Company or any Subsidiary is a party or by which the Company or any Subsidiary or any of their respective properties or assets are bound or affected which would have a material adverse effect on the business, properties, or results of operations of the Company and the Subsidiaries, taken as a whole, (iii) violate or contravene any applicable law, rule or regulation or any applicable decree, judgment or order of any court, United States federal or state regulatory body, administrative agency or other governmental body having jurisdiction over the Company or any Subsidiary or any of their respective properties or assets which would have a material adverse effect on the business, properties, or results of operations of the Company and the Subsidiaries, taken as a whole, or (iv) have any material adverse effect on any permit, certification, registration, approval, consent, license or franchise necessary for the Company or any Subsidiary to own or lease and operate any of its properties and to conduct any of its business or the ability of the Company or any Subsidiary to make use thereof.

**(g) Approvals, Filings, Etc.**

No authorization, approval or consent of, or filing with, any court, governmental body, regulatory agency, self-regulatory organization, or stock exchange or market or the stockholders of the Company is required to be obtained or made by the Company or any Subsidiary in connection with the execution, delivery and performance of this Agreement and the New Note Indenture and the issuance of the New Notes as contemplated by this Agreement and the issuance of the Conversion Shares upon conversion of the New Notes other than notification by the Company to the Principal Market with respect to the listing of the Conversion Shares.

**(h) Absence of Certain Proceedings.**

Except as disclosed in the SEC Reports, there are no legal or governmental proceedings pending to which the Company or any of its Subsidiaries is a party or of which any of their respective properties or assets is the subject which, if determined adversely to the Company, might reasonably be expected to materially and adversely affect the consummation of the transactions contemplated by the Transaction Documents or the performance by the Company of its obligations under the Transaction Documents and, to the Company's knowledge, no such proceedings are threatened or contemplated by governmental authorities or, except as set forth or contemplated in the SEC Reports, threatened by others.

**(i) Absence of Brokers, Finders, Etc.**

No broker, finder, or similar Person is entitled to any commission, fee, or other compensation by reason of the transactions contemplated by this Agreement.

**(j) Certain Securities Law Matters.**

Assuming the accuracy of the representations and warranties of the Holder contained in Section 3 hereto, the New Notes may be issued to the Holder pursuant to this Agreement without registration under the 1933 Act by virtue of Section 4(2) of the 1933 Act and Rule 506 of Regulation D thereunder. The Company acknowledges that, for purposes of Rule 144, the Holder will be entitled to tack the holding period of the Existing Notes determined in accordance with Rule 144, and "no-action letters" from the Division of Corporation Finance of the SEC relating thereto, to the holding period of the New Notes and the Conversion Shares and, so long as (x) the aggregate period during which the Existing Notes and the New Notes and the Conversion Shares as so determined are held is at least two years and (y) at the time of determination the Holder is not and has not for the preceding three months been an "affiliate" (as such term is defined in Rule 144) of the Company, the New Notes and the Conversion Shares may be sold pursuant to Rule 144(k). The Company agrees not to take a position contrary thereto in determining whether a transfer of the New Notes is permissible under Rule 144 unless the SEC or its staff by rule or interpretation changes its rules and interpretations thereof in effect on the date of this Agreement or such rules or interpretations are held invalid or incorrect by a court of competent jurisdiction or are altered as a result of legislative actions.

**(k) Trust Indenture Act.**

The New Notes may be offered and issued to the Holder without the qualification of the New Note Indenture under the 1939 Act in reliance on the exemption contained in Section 304(b) of the 1939 Act.

**(l) No Integrated Offering.**

Neither the Company nor any affiliate (as defined in Rule 501(b) of Regulation D under the 1933 Act) of the Company has taken or will take any action to sell, offer for sale, solicit offers to buy or otherwise negotiate in respect of, any security (as defined in the 1933 Act) which is or will be integrated with the exchange of the New Notes for the Existing Notes in a manner that would require the registration under the 1933 Act of the New Notes.

**(m) No Event of Default.**

No event has occurred nor has any circumstance arisen which, had the New Notes been outstanding as of December 31, 2004, would constitute a default or an Event of Default (as such term is defined in the Indenture).

**5. Certain Covenants.**

**(a) Covenants by the Company.**

**(1) Exchange with Holders of Other Debentures.**

For a period of 90 days after the Closing Date the Company will not enter into any agreement with any other holder of the Company's 5% Convertible Subordinated Debentures due May 15, 2006 to exchange, repurchase, retire, repay or otherwise acquire any of such debentures (other than by payment when due at maturity) upon terms more favorable to such holder than the terms set forth in this Agreement, without the prior written consent of the Holder; provided, however that nothing in this Agreement shall restrict the Company's ability to redeem such notes pursuant to the terms of the indenture by which they are governed.

**(2) Principal Market Listing; Reporting Status.**

So long as the Holder beneficially owns any of the Conversion Shares, the Company shall (x) use its commercially reasonable best efforts to maintain the listing of the Common Stock on the Nasdaq National Market, and (y) timely file all reports required to be filed with the SEC pursuant to Section 13 or 15(d) of the 1934 Act, and the Company shall not terminate its status as an issuer required to file reports under the 1934 Act even if the 1934 Act or the rules and regulations thereunder would permit such termination.

**(3) PORTAL Eligibility.**

In the event the New Notes are not eligible for trading on PORTAL at or prior to the Closing Date, the Company shall use its commercially reasonable best efforts to cause the New Notes to be eligible for trading on PORTAL as promptly as practicable following the Closing Date.

**(b) Settlement of Interest on the Existing Notes.**

The parties hereby agree that the Holder shall receive a payment of unpaid and accrued interest with respect to the Existing Notes (the "Interest Payment") at the Closing Date. The parties hereby agree that the payment of the Interest Payment shall be deemed to satisfy any and all obligations by the Company to pay accrued and unpaid interest on the Existing Notes. In the event that the Holder shall receive any payments at the closing on the Closing Date or thereafter which include the payment of interest accrued on or after the Closing Date (an "Excess Interest Payment"), the Holder shall immediately remit to the Company in immediately available funds an amount equal to such Excess Interest Payment.

**6. Conditions to the Company's Obligation to Exchange.**

The Holder understands that the Company's obligation to issue to the Holder the New Notes in exchange for the Existing Notes on the Closing Date is conditioned upon satisfaction of the following conditions precedent on or before the Closing Date (any or all of which may be waived by the Company in its sole discretion):

- (a) On the Closing Date, no legal action, suit or proceeding shall be pending or threatened which seeks to restrain or prohibit the transactions contemplated by this Agreement;
- (b) The representations and warranties of the Holder contained in this Agreement shall have been true and correct on the date of this Agreement and on the Closing Date as if made on the Closing Date and on or before the Closing Date the Holder shall have performed all covenants and agreements of the Holder required to be performed by the Holder on or before the Closing Date; and
- (c) On the Closing Date, the Company shall have received the opinion of the Law Offices of Brian W. Pusch, dated the Closing Date, addressed to the Company, in form, scope and substance reasonably satisfactory to the Company, substantially in the form of **Annex I** to this Agreement, and
- (d) The Trustee shall have executed the New Note Indenture and the New Note Indenture shall be in full force and effect.

**7. Conditions to the Holder's Obligations to Exchange.**

The Company understands that the Holder's obligation to exchange Existing Notes for the New Notes on the Closing Date is conditioned upon satisfaction of the following conditions precedent on or before the Closing Date (any or all of which may be waived by the Holder in its sole discretion):

- (a) On the Closing Date, no legal action, suit or proceeding shall be pending or threatened which seeks to restrain or prohibit the transactions contemplated by this Agreement;
- (b) The representations and warranties of the Company contained in this Agreement shall have been true and correct on the date of this Agreement and shall be true and correct on the Closing Date as if given on and as of the Closing Date (except for representations given as of a specific date, which representations shall be true and correct as of such date), and on or before the Closing Date the Company shall have performed all covenants and agreements of the Company contained herein required to be performed by the Company on or before the Closing Date;
- (c) No Event of Default under and as defined in the Existing Note Indenture or event which, with the giving of notice or the passage of time, or both, would constitute an Event of Default under and as defined in the Existing Notes shall have occurred and be continuing;
- (d) The Company shall have delivered to the Holder a certificate, dated the Closing Date, duly executed by its Chief Executive Officer or Chief Financial Officer to the effect set forth in subparagraphs (a), (b), and (c) of this Section 7;
- (e) The Company shall have delivered to the Holder a certificate, dated the Closing Date, of the Secretary of the Company certifying (A) the Certificate of Incorporation and By-Laws of the Company as in effect on the Closing Date, (B) all resolutions of the Board of Directors (and committees thereof) of the Company relating to this Agreement and the transactions contemplated hereby and (C) such other matters as reasonably requested by the Holder;
- (f) On the Closing Date, the Holder shall have received opinions of Jenner & Block LLP and Howard W. Brodie, Esq., dated the Closing Date, addressed to the Holder, in form, scope and substance reasonably satisfactory to the Holder, substantially in the form of **Annex II** and **Annex III**, respectively, to this Agreement;

(g) The Company and the Trustee shall have executed the New Note Indenture and the New Note Indenture shall be in full force and effect and the New Notes shall have been duly authenticated by the Trustee;

(h) On the Closing Date (1) trading in securities on the Nasdaq National Market shall not have been suspended or materially limited and (2) a general moratorium on commercial banking activities in the State of New York shall not have been declared by either federal or state authorities; and

(i) The Company shall have used its commercially reasonable best efforts to cause the New Notes to be eligible for trading on PORTAL.

## **8. Indemnification and Contribution.**

### **(a) Indemnification.**

(1) To the extent not prohibited by applicable law, the Company will indemnify and hold harmless each Indemnified Person against any Claims to which any of them may become subject, insofar as such Claims (or actions or proceedings, whether commenced or threatened, in respect thereof) arise out of or are based upon any Violation or any of the transactions contemplated by this Agreement; provided that the Company shall not be liable under this provision to the extent that such Claims resulted from the gross negligence or willful misconduct of the Indemnified Person. The Company shall reimburse each such Indemnified Person, promptly as such expenses are incurred and are due and payable, for any documented reasonable legal fees or other documented and reasonable expenses incurred by them in connection with investigating or defending any such Claim. Notwithstanding anything to the contrary contained herein, the indemnification agreement contained in this Section 8(a) shall not apply to amounts paid in settlement of any Claim if such settlement is effected without the prior written consent of the Company, which consent shall not be unreasonably withheld.

(2) Promptly after receipt by an Indemnified Person under this Section 8(a) of notice of the commencement of any action (including any governmental action), such Indemnified Person shall, if a Claim in respect thereof is to be made against the Company under this Section 8(a), deliver to the Company a notice of the commencement thereof and the Company shall have the right to participate in, and, to the extent the Company so desires, to assume control of the defense thereof with counsel reasonably satisfactory to the Indemnified Person; *provided, however*, that an Indemnified Person shall have the right to retain its own counsel with the fees and expenses to be paid by the Company, if, in the reasonable opinion of counsel retained by the Company, the representation by such counsel of the Indemnified Person and the Company would be inappropriate due to actual or potential differing interests between such Indemnified Person and any other party represented by such counsel in such proceeding; *provided further, however*, that the Company shall not be responsible for the fees and expenses of more than one separate counsel for all Indemnified Persons hereunder and one separate counsel in each jurisdiction in which a Claim is pending or threatened. The failure to deliver notice to the Company within a reasonable time of the commencement of any such action shall not relieve the Company of any liability to the Indemnified Person under this Section 8(a), except to the extent that the Company is prejudiced in its ability to defend such action. The indemnification required by this Section 8(a) shall be made by periodic payments of the amount thereof during the course of the investigation or defense, as such expense, loss, damage or liability is incurred and is due and payable.

### **(b) Contribution.**

To the extent any indemnification by the Company as set forth in Section 8(a) above is applicable by its terms but is prohibited or limited by law, the Company agrees to make the maximum contribution with respect to any amounts for which it would otherwise be liable under Section 8(a) to the fullest extent permitted by law. In determining the amount of contribution to which the respective parties are entitled, there shall be considered the relative fault of each party, the parties' relative knowledge of and access to information concerning the matter with respect to which the Claim was asserted, the opportunity to correct and prevent any statement or omission and any other equitable considerations appropriate under the circumstances; *provided, however*, that (a) no contribution shall be made under circumstances where the maker would not have been liable for indemnification under the fault standards set forth in Section 8(a) and (b) no Person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the 1933 Act) shall be entitled to contribution from any other Person who was not guilty of such fraudulent misrepresentation.

### **(c) Other Rights.**

The indemnification and contribution provided in this Section shall be in addition to any other rights and remedies available at law or in equity.

## **9. Miscellaneous.**

### **(a) Governing Law.**

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

### **(b) Headings.**

The headings, captions and footers of this Agreement are for convenience of reference and shall not form part of, or affect the interpretation of, this Agreement.

### **(c) Severability.**

If any provision of this Agreement shall be invalid or unenforceable in any jurisdiction, such invalidity or unenforceability shall not affect the validity or enforceability of the remainder of this Agreement or the validity or enforceability of this Agreement in any other jurisdiction.

### **(d) Notices.**

Any notices required or permitted to be given under the terms of this Agreement shall be in writing and shall be sent by mail, personal delivery, by telephone line facsimile transmission or courier and shall be effective five days after being placed in the mail, if mailed, or upon receipt, if delivered personally, by telephone line facsimile transmission or by courier, in each case addressed to a party at such party's address (or telephone line facsimile transmission number) shown in the introductory paragraph or on the signature page of this Agreement or such other address (or telephone line facsimile transmission number) as a party shall have provided by notice to the other party in accordance with this provision. In the case of any notice to the Company, such notice shall be addressed to the Company at its address (or telephone line facsimile transmission number) shown on the signature page hereto, Attention: Chief Legal Officer, with a copy addressed to John E. Welch, Jenner & Block, LLP, 601 Thirteenth Street, NW, Suite 1200 South, Washington, DC 20005 (facsimile transmission number (202) 661-4980), and in the case of any notice to the Holder, such notice shall be addressed to the Holder at its address (or telephone line facsimile transmission number) shown on the signature page hereto and a copy shall be given to: Law Offices of Brian W Pusch, Penthouse Suite, 29 West 57th Street, New York, New York 10019 (telephone line facsimile transmission number (212) 980-7055).

### **(e) Counterparts.**

This Agreement may be executed in counterparts and by the parties hereto on separate counterparts, each of which shall be deemed to be an original but all of which together shall constitute one and the same instrument. A telephone line facsimile transmission of this Agreement bearing a signature on behalf of a party hereto shall be legal and binding on such party. Although this Agreement is dated as of the date first set forth above, the actual date of execution and delivery of this Agreement by each party is the date set forth below such party's signature on the signature page hereof. Any reference in this Agreement or in any of the documents executed and delivered by the parties

hereto in connection herewith to (1) the date of execution and delivery of this Agreement by the Holder shall be deemed a reference to the date set forth below the Holder's signature on the signature page hereof, (2) the date of execution and delivery of this Agreement by the Company shall be deemed a reference to the date set forth below the Company's signature on the signature page hereof and (3) the date of execution and delivery of this Agreement, or the date of execution and delivery of this Agreement by the Holder and the Company, shall be deemed a reference to the later of the dates set forth below the signatures of the parties on the signature page hereof.

**(f) Entire Agreement; Benefit.**

This Agreement, the New Note Indenture and the New Notes and the other documents contemplated hereby and thereby constitute the entire agreement between the parties hereto with respect to the subject matter hereof and thereof and supersede all prior agreements and understandings, whether written or oral, between the parties hereto with respect to the subject matter hereof and thereof. There are no restrictions, promises, warranties, or undertakings, other than those set forth or referred to herein and therein. This Agreement and the terms and provisions hereof are for the sole benefit of only the Company, the Holder and their respective successors and permitted assigns and in no event shall the Holder have any liability to any stockholder or creditor of the Company or any other Person (other than the Company) in any way relating to or arising from this Agreement or the transactions contemplated hereby.

**(g) Waiver.**

Failure of any party to exercise any right or remedy under this Agreement or otherwise, or delay by a party in exercising such right or remedy, or course of dealing between the parties, shall not operate as a waiver thereof or an amendment hereof, nor shall any single or partial exercise of any such right or power, or any abandonment or discontinuance of steps to enforce such a right or power, preclude any other or further exercise thereof or exercise of any other right or power.

**(h) Amendment.**

No amendment, modification, waiver, discharge or termination of any provision of this Agreement nor consent to any departure by the Holder or the Company therefrom shall in any event be effective unless the same shall be in writing and signed by the party to be charged with enforcement, and then shall be effective only in the specific instance and for the purpose for which given. No course of dealing between the parties hereto shall operate as an amendment of this Agreement.

**(i) Best Efforts.**

Each of the parties shall use its best efforts timely to satisfy each of the conditions to the other party's obligations set forth in Section 6 or 7, as the case may be, of this Agreement on or before the Closing Date.

**(j) Further Assurances.**

Each party to this Agreement will perform any and all acts and execute any and all documents as may be necessary and proper under the circumstances in order to accomplish the intents and purposes of this Agreement and to carry out its provisions.

**(k) Expenses.**

The Company and the Holder shall each be responsible for its own expenses (including, without limitation, the legal fees and expenses of its counsel) incurred by them in connection with the negotiation and execution of, and closing under, this Agreement and of the transactions contemplated hereby.

**(l) Termination.**

This Agreement may be terminated:

- (1) By the Holder at or after the Closing Date if any condition set forth in Section 7 has not been satisfied by the Closing Date (other than as a result of any failure on the part of the Holder to comply with or perform any covenant or obligation of the Holder set forth in this Agreement);
- (2) By the Company at or after the Closing Date if any condition set forth in Section 6 has not been satisfied by the Closing Date (other than as a result of any failure on the part of the Company to comply with or perform any covenant or obligation of the Company set forth in this Agreement);
- (3) By the Holder if the closing shall not have occurred on a Closing Date on or before December 30, 2005, other than solely by reason of a breach of this Agreement by the Holder; or
- (4) By mutual consent of the Holder and the Company.

If the Holder wishes to terminate this Agreement pursuant to Section 9(l)(1) or (3), the Holder shall deliver to the Company a written notice stating that the Holder is terminating this Agreement and setting forth a brief description of the basis on which the Holder is terminating this Agreement. If the Company wishes to terminate this Agreement pursuant to Section 9(l)(2), the Company shall deliver to the Holder a written notice stating that the Company is terminating this Agreement and setting forth a brief description of the basis on which the Company is terminating this Agreement.

If this Agreement is terminated pursuant to Section 9(l), this Agreement shall be of no further force or effect (and, except as provided in this paragraph, there shall be no liability or obligation hereunder on the part of any of the parties hereto or their respective officers, directors, stockholders or affiliates); provided, however, that Section 9, including without limitation, this Section 9(l), shall survive the termination of this Agreement and shall remain in full force and effect, and the termination of this Agreement shall not relieve any party from any liability for any willful breach of any representation, warranty or covenant contained in this Agreement

**(m) Survival.**

The respective representations, warranties, covenants and agreements of the Company and the Holder contained in this Agreement and the documents delivered in connection with this Agreement shall survive the execution and delivery of this Agreement and the closing hereunder, and shall remain operative and in full force and effect regardless of any investigation made by or on behalf of the Holder or any Person controlling or acting on behalf of the Holder or by the Company or any Person controlling or acting on behalf of the Company.

**(n) Public Statements, Press Releases, Etc.**

The Company and the Holder shall have the right to approve before issuance any press releases or any other public statements with respect to the transactions contemplated hereby; provided, however, that the Company shall be entitled, without the prior approval of the Holder, to make any press release or other public disclosure with respect to such transactions as is required by applicable law and regulations, including the 1934 Act and the rules and regulations promulgated thereunder.

**(o) Construction.**

The language used in this Agreement will be deemed to be the language chosen by the parties to express their mutual intent, and no rules of strict construction will be applied against any party.

*[Signature Page Follows]*

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IN WITNESS WHEREOF, the parties have caused this Agreement to be duly executed by their respective officers or other representatives thereunto duly authorized as of the date first set forth above and on the dates set forth below their respective signatures.

**EMCORE CORPORATION**

By: /s/ Howard Brodie

Name: Howard Brodie

Title: Executive Vice President

Address:

145 Belmont Drive  
Somerset, New Jersey 08873

Facsimile No.: (732) 271-9686

Date: November 10, 2005

**ALEXANDRA GLOBAL MASTER  
FUND LTD.**

By: **ALEXANDRA INVESTMENT MANAGEMENT, LLC,**

**as Investment Advisor**

By: /s/ M. Filimonov

Mikhail Filimonov

Chairman and Chief Executive Officer

Address:

c/o Alexandra Investment Management,  
LLC  
767 Third Avenue  
39<sup>th</sup> Floor  
New York, New York 10017

Facsimile No.: (212) 301-1810

Date: November 11, 2005

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ANNEX I

[LETTERHEAD - Law Offices of Brian W Pusch]

November \_\_, 2005

Emcore Corporation  
145 Belmont Drive  
Somerset, New Jersey 08873

ALEXANDRA GLOBAL MASTER FUND LTD.  
Emcore Corporation

Ladies and Gentlemen:

We are special counsel for Alexandra Global Master Fund Ltd., a British Virgin Islands international business company ("Alexandra"), in connection with the exchange of \$14,425,000.00 aggregate principal amount of 5% Convertible Subordinate Debentures due May 15, 2006 (the "5% Debentures") of Emcore Corporation, a New Jersey corporation (the "Company"), for \$16,580,460.00 aggregate principal amount of 5% Senior Subordinated Convertible Notes due 2011 of the Company (the "Notes") pursuant to the terms of an Exchange Agreement, dated as of November \_\_, 2005, by and between the Company and Alexandra (the "Exchange Agreement"). The 5% Debentures are, and the Notes will be, convertible into shares of Common Stock, no par value per share, of the Company (the "Common Stock").

In connection with this opinion, we have examined the Exchange Agreement, the form of the 5% Debentures, the Indenture, dated as of May 7, 2001, between the Company and Wilmington Trust Company, as Trustee, relating to the 5% Debentures, the form of the Notes, the Indenture, dated as of November 14, 2005, between the Company and Deutsche Bank Trust Company, as Trustee, relating to the Notes (the "Note Indenture") and relied on originals or copies, certified or otherwise identified to our satisfaction, of such records, documents, agreements or other instruments of Alexandra, orders, rulings and certificates of public officials, officers and representatives of Alexandra and Alexandra Investment Management, LLC, a Delaware limited liability company ("AIM") that serves as Alexandra's investment adviser, and such other persons, have made such investigations of law, and have discussed with representatives of Alexandra and AIM such questions of fact, as we have deemed proper and necessary as a basis for the opinions hereinafter expressed. As to certain questions of fact we have relied, without independent verification, on information provided to us by Alexandra and AIM.

We have assumed the genuineness of all signatures appearing on the documents furnished to or reviewed by us and we have also assumed that any person purporting to execute any document in a representative capacity is a duly authorized representative of the person for whom such person executed such document. We have also assumed, without verification, that the representations and warranties of Alexandra and the Company contained in the Exchange Agreement are true and correct.

On the basis of the foregoing and in reliance thereon, we are of the opinion that:

1. For purposes of Rule 144 ("Rule 144") under the Securities Act of 1933, as amended (the "1933 Act"), Alexandra's holding period for the 5% Debentures began on the later of the date the 5% Debentures were (i) issued by the Company or (ii) sold by an "affiliate" of the Company, as the term "affiliate" is defined for purposes of Rule 144;
2. After Alexandra exchanges the 5% Debentures for the Notes pursuant to the Exchange Agreement, Alexandra may tack its holding period of the 5% Debentures to its holding period of the Notes for purposes of Rule 144;
3. After any conversion of any of the Notes into shares (the "Conversion Shares") of Common Stock in accordance with the terms of the Notes and the Note Indenture, Alexandra may tack its holding period of the Notes, determined as stated in our opinion in the immediately preceding paragraph 2, to its holding period of such Conversion Shares for purposes of Rule 144;
4. After any sale of any of the Notes by Alexandra to a person (a "Transferee") who is not an "affiliate" of the Company, as the term "affiliate" is defined for purposes of Rule 144, in a transaction not involving a public offering, such Transferee may tack Alexandra's holding period of such Notes, determined as stated in our opinion in the preceding paragraph 2, to such Transferee's holding period of such Notes for purposes of Rule 144;
5. After any conversion of such Notes by such Transferee into Conversion Shares in accordance with the terms of the Notes and the Note Indenture following a sale by Alexandra of such Notes to such Transferee in a transaction not involving a public offering, such Transferee may tack its holding period of the Notes, determined as stated in our opinion in the immediately preceding paragraph 4, to its holding period of such Conversion Shares for purposes of Rule 144; and
6. Alexandra may sell the Notes and the Conversion Shares without registration of the Notes or the Conversion Shares under the 1933 Act.

We are admitted to practice in the State of New York and no opinion is expressed herein on any laws other than the federal laws of the United States. This opinion is rendered solely for the benefit of the Company, Alexandra and AIM and may not be relied upon for any other purpose or by any other person.

Very truly yours,

Brian W. Pusch

BWP:to

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ANNEX II

[LETTERHEAD - Jenner & Block LLP]

November [\_\_\_], 2005

Alexandra Global Master Fund Ltd.  
c/o Alexandra Investment Management, LLC  
767 Third Avenue, 39th Floor  
New York, New York 10017  
Ladies and Gentlemen:

We are issuing this letter in our capacity as special counsel for EMCORE Corporation (the "Company") in response to the requirement of Section 7(f) of the Exchange Agreement dated November [\_\_\_], 2005 (the "Exchange Agreement") by and between the Company and Alexandra Global Master Fund Ltd (the "Holder") relating to the exchange of the \$14,425,000 aggregate principal amount of the Company's outstanding Convertible Subordinated Notes due 2006 (the "Existing 2006 Notes") for \$16,580,460 aggregate principal amount of the Company's newly issued Convertible Senior Subordinated Notes due 2011 (the "New 2011 Notes"). Every term which is defined or given a special meaning in the Exchange Agreement and which is not given a different meaning in this letter has the same meaning whenever it is used in this letter as the meaning it is given in the Exchange Agreement.

In connection with the preparation of this letter, we have among other things read:

- (a) the Indenture dated as of May 7, 2001 by and between the Company and Wilmington Trust Company as trustee;
- (b) the Indenture (the "New 2011 Notes Indenture"), dated as of [\_\_\_\_], 2005 by and between the Company and Deutsche Bank Trust Company Americas as trustee (the "Trustee");
- (c) the Exchange Agreement;
- (d) a specimen of the Existing 2006 Notes;
- (e) a specimen of the New 2011 Notes;
- (f) copy of the resolutions of the Board of Directors of the Company adopted on October [\_\_\_], 2005;
- (g) a certificate of the Secretary of the Company dated the date hereof and delivered to us in connection with this opinion; and
- (h) copies of all certificates and other documents delivered today in connection with the consummation of the Exchange Offer.

Subject to the assumptions, qualifications and limitations which are identified in this letter, and subject to compliance by the Holder with its representations and warranties set forth in Section 3(c) of the Exchange Agreement and by the Company with its representations and warranties set forth in Section 4(l) of the Exchange Agreement, it is not necessary in connection with the sale and delivery of the New 2011 Notes to the Holder in the manner contemplated by the Exchange Agreement to register the New 2011 Notes under the Securities Act of 1933, as amended, it being understood that no opinion is expressed as to any subsequent resales of the New 2011 Notes.

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Except for the activities described in the immediately preceding section of this letter, we have not undertaken any investigation to determine the facts upon which the advice in this letter is based.

We have assumed for purposes of this letter: each document we have reviewed for purposes of this letter is accurate and complete, each such document that is an original is authentic, each such document that is a copy conforms to an authentic original, and all signatures on each such document are genuine; that the Exchange Agreement and every other agreement we have examined for purposes of this letter constitutes a valid and binding obligation of each party to that document and that each such party has satisfied all legal requirements that are applicable to such party to the extent necessary to entitle such party to enforce such agreement (except that we make no such assumption with respect to the Company); and that you have acted in good faith and without notice of any fact which has caused you to reach any conclusion contrary to any of the advice provided in this letter. We have also made other assumptions which we believe to be appropriate for purposes of this letter.

In preparing this letter we have relied without independent verification upon: (i) factual information represented to be true in the Exchange Agreement, in the other documents specifically identified at the beginning of this letter as having been read by us and in the certificates and other documents executed by the Company and delivered to you or to the Trustee under the New 2011 Notes Indenture; (ii) factual information provided to us by the Company or its representatives; and (iii) factual information we have obtained from such other sources as we have deemed reasonable. We have assumed that there has been no relevant change or development between the dates as of which the information cited in the preceding sentence was given and the date of this letter and that the information upon which we have relied is accurate and does not omit disclosures necessary to prevent such information from being misleading.

We confirm that we do not have knowledge that has caused us to conclude that our reliance and assumptions cited in the two immediately preceding paragraphs are unwarranted. Whenever this letter provides advice about (or based upon) our knowledge of any particular information or about any information which has or has not come to our attention such advice is based entirely on the conscious awareness at the time this letter is delivered on the date it bears by the lawyers with Jenner & Block LLP at that time who spent substantial time representing the Company in connection with the transactions contemplated by the Exchange Agreement.

Our advice on every legal issue addressed in this letter is based exclusively on the federal laws of the United States that are, in our experience, generally applicable to transactions of the nature contemplated in the Exchange Agreement, and represents our opinion as to how that issue would be resolved were it to be considered by the highest court in the jurisdiction which enacted such law. Our opinions are limited to the specific issues addressed. None of the opinions or other advice contained in this letter considers or covers any foreign or state securities (or "blue sky") laws or regulations. This letter does not cover any other laws, statutes, governmental rules or regulations or decisions which in our experience are not usually considered for or covered by opinions like those contained in this letter or are not generally applicable to transactions of the kind covered by the Exchange Agreement.

This letter speaks as of the time of its delivery on the date it bears. We do not assume any obligation to provide you with any subsequent opinion or advice by reason of any fact about which we did not have knowledge at that time, by reason of any change subsequent to that time in any law, other governmental requirement or interpretation thereof covered by any of our opinions or advice, or for any other reason.

This letter may be relied upon by the Holder only for the purpose served by the provision in the Exchange Agreement cited in the initial paragraph of this letter in response to which it has been delivered. Without our written consent: (i) no person other than the Holder may rely on this letter for any purpose; (ii) this letter may not be cited or quoted in any financial statement, prospectus, private placement memorandum or other similar document; (iii) this letter may not be cited or quoted in any other document or communication which could encourage reliance upon this letter by any person or for any purpose excluded by the restrictions in this paragraph; and (iv) copies of this letter may not be furnished to anyone for purposes of encouraging such reliance.

Sincerely,

Jenner & Block LLP

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ANNEX III

[EMCORE Corporation Letterhead]

November [\_\_\_], 2005

Alexandra Global Master Fund Ltd.  
c/o Alexandra Investment Management, LLC  
767 Third Avenue, 39th Floor  
New York, New York 10017

Ladies and Gentlemen:

I am issuing this letter in my capacity as Vice President and General Counsel of EMCORE Corporation (the "Company") in response to the requirement of Section 7(f) of the Exchange Agreement dated [\_\_\_\_], 2005 (the "Exchange Agreement") by and between the Company and Alexandra Global Master Fund Ltd (the "Holder") relating to the exchange of the \$14,425,000 aggregate principal amount of the Company's outstanding Convertible Subordinated Notes due 2006 (the "Existing 2006 Notes") held by the Holder for \$16,580,460 aggregate principal amount of the Company's newly issued Convertible Senior Subordinated Notes due 2011 (the "New 2011 Notes"). Every term which is defined or given a special meaning in the Exchange Agreement and which is not given a different meaning in this letter has the same meaning whenever it is used in this letter as the meaning it is given in the Exchange Agreement.

In connection with the preparation of this letter, I or others under my supervision have among other things read:

- (a) the Indenture (the "New2011 Notes Indenture"), dated as of [\_\_\_\_], 2005 by and between the Company and Deutsche Bank Trust Company Americas as trustee (the "Trustee");
- (b) the Exchange Agreement;
- (c) a specimen of the New 2011 Notes;
- (d) copy of the resolutions of the Board of Directors of the Company adopted on October [\_\_\_], 2005;
- (e) a copy of the restated certificate of incorporation of the Company certified as of a recent date by the Secretary of State of New Jersey;
- (f) a copy of the by-laws of the Company; and
- (g) copies of all certificates and other documents delivered today in connection with the consummation of the Exchange Offer.

Subject to the assumptions, qualifications and limitations which are identified in this letter, it is my opinion that:

- (i) The Company has been duly organized and is validly existing as a corporation in good standing under the laws of the State of New Jersey;
- (ii) The Conversion Shares have been duly and validly authorized and reserved for issuance upon conversion of the New Notes by all necessary corporate action and are free of preemptive rights; all Conversion Shares, when so issued and delivered upon such conversion in accordance with the terms of the New 2011 Notes Indenture, will be duly and validly authorized and issued, fully paid and nonassessable;
- (iii) The execution, delivery and performance of the Exchange Agreement and the New 2011 Notes Indenture and the issuance of the New Notes and the Conversion Shares and the consummation of the transactions contemplated thereby do not result in any violation of the provisions of the certificate of incorporation or bylaws of the Company or any statute or any order, rule or regulation known to us of any court or governmental agency or body having jurisdiction over the Company or any of the properties or assets of the Company; and, except as may be required by the securities or "blue sky" laws of any state of the United States in connection with the issuance of the New Notes, no consent, approval, authorization or order of, or filing or registration with, any such court or governmental agency or body is required for the execution, delivery and performance of the Exchange Agreement and the New Note Indenture by the Company and the issuance of the New Notes and the Conversion Shares and the consummation of the transactions contemplated thereby;
- (iv) The Company has all necessary corporate power and authority to execute and deliver each of the Transaction Documents to which it is a party and to perform its obligations thereunder and to issue and deliver the New Notes and the Conversion Shares to the Holder;
- (v) The Exchange Agreement has been duly authorized, executed and delivered by the Company;
- (vi) The New 2011 Notes Indenture has been duly authorized, executed and delivered by the Company and, assuming due authorization, execution and delivery thereof by the Trustee, constitutes a legally valid and binding agreement of the Company enforceable against the Company in accordance with its terms, subject to the effect of any bankruptcy, insolvency, reorganization, moratorium or other similar laws now or hereafter in effect relating to or affecting creditors' rights generally and general principles of equity, regardless of whether such enforceability is considered in a proceeding in equity or at law; and
- (vii) The New Notes have been duly authorized by the Company and when executed, issued and authenticated in accordance with terms of the New 2011 Notes Indenture and delivered to the Holder in exchange for the Existing Notes, will constitute legally valid and binding obligations of the Company, entitled to the benefits of the Indenture and enforceable against the Company in accordance with their terms, subject to the effect of any bankruptcy, insolvency, reorganization, moratorium or other similar laws now or hereafter in effect relating to or affecting creditors' rights generally and general principles of equity, regardless of whether such enforceability is considered in a proceeding in equity or at law

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Except for the activities described in the immediately preceding section of this letter, I have not undertaken any investigation to determine the facts upon which the advice in this letter is based.

I have assumed for purposes of this letter: each document I have reviewed for purposes of this letter is accurate and complete, each such document that is an original is authentic, each such document that is a copy conforms to an authentic original, and all signatures on each such document are genuine; and that you have acted in good faith and without notice of any fact which has caused you to reach any conclusion contrary to any of the advice provided in this letter. I have also made other assumptions which I believe to be appropriate for purposes of this letter.

I confirm that I do not have knowledge that has caused me to conclude that my reliance and assumptions cited in the immediately preceding paragraph are unwarranted. Whenever this letter provides advice about (or based upon) my knowledge of any particular information or about any information which has or has not come to my attention such advice is based entirely on the conscious awareness at the time this letter is delivered on the date it bears.

My advice on every legal issue addressed in this letter is based exclusively on the federal securities laws of the United States of America, and the laws of the State of New York and the New Jersey Business Corporation Act. My opinion is limited to the specific issues addressed. Neither the opinion nor other advice contained in this letter considers or covers any foreign or state securities (or "blue sky") laws or regulations. This letter does not cover any other laws, statutes, governmental rules or regulations or decisions which in my experience are not usually considered for or covered by opinions like those contained in this letter or are not generally applicable to transactions of the kind covered by the Exchange Agreement.

This letter speaks as of the time of its delivery on the date it bears. I do not assume any obligation to provide you with any subsequent opinion or advice by reason of any fact about which I did not have knowledge at that time, by reason of any change subsequent to that time in any law, other governmental requirement or interpretation thereof covered by any of my opinions or advice, or for any other reason.

This letter may be relied upon by the Holder only for the purpose served by the provision in the Exchange Agreement cited in the initial paragraph of this letter in response to which it has been delivered. Without my written consent: (i) no person other than the Holder may rely on this letter for any purpose; (ii) this letter may not be cited or quoted in any financial statement, prospectus, private placement memorandum or other similar document; (iii) this letter may not be cited or quoted in any other document or communication which could encourage reliance upon this letter by any person or for any purpose excluded by the restrictions in this paragraph; and (iv) copies of this letter may not be furnished to anyone for purposes of encouraging such reliance; provided, however, that this opinion may be relied upon by Deutsche Bank Trust Company Americas in its capacity as Trustee under the New 2011 Notes Indenture.

Sincerely,

Howard W. Brodie, Esq.

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**SUBSIDIARIES OF THE REGISTRANT\***

Corona Optical Systems, Inc., a Delaware corporation

EMCORE IRB Company, Inc., a New Mexico corporation

EMCORE Optoelectronics Acquisition Corporation, a Delaware corporation

*\* As of December 14, 2005*

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**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We consent to the incorporation by reference in Registration Statement Nos. 333-27507, 333-37306, 333-36445, 333-39547, 333-60816, 333-45827, 333-118074, and 333-118076 of EMCORE Corporation on Form S-8, Registration Statement No. 333-111585 of EMCORE Corporation on Form S-4, and Registration Statement Nos. 333-94911, 333-87753, 333-65526, 333-71791, and 333-42514 of EMCORE Corporation on Form S-3 of our reports, dated December 14, 2005, relating to the consolidated financial statements of EMCORE Corporation and management's report on the effectiveness of internal control over financial reporting appearing in this Annual Report on Form 10-K of EMCORE Corporation for the year ended September 30, 2005.

*DELOITTE & TOUCHE LLP*

Parsippany, New Jersey  
December 14, 2005

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**EMCORE CORPORATION**  
**CERTIFICATION PURSUANT TO SECTION 302**  
**OF THE SARBANES-OXLEY ACT OF 2002**

I, Reuben F. Richards, Jr., President & CEO (Principal Executive Officer), certify that:

1. I have reviewed this Annual Report on Form 10-K of EMCORE Corporation ("Report");
2. Based on my knowledge, this Report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this Report;
3. Based on my knowledge, the financial statements, and other financial information included in this Report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this Report;
4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this Report is being prepared;
  - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this Report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this Report based on such evaluation; and
  - d) Disclosed in this Report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: December 14, 2005

By: /s/ Reuben F. Richards, Jr.

\_\_\_\_\_  
Reuben F. Richards, Jr.  
President and CEO  
(Principal Executive Officer)

**EMCORE CORPORATION**  
**CERTIFICATION PURSUANT TO SECTION 302**  
**OF THE SARBANES-OXLEY ACT OF 2002**

I, Thomas G. Werthan, Executive Vice President and Chief Financial Officer (Principal Financial and Accounting Officer), certify that:

1. I have reviewed this Annual Report on Form 10-K of EMCORE Corporation ("Report");
2. Based on my knowledge, this Report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this Report;
3. Based on my knowledge, the financial statements, and other financial information included in this Report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this Report;
4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this Report is being prepared;
  - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this Report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this Report based on such evaluation; and
  - d) Disclosed in this Report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: December 14, 2005

By: /s/ Thomas G. Werthan

\_\_\_\_\_  
Thomas G. Werthan  
Executive Vice President & Chief Financial Officer  
(Principal Financial and Accounting Officer)

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**STATEMENT REQUIRED BY 18 U.S.C. § 1350, AS ADOPTED  
PURSUANT TO §906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report on Form 10-K of EMCORE Corporation (the "Company") for the fiscal year ended September 30, 2005, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Reuben F. Richards, Jr., President and Chief Executive Officer (Principal Executive Officer) of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

- 1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- 2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: December 14, 2005

By: /s/ Reuben F. Richards, Jr.

\_\_\_\_\_  
Reuben F. Richards, Jr.  
President & CEO  
(Principal Executive Officer)

*A signed original of this written statement required by Section 906 has been provided to EMCORE Corporation and will be retained by EMCORE Corporation and furnished to the Securities and Exchange Commission or its staff upon request. This certification has not been, and shall not be deemed to be, filed with the Securities and Exchange Commission.*

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**STATEMENT REQUIRED BY 18 U.S.C. §1350, AS ADOPTED  
PURSUANT TO §906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report on Form 10-K of EMCORE Corporation (the "Company") for the fiscal year ended September 30, 2005, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Thomas G. Werthan, Executive Vice President & Chief Financial Officer (Principal Financial and Accounting Officer) of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

- 1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- 2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: December 14, 2005

By: /s/ Thomas G. Werthan

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Thomas G. Werthan  
Executive Vice President & Chief Financial Officer  
(Principal Financial and Accounting Officer)

*A signed original of this written statement required by Section 906 has been provided to EMCORE Corporation and will be retained by EMCORE Corporation and furnished to the Securities and Exchange Commission or its staff upon request. This certification has not been, and shall not be deemed to be, filed with the Securities and Exchange Commission.*

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