

EMCORE CORP  
Form S-3  
July 07, 2006  
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As filed with the Securities and Exchange Commission on July 7, 2006

Registration No. 333-

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UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form S-3

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

EMCORE Corporation

A New Jersey Corporation — I.R.S. Employer No. 22-2746503  
EMCORE Corporation  
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Somerset, New Jersey 08873  
(732-271-9090)

Agents For Service

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With Copies To:

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(202-639-6096)

Approximate date of commencement of proposed sale to the public: From time to time after this registration statement becomes effective.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, check the following box.

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

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

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

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b), check the following box.

CALCULATION OF REGISTRATION FEE

| Title of Each Class of Securities to be Registered | Amount to be Registered | Proposed Maximum Offering Price Per Share | Proposed Maximum Aggregate Offering Price <sup>(1)</sup> | Amount of Registration Fee |
|--|-------------------------|---|--|----------------------------|
| Common Stock, no par value                         | 912,724 shares          | \$8.865 <sup>(1)</sup>                    | \$8,091,298.26   | \$865.77                   |

(1)Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(c) under the Securities Act of 1933 and based on the average of the high and low sale prices reported on The Nasdaq National Market on July 6, 2006. The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to Section 8(a), may determine.

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SUBJECT TO COMPLETION, DATED JULY 7, 2006

912,724 Shares  
Common Stock

This prospectus relates to 912,724 shares of common stock, no par value, of EMCORE Corporation. All of the shares being offered hereby will be sold by or for the benefit of the selling shareholders identified beginning on page 14 of this prospectus. We will not receive any proceeds from the sale of the shares by the selling shareholders.

The selling shareholders may sell shares of our common stock from time to time at market prices, in negotiated transactions or otherwise. The selling shareholders may sell the shares directly or through underwriters, brokers or dealers. The selling shareholders may pay commissions or discounts to underwriters, brokers or dealers in amounts to be negotiated prior to the sale. See "Plan of Distribution" on page 16 for more information on this topic.

EMCORE's common stock is traded on The Nasdaq National Market under the symbol "EMKR." The last reported sale price of the common stock on The Nasdaq National Market on July 6, 2006 was \$8.80 per share.

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Investing in our common stock involves risks.  
See "Risk Factors" beginning on page 2.

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Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense.

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The date of this prospectus is \_\_\_\_\_, 2006

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You should rely only on the information contained in this prospectus, including information incorporated by reference. We have not authorized anyone to provide you with additional information or information different from that contained in this prospectus. Each selling shareholder is offering to sell, and seeking offers to buy, shares of our common stock only in jurisdictions where those offers and sales are permitted. The information contained in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or of any sale of shares of common stock offered by this prospectus.

In this prospectus, the "Company," "EMCORE," "we," "us," and "our," refer to EMCORE Corporation and its subsidiaries. fiscal year ends on September 30 of each calendar year. For example, fiscal year 2005 refers to the year ended September 30, 2005. EMCORE is a registered trademark of EMCORE Corporation. This prospectus contains product names, trade names and trademarks of EMCORE and other organizations.

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OUR COMPANY

We design, manufacture and market a broad portfolio of compound semiconductor-based products for the broadband, fiber optic, satellite, solar power and wireless communications markets. Our Fiber Optic segment offers optical components, subsystems and systems for high speed data and telecommunications networks, cable television (CATV) and fiber-to-the-premises (FTTP). Our Photovoltaic segment provides products for both satellite and terrestrial applications. For satellite applications, we offer high efficiency Gallium Arsenide (GaAs) solar cells, Covered Interconnect Cells (CICs) and panels. For terrestrial applications, we are adapting our high-efficiency GaAs solar cells for use in solar concentrator systems. Our Electronic Materials and Devices segment provides radio frequency (RF) transistor materials for high bandwidth wireless communications systems. Through our joint venture participation in GELcore, LLC, we play a significant role in developing and commercializing next-generation High-Brightness LED technology for use in the general and specialty illumination markets.

Compound semiconductor-based products provide the foundation of components, subsystems and systems used in a broad range of technology markets, including wireline, wireless and satellite communications equipment and networks, advanced computing technologies and satellite and terrestrial solar power generation systems. Compound semiconductor materials are capable of providing electrical or electro-optical functions, such as emitting optical communications signals, detecting optical communications signals, emitting light and converting sunlight into electricity. Collectively, our products and the products offered by our joint venture, GELcore, serve the telecommunications, cable television, wireless, defense and homeland security, satellite and terrestrial power and lighting and illumination markets.

We are a New Jersey corporation which was established in 1984. Our headquarters and principal executive offices are located at 145 Belmont Drive, Somerset, New Jersey 08873, and our telephone number for investor relations is (732) 271-9090. We maintain a website at [www.emcore.com](http://www.emcore.com). Information contained in our website is not part of this prospectus.

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RISK FACTORS

You should carefully consider the risks described below before making an investment decision. Our business, financial condition or results of operations could be materially adversely affected by any of these risks. We caution the reader that these risk factors may not be exhaustive and that we operate in a continually changing business environment where new risks emerge from time to time. Risks not presently known to us or that we currently deem immaterial could also materially adversely affect our business, financial condition and results of operations.

We have a history of incurring significant net losses and our future profitability is not assured.

We commenced operations in 1984 and as of March 31, 2006, we had an accumulated deficit of \$329.4 million. We incurred net losses of \$13.5 million for the six months ended March 31, 2006, \$13.1 million in fiscal 2005, \$13.4 million in fiscal 2004 and \$38.5 million in fiscal 2003. Our operating results for future periods are subject to numerous uncertainties and we cannot assure you that we will not continue to experience net losses for the foreseeable future. Although our revenues have grown in recent years, we may be unable to sustain such growth rates in light of changed market or economic conditions. In addition, if we are not able to reduce our costs, we may not be able to achieve profitability.

Our future revenues are inherently unpredictable. As a result, our operating results are likely to fluctuate from period to period, which may cause volatility in our stock price and may cause our stock price to decline.

Our quarterly and annual operating results have fluctuated substantially in the past and are likely to fluctuate significantly in the future due to a variety of factors, some of which are outside of our control. The factors that could cause our quarterly or annual operating results to fluctuate include:

- market acceptance of our products;
- market demand for the products and services manufactured and provided by our customers;
- disruptions or delays in our manufacturing processes or in our supply of raw materials or product components;
- changes in the timing and size of orders by our customers;
- cancellations and postponements of previously placed orders;
- reductions in prices for our products or increases in the costs of our raw materials; and
- the introduction of new products and manufacturing processes.

In addition, the limited lead times with which several of our customers order our products restrict our ability to forecast revenues. We may also experience a delay in generating or recognizing revenues for a number of reasons. For example, orders at the beginning of each quarter typically represent a small percentage of expected revenues for that quarter and are generally cancelable at any time. We depend on obtaining orders during each quarter for shipment in that quarter to achieve our revenue objectives. Failure to ship these products by the end of a quarter may adversely affect our results of operations.

As a result of the foregoing, we believe that period-to-period comparisons of our results of operations should not be relied upon as indications of future performance. In addition, our results of operations in one or more future quarters may fail to meet the expectations of securities analysts or investors, which would likely result in a decline in the trading price of our common stock.

Our ability to achieve operational and material cost reductions and to realize production efficiencies for our operations is critical to our ability to achieve long-term profitability.

We currently are in the process of implementing a number of operational and material cost reductions and productivity improvement initiatives, particularly with regards to our Fiber Optics segment. Cost reduction initiatives often involve re-design of our products, which requires our

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customers to accept and qualify the new designs, potentially creating a competitive disadvantage for our products. We are also in the process of consolidating our solar panel operations by moving our operations in City of Industry, California to our Albuquerque, New Mexico facility and may pursue other consolidation initiatives in the future. These initiatives can be time-consuming and disruptive to our operations and costly in the short-term. Successfully implementing these and other cost-reduction initiatives throughout our operations is critical to our future competitiveness and ability to achieve long-term profitability. However, there can be no assurance that these initiatives will be successful.

We are substantially dependent on a small number of customers and the loss of any one of these customers could materially adversely affect our business, financial condition and results of operations.

Our top five customers accounted for 43% of our total revenue for the six months ended March 31, 2006, and 45% of our total revenue in fiscal 2005. In particular, Cisco Systems, Inc. accounted for 19% of our total revenue in fiscal 2005 and 17% of our total revenue for the six months ended March 31, 2006. The majority of our revenue from Cisco came from sales of our LX4 module. We do not have an exclusive commercial arrangement or a long term contract with Cisco and Cisco has made it clear that continued sales are dependent on our price, quality and delivery. We understand that Cisco has recently qualified another vendor for LX4 modules and is working with several vendors in addition to us to qualify the next generation LX4 module, the X2. If Cisco decreases its purchase orders for any reason, our business, financial condition and results of operations will be harmed. There can be no assurance that we will continue to achieve historical levels of sales of our products to our largest customers. The loss of or a reduction in sales to one or more of our largest customers could have a material adverse affect on our business, financial condition and results of operations.

We may not be successful in obtaining market acceptance and demand for our terrestrial solar products.

We have invested and intend to continue to invest significant resources in the adaptation of our solar cell products for terrestrial applications. This will require substantial additional funding for the hiring of employees, research and development and investment in capital equipment. Factors such as changes in energy prices or the development of new and efficient alternative energy technologies could limit growth in or reduce the market for terrestrial solar products. In addition, we may experience difficulties in applying our satellite-based solar products to terrestrial applications or may be unable to compete with new and emerging terrestrial solar products. There can be no assurance that our bids on solar power installations will be accepted, that we will win any of these bids or that our solar concentrator systems will be qualified for these projects. If our terrestrial solar cell products are not cost competitive or accepted by the market, our business, financial condition and results of operations may be materially adversely affected.

If we do not keep pace with rapid technological change, our products may not be competitive.

We compete in markets that are characterized by rapid technological change, frequent new product introductions, changes in customer requirements, evolving industry standards, continuous improvement in products and the use of our existing products in new applications. We may not be able to develop the underlying core technologies necessary to create new products and enhancements at the same rate as or faster than our competitors, or to license the technology from third parties that is necessary for our products. Product development delays may result from numerous factors, including:

- changing product specifications and customer requirements;
- unanticipated engineering complexities;
- expense reduction measures we have implemented and others we may implement;
- difficulties in hiring and retaining necessary technical personnel; and
- difficulties in allocating engineering resources and overcoming resource limitations.

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We cannot assure you that we will be able to identify, develop, manufacture, market or support new or enhanced products successfully, if at all, or on a timely, cost effective or repeatable basis. Our future performance will depend on our successful development and introduction of, as well as market acceptance of, new and enhanced products that address market changes as well as current and potential customer requirements and our ability to respond effectively to product announcements by competitors, technological changes or emerging industry standards. 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. If we incur budget overruns or delays in our research and development efforts, our business, financial condition and results of operations may be materially adversely affected.

The competitive and rapidly evolving nature of our industry has in the past resulted and is likely in the future to result in reductions in our product prices and periods of reduced demand for our products.

We face substantial competition in each of our operating segments from a number of companies, many of which have greater financial, marketing, manufacturing and technical resources than us. Larger-sized competitors often spend more on research and development, which could give those competitors an advantage in meeting customer demands and introducing technologically innovative products before we do. 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 and more efficient production of existing products by our competitors has resulted and is likely in the future to result in price reductions and increases in expenses and reduced demand for our products. In addition, some of our competitors may be willing to provide their products at lower prices, accept a lower profit margin or expend more capital in order to obtain or retain business. Competitive pressures have required us to reduce the prices of some of our products, including our LX4 modules and our solar cells. These competitive forces could diminish our market share and gross margins, resulting in a material adverse effect on our business, financial condition and results of operations.

New competitors may also enter our markets, including some of our current and potential customers who may attempt to integrate their operations by producing their own components and subsystems or acquiring one of our competitors, thereby reducing demand for our products. In addition, rapid product development cycles, increasing price competition due to maturation of technologies, the emergence of new competitors in Asia with lower cost structures and industry consolidation resulting in competitors with greater financial, marketing and technical resources could result in lower prices or reduced demand for our products.

Expected and actual introductions of new and enhanced products may cause our customers to defer or cancel orders for existing products and may cause our products to become obsolete. A slowdown in demand for existing products ahead of a new product introduction could result in a write-down in the value of inventory on hand related to existing

products. We have in the past experienced a slowdown in demand for existing products and delays in new product development and such delays may occur in the future. To the extent customers defer or cancel orders for existing products due to a slowdown in demand or in the expectation of a new product release or if there is any delay in development or introduction of our new products or enhancements of our products, our business, financial condition and results of operations could be materially adversely affected.

We may not be successful in implementing our growth strategy if we are unable to identify and acquire suitable acquisition targets. In addition, our acquisitions may not have the anticipated effect on our financial results.

Finding and consummating acquisitions is an important component of our growth strategy. Our continued ability to grow by acquisition is dependent upon the availability of suitable acquisition candidates and may be dependent on our ability to obtain acquisition financing on acceptable terms. We experience competition in making acquisitions from larger companies with significantly greater

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resources. There can be no assurance that we will be able to procure the necessary funds to effectuate our acquisition strategy on commercially reasonable terms, or at all.

Future acquisitions by us may involve the following:

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

If we are unable to successfully integrate companies we acquire into our operations on a timely basis, our profitability could be negatively affected.

We expect that our acquisitions will result in certain business opportunities and growth prospects. We, however, may never realize these expected business opportunities and growth prospects. We may experience increased competition that limits our ability to expand our business. Our assumptions underlying estimates of expected cost savings may be inaccurate or general industry and business conditions may deteriorate. Acquisitions involve numerous risks, including, but not limited to:

- difficulties in assimilating and integrating the operations, technologies and products acquired;
- the diversion of our management's attention from other business concerns;
- current operating and financial systems and controls may be inadequate to deal with our growth;
- the risk that we will be unable to maintain or renew any of the contracts of businesses we acquire;
- the risks of entering markets in which we have limited or no prior experience; and
- potential loss of key employees of the acquired business or company or of us.

If these factors limit our ability to integrate the operations of our acquisitions successfully or on a timely basis, our expectations of future results of operations may not be met. In addition, our growth and operating strategies for businesses we acquire may be different from the strategies that such business currently is pursuing. If our strategies



are not the proper strategies for a business we acquire, it could materially adversely affect our business, financial condition and results of operations. Further, there can be no assurance that we will be able to maintain or enhance the profitability of any acquired business or consolidate the operations of any acquired business to achieve cost savings.

In addition, there may be liabilities that we fail, or are unable, to discover in the course of performing due diligence investigations on each company, business or asset we have already acquired or may acquire in the future. Such liabilities could include those arising from employee benefits contribution obligations of a prior owner or non-compliance with, or liability pursuant to, applicable federal, state or local environmental requirements by prior owners for which we, as a successor owner, may be responsible. In addition, there may be additional costs relating to acquisitions including, but not limited to, possible purchase price adjustments. We cannot assure you that rights to indemnification by sellers of assets to us, even if obtained, will be enforceable, collectible or sufficient in amount, scope or duration to fully offset the possible liabilities associated with the business or property acquired. Any such liabilities, individually or in the aggregate, could materially adversely affect our business, financial condition and results of operations.

Our products are difficult to manufacture. Our production could be disrupted and our results will suffer if our production yields are low as a result of manufacturing difficulties.

We manufacture many of our products in our own production facilities. Difficulties in the production process, such as contamination, poor quality materials, human error or equipment failure, can cause a substantial percentage of our products to be nonfunctional. Lower-than-expected

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production yields may delay shipments or result in unexpected levels of warranty claims, either of which can materially adversely affect our results of operations. 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 fixed, achieving planned production yields is critical to our results of operations. As a result of manufacturing many of our products in a single facility, we have greater exposure to the risk of interruption in manufacturing resulting from fire, natural disaster, equipment failures, or similar events than we would if we had back-up facilities available for manufacturing these products. We could also incur significant costs to repair and/or replace products that are defective and in some cases costly product redesigns and/or rework may be required to correct a defect. Additionally, any defect could adversely affect our reputation and result in the loss of future orders.

We face lengthy sales and qualifications cycles for our new products and, in many cases, must invest a substantial amount of time and funds before we receive orders.

Most of our products are tested by current and potential customers to determine whether they meet customer or industry specifications. The length of these qualification processes, which sometimes span a year or more, also may vary substantially by product and customer, and thus cause our results of operations to be unpredictable. During a given qualification period and prior to any commitment to purchase by customers and without generating significant revenues from the qualification process, we invest significant resources and allocate substantial production capacity to manufacture these new products. In addition, these qualification processes often make it difficult to obtain new customers for existing products, as customers are reluctant to expend the resources necessary to qualify a new supplier if they have one or more existing qualified sources. 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 and results of operations could be materially 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 times required for product development and the changes in technology that typically occur while a product is being developed, it is difficult to accurately estimate customer demand for any given product. If our products do not achieve an adequate level of customer demand, our business, financial condition and results of operations could be materially adversely affected.

If our contract manufacturers fail to deliver quality products at reasonable prices and on a timely basis, our business, financial condition and results of operations could be materially adversely 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. Substantially all of our high-volume parts are currently manufactured by contract manufacturers in Asia. 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. For example, we recently experienced difficulties filling orders in our fiber-to-the-premises business due to limited available capacity of one of our contract manufacturers. In addition, by increasing our use of foreign contract manufacturers, we run the risk that the reputation and competitiveness of our products and services may deteriorate as a result of the reduction of our ability to oversee and control quality and delivery schedules. The use of contract manufacturers located outside of the U.S. also subjects us to the following additional risks that could significantly impair our ability to source our contract manufacturing requirements internationally:

- unexpected changes in regulatory requirements;
- legal uncertainties regarding liability, tariffs and other trade barriers;
- inadequate protection of intellectual property in some countries;
- greater incidence of shipping delays;
- greater difficulty in hiring talent needed to oversee manufacturing operations; and

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- potential political and economic instability.

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 our 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 the 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 manufacturers' manufacturing lines and, as a consequence, our operating results and customer relationships could be materially adversely affected.

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.

Protecting our trade secrets and obtaining patent protection is critical to our ability to effectively compete.

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 adversely affect our business, financial condition and results of operations.

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. Nor can there be any assurance that the significant number of patent applications that we have filed and are pending, or those we may file in the future, will result in patents being issued. 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 materially adversely affect our business, financial condition and results of operations.

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.

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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. In certain circumstances, our intellectual property rights associated with government contracts may be limited.

Our substantial level of indebtedness could materially adversely affect our business, financial condition and results of operations.

We have substantial debt service obligations. As of March 31, 2006, our long-term debt was \$96.2 million, which represented approximately 56% of our total long-term debt and shareholders' equity. In addition, we guarantee 49% of any amounts borrowed under GELcore's \$10 million revolving credit line, which amount equaled approximately \$6.4 million as of May 25, 2006. We may incur additional debt in the future. This significant amount of debt could:

- make it difficult for us to make payments on our convertible senior subordinated notes and any other debt we may have;
- make it difficult for us to obtain any necessary future financing for acquisitions, working capital, capital expenditures, debt service requirements or other purposes;
- make us more vulnerable to adverse changes in general economic, industry and competitive conditions, in government regulation and in our business by limiting our flexibility in planning for, and making it more difficult for us to react quickly to, changing conditions;
- place us at a competitive disadvantage compared with our competitors that have less debt;
- 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 acquisitions, working capital and capital expenditures;
- limit funds available for research and development; and
- limit our flexibility in planning for, or reacting to, changes 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 our outstanding indebtedness, we would be in default under the terms of our indebtedness. Default under the indenture governing our approximately \$95.8 million aggregate principal amount of convertible senior subordinated notes would permit the holders of such notes to accelerate the maturity of the notes and could cause defaults under future indebtedness we may incur. Any such default could materially adversely affect our business, financial condition and results of operations. In addition, we cannot assure you that we would be able to repay amounts due in respect of the notes if payment of the notes were to be accelerated following the occurrence of an event of default as defined in the indenture.

We generally do not have long-term contracts with our customers and we typically sell our products pursuant to purchase orders with short lead times. As a result, our customers could stop purchasing our products at any time and we must fulfill orders in a timely manner to keep our customers.

We do not generally have long-term contracts with our customers. As a result, our agreements with our customers do not provide any assurance of future sales. Risks associated with the absence of long-term contracts with our customers include that:

- our customers can stop purchasing our products at any time without penalty;
- our customers may purchase products from our competitors; and
- our customers are not required to make minimum purchases.

We generally sell our products pursuant to individual purchase orders, which often have extremely short lead times. If we are unable to fulfill these orders in a timely manner, it is likely that we will lose sales and customers. In addition, we sell some of our products to governments and governmental entities. These contracts are generally subject to termination for convenience provisions and may be cancelled at any time.

Our joint venture agreement with General Electric Lighting contains provisions that require both parties to agree on most fundamental strategic issues. If we and our joint venture partner are unable to agree, GELcore's business may be adversely affected.

We have a 49% minority interest in our GELcore joint venture with General Electric Lighting. A board of managers governs GELcore with two representatives from each of General Electric Lighting and EMCORE and a fifth, selected by General Electric Lighting, who also serves as chief executive officer of GELcore. 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 commercial issues with General Electric Lighting, GELcore's business may be delayed or interrupted, which may, in turn, materially adversely affect our financial condition and results of operations.

We have devoted and may be required to continue to devote significant funds and technologies to GELcore to develop and enhance its products. We guarantee 49% of any amounts borrowed under GELcore's approximately \$10.0 million revolving credit line, under which GELcore's outstanding borrowings were approximately \$6.4 million as of May 25, 2006. 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 its products, our business, financial condition and results of operations may be materially adversely affected.

We have agreed with General Electric Lighting that this joint venture will be the sole vehicle for each party's participation in the solid state lighting market. We have both also agreed to several limitations during the life of the venture and thereafter relating to 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.

We have significant international sales, which expose us to additional risks and uncertainties.

Sales to customers located outside the U.S. accounted for approximately 16% of our revenue in the six months ended March 31, 2006, 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 and we are seeking international expansion opportunities. Because of this, the following international commercial risks may materially adversely affect our revenues:

- political and economic instability or changes in United States government policy may inhibit export of our devices and limit potential customers' access to U.S. dollars in a country or region in which those potential 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;
- currency fluctuations may make our products less cost competitive, affecting overseas demand for our products; and
- language and other cultural barriers may require us to expend additional resources competing in foreign markets or hinder our ability to effectively compete.

We will lose sales if we are unable to obtain government authorization to export our products. Exports of certain of our products to certain countries (such as the People's Republic of China, Argentina, Brazil, India, Russia, Malaysia and Taiwan) may require pre-shipment authorization from

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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 adversely affect our revenues and in turn our business, financial condition and results of operations from international sales. Compliance with government regulations may also subject us to additional fees and costs. The absence of comparable restrictions on competitors in other countries may materially adversely affect our competitive position.

Our 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. Departments of State and 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 materially adversely affect our business, financial condition and results of operations.

In addition, certain foreign laws and regulations place restrictions on the concentration of certain hazardous materials, including, but not limited to, lead, mercury and cadmium, in our products. Failure to comply with such laws and regulations could subject us to future liabilities or result in the limitation or suspension of the sale or production of our products. These regulations include the European Union's Restrictions on Hazardous Substances, Directive on Waste Electrical and Electronic Equipment and the directive on End of Life for Vehicles. Failure to comply with environmental and health and safety laws and regulations may limit our ability to export products to the EU and could materially adversely affect our business, financial condition and results of operations.

Our operating results could be harmed if we lose access to sole or limited sources of materials, components or services.

We currently obtain some materials, components and services used in our products from limited or single sources. For example, we obtain Germanium for our space-based solar cells from a single supplier. We generally do not carry significant inventories of any raw materials. Because we often do not account for a significant part of our suppliers' businesses, we may not have access to sufficient capacity from these suppliers in periods of high demand. For example, we recently experienced difficulties filling orders in our fiber-to-the-premises business due to limited available capacity of one of our contract manufacturers. In addition, since we generally do not have guaranteed supply arrangements with our suppliers we risk serious disruption to our operations if an important supplier terminates product lines, changes business focus, or goes out of business. Because some of these suppliers are located overseas, we may be faced with higher costs of purchasing these materials if the U.S. dollar weakens against other currencies. If we were to change any of our limited or sole source suppliers, we would be required to re-qualify each new supplier. Re-qualification could prevent or delay product shipments that could materially adversely affect our results of operations. In addition, our reliance on these suppliers may materially adversely 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 and results of operations could be materially adversely affected.

A failure to attract and retain technical and other key personnel could reduce our revenues and our operational effectiveness.

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 business, financial condition and results of operations may be materially adversely affected.

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We depend on our management team.

We believe that our ability to successfully implement our business strategy and to operate profitably depends on the continued employment of our senior management team. If the members of the management team become unable or unwilling to continue in their present positions, our business, financial condition and results of operations could be materially adversely affected. Additionally, we generally do not enter into employment agreements with our employees.

Failure to comply with environmental and safety regulations, including through the unsuccessful control of hazardous raw materials used in our manufacturing processes, could result in costly remediation fees, penalties or damages.

We are subject to laws and regulations and must obtain certain permits and licenses relating to the use of hazardous materials. 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 or human exposures occur, we could experience interruptions in our operations and incur substantial remediation and other costs or liabilities.

Our stock price has fluctuated and will continue to fluctuate, which could result in your losing all or a part of your investment.

The market price of our common stock has fluctuated in response to such factors as:

- our quarterly operating results;
- investor perception of us and our business;
- reports by analysts or news media;
- additions or departures of key personnel;
- changes in the business, earnings estimates or market perceptions of our competitors; and
- changes in general industry or economic conditions.

The stock market in general, and The Nasdaq National Market in particular, has experienced extreme price and volume fluctuations in recent years that have significantly affected the quoted prices of the securities of many companies, including companies in our industry. These fluctuations have often been unrelated or disproportionate to the operating performance of individual companies. The price of our common stock could fluctuate based upon factors

that have little or nothing to do with our business and these fluctuations could materially adversely affect our stock price.

Certain provisions of New Jersey Law and our Restated Certificate of Incorporation may make a takeover of us difficult even if such takeover could be beneficial to our shareholders.

New Jersey law and our restated certificate of incorporation contain certain provisions that could delay or prevent a takeover attempt that our shareholders may consider in their best interests. For example, we are subject to the New Jersey Shareholders' Protection Act. This statute has the effect of prohibiting any business combination with an interested shareholder unless the transaction has been approved by our board of directors at a time before the interested shareholder had acquired a 10% ownership interest. This prohibition lasts for five years from when the shareholder became an interested shareholder and continues after that time period subject to certain exceptions. A practical consequence of this statute is that an unsolicited transaction involving us which might be of benefit to our shareholders may not occur.

In addition, 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 voting 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

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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 our 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.

Our directors' stock ownership may give them the ability to exert control over us and to influence the outcome of matters voted on by our shareholders.

Certain of our directors, specifically Thomas J. Russell, Reuben F. Richards, Jr. and Robert Louis-Dreyfus, collectively beneficially own 9,563,324 shares of our common stock, which amounts to approximately 19% of our common stock currently issued and outstanding. Accordingly, such persons hold sufficient voting power to influence our business and affairs for the foreseeable future, including the election and removal of directors, charter amendments and other matters requiring shareholder approval. This concentration of ownership may also have the effect of delaying, deferring or preventing a change in control of us, which could materially adversely affect our stock price by discouraging third party investors from making takeover offers. In addition, the interests of these shareholders may not always coincide with the interests of our other shareholders.

Our stock price could be adversely affected by the 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 our possible sale 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.

We do not intend to pay cash dividends on our common stock in the foreseeable future, and therefore only appreciation of the price of our common stock will provide a return to our shareholders.

We currently anticipate that we will retain all future earnings, if any, to finance the growth and development of our business. We do not intend to pay cash dividends in the foreseeable future. As a result, only appreciation of the price of our common stock, which may not occur, will provide a return to our shareholders.

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### SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

In addition to the other information contained or incorporated by reference in this prospectus, you should carefully consider the risk factors beginning on page 2 of this prospectus in evaluating whether to purchase our common stock. Some of the statements in this prospectus and the documents incorporated herein by reference constitute forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. These statements are based largely on our current expectations and projections about future events and financial trends affecting the financial condition of our business, relate to future events or our future financial performance and involve known and unknown risks, uncertainties and other factors that may cause the actual results, levels of activity, performance or achievements of our business or our industry to be materially different from those expressed or implied by any forward-looking statements. Such statements include, in particular, projections about our future results included in our Exchange Act reports, statements about our plans, strategies, business prospects, changes and trends in our business and the markets in which we operate as described in this prospectus and the documents incorporated herein by reference. 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. The information or incorporated by reference in this prospectus includes forward-looking statements concerning:

- our ability to remain competitive and a leader in our industry and the future growth of the company, the industry, and the economy in general;
- our ability to achieve structural and material cost reductions without impacting product development or manufacturing execution;
- expected improvements in our product and technology development programs;
- our ability to successfully develop, introduce, market and qualify new products, including our terrestrial solar products;
- our ability to identify and acquire and suitable acquisition targets and difficulties in integrating recent or future acquisitions into our operations;
- other risks and uncertainties described in our filings with the SEC 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. All forward-looking statements in this prospectus are made as of the date hereof, based on information available to us as of the date hereof, and we caution you not to rely on these statements without also considering the risks and uncertainties associated with these statements and our business that are addressed in this prospectus. Certain of the information included in this prospectus may supersede or supplement forward-looking statements in our Exchange Act reports incorporated herein by reference. We assume no obligation to update any forward-looking statement.

#### USE OF PROCEEDS

We will not receive any proceeds from the sale of shares of common stock by the selling shareholders in this offering.

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#### SELLING SHAREHOLDERS

The following table sets forth certain information with respect to each of the selling shareholders, which consist of the entities and individuals shown under the column “Selling Shareholder.”

Beneficial ownership is determined in accordance with the rules of the Securities and Exchange Commission. These rules generally attribute beneficial ownership of securities to persons who possess sole or shared voting power or investment power with respect to those securities and include shares of common stock issuable upon the exercise of stock options that are immediately exercisable or exercisable within 60 days. Except as otherwise indicated, all persons listed below have sole voting and investment power with respect to the shares beneficially owned by them, subject to applicable community property laws. The information is not necessarily indicative of beneficial ownership for any other purpose. For purposes of computing the percentage of outstanding shares held by a person or group of persons named below, any security which such person has the right to acquire within 60 days is deemed to be outstanding for the purpose of computing the percentage ownership of such person or persons, but is not deemed to be outstanding for the purpose of computing the percentage ownership of any other person. As a result, the denominator used in calculating the beneficial ownership among our shareholders may differ.

The selling shareholders may offer shares under this prospectus from time to time and may elect to sell none, some or all of the shares set forth below. As a result, we cannot estimate the number of shares of our common stock that the selling shareholders will beneficially own after termination of sales under this prospectus. The information set forth in the table below regarding the beneficial ownership after resale of shares is based on the assumption that each selling shareholder will sell all of its shares of common stock covered by this prospectus. In addition, the selling stockholders may have sold, transferred or otherwise disposed of all or a portion of its shares of our common stock since the date on which it provided information for this table. Unless otherwise indicated, the address of each of the beneficial owners is c/o EMCORE Corporation, 145 Belmont Drive, Somerset, NJ 08873.

| Selling Shareholder | Shares of<br>Common<br>Stock | Number of Shares<br>of<br>Common Stock | Shares of<br>Common<br>Stock |
|---------------------|------------------------------|--|------------------------------|
|---------------------|------------------------------|--|------------------------------|

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|  | Beneficially<br>Owned Prior to<br>Offering |         | Included is this<br>Offering | Beneficially<br>Owned After<br>the<br>Offering |        |
|--|--|---------|------------------------------|--|--------|
|  | Number                                     | Percent |                              | Number   | Number |
| Force, Inc.                            | 240,000                                    | *       | 240,000                      | 0  | *      |
| Phasebridge, Inc.                      | 128,205                                    | *       | 128,205                      | 0  | *      |
| Advent Private Equity Fund II 'A'      | 20,122                                     | *       | 20,122                       | 0  | *      |
| Advent Private Equity Fund II 'B'      | 12,272                                     | *       | 12,272                       | 0  | *      |
| Advent Private Equity Fund II 'C'      | 18,270                                     | *       | 18,270                       | 0  | *      |
| Advent Private Equity Fund II 'D'      | 4,339                                      | *       | 4,339                        | 0  | *      |
| Alloy Annex I, L.P.                    | 57,014                                     | *       | 57,014                       | 0  | *      |
| Alloy Corporate 2000, L.P.             | 7,207                                      | *       | 7,207                        | 0  | *      |
| Alloy Investors 2000, L.P.             | 12,365                                     | *       | 12,365                       | 0  | *      |
| Alloy Partners 2000, L.P.              | 3,073                                      | *       | 3,073                        | 0  | *      |
| Alloy Ventures 2000, L.P.              | 59,973                                     | *       | 59,973                       | 0  | *      |
| AMA98 Corporate, L.P.                  | 721  | *       | 721                          | 0  | *      |
| AMA98 Investors, L.P.                  | 902  | *       | 902                          | 0  | *      |
| AMA98 Partners, L.P.                   | 363  | *       | 363                          | 0  | *      |
| AMA98 Ventures, L.P.                   | 6,012                                      | *       | 6,012                        | 0  | *      |
| Andrei Manoliu                         | 5,476                                      | *       | 5,476                        | 0  | *      |
| Anvest, L.P.                           | 1,659                                      | *       | 1,659                        | 0  | *      |
| Bessec Ventures V, L.P. <sup>(1)</sup> | 19,799                                     | *       | 19,799                       | 0  | *      |
| Bessemer Venture Partners V, L.P.      | 29,699                                     | *       | 29,699                       | 0  | *      |
| Bessemer Venture Investors II, L.P.    | 4,442                                      | *       | 4,442                        | 0  | *      |
| Bookman Family Limited Partnership     | 836  | *       | 836                          | 0  | *      |
| Brad Jeffries                          | 2,952                                      | *       | 2,952                        | 0  | *      |
| BVE 2001 (Q) LLC                       | 8,973                                      | *       | 8,973                        | 0  | *      |

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| Selling Shareholder  | Shares of<br>Common<br>Stock<br>Beneficially<br>Owned Prior to<br>Offering |         | Number of<br>Shares of<br>Common Stock<br>Included is this<br>Offering | Shares of<br>Common<br>Stock<br>Beneficially<br>Owned After<br>the<br>Offering |        |
|--|--|---------|--|--|--------|
|  | Number   | Percent |  | Number   | Number |
| BVE 2001 LLC   | 545  | *       | 545  | 0  | *      |
| Catherine Lego <sup>(2)</sup>  | 2,109  | *       | 2,109  | 0  | *      |
| Christopher L. Kaufman Trust SP Dated 4/12/88  | 340  | *       | 340  | 0  | *      |
| Dan Rubin  | 1,645  | *       | 1,645  | 0  | *      |
| David E. Sweet and Robin T. Sweet as Trustees<br>of The David and Robin Sweet Living Trust<br>Dated 7/6/04 | 463  | *       | 463  | 0  | *      |
|  | 3,163  | *       | 3,163  | 0  | *      |

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|  |        |   |        |   |   |
|--|--------|---|--------|---|---|
| David L. Anderson, Trustee, The Anderson Living Trust, U/A/D 1/22/98   |        |   |        |   |   |
| Derek Oppen  | 2,530  | * | 2,530  | 0 | * |
| Fieldhelm Limited  | 16,897 | * | 16,897 | 0 | * |
| G. Leonard Baker, Jr. and Mary Anne Baker, Co-Trustees of The Baker Revocable Trust, U/A/D 2/3/03                        | 1,026  | * | 1,026  | 0 | * |
| Glen Yonekura  | 782    | * | 782    | 0 | * |
| Gregory P. and Sarah J.D. Sands, Trustees, The Gregory P. and Sarah J.D. Sands Trust Agreement dated 2/24/99             | 800    | * | 800    | 0 | * |
| Harmeet Dhillon  | 126    | * | 126    | 0 | * |
| Harry Stylli   | 80     | * | 80     | 0 | * |
| Inder Singh  | 400    | * | 400    | 0 | * |
| Intel Capital Corporation  | 29,611 | * | 29,611 | 0 | * |
| JAFCO America Technology Affiliates Fund III, L.P.   | 1,082  | * | 1,082  | 0 | * |
| JAFCO America Technology Cayman Fund III, L.P.   | 9,075  | * | 9,075  | 0 | * |
| JAFCO America Technology Fund III, L.P.  | 9,945  | * | 9,945  | 0 | * |
| JAFCO USIT Fund III, L.P.  | 4,389  | * | 4,389  | 0 | * |
| James C. Gaither   | 652    | * | 652    | 0 | * |
| James N. White and Patricia A. O'Brien as Trustees of the White Family Trust, U/A/D 4/3/97                               | 1,203  | * | 1,203  | 0 | * |
| JDS Uniphase Corporation   | 42,181 | * | 42,181 | 0 | * |
| Jeffrey W. Bird and Christina R. Bird as Trustees of Jeffrey W. Bird and Christna R. Bird Trust Agreement Dated 10/31/00 | 1,283  | * | 1,283  | 0 | * |
| John C. Major Family 2000 Trust  | 4,218  | * | 4,218  | 0 | * |
| John Lopez   | 503    | * | 503    | 0 | * |
| John Teegen  | 846    | * | 846    | 0 | * |
| Kirk Freeman   | 101    | * | 101    | 0 | * |
| Lawrence Ebringer  | 3,786  | * | 3,786  | 0 | * |
| Leighton Read  | 218    | * | 218    | 0 | * |
| Lynne M. Brown   | 115    | * | 115    | 0 | * |
| Narinder Kapany  | 8,436  | * | 8,436  | 0 | * |
| Patricia Tom   | 58     | * | 58     | 0 | * |
| Peter Loukianoff   | 80     | * | 80     | 0 | * |
| Raj Kapany   | 10,902 | * | 10,902 | 0 | * |
| Richard Pantell  | 80     | * | 80     | 0 | * |
| Robert Corona  | 80     | * | 80     | 0 | * |
| Robert C. Wilson Revocable Trust, dated Sept. 26, 1996, Robert C. Wilson, Trustee  | 240    | * | 240    | 0 | * |
| Ronald D. Bernal and Pamela M. Bernal as Trustees of The Bernal Family Trust U/D/T 11/3/1995                             | 802    | * | 802    | 0 | * |
| Saunders Holdings, L.P.  | 3,319  | * | 3,319  | 0 | * |

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| Selling Shareholder   | Shares of<br>Common<br>Stock<br>Beneficially<br>Owned Prior to<br>Offering |         | Number of<br>Shares of<br>Common Stock<br>Included in this<br>Offering | Shares of<br>Common<br>Stock<br>Beneficially<br>Owned After<br>the<br>Offering |         |
|---|--|---------|--|--|---------|
|   | Number   | Percent |  | Number   | Percent |
| Sutter Hill Entrepreneurs Fund (AI) L.P.  | 659  | *       | 659  | 0  | *       |
| Sutter Hill Entrepreneurs Fund (QP) L.P.  | 1,669  | *       | 1,669  | 0  | *       |
| Sutter Hill Ventures, a California Limited<br>Partnership                             | 65,114   | *       | 65,114   | 0  | *       |
| Tench Coxe and Simone Otus Coxe, Co-Trustees<br>of The Coxe Revocable Trust (4/23/98) | 3,801  | *       | 3,801  | 0  | *       |
| Tench Coxe, Trustee, The Tamerlane Charitable<br>Remainder Unitrust                   | 2,821  | *       | 2,821  | 0  | *       |
| The Photonics Fund, L.P.  | 25,309   | *       | 25,309   | 0  | *       |
| VP Company Investments 2004, LLC  | 340  | *       | 340  | 0  | *       |
| Wells Fargo Bank, N.A. fbo SHV Profit Sharing<br>Plan fbo Michele Y. Phua             | 41   | *       | 41   | 0  | *       |
| Wells Fargo Bank, N.A. fbo SHV Profit Sharing<br>Plan fbo Robert Yin                  | 58   | *       | 58   | 0  | *       |
| Wells Fargo Bank, N.A. fbo SHV Profit Sharing<br>Plan fbo Sherryl W. Hossack          | 232  | *       | 232  | 0  | *       |
| William H. Younger, Jr. Trustee, The Younger<br>Living Trust, U/A/D 1/20/95           | 3,895  | *       | 3,895  | 0  | *       |

\*Less than 1%

(1) Robert P. Goodman, Robin S. Chandra, J. Edmund Colloton and David J. Cowan, who are the Executive Managers of Deer V & Co. LLC, the General Partner of Bessec Ventures V L.P., Bessemer Venture Partners V L.P., Bessemer Venture Investors II L.P., BVE 2001 (Q) LLC and BVE 2001 LLC, share voting and dispositive power over the shares of EMCORE common stock held by Bessec Ventures V L.P., Bessemer Venture Partners V L.P., Bessemer Venture Investors II L.P., BVE 2001 (Q) LLC and BVE 2001 LLC. These individuals disclaim beneficial ownership of the shares of EMCORE common stock held by Bessec Ventures V L.P., Bessemer Venture Partners V L.P., Bessemer Venture Investors II L.P., BVE 2001 (Q) LLC and BVE 2001 LLC except to the extent of their pecuniary interest in such shares.

(2) Catherine Lego is also the General Partner of The Photonics Fund, L.P. which is the beneficial owner of an additional 25,309 shares of EMCORE common stock.

The selling shareholders have not held any position or office with, or have otherwise had a material relationship with, us or any of our subsidiaries within the past three years, except that Mr. Raj Kapany provided certain services to us following the merger of one of our wholly-owned subsidiaries into K2 Optronics, Inc. and currently provides consulting services to us pursuant to the terms of a Consulting Services Agreement.

## PLAN OF DISTRIBUTION

We are registering the shares on behalf of the selling shareholders and we anticipate keeping this registration statement effective for a period of one year from its effective date, subject to extension by the number of days that use of this registration statement is suspended due to pending material corporate developments. Each selling shareholder and any of its transferees who are affiliates, or any of its pledgees, assignees and successors-in-interest may, from time to time, sell any or all of its shares of common stock on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These sales may be at market prices prevailing at the time of sale, at prices related to the prevailing market prices or at fixed or negotiated prices. The shares of common stock may be sold by the selling shareholders directly to one or more purchasers, through agents designated from time to time or to or through broker-dealers designated from time to time. In the event the shares of common stock are publicly offered through broker-dealers or agents, the selling shareholders

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may enter into agreements with respect thereto. The selling shareholders may also transfer, devise or gift these shares by other means not described in this prospectus. The selling shareholders may also use any one or more of the following methods when selling shares:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- short sales;
- broker-dealers may agree with the selling shareholder to sell a specified number of such shares at a stipulated price per share;
- a combination of any such methods of sale; or
- any other method permitted pursuant to applicable law.

In connection with the sale of the common stock or interests therein, the selling shareholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the common stock in the course of hedging the positions they assume. The selling shareholders may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented to reflect such transaction). The selling shareholders may also engage in short sales against the box, puts and calls, loans or pledges and other transactions in our securities or derivatives of our securities and may sell or deliver shares in connection with these trades.

Broker-dealers engaged by the selling shareholders may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the selling shareholders (or, if any broker-dealer acts as agent for the purchaser of shares, from the purchaser) in amounts to be negotiated.

In addition to selling their shares under this prospectus, the selling shareholders also may resell all or a portion of their shares in open market transactions in reliance upon Rule 144 under the Securities Act, provided they meet the criteria and conform to the requirements of that rule. In addition, the selling shareholders may transfer or assign their shares of

common stock other than under this prospectus or in reliance upon Rule 144 under the Securities Act, provided the person acquiring the shares agrees to be bound by the terms of the registration rights agreement between us and the selling shareholder, in which case, upon notification of such transfer, we will file, to the extent required, a supplement to this prospectus disclosing all required information and the transferees and assignees will be the selling beneficial owner for purposes of this prospectus and may sell the shares of common stock from time to time under this prospectus.

The selling shareholders and any broker-dealers or agents that are involved in selling the shares may be deemed to be “underwriters” within the meaning of Section 2(11) of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. We have agreed to indemnify the selling shareholders against certain liabilities, and the selling shareholders have agreed to indemnify us against certain liabilities, including liabilities arising under the Securities Act. The selling shareholders may agree to indemnify any agent, dealer or broker-dealer that participates in transactions involving sales of the shares against certain liabilities, including liabilities arising under the Securities Act.

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Because the selling shareholders may be deemed to be “underwriters” within the meaning of Section 2(11) of the Securities Act, the selling shareholders will be subject to the prospectus delivery requirements of the Securities Act, which may include delivery through the facilities of Nasdaq. The anti-manipulative provisions of Regulation M under the Exchange Act may apply to sales of shares in the market and to the activities of the selling shareholders and their affiliates.

The selling shareholders have advised us that, as of the date of this prospectus, they have not entered into any agreements, understandings or arrangements with any underwriters or broker-dealers regarding the sale of their securities, nor is there an underwriter or coordinating broker acting in connection with the proposed sale of shares by the selling shareholders. However, the selling shareholders may enter into agreements, understandings or arrangements with underwriters or broker-dealers regarding the sale of their securities and upon notification by any selling shareholder that any material arrangement has been entered into with a broker-dealer or underwriter for the sale of shares through a block trade, special offering, exchange distribution or secondary distribution or a purchase by a broker or dealer, we will file a supplement to this prospectus, if required, disclosing all required information.

We will pay all registration and filing fees (including all expenses incident to filing with The Nasdaq National Market and any securities exchange), printing expenses, fees and disbursements of our counsel, fees of our independent auditors and accountants, expenses of any regular or special audits incident to or required by any such registration and expenses of complying with the securities or blue sky laws of any jurisdictions. We shall not be responsible for, and the selling shareholders shall pay, all underwriters’ discounts or commissions and the fees and expenses of the selling shareholders’ counsel.

## LEGAL MATTERS

The validity of the shares of common stock offered hereby will be passed upon by Howard W. Brodie, Esq.

## EXPERTS

The financial statements and management's report on the effectiveness of internal control over financial reporting incorporated in this prospectus by reference from the Company's Annual Report on Form 10-K, have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their reports, which are incorporated herein by reference, and have been so incorporated in reliance upon the reports of such firm given upon their authority as experts in accounting and auditing.

#### INTERESTS OF NAMED EXPERTS AND COUNSEL

An opinion concerning the validity of the issuance of shares of our common stock has been passed upon for us by Howard W. Brodie, Esq., our Executive Vice President and Chief Legal Officer. See Exhibit 5.1 to this Registration Statement. Mr. Brodie beneficially owns 138,756 shares of our common stock, which includes options to purchase 135,000 shares.

#### WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly, and current reports and other information with the Securities and Exchange Commission. You may read and copy any document that we file at the Public Reference Room of the SEC located at 100 F Street, N.E., Washington, D.C. 20549. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. In addition, the SEC maintains an Internet site at [www.sec.gov](http://www.sec.gov) that contains reports, proxy and information statements and other information regarding registrants that file electronically, including EMCORE. We are not incorporating the contents of the SEC website into this prospectus. Certain of our filings may also be found on our website, [www.EMCORE.com](http://www.EMCORE.com), under the heading "Investor." We are not incorporating the contents of our website into this prospectus.

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We have filed with the SEC a registration statement on Form S-3 (together with all amendments and exhibits, the "registration statement") under the Securities Act of 1933, as amended with respect to the offering of common stock. This prospectus, which constitutes part of the registration statement, does not contain all of the information set forth in the registration statement. Certain parts of the registration statement are omitted from the prospectus in accordance with the rules and regulations of the SEC.

Our common stock is listed on The Nasdaq National Market and similar information can be inspected and copied at the offices of the National Association of Securities Dealers, Inc., 1735 K Street, N.W., Washington, D.C. 20006.

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#### INCORPORATION BY REFERENCE

We have filed a registration statement under the Securities Act with the SEC with respect to the common stock offered



under this prospectus. This prospectus is a part of the registration statement. However, it does not contain all of the information contained in the registration statement and its exhibits. You should refer to the registration statement and its exhibits for further information about us and the common stock offered under this prospectus.

The SEC allows us to “incorporate by reference” the information we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is an important part of this prospectus, and information that we file later with the SEC will automatically update and supersede this information. We have filed the following documents with the SEC and they are incorporated by reference into this prospectus:

- our Annual Report on Form 10-K for the fiscal year ended September 30, 2005 filed on December 14, 2005;
- our Quarterly Report on Form 10-Q for the fiscal quarter ended December 31, 2005 filed on February 9, 2006;
- our Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2006 as amended on Form 10-Q/A filed on May 25, 2006;
- our Current Reports on Form 8-K filed on October 25, 2005, November 16, 2005, January 19, 2006, February 2, 2006, February 17, 2006 (Items 1.01 and 9.01 only), March 1, 2006, March 6, 2006 and May 17; and
- our Registration Statement on Form 8-A, filed with the SEC on February 26, 1997 (File Number 0-22175).

Please note that all other documents and reports filed under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act following the date of this prospectus and prior to the termination of this offering will be deemed to be incorporated by reference into this prospectus and to be made a part of it from the date of the filing of our reports and documents.

We will provide, without charge, upon written or oral request, a copy of any or all of the documents incorporated herein by reference. You should direct requests for documents to:

EMCORE Corporation  
145 Belmont Drive  
Somerset, New Jersey 08873  
Attention: Investor Relations  
(732) 271-9090

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PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 14. Other Expenses of Issuance and Distribution.

The following table sets forth the estimated expenses to be incurred in connection with the offering described in the Registration Statement:

|   |               |
|---|---------------|
| Securities and Exchange Commission registration fee | \$ 865.77     |
| Legal fees and expenses                             | 75,000.00     |
| Accounting fees and expenses                        | 25,000.00     |
| Miscellaneous                                       | 5,000.00      |
| Total   | \$ 105,865.77 |

ITEM 15. Indemnification of Directors and Officers.

The Company's Restated Certificate of Incorporation and By-Laws include provisions (i) to reduce the personal liability of the Company's directors for monetary damage resulting from breaches of their fiduciary duty, and (ii) to permit the Company to indemnify its directors and officers to the fullest extent permitted by New Jersey law. The Company has obtained directors' and officers' liability insurance that insures such persons against the costs of defense, settlement, or payment of a judgment under certain circumstances. There is no pending litigation or proceeding involving any director, officer, employee, or agent of the Company as to which indemnification is being sought. The Company is not aware of any pending or threatened litigation that might result in claims for indemnification by any director or executive officer.

ITEM 16. Exhibits.

Please see exhibit index immediately following signature page.

ITEM 17. Undertakings.

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement.

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

Paragraphs (a)(1)(i), (a)(1)(ii) and (a)(1)(iii) of this section do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports

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filed with or furnished to the Commission by the registrant pursuant to section 13 or section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

(b) The undersigned registrant hereby undertakes that, for the purposes of determining any liability under the Securities Act, each post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at the time shall be deemed to be the initial bona fide offering thereof.

(c) The undersigned registrant hereby undertakes to remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(d) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(e) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

(f) The undersigned registrant hereby undertakes that:

(1) for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

(i) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of

contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant, EMCORE Corporation, certifies that it has reasonable grounds to believe that it meets all of the requirements for filing Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Somerset, and State of New Jersey, on the 7<sup>th</sup> day of July, 2006.

EMCORE CORPORATION  
/s/ Reuben F. Richards,  
Jr.  
 Reuben F. Richards, Jr.  
 President and Chief Executive Officer

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Thomas G. Werthan and Howard W. Brodie, Esq., and each of them, his or her true and lawful attorney-in-fact and agent, with full power and substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments to this registration statement (including any and all pre-effective and post-effective amendments), any registration statement filed pursuant to Rule 462(b) under the Securities Act of 1933, as amended, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact, agents, or his or her substitute or substitutes may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed on July 7, 2006 by the following persons in the capacities indicated.

| Signature  | Title   |
|--|---|
| /s/ Thomas J. Russell<br>Thomas J. Russell, Ph.D.      | Chairman of the Board   |
| /s/ Reuben F. Richards, Jr.<br>Reuben F. Richards, Jr. | President and Chief Executive Officer, Director<br>(Principal Executive Officer)  |
| /s/ Thomas G. Werthan<br>Thomas G. Werthan             | Chief Financial Officer, Director<br>(Principal Accounting and Financial Officer) |
| /s/ Richard A. Stall<br>Richard A. Stall, Ph.D.        | Director  |

|  |          |
|--|----------|
| /s/ Robert Louis-Dreyfus<br>Robert Louis-Dreyfus | Director |
| /s/ Robert Bogomolny<br>Robert Bogomolny         | Director |
| /s/ Charles Scott<br>Charles Scott               | Director |
| /s/ John Gillen<br>John Gillen                   | Director |

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EXHIBIT INDEX

| Exhibit<br>Number | Exhibit   |
|-------------------|---|
| 4 .1              | — Restated Certificate of Incorporation, dated December 21, 2000 (incorporated by reference to Exhibit 3.1 of the Registrant’s Annual Report on Form 10-K for the fiscal year ended September 30, 2000)                       |
| 4 .2              | — Amended By-Laws, as amended through December 21, 2000 (incorporated by reference to Exhibit 3.2 of the Registrant’s Annual Report on Form 10-K for the fiscal year ended September 30, 2000)                                |
| 4 .3              | — 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) |
| 4 .4              | — Registration Rights Agreement dated as of January 12, 2006, by and among EMCORE Corporation and the former stockholders of K2 Optronics, Inc., listed on Schedule A thereto   |
| 4 .5              | — Registration Rights Agreement dated as of December 18, 2005, by and between EMCORE Corporation, and Force, Inc.   |
| 4 .6              | — Registration Rights Agreement dated as of November 8, 2005, by and between EMCORE Corporation, and Phasebridge, Inc.  |
| 5 .1              | — Opinion of Howard W. Brodie, Esq.   |
| 23.1              | — Consent of Deloitte & Touche LLP  |
| 23.2              | — Consent of Howard W. Brodie, Esq. (included in Exhibit 5.1)   |
| 24.1              | — Power of Attorney (included on signature page)  |