II-VI INC Form 10-K/A September 30, 2002

FORM 10-K/A (Amendment No. 1)

United States
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

[X] Annual Report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

for the fiscal year ended June 30, 2002

[ ] Transition report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the transition period from  $$\rm to$$  .

Commission File Number: 0-16195
II-VI INCORPORATED

(Exact name of registrant as specified in its charter)

PENNSYLVANIA 25-1214948 (State or other jurisdiction of incorporation or organization) Identification No.)

375 Saxonburg Boulevard Saxonburg, PA

16056

(Address of principal executive offices)

Registrant's telephone number, including area code: 724-352-4455

Securities registered pursuant to Section 12(b) of the Act: None.

Securities registered pursuant to Section 12(g) of the Act:

Common Stock, no par value.

Preferred Stock Purchase Rights

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes X No

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

Aggregate market value of outstanding Common Stock, no par value, held by non-affiliates of the Registrant at September 10, 2002, was approximately \$144,552,000\$ based on the closing sale price reported on

the Nasdaq National Market for September 10, 2002. For purposes of this calculation only, directors and executive officers of the Registrant and their spouses are deemed to be affiliates of the Registrant.

Number of outstanding shares of Common Stock, no par value, at September 10, 2002, was 14,040,374. All share and per share information included in this Form 10-K reflects the two-for-one stock split effected on September 20, 2000.

#### EXPLANATORY NOTE

This amended annual report on Form 10-K/A (the "Amendment") of II-VI Incorporated (the "Company") is being filed solely for the purpose of amending Item 8 and Item 15 to correct certain clerical formatting errors which occurred in the electronic preparation process and appear in the annual report on Form 10-K filed on September 27, 2002 (the "Original Filing"). Item 8, as corrected, is consistent with the financial statements and notes thereto as presented in the Company's Annual Report to Shareholders.

For ease of reference, Items 1 through 7 and Items 9 through 14 are being reproduced in this Amendment as they appear in the Original Filing without modification.

The filing of this Amendment is not an admission that the Original Filing (i) included any untrue statement of a material fact or omitted to state a material fact necessary to make a statement not misleading and (ii) did not fairly present in all material respects the financial condition, results of operations and cash flows of the Company.

#### DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive proxy statement, which will be issued in connection with the 2002 Annual Meeting of Shareholders, are incorporated by reference into Part III of this annual report on Form 10-K.

#### Forward-Looking Statements

This annual report on Form 10-K (including certain information incorporated herein by reference) contain forward looking statements as defined by Section 21E of the Securities Exchange Act of 1934, as amended, including the statements regarding projected growth rates, markets, product development, financial position, capital expenditures and foreign currency hedging. Forward-looking statements are also identified by words such as "expects," "anticipates," "intends," "plans," "projects" or similar expressions.

Actual results could materially differ from such statements due to the following factors: materially adverse changes in economic or industry conditions generally (including capital markets) or in the markets served by the Company, the development and use of new technology and the actions of competitors. Other important factors

and uncertainties include, but are not limited to the Risk Factors set forth in Item 7.

PART I

ITEM 1. BUSINESS

Introduction

II-VI Incorporated ("II-VI" or the "Company") was incorporated in Pennsylvania in 1971. Our executive offices are located at 375 Saxonburg Boulevard, Saxonburg, Pennsylvania 16056. Our telephone number is 724-352-4455. Reference to the "Company" or "II-VI" in this Form 10-K, unless the context requires otherwise, refers to II-VI Incorporated and its wholly-owned subsidiaries: VLOC Incorporated; II-VI Delaware, Incorporated; II-VI Holdings B.V.; II-VI Japan Incorporated; II-VI Singapore Pte., Ltd.; II-VI Acquisition Corp.; II-VI Optics (Suzhou) Co. Ltd.; II-VI International Pte., Ltd.; II-VI U.K. Limited; and Laser Power Corporation and its wholly-owned subsidiaries: EMI Acquisition Corporation; Exotic Materials, Incorporated; Laser Power Optics de Mexico S.A. de C.V.; Laser Power Europe N.V.; and Laser Power FSC, Ltd.  $\,$  eV PRODUCTS operates as a division of II-VI Incorporated. The Company's name is pronounced "Two-Six Incorporated." The majority of our revenues are attributable to the sale of optical components for the industrial laser processing industry.

Information Regarding Market Segments and Foreign Operations

Our business comprises three segments: (i) the design, manufacture and marketing of optical and electro-optical components, devices and materials for infrared, near-infrared and visible-light instrumentation, (ii) the manufacture and marketing of x-ray and gamma-ray instrumentation and (iii) the Company's Laser Power Corporation subsidiary acquired in fiscal 2001.

Financial data regarding our revenues, results of operations, industry segments and international sales for the three years ended June 30, 2002 is set forth on the Consolidated Statements of Earnings and on Note J of the Company's Consolidated Financial Statements included in this Form 10-K.

General Description of Business

We develop, manufacture and market high technology materials and derivative products for precision use in industrial, medical, telecommunications, military and aerospace applications. We use advanced material growth technologies coupled with proprietary high precision fabrication, micro-assembly, and thin-film coating production processes. The resulting optical and optoelectronic devices are supplied to manufacturers and users of a wide variety of laser, detection, military and telecommunication components and systems. A key strategy is to develop and manufacture complex materials from elements of chemistry's periodic table. We focus on providing critical products to the heart of our customer's assembly lines for products such as high power laser material processing systems, military fire control and missile guidance devices and advanced medical x-ray systems. We believe we are a market leader for high power (CO2) and YAG laser optical elements, military infrared optical components, and x-ray and gamma ray detectors for both the medical and nuclear radiation industries.

Our United States production operations are located in Pennsylvania, Florida, California and New Jersey and our international production operations are based in Singapore, China, Mexico and Belgium. In addition to sales offices at each of our manufacturing sites we have sales and marketing subsidiaries in Japan and the United Kingdom. Approximately 39% of our revenues are for product sales outside of the United States.

Our primary products are key optical and optoelectronic components used in the laser, military and nuclear radiation detection industries.

- Our laser-related products include laser gain materials for solid-state lasers and many of the high precision optical elements used to focus and direct laser beams to target or work surfaces. The majority of our laser products require advanced optical materials that are internally produced. Our vertical integration from material growth, through fabrication and thinfilm coating provides us with a significant competitive advantage.
- Our military infrared products include targeting and navigation systems that utilize advance optical materials. The vertical integration of our manufacturing processes for these military applications provides us with a significant competitive advantage.
- Nuclear radiation detector products are based on the semiconductor material Cadmium Zinc Telluride (CdZnTe). These detectors are attractive to customers due to the increased performance, reduced size, improved ruggedness and lower voltage requirements as compared to traditional technologies.

We are at the forefront of advanced material growth research, development and high volume production. Over the past five years we have expanded our material growth development to include single crystal Silicon Carbide (SiC) for use in blue and green Light Emitting Diodes (LEDs), diode lasers and high performance electronics. In fiscal 2002, we acquired the Litton Systems Inc. Silicon Carbide Group to complement the Company's SiC development activities and to accelerate our product to market. Significant progress has been made in this relatively short development period and at the present time we are working closely with potential customers to qualify and further develop our products.

#### Our Markets

Our business is comprised of four markets:

- Design, manufacture and marketing of optical and electrooptical components, devices and materials for infrared, near infrared and visible light lasers and instrumentation by our II-VI business units and VLOC subsidiary.
- 2) Manufacture and marketing of x-ray and gamma-ray solid-state radiation detectors and components for medical, industrial, environmental and scientific instruments by our eV PRODUCTS division.
- Design, manufacture and marketing of infrared products for military applications and optical and electro-optical

component devices for infrared lasers by our Laser Power Corporation subsidiary acquired in fiscal 2001.

4) Development of single crystal growth and fabrication of Silicon Carbide (SiC) substrates for use in the manufacture of devices such as high temperature electronics and blue and green high brightness LEDs by our Wide Band Gap (WBG) group.

Our reportable segments, in accordance with Statement of Financial Accounting Standards No. 131, ''Disclosures About Segments of an Enterprise and Related Information,'' currently are optical components (which encompasses markets 1 and 4 above), radiation detectors (which is market 2 above) and the Company's Laser Power Corporation subsidiary (which is market 3 above).

Laser Components Market. In recent years, increases in laser component consumption have been driven by continued worldwide proliferation of laser processing applications. Manufacturers are seeking solutions to increasingly complex demands for quality, precision, speed, throughput, flexibility, automation and cost control. High power CO2 and YAG lasers provide these benefits in a wide variety of cutting, welding, drilling, ablation, balancing, cladding, heat treating, and marking applications. For example, automobile manufacturers use lasers to facilitate rapid prototyping, production simplification, efficient sequencing, and computer control on high throughput production lines. Manufacturers of recreation vehicles, motorcycles, lawn mowers and garden tractors cut, trim and weld metal parts with lasers to achieve flexibility, high consistency, reduced post processing and lower costs. Furniture manufacturers utilize lasers to provide easily reconfigurable, low-distortion, lowcost prototyping and production capabilities that facilitate the manufacturing of customer specified designs. On high-speed processing lines, laser marking provides automated date coding for food packaging and computer driven container identification for pharmaceuticals.

We provide optical elements and components for both CO2 and YAG laser systems. In addition to use by original equipment manufacturers (OEMs), a replacement part aftermarket exists in support of an estimated current worldwide installed base of over 100,000 industrial YAG and CO2 lasers.

Solid-State Radiation Detection Market. Solid-state radiation detectors and components are sold primarily to companies engaged in the manufacture of medical diagnostic, medical imaging or industrial gauging/inspection, security and monitoring equipment. In an increasing number of applications, the use of gamma- or x-ray radiation enables more rapid and accurate measurement of medical conditions, industrial quality and early detection and identification of nuclear materials and threatening objects. Solid-state detectors based on CdZnTe are making inroads against older, more established technologies such as cryogenically cooled germanium detectors or sodium iodide scintillators coupled to photomultiplier tubes. CdZnTe detectors have already been substituted for these older technologies in applications where increased accuracy, simpler operation, portability and lower cost are required. CdZnTe is beginning to enable new medical, industrial and security/monitoring applications not feasible with the older technologies and is used routinely in cancer probes, bone densitometry systems and process control systems.

We believe the annual worldwide market for all solid-state radiation detectors is currently over \$250 million and growing at 10%

per year. Digital radiography (the recording of digital x-ray images) represents the largest market segment followed in order by nuclear medicine (the detection or imaging of radioactively tagged materials in the body), industrial gauging, radiation monitoring and nuclear safeguards/non-proliferation. Presently, we believe that the addressable CdZnTe market has grown to represent \$50\$ million of the worldwide solid-state radiation detector market.

During the next several years, the performance of CdZnTe and other solid-state detectors will be improved through additional research and development, creating the potential for digital imaging to replace x-ray film in a myriad of traditional radiography applications.

We believe that the market for CdZnTe detectors and imagers will grow faster than the overall market rate of 10% because of several factors, including:

- the strong migration toward ''film-less'' detection methods that enable the direct recording of digital images or videos which can be stored, recalled and transmitted via the Internet;
- the desire for lower radiation dosage;
- the desire for simpler and safer operation at room temperature;
- the increasing requirement that equipment be ''intrinsically safe'' in environments where a spark might start a fire;
- the general trend towards equipment miniaturization; and
- the need to inspect, document and control quality at additional points within the manufacturing process in a wide range of industries; for example, the measurement and control of film thickness during the painting of automobile bodies.

Equipment manufacturers increasingly desire to procure fully tested, packaged components rather than devices that must be qualified and assembled. We believe that this trend will require leading suppliers to provide products containing ever-higher levels of signal processing and, as a result, the market will place high value on suppliers having strong applications engineering capabilities and a focus on customer relationships.

Military Infrared Optics Market. The military infrared optics market is comprised of a demand for several critical products primarily windows, window assemblies and domes. Windows and window assemblies are utilized in thermal imaging systems that provide night vision, targeting, and navigation systems. These systems are installed in various platforms, including ground vehicles, helicopters and fixed-wing aircraft. Domes are utilized as a protective cover for infrared guided missiles. Missile sizes range from small, manportable designs to larger designs mounted on ground vehicles, helicopters and fixed-wing aircraft. These infrared optics products are sold primarily to the U.S. government and its prime contractors for use in night vision, thermal imaging and guidance systems.

Currently, the demand for military optics is being driven by upgrades to existing platforms such as the F-16 and F-18 fighter aircraft and the introduction of high performance/lower cost mid-wave infrared sensors. This complements the current market of long-wave infrared optical products that we have traditionally produced while providing

additional growth. Demand for mid-wave infrared optical components from materials such as sapphire, ALON and Spinel will likewise increase to meet this demand.

The U.S. government is directing several research and development programs to field defensive anti-missile systems using laser technology. An example of such programs is the Air Borne Laser (ABL) program. These programs require high performance coatings that must withstand extremely high laser energies and must be reliably coated onto large aperture optics including windows, domes and mirrors.

Silicon Carbide Electronic Materials Market. Silicon carbide is a wide band gap semiconductor material that offers high-temperature, high-power and high-frequency capabilities in applications that are rapidly emerging at the high-performance end of the optoelectronic, telecommunication, power distribution and transportation markets. Silicon carbide has certain inherent physical and electronic advantages over competing semiconductor materials such as silicon and gallium arsenide, including the ability to operate at up to 400 degrees Centigrade (750 degrees Fahrenheit) and the capability to conduct up to twice the amount of heat away from operating devices. Typically, either silicon carbide or gallium nitride layers are deposited on a silicon carbide substrate and the desired optoelectronic or electronic devices are fabricated in the resulting material structure. Silicon carbide based structures are being developed and deployed for the manufacture of a wide variety of microwave and power switching devices while gallium nitride based structures are already standard for the manufacture of blue and green light emitting diodes and blue laser diodes.

We believe that wide band gap semiconductor devices incorporating silicon carbide materials technology will penetrate a wide range of applications in the optoelectronic, telecommunication, power distribution and transportation markets during the next decade. For instance, blue and green LEDs built on silicon carbide substrates offer the promise of higher output power than devices currently built on less expensive but thermally insulating sapphire substrates. The realization of this promise will establish silicon carbide substrates as an important building block in high brightness computer driven signs or displays, in high brightness automotive lighting and in the replacement of incandescent and eventually fluorescent lighting by high power, high efficiency solid-state lamps. High power, high frequency silicon carbide microwave devices promise to rival gallium arsenide devices in telecommunication base station transmitters and silicon devices in both commercial and military air traffic radar applications. Silicon carbide high power, high-speed switching devices promise to improve the performance and reliability of utility transmission and distribution systems and for motor controls in a wide variety of applications. These devices could also play a key role in the evolution of the electric car.

#### Our Strategy

Our strategy is to build businesses with world-class, high technology materials capabilities at their core. The following current business activities follow this model: CO2 and infrared optics based on Zinc Selenide (ZnSe) and Zinc Sulfide (ZnS), near infrared and visible laser components based on YAG and Yttrium Lithium Fluoride (YLF), and solid-state radiation detectors based on CdZnTe. Consistent with this strategy, our initiative to enter the

optoelectronic and electronic substrates business is predicated on the establishment of Silicon Carbide (SiC) capabilities. In every case, we subsequently manufacture precision parts and components from these materials using established but evolving expertise in low damage surfacing and micro fabrication, thin-film coating, and exacting metrology. A substantial portion of our business is based on long-term contracts with market leaders, which enables substantial forward planning and production efficiencies. In addition, industry leading product quality and delivery performance allows us to achieve comparatively high operating margins in major segments of our business. We intend to capitalize on the execution of this proven model and continually gain market share for laser optics and components, solid-state radiation detectors, telecommunication devices and optoelectronic/electronic materials and substrates.

- Continue Investment to Gain CO2 and YAG Market Share Worldwide. We continually invest in our manufacturing operations worldwide to increase production capacity.
- Enhance Our Reputation as a Worldwide Quality and Customer Service Leader. We are committed to understanding our customers' needs and exceeding their expectations. We have established ourselves as a consistent high quality supplier of components into our customers' assembly lines. In many cases we deliver on a just in time (JIT) basis. We believe our ontime delivery record and product return rates are the best in the industries we serve. Our quality mission statement is, ''We pledge to exceed our internal and external customer requirements through employee dedication to continuous improvement.''
- Pursue Strategic Acquisitions and Alliances. Some of the markets we participate in remain fragmented and we expect consolidation to occur over the next several years. We will pursue strategic acquisitions and alliances with companies whose products or technologies compliment our current products, expand our market coverage, increase our addressed market or create synergies with our current capabilities. We intend to identify acquisition opportunities that accelerate our access to emerging high growth segments of the markets we serve.
- Pursue Military Infrared Systems Programs. We believe our Laser Power Corporation subsidiary is a leading supplier of optics for military infrared systems. The Exotic Electro-Optics (EEO) subsidiary of Laser Power Corporation is committed to capturing new military contracts and currently has significant contracts in place with every major military prime contractor. Our Large Optics Coating Facility (LOCF) will enable us to pursue the increased U.S. government defense funding for programs directed towards defensive anti-missile systems using laser technology. This facility is unique in the industry placing itself as one of the few coating laboratories to provide high performance coatings that must withstand extremely high laser energies. Laser Power has several proprietary coatings that are the enabling technology for these systems.
- Continue Extension of Technology Leadership in the Gamma- and X-ray Detector Field. We believe our eV PRODUCTS division is the leader in the manufacture of solid-state gamma- and x-ray detector devices and components. CdZnTe handheld probes in the

medical field allow the introduction of new cancer location techniques. CdZnTe based imaging arrays are being introduced in nuclear medicine. CdZnTe is being developed for real time x-ray radiography, which will allow a physician to view relevant parts of the body in real time using a fraction of the x-ray dose required with film. In addition, CdZnTe is drawing attention from the Transportation Safety Administration (TSA) for use in baggage and package inspection systems. Our eV PRODUCTS division is working on these medical, industrial and security applications with market leaders worldwide. The high pressure Bridgman growth process for producing CdZnTe is a materials expertise unique to the Company.

- Utilize Proven Materials Growth Expertise to Perfect Silicon Carbide (SiC). We are a proven provider of hard to grow materials and opto-electronic crystals. We intend to leverage our skills and experiences in commercially producing ZnSe, ZnS, CdZnTe, YAG and YLF to move rapidly forward with our SiC development program. We intend to gain market share and become a reliable second source of SiC substrates to the worldwide marketplace. We will utilize our low damage fabrication experience and exacting metrology in achieving this position.

#### Our Products

Our products include optical, optoelectronic and electronic materials, devices and components for use in laser, detection, military, telecommunication and advanced electronic and optoelectronic applications. These products are sold to laser system manufacturers and end-users, military laser system and defense suppliers, manufacturers of nuclear radiation detection systems and component suppliers to the optoelectronic and electronic industries.

Laser Components. We supply a broad line of precision optical components such as lenses, waveplates, and mirrors to the CO2 laser market. CO2 lasers are used in a wide variety of industrial processes including cutting, welding, drilling, marking and heat treating of materials such as steel alloys, non-ferrous metals, plastics, wood, paper, fiberboard, ceramics and composites. CO2 lasers are also used in cosmetic and invasive medical surgery. Our precision optical components are used to regulate the amount of laser energy, enhance the properties of the laser beam, and focus and direct laser beams to a target work surface. The optical components include both reflective and transmissive optics and are made from materials such as ZnSe, Copper, Silicon and Germanium. Transmissive optics used with CO2 lasers are predominately made from ZnSe. We are the largest manufacturer in the world of ZnSe providing us with a significant cost advantage. We believe our ZnSe production capability, high precision fabrication operations and proprietary thin-film coating technology has earned us a reputation as the quality leader in this world market.

Additionally, we supply replacement optics and refurbishing services to end users of CO2 lasers. Over time optics may become contaminated and must be replaced to maintain efficient laser operations. This aftermarket portion of our business continues to grow as laser applications proliferate worldwide.

Key materials and precision optical components for YAG and other solid-state laser systems are part of our product offering. The increasing power levels and reduced operating costs of evolving YAG laser systems are enabling this technology to address new

applications. YAG lasers are now used in high power application such as cutting, welding, marking and date coding. Additionally, YAG laser energy can be delivered through optical fibers, which provides high flexibility beam delivery systems.

We supply a family of standard and custom laser gain materials and optics for industrial, medical, scientific and research YAG lasers. Our YAG laser gain materials are produced to stringent industry specifications and precisely fabricated into rods or slabs. Additionally, we offer waveplates, polarizers, lenses, prisms and mirrors for visible and near-infrared applications which are used to control or alter visible or near-infrared energy and its polarization.

Solid-State Radiation Detectors. We design, manufacture and market CdZnTe room temperature, solid-state radiation detectors combined with custom-designed low noise electronics and imbedded systems. New and expanding applications in industry, medicine, security and research are fueling increased demand for our products. Our solid-state CdZnTe nuclear radiation detectors are attractive because of their reduced size, improved ruggedness, and lower voltage requirements as compared to traditional detectors based on scintillator/photomultiplier or cooled germanium technologies.

CdZnTe-based imaging arrays can be used in both nuclear medicine (internally emitted gamma-rays) and radiography (x-rays from an external source). In nuclear medicine, CdZnTe makes feasible a new generation of gamma cameras, offering much improved position sensitivity and the ability to produce images using lower doses of injected radioactivity. In radiography, higher density CdZnTe can provide much improved sensitivity to the higher x-ray energies used in some of the newer diagnostic techniques. Direct-read digital radiography cameras are being developed which, if successful, will allow the physician to view the relevant part of the body in real time, reducing the time required for diagnosis. In security applications, the unique properties of CdZnTe can provide additional information during a normal baggage scan that allow the system to not only show the image of a suspicious object, but more importantly, tell the operator the material or chemical composition of the item.

Military Infrared Optics. We produce optics for military infrared systems including thermal imaging, night vision, targeting, and navigation systems. These optics comprise missile domes, electro-optical windows and assemblies and imaging lenses and filters. Our precision optical products utilize optical materials consisting of zinc selenide, zinc sulfide, germanium, silicon, sapphire, AMTIR, ALON, and Spinel. The vertical integration of our manufacturing gives us a unique capability to design, fabricate, coat, and assemble these complex systems in-house. These products are currently utilized on the M1 tank, Apache Helicopter, F-14 and F-16, military aircraft, and others, as well as future platforms including the Joint Strike Fighter (JSF).

Research, Development and Engineering

Our research and development effort calls for the pursuit of a program of internally funded and contract research and development totaling between 5 and 8 percent of product sales. From time to time the ratio of contract to internally funded activity varies significantly due to the unevenness and uncertainty associated with most government research programs. We are committed to accepting only funded research that ties closely to our growth plans.

We devote significant resources to research, development and engineering programs directed at the continuous improvement of existing products and processes and to the timely development of new technologies, materials and products. We believe that our research, development and engineering activities are essential to our ability to establish and maintain a leadership position in each of the markets that we serve. As of June 30, 2002 we employed 148 people in research, development and engineering functions, 124 of which are engineers or scientists. In addition, manufacturing personnel support or participate in research and development on an ongoing basis. Interaction between the development and manufacturing functions enhances the direction of projects, reduces costs and accelerates technology transfers.

During the past year, we have made focused investments in:

- Silicon Carbide Substrate Technology: In fiscal 2002, we acquired the Litton Systems Inc. Silicon Carbide Group to complement the Company's SiC development activities. We presently have several crystal growth furnaces producing silicon carbide at both our Pennsylvania and New Jersey manufacturing facilities. In

addition, slicing and substrate polishing facilities are in place and qualification products are being sampled by key customers.

- Large Diameter YAG Manufacturing: Our research and development activities in this area are focused on producing materials that will accelerate the evolution of kilowatt-class YAG lasers. Achievements in process control and reliability are rapidly transferred into production at our Florida manufacturing facility, largely due to effective teamwork and crossover between our development and manufacturing personnel.
- High Performance CdZnTe Materials: The marketplace success of eV PRODUCTS depends on our capability and capacity to produce radiation detectors with ever-higher sensitivity, resolution and efficiency at lower cost. Key advancements have been achieved and will continue to be sought in the production of larger single crystal ingots as well as in the fabrication techniques for the manufacture of monolithic arrays of closely spaced detectors. As improved performance is indicated, new applications and market potential are opened to CdZnTe products.

The development of our products and processes is largely based on proprietary technical know-how and expertise. We rely on a combination of contract provisions and trade secret laws to protect our proprietary rights. When faced with potential infringement, we have in the past and will continue to protect our rights.

Research, development and engineering expenditures were \$11.3 million, \$8.1 million and \$4.0 million for the fiscal years ended June 30, 2002, 2001 and 2000, respectively. For these same periods, the customer and government funded portions of these expenditures were \$7.6 million, \$5.1 million and \$1.7 million.

Marketing and Sales

We market our products through a direct sales force in North

America, Japan, Southeast Asia, Belgium and the UK, and through representatives and distributors elsewhere in Europe, Asia, and South America. Our market strategy is focused on building market awareness and acceptance of our products. New products are constantly being produced and sold to our established customers in the laser component market places.

Each of our product lines is responsible for their own worldwide marketing and sales functions, as follows:

- 1) The laser component businesses share many common customers and sell through our subsidiaries II-VI Japan Incorporated and II-VI U.K. Limited as well as through a common distributor in most of Europe. In Germany, we recently established a new joint venture with L.O.T.-Oriel Laser Optik Technologie Holding GmbH and L.O.T. Oriel Laser Optik GmbH & Co. KG of Darmstadt, Germany (collectively L.O.T.) to distribute II-VI Incorporated and Laser Power Corporation products. (See Note M to the Consolidated Financial Statements.)
- 2) The eV PRODUCTS marketing and sales initiative is handled through a direct sales force in the US coupled with manufacturers' representatives. An array of distributors and representatives are used throughout the rest of the world.
- 3) The military infrared products marketing and sales initiative is handled through a direct sales force in the United States.
- 4) The management and technical staff work closely with potential customers providing samples and deliverable products from our wide band gap wafer materials activities in SiC.

Our sales force develops close relationships with our OEM and end-user customers worldwide. All divisions actively market their products through targeted mailings, telemarketing, select advertising and attendance at trade shows. Our sales force includes a highly trained team of application engineers to assist customers in designing, testing and qualifying our parts as key components of our customers' systems. As of June 30, 2002, we employed 60 individuals in sales, marketing and support.

#### Manufacturing Technology and Processes

A majority of the products we produce depend on our ability to manufacture difficult optical, opto-electronic or electronic materials. The table below shows these key materials and the processes used to produce them.

	Materials	
Product Line	Produced	Growth Process Utilized
- Laser Components	ZnSe and ZnS	Chemical Vapor Deposition
- Laser Components	YAG and YLF	Czochralski
- Solid-State Detectors	CdZnTe	High Pressure Bridgman and
		Conventional Bridgman
- SiC Substrates	SiC	Physical Vapor Transport
		and Axial Gradient
		Transport

The ability to produce these difficult materials and to control the quality and yields is an expertise of II-VI. Processing of these

materials into finished products is difficult to accomplish; yet the quality and reproducibility of these products are critical to the performance of our customer's instruments and systems. In the markets we serve there are a limited number of suppliers of many of the components we manufacture.

The network of our worldwide manufacturing sites allows products to be produced in regions that provide cost-effective advantages. We believe our cost to produce our infrared and near infrared components are the lowest among all competitors. We employ numerous advanced manufacturing technologies and systems in all product-manufacturing facilities. These include automated CNC optical fabrication, high throughput thin-film coaters, micro precision metrology and customengineered automated furnace controls for the crystal growth processes. Producing products for use across the electromagnetic spectrum requires the capabilities to repeatedly produce products with high yields to tolerances in the nanometer range. We embody a technology and quality mindset that gives our customers the confidence to utilize our products in a just in time basis straight into the heart of their production lines.

#### Sources of Supply

The major raw materials we use are Zinc, Selenium, Hydrogen Selenide, Hydrogen Sulfide, Cadmium, Tellurium, Yttrium Oxide, Aluminum Oxide and Iridium. We produce virtually all of our Zinc Selenide requirements internally, although small quantities of Zinc Selenide may be purchased from outside vendors from time to time. We also purchase Zinc Sulfide, Gallium Arsenide, Copper, Silicon, Germanium, Quartz, optical glass and small quantities of other materials for use as base materials for laser optics. We purchase Thorium Fluoride and other materials for use in optical fabrication and coating processes. There are more than two external suppliers for all of the above materials except for Zinc Selenide, Zinc Sulfide, Hydrogen Selenide and Thorium Fluoride, for each of which there is only one proven source of merchant supply. For most materials, we have entered into annual purchase arrangements whereby suppliers provide discounts for annual volume purchases in excess of specified amounts.

The continued high quality of these materials is critical to the stability of our manufacturing yields. We conduct testing of materials at the onset of the production process to meet evolving customer requirements. Additional research may be needed to better define future starting material specifications. We have not experienced significant production delays due to shortages of materials. However, we do occasionally experience problems associated with vendor supplied materials not meeting contract specifications for quality or purity. A significant failure of our suppliers to deliver sufficient quantities of necessary high-quality materials on a timely basis could have a materially adverse effect on our results of operations.

#### Customers

Our customer base for our laser component products consists of over 5,000 customers worldwide.

The three main groups of customers for our laser component products are as follows:

- Leading original equipment manufactures and system integrators

of high power industrial, medical and military laser systems,

- Laser end users who require replacement optics for their existing laser systems, and
- Scientific and military customers, including the U.S. military and its allies, for use in advanced targeting, navigation and infrared imaging systems.

For our solid-state radiation detector products, our customers are manufacturers of equipment and devices for industrial process control, nuclear medicine, x-ray imaging, environmental monitoring, nuclear safeguards and nonproliferation, and health physics. We are currently dependent on a limited number of key customers for this product line.

Our silicon carbide electronic materials product sales to date have been limited and we do not have an established customer base for this product line.

#### Competition

We believe that we are a leading producer of products and services in our addressed markets. In the area of commercial infrared laser optics and materials, we believe we are an industry leader. We are a leading supplier of infrared optics used in complex military assemblies for targeting, navigation and thermal imaging systems to every major military prime contractor. We are a leading supplier of CdZnTe substrates and devices for x-ray and gamma-ray detectors and components. We are a significant supplier of YAG rods and YAG laser optics to the worldwide markets of scientific, research, medical and industrial laser manufacturers.

We compete on the basis of product quality, delivery time, strong technical support and pricing. Management believes that we compete favorably with respect to these factors and that our vertical integration, manufacturing facilities and equipment, experienced technical and manufacturing employees, and worldwide marketing and distribution provide competitive advantages.

We have a number of present and potential competitors, many of which have greater financial, selling, marketing or technical resources. A competitor of our production of ZnSe is a division of Rohm and Haas Company. The competitors producing infrared and CO2 laser optics include Sumitomo in Japan and Ophir Optronics in Israel as well as several companies producing limited quantities of infrared and CO2 laser optics. Competing producers of YAG materials and optics include the Poly-Scientific Division of the Northrop Grumman Component Technologies Sector and a division of Saint-Gobain. Competing producers of infrared optics for military applications are in-house fabrication and thin film coating capabilities of major military prime contractors, such as Raytheon Corporation. Competing producers of CdZnTe and CdZnTe detectors include Acrorad in Japan and Imarad in Israel.

In addition to competitors who manufacture products similar to those we produce, there are other technologies or materials that may compete with our products.

Bookings and Backlog

We define our bookings during a fiscal period as incoming orders believed to be deliverable to customers in the next twelve months net of any order cancellations. Certain long-term research and development contracts exceeding twelve-month may be booked in their entirety, but in no event would exceed twenty-four months. For the year ended June 30, 2002, our bookings were \$117.0 million compared to bookings of \$132.7 million for the year ended June 30, 2001. We believe that the decrease in bookings was driven by the weak worldwide economy and industrial demand. Many large one-year blanket orders were not cancelled, but were pushed out three to six months due to weakened industrial demand.

We define our backlog as customer orders available for shipment in the next twelve months and certain long-term research and development contracts not exceeding twenty-four months as of the end of the fiscal period. As of June 30, 2002, our backlog was \$48.0 million compared to \$44.7 million at June 30, 2001. The increase in backlog is primarily reflective of strong second half bookings, more specifically large one-year blanket orders recorded by the eV PRODUCTS division, significant military orders booked at the Laser Power Corporation and contract bookings for the development of Silicon Carbide.

#### Employees

As of June 30, 2002, we employed 976 persons worldwide. Of these employees, 148 were engaged in research, development and engineering, 613 in direct production and the balance in sales and marketing, administration, finance and support services. Our production staff includes highly skilled optical craftsmen. None of our employees are covered by a collective bargaining agreement, and we have never experienced any work stoppages. We have a long-standing policy of encouraging active employee participation in selected areas of operations management. We believe our relations with our employees to be good. We reward our employees with incentive compensation based on achievement of performance goals.

#### Patents, Trade Secrets and Trademarks

We rely on our trade secrets and proprietary know-how to develop and maintain our competitive position. We have not pursued process patents due to the disclosures required in the patent process and the relative difficulties in successfully litigating process-type patents. We have confidentiality and noncompetition agreements with our executive officers and certain other personnel.

The processes and specialized equipment utilized in crystal growth, infrared materials fabrication and infrared optical coatings as developed by us are complex and difficult to duplicate. However, there can be no assurance that others will not develop or patent similar technology or that all aspects of our proprietary technology will be protected. Others have obtained patents covering a variety of infrared optical configurations and processes, and others could obtain patents covering technology similar to our technology. We may be required to obtain licenses under such patents, and there can be no assurance that we would be able to obtain such licenses, if required, on commercially reasonable terms, or that claims regarding rights to technology will not be asserted which may adversely affect our results of operations. In addition, our research and development contracts with agencies of the United States Government present a risk that project-specific technology could be disclosed to competitors as

contract reporting requirements are fulfilled.

We hold six registered trademarks: the II-VI INCORPORATED (R) name; INFRAREADY OPTICS(R) for replacement optics for industrial CO2 lasers; EPIREADY(R) for low surface damage substrates for Mercury Cadmium Telluride epitaxy; and eV PRODUCTS(R) for products manufactured by our eV PRODUCTS division; LASER POWER CORPORATION(R) name; MP-5(R) for low absorption coating technology. The trademarks are registered with the United States Patent and Trademark Office, but not with any states. We are not aware of any interference or opposition to these trademarks in any jurisdiction.

#### ITEM 2. PROPERTIES

#### Facilities

Our headquarters are located in Saxonburg, Pennsylvania, 25 miles north of Pittsburgh, on approximately 64 acres of land. This location contains several manufacturing facilities totaling 171,000 square feet. Our VLOC subsidiary maintains two manufacturing facilities in Florida, northwest of Tampa. These locations total 65,000 square feet. In addition, we lease manufacturing and office space in California, New Jersey, Mexico, Singapore, China, Japan, U.K. and Belgium totaling 184,000 square feet.

#### ITEM 3. LEGAL PROCEEDINGS

None.

#### ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

No matters were submitted to a vote of security holders during the fourth quarter of the fiscal year covered by this Form 10-K.

#### EXECUTIVE OFFICERS OF THE REGISTRANT

The executive officers of the Company and their respective ages and positions are as follows:

Name	Age	Position
Carl J. Johnson	60	Chairman, Chief Executive Officer and Director
Francis J. Kramer	53	President, Chief Operating Officer and Director
Herman E. Reedy	59	Vice President and General Manager of Quality and Engineering
James Martinelli	44	General Manager of Laser Power Corporation and Chief Financial Officer of II-VI Incorporated
Craig A. Creaturo	32	Treasurer

Carl J. Johnson, a co-founder of II-VI in 1971, serves as Chairman, Chief Executive Officer, and Director of II-VI. He served as President of II-VI from 1971 until 1985 and has been a Director since its founding and Chairman since 1985. From 1966 to 1971, Dr. Johnson was Director of Research & Development for Essex

International, Inc., an automotive electrical and power distribution products manufacturer. From 1964 to 1966, Dr. Johnson worked at Bell Telephone Laboratories as a member of the technical staff. Dr. Johnson completed his Ph.D. in Electrical Engineering at the University of Illinois in 1969. He holds B.S. and M.S. degrees in Electrical Engineering from Purdue University and Massachusetts Institute of Technology (MIT), respectively. Dr. Johnson serves as a director of Xymox Technologies, Inc., and Armstrong Laser Technology, Inc.

Francis J. Kramer has been employed by II-VI since 1983 and has been its President and Chief Operating Officer since 1985. Mr. Kramer has served as a Director of II-VI since 1989. Mr. Kramer joined II-VI as Vice President and General Manager of Manufacturing and was named Executive Vice President and General Manager of Manufacturing in 1984. Prior to his employment by II-VI, Mr. Kramer was the Director of Operations for the Utility Communications Systems Group of Rockwell International Corp. Mr. Kramer graduated from the University of Pittsburgh in 1971 with a B.S. degree in Industrial Engineering and from Purdue University in 1975 with an M.S. degree in Industrial Administration.

Herman E. Reedy has been with II-VI since 1977 and is Vice President and General Manager of Quality and Engineering. Previously, Mr. Reedy held positions at II-VI as General Manager of Quality and Engineering, Manager of Quality and Manager of Components. From 1973 until joining II-VI, Mr. Reedy was employed by Essex International, Inc., serving last as Manager, MOS Wafer Process Engineering. Prior to 1973, he was employed by Carnegie Mellon University and previously held positions with SemiElements, Inc. and Westinghouse Electric Corporation. Mr. Reedy is a 1975 graduate of the University of Pittsburgh with a B.S. degree in Electrical Engineering.

James Martinelli has been employed by II-VI since 1986. He has served as General Manager of Laser Power Corporation since July 2000 and Chief Financial Officer of II-VI Incorporated since 1994. Mr. Martinelli joined the Company as Accounting Manager, was named Controller in 1990 and named Chief Financial Officer and Treasurer in 1994. Prior to his employment by II-VI, Mr. Martinelli was Accounting Manager at Tippins Incorporated and Pennsylvania Engineering Corporation from 1980 to 1985. Mr. Martinelli graduated from Indiana University of Pennsylvania in 1980 with a B.S. degree in Accounting and is a member of the Pennsylvania Institute of Certified Public Accountants.

Craig A. Creaturo has served as Treasurer and Director of Finance, Accounting and Information Systems since July 2000. Mr. Creaturo has been employed by the Company since 1998 when he joined the Company as Corporate Controller. Prior to his employment by the Company, Mr. Creaturo was employed by Arthur Andersen LLP from 1992 to 1998 and served in the audit and attestation division with a final position as Audit Manager. Mr. Creaturo graduated from Grove City College in 1992 with a B.S. degree in Accounting. Mr. Creaturo is a Certified Public Accountant in the Commonwealth of Pennsylvania and is a member of the American Institute of Certified Public Accountants and the Pennsylvania Institute of Certified Public Accountants.

#### PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY AND RELATED STOCKHOLDER MATTERS

The Company's Common Stock is traded on the Nasdaq National Market under the symbol "IIVI." The following table sets forth the range of high and low closing sale prices per share of the Company's Common Stock for the fiscal periods indicated, as reported by Nasdaq.

	High	Low
Fiscal 2002		
First Quarter	\$17.25	\$12.67
Second Quarter	\$18.05	\$11.90
Third Quarter	\$19.10	\$13.95
Fourth Quarter	\$15.78	\$11.98
Fiscal 2001		
First Quarter	\$28.50	\$13.31
Second Quarter	\$23.38	\$13.89
Third Quarter	\$17.69	\$11.00
Fourth Quarter	\$17.50	\$11.88

On September 10, 2002, the last reported sale price for the Common Stock was \$13.31 per share. As of such date, there were approximately 800 holders of record of the Common Stock. The Company historically has not paid cash dividends and does not anticipate paying cash dividends in the foreseeable future.

ITEM 6. SELECTED FINANCIAL DATA

FIVE-YEAR FINANCIAL SUMMARY

Year Ended June 30,	2002	2001	2000	1999	1998
(000 except per share data) Statement of Earnings					
Net revenues		\$123,334		•	. ,
Net earnings		\$ 9,491 \$ 0.69			
Basic earnings per share Diluted earnings per share	•	\$ 0.67	•	•	•
Diluted weighted average	\$ 0.51	\$ 0.67	\$ 0.55	\$ 0.42	\$ 0.51
3	14 314	14,160	13 176	12 980	13 348
=======================================		=======			
June 30,	2002	2001	2000	1999	1998
(\$000)					
Balance Sheet					
Working capital	\$ 35,746	\$ 33,976	\$24,335	\$17,590	\$13,420
Total assets	•	148,173		•	•
Total debt	•	37,006	•	•	
Retained earnings		54,187			

Shareholders' equity 97,660 89,413 63,426 54,493 50,063

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

#### FORWARD-LOOKING STATEMENTS

Certain statements contained in this Management's Discussion and Analysis of Financial Condition and Results of Operations are forward-looking statements. Forward-looking statements are also identified by words such a "expects," "anticipates," "believes," "intends," "plans, "projects," or similar expressions. Actual results could differ materially from those anticipated in these forward-looking statements for many reasons, including risk factors described in the Risk Factors set forth in Item 7.

#### CRITICAL ACCOUNTING POLICIES

Our significant accounting policies are described in Note A of the Consolidated Financial Statements, which were prepared in accordance with accounting principles generally accepted in the United States of America. In preparing our financial statements, we made estimates and judgments which affect the results of our operations and the value of assets and liabilities we report. Our actual results may differ from these estimates.

We believe that the following summarizes critical accounting policies which require significant judgments and estimates in our preparation of our consolidated financial statements.

The Company records revenue, other than on long-term contracts, when a product is shipped. Revenue on long-term contracts is accounted for using the percentage-of-completion method, whereby revenue and profits are recognized throughout the performance period of the contract. Percentage-of-completion is determined by relating the actual cost of work performed to date to the estimated total cost for each contract. Losses on contracts are recorded in full when identified.

The Company records an allowance for doubtful accounts receivable including warranty reserves as a charge against earnings based on a percentage of actual historical product returns over the past twelve months. Additional reserve is estimated for potential non-collection of the receivable based on historical results. The Company has not experienced a non-collection of accounts receivable materially affecting the financial position or results of operations.

The Company records a slow moving inventory reserve as a charge against earnings for all products on hand that have not been sold to customers in the past twelve months. An additional reserve is recorded for product on hand that is in excess of product sold to customers over the past twelve months.

The Company records bonus and profit sharing estimates as a charge against earnings based on a percentage of operating income. These estimates are adjusted to actual based on final results of operations achieved during the fiscal year. Certain bonuses are paid quarterly

at a level of 75% of the current year to date operating income with final payment in August of the subsequent fiscal year. Other bonuses and profit sharing are paid annually in August of the subsequent fiscal year.

From time to time, estimated accruals are recorded as a charge against earnings based on known circumstances where it is probable that a liability has been incurred or is expected to be incurred and the amount can reasonably be estimated.

#### RESULTS OF OPERATIONS

Fiscal 2002 Compared to Fiscal 2001

NET EARNINGS Net earnings decreased 23% in fiscal 2002 to \$7.3 million from \$9.5 million in fiscal 2001. The major contributor to the net earnings decrease was the general softening of demand for laser optics and component products in the industrial sector impacted by the weak worldwide economy.

BOOKINGS Bookings decreased 12% to \$117.0 million in fiscal 2002 compared to \$132.7 million in fiscal 2001. Order backlog increased 7%to \$48.0 million at June 30, 2002 from \$44.7 million at June 30, 2001 as a result of bookings outpacing shipments in fiscal 2002. The increase in backlog is primarily due to strong second half bookings, more specifically large orders recorded by significant military orders booked at Laser Power Corporation, blanket orders recorded by eV PRODUCTS division and contract bookings for the development of Silicon Carbide. Manufacturing orders comprised 93% of the backlog at June 30, 2002. Manufacturing bookings decreased by approximately \$16.1 million while contract research and development bookings increased by approximately \$0.1 million. Bookings for laser optics and component products decreased approximately 15%, primarily driven by delays in EOM and aftermarket orders caused by a slowdown in the industrial sector. Bookings for Laser Power Corporation were \$37.4 million for the fiscal year ended June 30, 2002 compared to \$39.0 million for eleven months ended June 30, 2001 during which period Laser Power Corporation was owned by the Company. The overall decrease in the Laser Power Corporation bookings was due to a decrease in commercial bookings more than offsetting an increase in military bookings. Bookings for the eV PRODUCTS division decreased approximately 30% due to the absence of orders to replace fiscal year 2001 high volume orders such as the NASA swift telescope program and Neoprobe bone densitometry. Bookings for the Silicon Carbide development activities of the WBG group were \$2.3 million.

REVENUES Revenues decreased 8% to \$113.7 million in fiscal 2002 compared to \$123.3 million last fiscal year. Revenues for laser optics and component products decreased approximately 10% due to lower shipments of industrial laser OEM and aftermarket sales from sluggish industrial worldwide demand, revenues from the eV PRODUCTS division decreased approximately 30% from the absence in sales to replace the fiscal year 2001 volume sales primarily in the medical sector, and the Company recorded revenues from Laser Power Corporation of approximately \$32.5 million for the fiscal year ended June 30, 2002 compared to \$31.1 million for eleven months ended June 30, 2001.

COSTS AND EXPENSES Manufacturing gross margin was \$36.3 million or 34% of net revenues in fiscal 2002 compared to \$46.1 million or 39% of net revenues in fiscal 2001. The dollar and percentage decrease was

attributable to lower sales volume. The decrease in the gross margin percentage was also driven by a shift in the product mix during the past few quarters. As the industrial business has slowed, the Company has taken on more military business which historically has lower margins.

Contract research and development gross margin was \$0.7 million or 9% of contract research and development revenues in fiscal 2002 compared to \$1.5 million or 29% of contract research and development revenues in fiscal 2001. The gross margin was negatively impacted during the year as Laser Power Corporation and, more specifically, the Large Optics Coating Facility, encountered continued production issues related to several developmental contracts.

Company-funded internal research and development remained relatively unchanged at \$4.4 million in fiscal 2002 from \$4.5 million in fiscal 2001. In general, internal research and development expense reflects increased efforts focused on Silicon Carbide crystal growth technology and processing development, the Company's corporate research and development activities and the research and development activities of eV PRODUCTS.

Selling, general and administrative expenses were \$21.2 million or 19% of revenues in fiscal 2002 compared to \$24.8 million or 20% of revenues in fiscal 2001. This dollar and percentage decrease is attributable to the elimination of certain redundant expenses, as well as, expense and manpower reductions due to decreased manufacturing demand during fiscal 2002.

Other expense was \$0.4 million in fiscal 2002 compared to \$1.4 million in fiscal 2001. The other expense decrease was primarily due to the absence of approximately \$1.5 million of goodwill amortization incurred in fiscal 2001 (see Note E to the Consolidated Financial Statements) and foreign currency gains in 2002 as compared to losses in fiscal 2001. The overall decrease was partially offset by fiscal 2002 charges related to the closing of operations of Laser Power Corporation in Mexico of \$0.4 million, costs related to consolidating several of the Company's European distribution arrangements of \$0.4 million, and the write-off of certain crystal growth equipment and technology of \$0.7 million.

Interest expense was \$1.4 million in fiscal 2002 compared to \$2.3 million in fiscal 2001. The decrease in interest expense was primarily due to the lower borrowings and continuing decrease of the Company's LIBOR based interest rate as compared to fiscal 2001. The Company's weighted average interest rate was approximately 37% lower at June 30, 2002 as compared to the previous year. Scheduled quarterly payments on the term loan component of the Company's credit agreement began in fiscal 2002.

The effective corporate income tax rate was 24% in fiscal 2002 compared to 35% in fiscal 2001. The decrease in the effective income tax rate reflects the favorable mix of worldwide earnings from the Company's focus on increased manufacturing in China and Singapore where tax rates are lower than the United States.

Fiscal 2001 Compared to Fiscal 2000

NET EARNINGS Net earnings increased 30% in fiscal 2001 to \$9.5 million from \$7.3 million in fiscal 2000. The major contributor to the net earnings increase were higher revenues. Each contributor is

explained further in this section.

BOOKINGS Bookings increased 60% to \$132.7 million in fiscal 2001 compared to \$83.0 million in fiscal 2000. Order backlog increased 64% to \$44.7 million at June 30, 2001 from \$27.2 million at June 30, 2000 as a result of bookings outpacing shipments in fiscal 2001 and the addition of Laser Power Corporation. Manufacturing orders comprised 96% of the backlog at June 30, 2001. Manufacturing bookings increased by approximately \$50.3 million, of which \$39.0 million was attributable to Laser Power Corporation, while contract research and development bookings decreased by approximately \$0.2 million. Bookings for laser optics and component products increased approximately 15% and bookings for the eV PRODUCTS division increased approximately 15%. These increases were attributable to strong demand for the Company's laser optics and component products and continued acceptance of products of the eV PRODUCTS division.

REVENUES Revenues grew 66% to \$123.3 million in fiscal 2001 compared to \$74.1 million last fiscal year. Revenues for laser optics and component products increased approximately 20% due to continued strong demand for infrared optics products, revenues from the eV PRODUCTS division increased approximately 53% due to successful market launches and other new product acceptance in the marketplace, and the Company recorded revenues from Laser Power Corporation of approximately \$31.1 million.

COSTS AND EXPENSES Manufacturing gross margin was \$46.1 million or 39% of net revenues in fiscal 2001 compared to \$30.9 million or 43% of net revenues in fiscal 2000. The dollar increase was attributable to higher sales volume at all three of the Company's segments. Increased sales included infrared optics and materials, detector products at the eV PRODUCTS division, and sales from Laser Power Corporation. The decrease in gross margin as a percentage of net sales reflects the addition of Laser Power Corporation which has historically lower gross margins than the Company.

Contract research and development gross margin was \$1.5 million or 29% of contract research and development revenues in fiscal 2001 compared to \$0.5 million or 28% of contract research and development revenues in fiscal 2000. The Company has increased the amount of contract research and development projects it undertakes and plans to increase this amount over the foreseeable future.

Company-funded internal research and development increased to \$4.5 million in fiscal 2001 from \$2.8 million in fiscal 2000. The Company continues to expand its internal research and development projects, including projects associated with developing nuclear radiation detectors at the eV PRODUCTS division, infrared optics and materials, and silicon carbide at the Company's optical components businesses.

Selling, general and administrative expenses were \$24.8 million or 20% of revenues in fiscal 2001 compared to \$18.2 million or 25% of revenues in fiscal 2000. This dollar increase is attributable to the addition of the selling, general and administrative expenses of the Company's Laser Power Corporation subsidiary, increased employment costs associated with new employees, increased payroll expense attributable to the Company's worldwide profit driven bonus programs, and increased sales and marketing efforts. The decrease in selling, general and administrative expenses as a percentage of net revenues reflect the addition of Laser Power Corporation and revenue improvements from the eV PRODUCTS division and the Company's VLOC

subsidiary with limited corresponding increases to selling, general and administrative expenses.

Other expense was \$1.4 million in fiscal 2001 compared to other expense of \$0.2 million in fiscal 2000. The increase in other expense was primarily attributable to the amortization of goodwill related to the purchase of Laser Power Corporation.

Interest expense was \$2.3 million in fiscal 2001 compared to \$0.3 million in fiscal 2000. The increase in interest expense was the direct result of additional borrowings in connection with the purchase of Laser Power Corporation.

The effective corporate income tax rate was 35% in fiscal 2001 compared to 25% in fiscal 2000. The increase in the effective income tax rate reflects the completion of several international related tax opportunities during fiscal 2000 and the non-deductible amortization of goodwill resulting from the acquisition of Laser Power Corporation.

#### LIQUIDITY AND CAPITAL RESOURCES

In fiscal 2002, cash generated from operations was \$16.1 million. Proceeds from the net increase in borrowings of \$1.3 million in addition to the cash generated from operations were used primarily to fund an investment of \$8.6 million in property, plant and equipment, to finance a \$1.7 million investment for a 25% ownership of a key supplier to the Company, to acquire for \$2.2 million the Litton Systems, Inc. Silicon Carbide Group and pay down \$3.8 million due on the term loan. Cash transactions for fiscal 2002 and cash on hand at the beginning of the fiscal year resulted in a cash position of \$9.6 million at June 30, 2002.

The largest sources of the \$16.1 million in cash generated from operations in fiscal 2002 was \$16.6 million in net earnings before depreciation and amortization, an increase in deferred income taxes and a decrease in accounts receivable and inventories of \$2.3 million. This increase in cash was partially offset by a decrease in accounts payable and other operating net assets of \$2.5 million.

The impact of inflation on the Company's business has not been material.

The Company expects cash flow from operations to continue to fund working capital needs, capital expenditures and internal growth. During fiscal 2002, the Company reinvested \$8.6 million into capital projects.

#### RISK FACTORS

We Depend on Highly Complex Manufacturing Processes Which Require Products from Limited Sources of Supply

We utilize high quality, optical grade ZnSe in the production of a majority of our products. We are a leading producer of ZnSe for our internal use and for external sale. The production of ZnSe is a complex process requiring production in a highly controlled environment. A number of factors, including defective or contaminated materials, could adversely affect our ability to achieve acceptable manufacturing yields of high quality ZnSe. ZnSe is available from only one outside source where quantity and qualities may be limited.

The unavailability of necessary amounts of high quality ZnSe would have a material adverse effect upon us. In addition, in fiscal 1992 and 1993, we experienced fluctuations in our manufacturing yields which affected our results of operations. There can be no assurance that we will not experience manufacturing yield inefficiencies which could have a material adverse effect on our business, results of operations or financial condition.

We produce Hydrogen Selenide gas which is used in our production of ZnSe. There are risks inherent in the production and handling of such material. Our inability to effectively handle Hydrogen Selenide could require us to curtail our production of Hydrogen Selenide. Hydrogen Selenide can be obtained from one outside source. The cost of purchasing such material is significantly greater than the cost of internal production. As a result, purchasing a substantial portion of such material from the outside source would significantly increase our production costs of ZnSe. Therefore, our inability to internally produce Hydrogen Selenide could have a material adverse effect on our business, results of operations or financial condition.

In addition, we utilize other high purity, relatively uncommon materials and compounds to manufacture our products. Failure of our suppliers to deliver sufficient quantities of these necessary materials on a timely basis could have a material adverse effect on our business, results of operations or financial condition.

Our Business is Dependent on Other Cyclical Industries

Our business is significantly dependent on the demand for products produced by end users of industrial lasers. Many of these end users are in industries that historically have experienced a highly cyclical demand for their products. Therefore, as a result, demand for our products and our results of operations are subject to cyclical fluctuations.

Our Revenues are Subject to Potential Seasonal Fluctuations

Due to our customers' buying patterns, particularly in Europe, revenues for our first fiscal quarter ending in September could be below those in the preceding quarter. Our first fiscal quarter results often are dependent upon the sales made in the last month of the quarter.

We May Encounter Substantial Competition

We may encounter substantial competition from other companies in the same market, including established companies with substantial resources. Some of our competitors may have financial, technical, marketing or other capabilities more extensive than ours and may be able to respond more quickly than we can to new or emerging technologies and other competitive pressures. We may not be able to compete successfully against our present or future competitors, and competition may adversely affect our business, financial condition or operating results.

International Sales Account for a Significant Portion of Our Revenues

Sales to customers in countries other than the United States accounted for approximately 39%, 37% and 49% of revenues during the years ended June 30, 2002, 2001 and 2000, respectively. We anticipate that international sales will continue to account for a significant

portion of our revenues for the foreseeable future. In addition, we manufacture products in Singapore and China and maintain direct sales offices in Japan, the UK and Belgium. Sales and operations outside of the United States are subject to certain inherent risks, including fluctuations in the value of the U.S. dollar relative to foreign currencies, tariffs, quotas, taxes and other market barriers, political and economic instability, restrictions on the export or import of technology, potentially limited intellectual property protection, difficulties in staffing and managing international operations and potentially adverse tax consequences. There can be no assurance that any of these factors will not have a material adverse effect on our business, financial condition or results of operations. In particular, although our international sales, other than in Japan, Belgium and the UK, are denominated in U.S. dollars, currency exchange fluctuations in countries where we do business could have a material adverse affect on our business, financial condition or results of operations, by rendering us less price-competitive than foreign manufacturers. Our sales in Japan are denominated in yen and, accordingly, are affected by fluctuations in the dollar/yen currency exchange rates. We generally reduce our exposure to such fluctuations through forward exchange agreements hedging approximately 75% of our sales in Japan. We do not engage in the speculative trading of financial derivatives. There can be no assurance, however, that our practices will reduce or eliminate the risk of fluctuation in the dollar/yen currency exchange rate.

Our Revenues May Suffer if General Economic Conditions Worsen

Our revenues and earnings may be affected by general economic factors, such as excessive inflation, currency fluctuations and employment levels, resulting in a temporary or longer-term overall decline in demand for our products. Therefore, any significant downturn or recession in the United States or other countries could have a material adverse effect on our business, financial condition and results of operations.

We May Expand Product Lines and Markets by Acquiring Other Businesses

Our business strategy includes expanding our product lines and markets through internal product development and acquisitions. Any acquisition may result in potentially dilutive issuances of equity securities, the incurrence of debt and contingent liabilities, and amortization expense related to intangible assets acquired, any of which could have a material adverse affect on our business, financial condition or results of operations. In addition, acquired businesses may be experiencing operating losses. Any acquisition will involve numerous risks, including difficulties in the assimilation of the acquired company's operations and products, uncertainties associated with operating in new markets and working with new customers, and the potential loss of the acquired company's key employees. In fiscal 1995, we acquired the Virgo Optics Division of Sandoz Chemicals Corporation. In fiscal 1996, we acquired Lightening Optical Corporation. Subsequently, these acquisitions were combined to form our VLOC subsidiary. In fiscal 2001, we acquired Laser Power Corporation. In fiscal 2002, we acquired the Litton System, Inc. Silicon Carbide Group.

Our Success Depends on New Products and Processes

In order to meet our strategic objectives, we must continue to develop, manufacture and market new products, develop new processes

and improve existing processes. As a result, we expect to continue to make significant investments in research and development and to continue to consider from time to time the strategic acquisition of businesses, products, or technologies complementary to our business. Our success in developing, introducing and selling new and enhanced products depends upon a variety of factors including product selection, timely and efficient completion of product design and development, timely and efficient implementation of manufacturing and assembly processes, effective sales and marketing, and product performance in the field. There can be no assurance that we will be able to develop and introduce new products or enhancements to our existing products and processes in a manner which satisfies customer needs or achieves market acceptance. The failure to do so could have a material adverse affect on our ability to grow our business.

Failure to Keep Pace with Industry Developments May Adversely Affect Our Operations

We are engaged in industries which will be affected by future developments. The introduction of products or processes utilizing new developments could render existing products or processes obsolete or unmarketable. Our continued success will depend upon our ability to develop and introduce on a timely and cost-effective basis new products, processes and applications that keep pace with developments and address increasingly sophisticated customer requirements. There can be no assurance that we will be successful in identifying, developing and marketing new products, applications and processes and product or process enhancements, that we will not experience difficulties that could delay or prevent the successful development, introduction and marketing of product or process enhancements or new products, applications or processes, or that our products, applications or processes will adequately meet the requirements of the marketplace and achieve market acceptance. Our business, results of operations and financial condition could be materially and adversely affected if we were to incur delays in developing new products, applications or processes or product or process enhancements or if we did not gain market acceptance.

#### Exposure to Government Markets

With the acquisition of Laser Power Corporation, sales to customers in the defense industry have increased. These customers in turn generally contract with a governmental entity, typically the U.S. government. Most governmental programs are subject to funding approval and can be modified or terminated with no warning upon the determination of a legislative or administrative body. The loss or failure to obtain certain contracts or a loss of a

major government customer could have a material adverse effect on our business, financial condition and results of operations.

Our Success Depends on the Ability to Retain Key Personnel

We are highly dependent upon the experience and continuing services of certain scientists, engineers, production and management personnel. Competition for the services of these personnel is intense, and there can be no assurance that we will be able to retain or attract the personnel necessary for our success. The loss of the services of our key personnel could have a material adverse affect on our business, results of operations or financial condition.

There Are Limitations on the Protection of Our Intellectual Property

We do not currently hold any material patents applicable to our processes and rely on a combination of trade secret, copyright and trademark laws and employee non-competition and nondisclosure agreements to protect our intellectual property rights. There can be no assurance that the steps taken by us will be adequate to prevent misappropriation of our technology. Furthermore, there can be no assurance that, in the future, third parties will not assert infringement claims against us. Asserting our rights or defending against third-party claims could involve substantial expense, thus materially and adversely affecting our business, results of operations or financial condition. In the event a third party were successful in a claim that one of our processes infringed its proprietary rights, we may have to pay substantial damages or royalties, or expend substantial amounts in order to obtain a license or modify the process so that it no longer infringes such proprietary rights, any of which could have an adverse effect on our business, results of operations or financial condition.

Our European Sales Rely On A Single Distributor

A significant portion of our European sales not made by our subsidiaries in the UK and Belgium have been made through a European distributor. This distributor also provides service and support to the end users of our products. Thus, a reduction in the sales efforts of this distributor could adversely affect our European sales and our ability to support the end users of our products. There can be no assurance that this distributor will continue to distribute, or to distribute successfully, our products and, in such an event, our business, results of operations and financial earnings could be materially and adversely affected. We recently established controlling interest in a new joint venture with the distributor serving the German market. (See Note M to the Consolidated Financial Statements.)

## Our Stock Price May Fluctuate

Future announcements concerning us, our competitors or customers, quarterly variations in operating results, announcements of technological innovations, the introduction of new products or changes in product pricing policies by us or our competitors, seasonal or other variations in anticipated or actual results of operations, changes in earnings estimates by analysts or reports regarding our industries in the financial press or investment advisory publications, among other factors, could cause the market price of our stock to fluctuate substantially. In addition, stock prices may fluctuate widely for reasons which may be unrelated to operating results. These fluctuations, as well as general economic, political and market conditions such as recessions, military conflicts or market or marketsector declines, may materially and adversely affect the market price of our common stock. In addition, any information concerning us, including projections of future operating results, appearing in investment advisory publications or on-line bulletin boards or otherwise emanating from a source other than us could in the future contribute to volatility in the market price of our common stock.

We Have Adopted Antitakeover Devices Which May Limit the Price that Certain Investors May be Willing to Pay in the Future for Shares of Our Common Stock

Our articles of incorporation, by-laws and shareholder rights plan contain provisions which could make us a less attractive target for a hostile takeover or make it more difficult or discourage a merger proposal, a tender offer or a proxy contest. This could limit the price that certain investors might be willing to pay in the future for shares of our common stock. The provisions include:

- classification of the board of directors into three classes;
- a procedure which requires shareholders or the board of directors to nominate directors in advance of a meeting to elect such directors;
- the ability of the board of directors to issue additional shares of common stock or preferred stock without shareholder approval; and
- certain provisions requiring supermajority approval (at least two-thirds of the votes cast by all shareholders entitled to vote thereon, voting together as a single class).
- a formal shareholder rights plan designed to protect all corporate interests in the event the Company's Board of Directors and shareholders are confronted with an abusive or unfair takeover attempt.

In addition, the Pennsylvania Business Corporation Law contains provisions which may have the effect of delaying or preventing a change in our control.

We Are Subject to Stringent Environmental Regulation

We use or generate certain hazardous substances in our research and manufacturing facilities. We believe that our handling of such substances is in material compliance with applicable local, state and federal environmental, safety and health regulations at each operating location. We invest substantially in proper protective equipment, process controls and specialized training to minimize risks to employees, surrounding communities and the environment due to the presence and handling of such hazardous substances. We annually conduct employee physical examinations and workplace air monitoring regarding such substances. When exposure problems or potential exposure problems have been indicated, corrective actions have been implemented and re-occurrence has been minimal or non-existent. We do not carry environmental impairment insurance.

Relative to its generation and use of the extremely hazardous substance Hydrogen Selenide, we have in place an emergency response plan. Special attention has been given to all procedures pertaining to this gaseous material to minimize the chances of its accidental release to the atmosphere.

With respect to the production, use, storage and disposal of the low-level radioactive material Thorium Fluoride, our facilities and procedures have been inspected and licensed by the Nuclear Regulatory Commission. This material is utilized in our thin-film coatings. Thorium bearing by-products are collected and shipped as solid waste to a government-approved low-level radioactive waste disposal site in Clive, Utah.

The generation, use, collection, storage and disposal of all

other hazardous by-products, such as suspended solids containing heavy metals or airborne particulates, are believed by us to be in material compliance with regulations. We believe that all of the permits and licenses required for operation of our business are in place. Although we do not know of any material environmental, safety or health problems in our properties or processes, there can be no assurance that problems will not develop in the future which would have a materially adverse effect on us.

Some Laser Systems Are Complex in Design and May Contain Defects that Are Not Detected Until Deployed Which Could Increase Our Costs and/or Reduce Our Revenues

Laser systems are inherently complex in design and require ongoing regular maintenance. The manufacture of lasers, laser products and systems involves a highly complex and precise process. As a result of the technical complexity of our products, changes in our or our suppliers' manufacturing processes or in the use of defective or contaminated materials by us or our suppliers could result in a material adverse effect on our ability to achieve acceptable manufacturing yields and product reliability. To the extent that we do not achieve such yields or product reliability, our business, operating results, financial condition and customer relationships could be adversely affected. Our customers may discover defects in our products after the products have been fully deployed and operated under peak stress conditions. In addition, some of our products are combined with products from other

vendors, which may contain defects. Should problems occur, it may be difficult to identify the source of the problem. If we are unable to fix defects or other problems, we could experience, among other things:

- loss of customers;
- increased costs of product returns and warranty expenses;
- damage to our brand reputation;
- failure to attract new customers or achieve market acceptance;
- diversion of development and engineering resources; and
- legal action by our customers.

The occurrence of any one or more of the foregoing factors could seriously harm our business or financial condition.

Recently Issued Financial Accounting Standards

In June 2001, the Financial Accounting Standards Board ("FASB") issued Statement of Financial Accounting Standards ("SFAS") No. 143, "Accounting for Asset Retirement Obligations." SFAS 143 requires that the fair value of a liability for an asset retirement obligation be recognized in the period in which it is incurred if a reasonable estimate of the fair value can be made. The Statement is effective for financial statements issued for fiscal years beginning after June 15, 2002. The Company will adopt this standard as of July 1, 2002 and does not believe that the adoption of SFAS 143 will have a significant

impact on its financial position or results of operations.

In October 2001, the FASB issued SFAS No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets", which provides guidance that will eliminate inconsistencies in the accounting for the impairment or disposal of long-lived assets under existing accounting pronouncements. The Company will apply the provisions of the pronouncement beginning July 1, 2002. The Company does not expect the adoption of this pronouncement to have a material impact on its financial position or results of operations.

In April 2002, the FASB issued SFAS No. 145, "Rescission of FASB Statements No. 4, 44 and 64, Amendment of FASB Statement No. 13, and Technical Corrections." SFAS 145 will affect income statement classification of gains and losses from extinguishment of debt and make certain other technical corrections. Based on current operations, the Company does not expect the adoption of this pronouncement to have a material impact on its financial position or results of operations.

In June 2002, the FASB issued SFAS No. 146, "Accounting for Costs Associated with Exit or Disposal Activities." SFAS 146 addresses financial accounting and reporting for costs associated with exit or disposal activities and nullified EITF Issue No. 94-3, "Liability Recognition for Certain Employee Termination Benefits and Other Costs to Exit an Activity (including Certain Costs Incurred in a Restructuring)." The principal difference between SFAS 146 and Issue 94-3 relates to SFAS 146 requirements for recognition of a liability for a cost associated with an exit or disposal activity. SFAS 146 requires that a liability for a cost associated with an exit or disposal activity be recognized when the liability is incurred. Under Issue 94-3, a liability for an exit cost as generally defined in Issue 94-3 was recognized at the date of an entity's commitment to an exit plan. The provisions of SFAS 146 are effective for exit or disposal activities that are initiated after December 31, 2002. The Company does not expect the adoption of this pronouncement to have a material effect on its financial position or results of operations.

#### ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

MARKET RISKS The Company is exposed to market risks arising from adverse changes in foreign currency exchange rates and interest rates. In the normal course of business, the Company uses a variety of techniques and derivative financial instruments as part of its overall risk management strategy.

Foreign Exchange Risks - In the normal course of business, the Company enters into foreign currency forward exchange contracts with its banks. The purpose of these contracts is to hedge ordinary business risks regarding foreign currencies on product sales. Foreign currency exchange contracts are used to limit transactional exposure to changes in currency rates. The Company enters into foreign currency forward contracts that permit it to sell specified amounts of foreign currencies expected to be received from its export sales for preestablished U.S. dollar amounts at specified dates. The forward contracts are denominated in the same foreign currencies in which export sales are denominated. These contracts provide the Company with an economic hedge in which settlement will occur in future periods and which otherwise would expose the Company to foreign currency risk. The Company monitors its positions and the credit

ratings of the parties to these contracts. While the Company may be exposed to potential losses due to risk in the event of non-performance by the counterparties to these financial instruments, it does not anticipate such losses. The Company entered into a low interest rate, 237 million Yen loan with PNC Bank in September 1997 in an effort to minimize the foreign currency exposure in Japan. A change in the interest rate of 1% for this Yen loan would have changed the interest expense by approximately \$20,000 and a 10% change in the Yen to dollar exchange rate would have changed revenues by approximately \$830,000 for the year ended June 30, 2002. In September 2002, the Company replaced the 237 million Yen loan with a 300 million Yen loan effective September 25,2002. (See Note M to the Consolidated Financial Statements.)

Interest Rate Risks - The Company entered into an interest rate cap with a notional amount of \$12.5 million as required under the terms of its current credit agreement in order to limit interest rate exposure on one-half of the \$25.0 million term loan. A change in the Company's overall interest rate of 1% would have changed the interest expense by approximately \$350,000 for the year ended June 30, 2002.

#### ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

INDEPENDENT AUDITORS' REPORT

TO THE BOARD OF DIRECTORS AND SHAREHOLDERS OF II-VI INCORPORATED AND SUBSIDIARIES:

We have audited the accompanying consolidated balance sheets of II-VI Incorporated and subsidiaries (the "Company") as of June 30, 2002 and 2001, and the related consolidated statements of earnings, shareholders' equity, comprehensive income and cash flows for each of the three years in the period ended June 30, 2002. Our audits also included the financial statement schedule listed in Item 15. These consolidated financial statements and financial statement schedule are the responsibility of management. Our responsibility is to express an opinion on the consolidated financial statements and financial statement schedule based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the consolidated financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of II-VI Incorporated and subsidiaries as of June 30, 2002 and 2001 and the results of their operations and their cash flows for each of the three years in the period ended June 30, 2002 in conformity with accounting principles generally accepted in the United States of America. Also, in our opinion, such financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly in all material respects the information set forth therein.

As discussed in Note E to the Consolidated Financial Statements, the Company changed its method of accounting for goodwill amortization in fiscal 2002.

/s/ Deloitte & Touche LLP Pittsburgh, Pennsylvania September 13, 2002 (September 25, 2002 as to Note M)

#### CONSOLIDATED BALANCE SHEETS

June 30,	2002	2001
(\$000)		
Current Assets		
Cash and cash equivalents	\$ 9,610	\$ 8,093
Accounts receivable -		
less allowance for doubtful accounts		
of \$847 at June 30, 2002 and \$749 at		
June 30, 2001	21,541	21,884
Inventories	19,741	20,782
Deferred income taxes	3,457	3,304
Prepaid and other current assets	1,488	1,644
Total Current Assets	 55 <b>,</b> 837	55 <b>,</b> 707
Property, Plant & Equipment, net	60,711	58,031
Goodwill, net	28,987	29,236
Intangible Assets, net	3,233	4,086
Other Assets	3,133	1,113
	\$151 <b>,</b> 901	\$148 <b>,</b> 173
Current Liabilities		
Accounts payable	\$ 3 <b>,</b> 970	\$ 5,714
Accrued salaries and wages	2,125	1,826
Accrued bonuses	2,851	5,260
Income taxes payable	1,012	2,158
Accrued profit sharing contribution	736	1,122
Other accrued liabilities	4,329	1,817
Current portion of long-term debt	5,068 	3,834
Total Current Liabilities	20,091	21,731
Long-Term Debt Other Liabilities,	29 <b>,</b> 435	33,172
Primarily Deferred Income Taxes	4,715	3 <b>,</b> 857
Total Liabilities	54,241	58,760
Shareholders' Equity		
Preferred stock, no par value;		
authorized - 5,000,000 shares; none		_
Common stock, no par value; authorized	_	
30,000,000 shares; issued -		
15,101,450 shares at June 30, 2002;	0= 0.0	
14,981,163 shares at June 30, 2001	37,840	37,045
Accumulated other comprehensive income	279	91
Retained earnings	61,451	54,187

Less treasury stock at cost, 1,068,880	99,570 shares 1,910	91,323 1,910
Total Shareholders' Equity	97,660	89,413
	\$151,901	\$148,173

See Notes to Consolidated Financial Statements.

## CONSOLIDATED STATEMENTS OF EARNINGS

Year Ended June 30,	2002	2001	2000
(\$000 except per share data)			
Revenues			
Net sales:			
Domestic	\$ 61,995	\$ 73,075	\$ 36,265
International	44,066	45 <b>,</b> 176	36,176
Contract research and development	7 <b>,</b> 627	5 <b>,</b> 083	1,651
	113,688	123,334	74,092
Costs, Expenses and Other Expense			
Cost of goods sold	69 <b>,</b> 732	72,181	41,550
Contract research and development	6 <b>,</b> 905	3,619	1,196
Internal research and development	4,441	4,499	2,844
Selling, general and administrative	21,245	24,767	18,171
Interest expense	1,444	2,330	349
Other expense - net	411	1,382	226
	104,178	108,778	64,336
Earnings Before Income Taxes	9,510	14,556	9,756
Income Taxes	2,246	5,065	2,445
Net Earnings	\$ 7 <b>,</b> 264	\$ 9,491	\$ 7,311
Basic Earnings Per Share	\$ 0.52	\$ 0.69	\$ 0.57
Diluted Earnings Per Share	\$ 0.51	\$ 0.67	\$ 0.55

	Common Stock		Accumulated Other Comprehensive	Retained		
	Shares		Income		Shares	Amount
(000)						
BALANCE - JUNE 30, 1999 Shares issued under	13,752	\$18,746	\$ 272	\$37 <b>,</b> 385	(1,069)	\$(1,91
stock option plans		681		_	_	
Net earnings	_	_		7,311	_	
Other comprehensive loss, net of tax Income tax benefit for	-	-	(62)	_	-	
options exercised		1,027	<del>-</del>	<del>-</del>	_	
BALANCE - JUNE 30, 2000 Shares issued under	13,976	20,454	210	44,696	(1,069)	(1,91
stock option plans Shares issued to acquire	128	466	_	_	-	
Laser Power Corporation	877	15,474	_		_	
Net earnings	_	-	_	9,491	_	
Other comprehensive loss, net of tax Income tax benefit for	-		(119)	_	-	
options exercised		651		_	_	
BALANCE - JUNE 30, 2001 Shares issued under			91	54,187	(1,069)	(1,91
stock option plans	120	370	_	_	_	
Net earnings	-	_	-	7,264		
Other comprehensive income, net of tax Income tax benefit for	_	_	188	_	_	
options exercised		425		-	_	
BALANCE - JUNE 30, 2002	15,101	•	\$ 279			

CONICOT TO A TED	CTATEMENTC	$\cap \Gamma$	COMPDEHENCIAL	TNICOME

Year Ended June 30,	2002	2001	2000
(\$000)			
Net earnings Other comprehensive income (loss): Foreign currency translation adjustments,	\$ 7,264	\$ 9,491	\$ 7,311
net of tax	188	(119)	(62)
COMPREHENSIVE INCOME	\$ 7 <b>,</b> 452	\$ 9,372	\$ 7,249
	======	======	======

CONSOLIDATED STATEMENTS	OF CASH FLOWS			
(\$000)		2002	Year Ended June 2001	30,
Cash Flows from Operati	ng Activities	^ 7 26A	ć 0 401	¢ 7
Net earnings	the state of the same	\$ 7 <b>,</b> 264	\$ 9,491	\$ 7
	le net earnings to net cash			ļ
provided by operating a	ictivities:	0 120	6 020	4
Depreciation		8,429		<del>'1</del>
Amortization	· · · · · · · · · · · · · · · · · · ·	363	•	Ī
	eign currency transactions	(165)	•	ļ
_	al or writedown of assets	335		ļ
Deferred income tax	(es	794	•	ļ
Other	the Committee and the	(672)	_	
	in cash from changes in:	F.O.C	(2.702)	
Accounts receiv	rable	596		
Inventories		1,700		(4
Accounts payabl		(1,775)		1
Other operating		(731)		3
Net cash provided by op		16,138		12
Cash Flows from Investi				ļ
Additions to property,		(8,663)	(16,699)	(8
Purchases of business	•	(2,172)		(2
Investment in unconsoli	idated businesses	(1,698)		
Disposals of other asse		317	259	
Net cash used in invest		(12,216)		(10
Carl Blanc from Binanci				
Cash Flows from Financi		1 250	4 308	(1
Proceeds (payments) on		1,250	4,308	(1
Proceeds from long-term		(2 024)	25,000	
Payments on long-term b	_	(3,834)		
Proceeds from sale of c	common stock	370		
Net cash (used in) prov	vided by financing activities		29,730	
	changes on cash and cash equivalents	(191)	695	
Net increase in cash an	nd cash equivalents	1,517	1,763	
Cash and Cash Equivalen	nts			
Beginning of year		8,093	6,330	5
End of year		9,610	\$ 8,093	 \$ 6
	Net asset acquired as	====== \$ 366	======	===
Non-cash transactions:	settlement on a customer purchase commitment Net assets acquired for	ş 300	_	
	fair value of common stock	-	\$15,474	

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#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

#### Note A SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

PRINCIPLES OF CONSOLIDATION The consolidated financial statements include II-VI Incorporated and its wholly-owned subsidiaries: VLOC Incorporated; II-VI Delaware, Incorporated; II-VI Holdings B.V.; II-VI Japan Incorporated; II-VI Singapore Pte., Ltd.; II-VI Acquisition Corp.; II-VI Optics (Suzhou) Co. Ltd.; II-VI International Pte., Ltd.; II-VI U.K. Limited; and Laser Power Corporation and its wholly-owned subsidiaries: EMI Acquisition Corporation; Exotic Materials, Incorporated; Laser Power Optics de Mexico S.A. de C.V.; Laser Power Europe N.V.; and Laser Power FSC, Ltd. (collectively the "Company"). All intercompany transactions and balances have been eliminated.

INVENTORIES Inventories are valued at the lower of cost or market, with cost determined on the first-in, first-out basis. Inventory costs include material, labor and manufacturing overhead.

PROPERTY, PLANT AND EQUIPMENT Property, plant and equipment are carried at cost or valuation. Major improvements are capitalized, while maintenance and repairs are generally expensed as incurred. As of June 30, 2002, the Company reviewed its property, plant and equipment in accordance with Statement of Financial Accounting Standards (SFAS) No. 121, "Accounting for the Impairment of Long-Lived Assets to Be Disposed Of". SFAS 121 requires comparing the future cash flows from operations for an asset to the recorded value, if the cash flows do not exceed the value of the asset, an impairment loss is recorded. Based on this analysis, the cash flows of certain assets with a value of approximately \$0.3 million, net of tax did not project the recoverability of the investment, in accordance with SFAS 121, the Company recorded a charge to operations in fiscal 2002.

DEPRECIATION Depreciation for financial reporting purposes is computed primarily by the straight-line method over the estimated useful lives of the assets. Depreciable useful lives range from 3 to 20 years. Depreciation expense was \$8.4 million, \$6.8 million, and \$4.7 million in 2002, 2001, and 2000, respectively.

GOODWILL The excess purchase price over the net assets of businesses acquired is reported as goodwill in the accompanying Consolidated Balance Sheets. SFAS 142 "Goodwill and Other Intangible Assets", was adopted by the Company as of July 1, 2002. SFAS 142 requires that goodwill no longer be amortized, but instead be tested for impairment at least annually (see Note E for further discussion).

INTANGIBLES Intangible assets are carried at cost or valuation. Amortization for financial reporting purposes is computed using the straight-line method over the estimated useful lives of the assets ranging from 5 to 20 years. As discussed above under the caption Property, Plant and Equipment, related technology with a net book value of approximately \$0.2 million, net of tax was written off (see Note E for further discussion).

INVESTMENTS In fiscal 2002, the Company acquired for \$1.7 million a 25% ownership of a key supplier to the Company. In July 2002, the

Company increased its ownership to 33% as a result of a loan conversion to equity in accordance with the original purchase agreement. This investment is accounted for under the equity method of accounting.

As of June 30, 2002, the Company has outstanding notes receivable of approximately \$0.2 million from an equipment and supply agreement with this supplier. Payments on these notes are made quarterly with interest calculated at the Canadian Prime Rate plus 1 1/2% on the unpaid balance.

For the fiscal year ended June 30, 2002, the Company purchased \$0.2 million of raw materials from this key supplier.

The Company's pro rata share of the earnings from this investment and the interest received from both of these agreements did not have a material effect on the Company's results of operations.

The Company performs an evaluation for impairment whenever events or changes in circumstances indicate that the carrying amount of the equity investment is not recoverable. If the evaluation indicates an other than temporary decline in fair value, the investment is written down to fair value. No impairment was recorded in fiscal 2002.

FOREIGN CURRENCY TRANSLATION For II-VI Singapore Pte., Ltd., and its subsidiaries, and for Laser Power Optics de Mexico S.A. de C.V., the functional currency is the U.S. dollar. Gains and losses on the remeasurement of the local currency financial statements are included in net earnings. Foreign currency translation gains (losses) were \$165,000, (\$459,000), and (\$75,000) in 2002, 2001, and 2000, respectively.

For all other foreign subsidiaries, the functional currency is the local currency. Assets and liabilities of those operations are translated into U.S. dollars using period-end exchange rate; income and expenses are translated using the average exchange rates for the reporting period. Translation adjustments are recorded as accumulated other comprehensive income within shareholders' equity.

INCOME TAXES Deferred income tax assets and liabilities are determined based on the differences between the financial statement and tax basis of assets and liabilities using enacted tax rates in effect in the years in which the differences are expected to reverse. Valuation allowances are established when necessary to reduce deferred tax assets to the amount expected to be realized.

REVENUE RECOGNITION Revenue, other than on long-term contracts, is recognized when a product is shipped. Revenue on long-term contracts is accounted for using the percentage-of-completion method, whereby revenue and profits are recognized throughout the performance period of the contract. Percentage-of-completion is determined by relating the actual cost of work performed to date to the estimated total cost for each contract. Losses on contracts are recorded in full when identified. Total shipping and handling costs included in revenues and in selling, general and administrative expenses were \$261,000, \$344,000 and \$282,000 for the years ended 2002, 2001 and 2000, respectively.

RESEARCH AND DEVELOPMENT Research and development costs are expensed as incurred. Costs related to customer and/or government funded research and development contracts are charged to costs and expenses

as the related sales are recorded.

EARNINGS PER SHARE The following table sets forth the computation of earnings per share for the periods indicated:

Year Ended June 30,	2002	2001	2000
(000 except per share data) Net earnings Divided by:	\$ 7,264	\$ 9,491	\$ 7,311
Weighted average common shares outstanding	13,962	13 <b>,</b> 737	12,756
Basic earnings per share	\$ 0.52	\$ 0.69	\$ 0.57
Net earnings Divided by:	\$ 7,264	\$ 9,491	\$ 7,311
Weighted average common shares outstanding Dilutive effect of common	13,962	13,737	12,756
stock equivalents	352	423	420
Dilutive weighted average common shares outstanding	14,314	14,160	13,176
Diluted earnings per share	\$ 0.51	\$ 0.67	\$ 0.55

Weighted average shares issuable upon the exercise of stock options that were not included in the calculation because they were antidilutive, were immaterial for fiscal years 2002, 2001 and 2000, respectively.

CASH AND CASH EQUIVALENTS For purposes of the statement of cash flows, the Company considers highly liquid debt instruments with an original maturity of three months or less to be cash equivalents. The majority of cash and cash equivalents is invested in investment grade money market type instruments. Cash of foreign subsidiaries is on deposit at banks in Japan, Singapore, China, Belgium, and the United Kingdom.

NATURE OF BUSINESS The Company designs, manufactures and markets optical and electro-optical components, devices and materials for infrared, near-infrared, visible light, x-ray and gamma-ray, and telecommunication instrumentation and applications. The Company markets it products in the United States through its direct sales force and worldwide through its wholly-owned subsidiaries, distributors and agents.

The Company uses certain uncommon materials and compounds to manufacture its products. Some of these materials are available from only one proven outside source. The continued high quality of these materials is critical to the stability of the Company's manufacturing yields. The Company has not experienced significant production delays due to a shortage of materials. However, the Company does occasionally experience problems associated with vendor supplied materials not meeting specifications for quality or purity. A significant failure of the Company's suppliers to deliver sufficient quantities of necessary high-quality materials on a timely basis could have a material adverse effect on the Company's results of operations.

ESTIMATES The preparation of financial statements in conformity with

accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Our significant estimates include the following: allowance for doubtful accounts, product warranty reserves, inventory obsolescence, income tax accrual, deferred income tax valuation allowances related to net operating losses primarily from our foreign subsidiaries, and certain liabilities based on known circumstances.

FAIR VALUE OF FINANCIAL INSTRUMENTS The following methods and assumptions were used to estimate the fair value of financial instruments:

Cash and Cash Equivalents The carrying amount approximates fair value because of their short maturities.

Debt Obligations The fair values of debt obligations are estimated based upon market values of similar issues. The fair values and carrying amounts of the Company's debt obligations, specifically the line of credit, Yen loan and the PIDA loan, are approximately equivalent.

CONCENTRATIONS OF CREDIT RISK Concentrations of credit risk with respect to accounts receivable are limited due to the Company's large number of customers. However, a significant portion of accounts receivable is from a European distributor. As of June 30, 2002, the accounts receivable balance from the European distributor was \$2.4 million, or 11% of the accounts receivable balance. Although the Company does not currently foresee a risk associated with these receivables, repayment is dependent upon the financial stability of this distributor.

COMPREHENSIVE INCOME Comprehensive income is a measure of all changes in shareholders' equity that result from transactions and other economic events of the period other than transactions with owners. Accumulated other comprehensive income is a component of shareholders' equity and consists of foreign currency translation adjustments of \$279,000 and \$91,000 as of June 30, 2002 and 2001, respectively.

DERIVATIVE INSTRUMENTS SFAS No. 133, "Accounting for Derivative Instruments and Hedging Activities", as amended by SFAS No. 137, "Accounting for Derivative Instruments and Hedging Activities-Deferral of the effective date of SFAS No. 133", and SFAS No. 138, "Accounting for Certain Derivative Instruments and Certain Hedging Activities", were effective for the Company as of July 1, 2000. SFAS No. 133 establishes accounting and reporting standards for derivative instruments and hedging activities. It requires that an entity recognize all derivatives as either assets or liabilities in the statement of financial position and measure those instruments at fair value. The Company was not required to record any transition adjustments as a result of adopting these standards.

The Company from time to time purchases foreign currency forward exchange contracts, primarily in Japanese Yen, that permit it to sell specified amounts of these foreign currencies expected to be received from its export sales for pre-established U.S. dollar amounts at specified dates. These contracts are entered into to limit transactional exposure to changes in currency exchange rates of export sales transactions in which settlement will occur in future periods

and which otherwise would expose the Company, on a basis of its aggregate net cash flows in respective currencies, to foreign currency risk.

The Company recorded the fair value of contracts with a notional amount of approximately \$1.2 million as of June 30, 2002 on the statement of financial position. The Company does not account for these contracts as hedges as defined by SFAS No. 133, and records the change in the fair value of these contracts in the results of operations as they occur. The change in the fair value of these contracts (decreased) increased net earnings by \$(66,000) and \$165,000 for the years ended June 30, 2002 and 2001, respectively.

To satisfy certain provisions of its line of credit facility, on March 6, 2002 the Company entered into a one-year interest rate cap expiring March 6, 2003, with a notional amount of \$12.5 million replacing an interest rate collar that expired on March 5, 2002. These agreements were entered into to limit interest rate exposure on one-half of the \$25 million term loan. The floating rate option for the cap agreement is the one-month LIBOR rate with a cap strike rate of 3.00%. At March 31, 2002 the one-month LIBOR rate was 1.87%. The Company has elected not to account for these agreements as hedges as defined by SFAS No. 133, and recorded the unrealized change in the fair value of these agreements as an increase or decrease to interest expense in the results of operations. The combined effect of these instruments increased net earnings for fiscal 2002 by approximately \$88,000. The effect of the interest rate collar on net earnings for fiscal 2001 was immaterial.

#### RECENTLY ISSUED FINANCIAL ACCOUNTING STANDARDS

In June 2001, the Financial Accounting Standards Board ("FASB") issued SFAS NoAccounting for Asset Retirement Obligations." SFAS 143 requires that the fair value of a liability for an asset retirement obligation be recognized in the period in which it is incurred if a reasonable estimate of the fair value can be made. The Statement is effective for financial statements issued for fiscal years beginning after June 15, 2002. The Company will adopt this standard as of July 1, 2002 and does not believe that the adoption of SFAS 143 will have a significant impact on its financial position or results of operations.

In October 2001, the FASB issued SFAS No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets", which provides guidance that will eliminate inconsistencies in the accounting for the impairment or disposal of long-lived assets under existing accounting pronouncements. The Company will apply the provisions of the pronouncement beginning July 1, 2002. The Company does not expect the adoption of this pronouncement to have a material impact on this financial position or results of operations.

In April 2002, the FASB issued SFAS No. 145, "Rescission of FASB Statements No. 4, 44 and 64, Amendment of FASB Statement No. 13, and Technical Corrections." SFAS 145 will affect income statement classification of gains and losses from extinguishment of debt and make certain other technical corrections. Based on current operations, the Company does not expect the adoption of this pronouncement to have a material impact on its financial position or results of operations.

In June 2002, the FASB issued Statement of Financial Accounting

Standards No. 146, "Accounting for Costs Associated with Exit or Disposal Activities". SFAS 146 addresses financial accounting and reporting for costs associated with exit or disposal activities and nullified EITF Issue No. 94-3, "Liability Recognition for Certain Employee Termination Benefits and Other Costs to Exit an Activity" (including Certain Costs Incurred in a Restructuring). The principal difference between SFAS 146 and Issue 94-3 relates to SFAS 146 requirements for recognition of a liability for a cost associated with an exit or disposal activity. AFAS 146 requires that a liability for a cost associated with an exit or disposal activity be recognized when the liability is incurred. Under Issue 94-3, a liability for an exit cost as generally defined in Issue 94-3 was recognized at the date of an entity's commitment to an exit plan. The provisions of SFAS 146 are effective for exit or disposal activities that are initiated after December 31, 2002. The Company does not expect the adoption of this pronouncement to have a material effect on our financial position or results of operations.

#### Note B ACQUISITIONS

LITTON SYSTEMS, INC. SILICON CARBIDE GROUP On October 19, 2001, the Company acquired the Litton Systems, Inc. Silicon Carbide (SiC) group for approximately \$2.2 million in cash. The major assets acquired were equipment, inventory and intangible assets. The cash paid equaled the fair value of the assets as of the closing date, therefore no goodwill was recorded. No liabilities or long-term obligations were assumed. The acquired group, located in New Jersey, concentrates their efforts on research and development of SiC and will complement the Company's SiC research and development activities that have been ongoing since 1998.

ACQUISITION OF LASER POWER CORPORATION On September 21, 1999, the Company purchased 1,250,000 shares of Laser Power Corporation common stock, representing an ownership interest in the company of approximately 13%, for a total purchase price of approximately \$2.8 million. Laser Power Corporation designs, manufactures, and markets high performance optics for the industrial, medical and military applications. Laser Power's infrared products are sold under the Laser Power brand name. Infrared products manufactured for military applications are sold under the Exotic Electro-Optics brand name.

On August 14, 2000, the Company increased its ownership in Laser Power Corporation to approximately 88%, giving the Company a controlling interest. This additional ownership was acquired for a total consideration of approximately \$23.8 million in cash and the issuance of approximately 739,000 shares of the Company's common stock for a total cost of \$37.1 million.

On October 24, 2000, the Company completed its acquisition of Laser Power Corporation for a total consideration of approximately \$3.9 million in cash and the issuance of approximately 132,000 shares of the Company's common stock for a total cost of \$6.3 million.

This transaction has been accounted for as a purchase. The results of Laser Power Corporation since the date of acquisition are included in the Company's consolidated financial statements.

Pro forma results, as if the acquisition of Laser Power Corporation had occurred at the beginning of fiscal year 2000, are as follows:

Year Ended June 30,	20	002	2001	2000
(\$000)  Net revenues  Income from continuing operations  Net income	7,2	588 \$3 264 264	•	07,569 4,801 3,573
Basic earnings per share: Income from continuing operations Loss from discontinued operations	\$ 0.	.52 \$	0.66	\$ 0.35
Net income Diluted earnings per share:	\$ 0.	.52 \$	0.66	\$ 0.26
Income from continuing operations Loss from discontinued operations	\$ 0.	.51 \$	0.64	\$ 0.34 (0.09)
Net income	\$ 0.	.51 \$	0.64	\$ 0.25

The pro forma results are not necessarily indicative of what actually would have occurred if the transaction had taken place at the beginning of the period, are not intended to be a projection of future results and do not reflect any cost savings that might be achieved from the combined operations. The loss from discontinued operations relates to the activities of Laser Power Corporation in prior periods. The pro forma information above does not include the SFAS 142 adjustment (see Note E).

Prior year financial statements reflect the adoption of the equity method of accounting in a manner consistent with the accounting for a step-by-step acquisition of Laser Power Corporation. The effect of the restatement was to reclassify all of the Company's investment in Laser Power common stock at June 30, 2000 from an investment accounted for as an available for sale security to an investment accounted for under the equity method. The effect of the restatement on income for the year ended June 30, 2000 was a charge to net income of \$129,000.

#### Note C INVENTORIES

The components of inventories are as follows:

June 30,	2002	2001
(\$000) Raw materials Work in process Finished goods	\$ 4,638 8,958 6,145	\$ 6,173 8,680 5,929
	\$ 19,741	\$ 20,782

#### Note D PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment (at cost or valuation) consists of the following:

June 30,	2002	2001
(\$000)		
Land and land improvements	\$ 1,551	\$ 1 <b>,</b> 715

Buildings and improvements Machinery and equipment	30,008 73,041	24,426 68,217
	104,600	94,358
Less accumulated depreciation	43,889	36,327
	\$ 60,711	\$ 58,031

The interest capitalized associated with the construction of buildings and improvements approximated \$118,000 and \$119,000 during the years ended June 30, 2002 and 2001, respectively. No interest was capitalized during the year ended June 30, 2000.

#### Note E GOODWILL AND INTANGIBLE ASSETS

SFAS 142 "Goodwill and Other Intangible Assets", was adopted by the Company as of July 1, 2001. SFAS 142 requires that goodwill no longer be amortized, but instead be tested for impairment at least annually. SFAS 142 also requires recognized intangible assets be amortized over their respective estimated useful lives and reviewed for impairment in accordance with SFAS 121 "Accounting for Long-Lived Assets and for Long-lived Assets to Be Disposed Of". Any recognized intangible asset determined to have an indefinite useful life will not be amortized, but instead tested for impairment in accordance with the Standard until its life is determined to no longer be indefinite. As of June 30, 2001, the Company had goodwill and other intangible assets, net of accumulated amortization of \$33.3 million, which was subject to the transitional assessment provisions of SFAS 142. A third-party valuation advisory service was engaged by the Company to calculate the fair value of the identified reporting units of the Company which have recorded goodwill. A discounted cash flow model was used to determine the fair value of the reporting units for purposes of testing goodwill for impairment. The discount rate used was based on a risk-adjusted weighted average cost of capital for the Company. The Company completed its impairment test of goodwill prior to December 31, 2001. The results of this test indicated that the Company's goodwill was not impaired as of July 1, 2001, therefore, no impairment loss was recorded.

In accordance with SFAS 142, the Company evaluates its goodwill on an annual basis. The Company completed a discounted cash flow and comparable market capitalization analysis by identified reporting units of the Company which have recorded goodwill as of June 30, 2002. Based on the results of this analysis, the Company's goodwill was not impaired as of June 30, 2002.

In accordance with SFAS 142, the Company discontinued the amortization of goodwill effective July 1, 2001. The following pro forma information adjusts previously reported net earnings, basic earnings per share and diluted earnings per share to exclude goodwill amortization:

Year Ended June 30,	2002	2001	2000
(\$000)			
Net earnings	\$ 7,264	\$ 9,491	\$ 7,311
Add: Goodwill amortization	_	1,473	87
Adjusted net income	\$ 7,264	\$10,964	\$ 7,398

	======	======	
Basic earnings per share Add: Goodwill amortization	\$ 0.52	\$ 0.69 0.11	\$ 0.57 .01
Adjusted net income	\$ 0.52	\$ 0.80	\$ 0.58
	======	======	
Diluted earnings per share Add: Goodwill amortization	\$ 0.51	\$ 0.67 0.10	\$ 0.55 0.01
Adjusted net income	\$ 0.51	\$ 0.77	\$ 0.56
			======

Changes in carrying amount of goodwill are included below:

Year Ended June 30,	2002	2001
(\$000)		
Balance - Beginning of Year	\$ 29,236	\$ 1 <b>,</b> 792
Goodwill acquired - Laser Power Corporation	-	28,917
Goodwill amortization	_	(1,473)
Reclassification of intangibles into goodwill	229	_
Tax adjustment	(478)	-
Balance - End of Year	\$ 28,987	\$ 29,236

The Company completed a tax project in fiscal 2002 relating to its acquisition of Laser Power Corporation in August 2000. The result of this tax study identified additional deferred income tax assets of \$311,000 and a reduction in current income tax payable of \$167,000. These tax adjustments resulted in a reduction of goodwill of \$478,000 related to the acquisition of Laser Power Corporation during the year ended June 30, 2002.

The gross carrying amount and accumulated amortization of the Company's intangible assets other than goodwill as of June 30, 2002 and 2001 are as follows (\$000):

	June 30, 2002		June 30, 2001			
	Gross Carrying Amount	Accumulated Amortization	Net Book Value	Gross Carrying Amount	Accumulated Amortization	Net Book Value
Patents	\$2,193	(\$ 757)	\$1,436	\$2,142	(\$ 285)	\$1 <b>,</b> 857
Trademark	1,491	(143)	1,348	1,491	(68)	1,423
Other	1,250	(801)	449	1,751	(945)	806
Total	\$4 <b>,</b> 934	(\$1,701)	\$3,233	\$5 <b>,</b> 384	(\$1,298)	\$4,086

In addition to the equipment written-off as noted in Note A under property, plant and equipment, related technology with a net book value of approximately \$235,000 net of tax was written off as a charge to

operations in fiscal 2002.

Amortization expense recorded on the intangible assets for the years ended June 30, 2002, 2001 and 2000 was \$363,000 \$393,000, and \$239,000, respectively. The estimated amortization expense for existing intangible assets for each of the five succeeding years is as follows:

Year	Ended	June	30,	
(\$000	))			
2003				\$328,000
2004				328,000
2005				328,000
2006				276,000
2007				177,000

Note F DEBT

The components of debt are as follows:

June 30,	2002	2001
(\$000)		
Line of credit, interest at the		
LIBOR Rate, as defined, plus 1.375%		
and 1.25%, respectively	\$ 10,750	\$ 9,500
Term loan, interest at the LIBOR Rate,		
as defined, plus 1.375% and 1.25%,		
respectively, payable in quarterly		
installments through August 2005	21,250	25 <b>,</b> 000
Pennsylvania Industrial Development Authority		
(PIDA) term note, interest at 3%, payable		
in monthly installments through October 2011	499	546
Term note, interest at the Japanese Yen Base Rate,		
as defined, plus 1.49%, principal payable in		
full in September 2002 (See Note M)	•	1,902
Other	21	58
Total debt	34,503	37,006
Current portion of long-term debt	•	(3,834)
Long-term debt	\$29 <b>,</b> 435	\$33 <b>,</b> 172

The Company has a \$45.0 million secured credit agreement, which it obtained in connection with the Company's acquisition of Laser Power Corporation. The facility has a five-year life effective August 14, 2000 and contains term and line of credit borrowing options. The facility is collateralized by the Company's accounts receivables and inventory, a pledge of all of the capital stock of each of the Company's existing direct and indirect domestic subsidiaries, and a pledge of 65% of the stock of the Company's foreign subsidiaries. Additionally, the facility is subject to certain restrictive covenants, including those related to minimum net worth, leverage and interest coverage. This facility has an interest rate range of LIBOR plus 0.88% to LIBOR plus 1.50%. The weighted average interest rate of borrowings under the credit agreement was 3.36% and 5.31%, respectively,

at June 30, 2002 and 2001. The average outstanding borrowings under the line of credit were \$33.0 million and \$28.9 million during the years ended June 30, 2002 and 2001, respectively. The Company had available \$12.0 million and \$16.1 million under its line of credit as of June 30, 2002 and 2001, respectively.

In September 1997, the Company obtained a 237 million Yen loan with PNC Bank. Interest is at a rate equal to the lesser of the floating rate or the maximum rate as defined in the loan agreement. The floating rate is equal to the Japanese Yen Base Rate, as defined, plus 1.49% and the maximum rate is 3.74%. The Japanese Yen Base Rate was 0.10% and 0.13% and the floating rate was 1.59% and 1.62% at June 30, 2002 and 2001, respectively.

On June 28, 2002, the Company amended the credit facility to allow for a renewal of and an increase to the principal of the Yen loan. The principal amount available under the Yen loan was increased to 300 million Yen. Additionally, terms relating to the required interest rate protection agreement and to a restrictive covenant were amended to enhance the clarity of the agreement. All other substantial terms and conditions of the credit facility remain unchanged.

The Company has a line of credit facility with a Singapore bank which permits maximum borrowings in the local currency of approximately \$415,000 and \$385,000 for the fiscal year ended June 30, 2002 and 2001, respectively. Borrowings are payable upon demand with interest being charged at the rate of 1.00% above the bank's prevailing prime lending rate. The interest rate at June 30, 2002 and 2001 was 6.00%. At June 30, 2002 and 2001 there were no outstanding borrowings under this facility.

The aggregate annual amounts of principal payments required on the long-term debt, considering the refinancing of the Yen loan, are as follows:

#### Year Ending June 30,

(\$000)	
2003	\$ 5,068
2004	6,923
2005	7,550
2006	12,676
2007	53
Thereafter	2,233

Interest and commitment fees paid during the years ended June 30, 2002, 2001 and 2000 totaled approximately \$1.4 million, \$2.3 million and \$0.4 million, respectively.

Note G INCOME TAXES

The components of income tax expense are as follows:

Year	Ended	June	30,	2002	2001	2000
(\$000	))					

Current			
Federal	\$ 423	\$2 <b>,</b> 387	\$1,094
State	233	387	53
Foreign	690	939	667
Total	1,346	3,713	1,814
Deferred:			
Federal	\$ 1,015	\$1,119	\$ 528
State	190	118	60
Foreign	(305)	115	43
Total	900	1,352	631
Provision for Income Taxes	\$ 2 <b>,</b> 246	\$5 <b>,</b> 065	\$2,445

Principal items comprising deferred income taxes are as follows:

June 30,	2002	2001
(\$000)		
Deferred income tax liabilities		
Tax over book accumulated depreciation	\$ 4,333	\$ 3,476
Intangible assets	962	1,474
Deferred income taxes liability - long-term	\$ 5 <b>,</b> 295	\$ 4,950
	=====	======
Deferred income tax assets		
Transfer price adjustment	\$ 167	\$ -
Inventory capitalization	1,004	1,256
Non-deductible accruals	1,416	1,248
Net-operating loss carryforward - current portion	870	800
Deferred income taxes asset - current	\$ 3 <b>,</b> 457	\$ 3,304
	======	======
Net-operating loss carryforward	\$ 1,882	\$ 2,334
Valuation allowance	(468)	(317)
Deferred income tax asset - long-term	\$ 1,414	\$ 2,017
Net deferred income tax asset (liability)	====== (\$ 424)	====== \$ 371
=======================================	======	======

The reconciliation of income tax expense at the statutory federal rate to the reported income tax expense is as follows:

Year Ended June 30,	2002	용	2001	%	2000	용

	==	=====	==	==	=====	==	==	=====	==
	\$	2,246	24	\$	5,065	35	\$	2,445	25
Other		(106)	(1)		(366)	(2)		204	2
Non-deductible goodwill amortization		_	-		500	3		30	_
Foreign taxes		83	1		126	1		181	2
Excludable foreign income		(525)	(6)		(124)	(1)		(728)	(7)
Corporation income		(719)	(7)		(378)	(3)		(628)	(6)
Excludable Foreign Sales									
State income taxes - net of federal benefit		279	3		358	3		69	_
Increase (decrease) in taxes resulting from:									
Taxes at statutory rate	\$	3,234	34	\$	4,949	34	\$	3 <b>,</b> 317	34
(\$000)									

During the years ended June 30, 2002, 2001, and 2000, cash paid by the Company for income taxes was approximately \$1.4\$ million, \$1.7\$ million, and \$1.6\$ million, respectively.

The Company has not recorded deferred income taxes applicable to undistributed earnings of foreign subsidiaries that are indefinitely reinvested outside the United States. If the earnings of such foreign subsidiaries were not indefinitely reinvested, an additional deferred tax liability of approximately \$6.9 million and \$5.6 million would have been required as of June 30, 2002 and 2001, respectively.

The sources of differences resulting in deferred income tax expense (benefit) and the related tax effect of each were as follows:

Year Ended June 30,	2002	2001	2000
(\$000)			
Depreciation and amortization	\$ 344	\$2,232	\$ 691
Inventory capitalization	252	(872)	(119)
Net operating loss carryforward	639	729	145
Other - primarily nondeductible accruals	(335)	(737)	(86)
	\$ 900	\$1,352	\$ 631
	=====	======	=====

As of June 30, 2002, net operating loss carryforwards totaled \$4.6 million. Of that amount, \$3.1 million expire in 2018. The remaining \$1.5 million expire in 2019.

#### Note H OPERATING LEASES

The Company leases certain property under operating leases that expire at various dates through fiscal 2007. Future rental commitments applicable to the operating leases at June 30, 2002 are as follows:

# Year Ended June 30,

(\$000)	
2003	\$ 971
2004	712
2005	572
2006	561

2007	2	6	1	
Thereafter			-	
	=	=:	_	

Rent expense was approximately \$1.1 million, \$1.0 million and \$0.5 million for the years ended June 30, 2002, 2001 and 2000, respectively.

#### Note I STOCK OPTION PLANS

The Company has a stock option plan under which stock options have been granted by the Board of Directors to certain officers and key employees, with 3,870,000 shares of common stock reserved for use under this plan. All options to purchase shares of common stock granted todate have been at market price at the date of grant. Generally, twenty percent of the options may be exercised one year from the date of grant with comparable annual increases on a cumulative basis each year thereafter. The stock option plan also has vesting provisions predicated upon the death, retirement or disability of the optionee. The amount available for future grants under the stock option plan was 1,122,377 as of June 30, 2002.

The Company has a nonemployee directors stock option plan with 240,000 shares of common stock reserved for use under this plan. The plan provides for the automatic grant of options to purchase 30,000 shares to each nonemployee director at the fair value on the date of shareholder approval of the plan and a similar grant for each nonemployee director that joined the Board prior to October 1999. Twenty percent of the options granted may be exercised one year from the date of grant with comparable annual increases on a cumulative basis each year thereafter. The amount available for future grants under the nonemployee directors stock option plan was 120,000 as of June 30, 2002.

All stock options expire 10 years after the grant date.

Stock option activity relating to the plans in each of the three years in the period ended June 30, 2002 is as follows:

Options	_	Weighted Average Exercise Price Per Share
Outstanding - July 1, 1999 Granted Exercised Forfeited	1,277,990 80,300 (224,570) (26,994)	\$ 4.49 \$ 9.38 \$ 3.00 \$ 8.30
Outstanding - July 1, 2000 Granted Exercised Forfeited	1,106,726 225,775 (128,460) (29,750)	\$ 5.04 \$ 17.27 \$ 3.63 \$ 7.55
Outstanding - July 1, 2001 Granted Exercised Forfeited	1,174,291 45,950 (119,640) (39,320)	\$ 7.47 \$ 15.10 \$ 2.96 \$ 13.98
Outstanding - June 30, 2002	1,061,281	\$ 8.07
Exercisable - June 30, 2002	744,620	\$ 5.76

Exercisable - June	30,	2001	737,569	\$	4.41		
Exercisable - June	30,	2000	733,416	\$	3.75		

Outstanding and exercisable options at June 30, 2002 are as follows:

	OPTIONS OUTSTANDING			OPTIONS E	XERCISABLE
Range of Exercise Prices	Number of Shares	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price	Number of Shares	Weighted Average Exercise Price
\$ 1.00 - \$ 2.00 \$ 4.25 - \$ 5.50 \$ 6.09 - \$10.00 \$10.50 - \$15.74 \$16.00 - \$23.38	297,100 251,726 194,420 121,470 196,565	2.29 5.22 5.15 7.25 8.16	\$ 1.59 \$ 5.21 \$ 8.93 \$ 13.31 \$ 17.43	297,100 188,195 163,120 55,940 40,265	\$ 1.59 \$ 5.15 \$ 9.11 \$ 11.67 \$ 17.56
	1,061,281	5.16	\$ 8.07	744,620 =====	\$ 5.76 ======

The Company uses the intrinsic value approach specified in Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees." Had the Company determined compensation costs based upon the fair value of the options at the grant dates in accordance with SFAS No. 123, "Accounting for Stock-Based Compensation," its net earnings for the years ended June 30, 2002, 2001 and 2000 would have been reduced by \$632,000, \$635,000 and \$390,000 or \$.04, \$.04 and \$.03 per diluted share, respectively.

The pro forma adjustments were calculated using the Black-Scholes option pricing model under the following weighted-average assumptions in each fiscal year:

Year Ended June 30,	2002	2001	2000
Risk free interest rate	3.81%	6.1%	6.5%
Expected volatility	47%	92%	81%
Expected life of options	7.00 years	6.40 years	5.95 years
Expected dividends	none	none	none

Based on the option pricing model, options granted during the years ended June 30, 2002, 2001 and 2000 had fair values at the date of the grant of \$8.09, \$13.81 and \$6.90 per share, respectively.

#### Note J SEGMENT AND GEOGRAPHIC REPORTING

The Company reports its segments using the "management approach" model for segment reporting. The management approach model is based on the way a company's management organizes segments within the company for making operating decisions and assessing performance. Reportable segments are based on products and services, geography, legal structure, management structure or any other manner in which management

segregates a company.

The Company's reportable segments offer similar products to different target markets. The segments are managed separately due to the production requirements and facilities that are unique to each segment. The Company has three reportable segments: Optical Components, which is an aggregation of the Company's infrared optics and material products business and the Company's VLOC subsidiary; Radiation Detectors, which is the Company's eV PRODUCTS division; and the Company's Laser Power Corporation subsidiary acquired in fiscal 2001.

The Optical Components segment is divided into the geographic locations within the United States, Singapore, China, Japan and the United Kingdom. Each geographic location is directed by a general manager and is further divided into production and administrative units that are directed by managers. The Optical Components segment designs, manufactures and markets optical and electro-optical components, devices and materials for precision use in infrared, near infrared and visible light instrumentation. The Optical Components segment includes certain general corporate management and administrative activities of the Company which are not allocated to the other segments, certain research and development activities of the Company not necessarily specific to the Optical Components segment and other unallocated charges.

The Radiation Detectors segment is located in the United States and is a division of the Company. The Radiation Detectors segment is directed by a general manager. The Radiation Detectors segment is further divided into production and administrative units that are directed by managers. The Radiation Detectors segment develops and markets solidstate x-ray and gamma-ray products for the nuclear radiation detection industry.

The Laser Power Corporation segment is located primarily in the United States. Laser Power Corporation is directed by a general manager. The Laser Power Corporation segment is further divided into production and administrative units that are directed by managers. The Laser Power Corporation segment designs, manufactures and markets high performance optics for military, industrial and medical applications. Laser Power's infrared products are sold under the Laser Power brand name. Infrared products manufactured for military applications are sold under the Exotic Electro-Optics brand name.

The accounting policies of the segments are the same as those described in the Summary of Significant Accounting Policies (see Note A). Substantially all of the Company's corporate expenses are allocated to the segments. The Company evaluates segment performance based upon reported segment profit or loss from operations. Inter-segment sales and transfer have been eliminated.

Optical Radiation Laser Power
Components Detectors Corporation Totals

(\$000)

2002				
Net revenues	\$ 74,693	\$ 6,490	\$ 32,505	\$113 <b>,</b> 688
Income (loss) from operations	12,331	(1,703)	737	11,365
Interest expense	_	_	_	1,444
Other expense, net	_	_	_	463
Equity income	_	52	_	52
Earnings before income taxes	-	_	_	9,510
Depreciation and amortization	6,120	700	1,972	8 <b>,</b> 792
Segment assets		10,214		
Expenditures for property,	<i>33,</i> 003	10,214	47,002	131,301
plant and equipment	6,370	1,203	1,090	8,663
Equity investment	-	1,750		1,750
Goodwill	1,926	-	27,061	28,987
(\$000)				
2001	Ċ 02 24E	¢ 0.063	21 126	6100 004
Net revenues	\$ 83,345		31,126	
Income (loss) from operations	15,036		4,224	
Interest expense Other expense, net	_	_	_	2,330 1,382
Earnings before income taxes	_	_	_	14,556
Earnings before income caxes				14,550
Depreciation and amortization	5,208	685	2,811	8,704
Segment assets	84,642	8,173	55 <b>,</b> 358	148,173
Expenditures for property,				
plant and equipment	14,914	490	1,295	16,699
Goodwill	1,698	_	27,538	29,236
2000				
Net revenues	\$ 68,302	\$ 5 <b>,</b> 790	_	\$ 74,092
Income (loss) from operations	12,427	•	_	10,331
Interest expense	-	_	_	349
Other expense, net	_	_	_	226
Earnings before income taxes	_	_	_	9,756
Depreciation and amortization	4,352	667	_	5 <b>,</b> 019
Segment assets	76,476	7 <b>,</b> 650	_	84,126
Expenditures for property,	70,170	7,000		01,120
plant and equipment	8,501	376	_	8 <b>,</b> 877
Goodwill	1,792	_	_	1,792

Geographic information for revenues, based on country of origin, and long-lived assets which include property, plant and equipment, goodwill and other intangibles, net of related depreciation and amortization follows:

_	
Revenu	es

Year Ended June 30,	2002	2001	2000
(\$000)			
United States	\$ 89,659	\$ 97 <b>,</b> 753	\$ 55,493
Singapore	9,714	8,230	6,867
Japan	8,301	11,668	9,839
Belgium	4,305	3,460	_

United Kingdom	1,709	2,223	1,893
Total Non-United States	24,029	25,581	18,599
	\$113,688	\$123 <b>,</b> 334	\$ 74,092

#### Long-Lived Assets

Year Ended June 30,	2002	2001	2000
(\$000)			
United States	\$88,570	\$86 <b>,</b> 606	\$41,533
Singapore	2,390	2,801	1,347
Japan	27	17	36
Belgium	472	476	-
China	1,465	1,443	1,263
United Kingdom	7	10	12
Total Non-United States	4,361	4,747	2,658
	\$92 <b>,</b> 931	\$91,353	\$44,191

#### Note K EMPLOYEE BENEFIT PLANS

Eligible employees of the Company participate in a profit sharing retirement plan. Contributions to the plan are made at the discretion of the Company's board of directors and were approximately \$738,000, \$1,122,000 and \$812,000 for the years ended June 30, 2002, 2001 and 2000, respectively.

The Company has an employee stock purchase plan for employees who have completed six months of continuous employment with the Company. The employee may purchase the common stock at 5% below the prevailing market price. The amount of shares which may be bought by an employee is limited to 10% of the employee's base pay for each fiscal year. This plan, as amended, limits the number of shares of commons stock available for purchase to 400,000 shares. There were 206,454 and 215,313 shares of common stock available for purchase under the plan at June 30, 2002 and 2001, respectively.

The Company has no program for postretirement health and welfare and post employment benefits.

The II-VI Incorporated Deferred Compensation Plan (the "Plan") is designed to allow officers and key employees of the Company to defer receipt of compensation into a trust fund for retirement purposes. The Plan is a nonqualified, defined contribution employees' retirement plan. At the Company's discretion, the Plan may be funded by the Company making contributions based on compensation deferrals, matching contributions and discretionary contributions. Compensation deferrals will be based on an election by the participant to defer a percentage of compensation under the Plan. All assets in the Plan are subject to claims of the Company's creditors until such amounts are paid to the Plan participants. Employees of the Company made contributions to the Plan in the amount of approximately \$71,000, \$354,000 and \$248,000 for the years ended June 30, 2002, 2001, and 2000, respectively.

#### Note L CONTINGENCIES

As the result of issues generated in the course of daily business, the Company is involved in legal proceedings. Management believes that the final disposition of these proceedings will not have a material adverse effect on the Company's operations, financial position, liquidity or results of operations.

#### Note M SUBSEQUENT EVENTS

European Distribution Joint Venture

Effective September 25, 2002, the Company reached an agreement with L.O.T.-Oriel Laser Optik Technologie Holding GmbH and L.O.T. - Oriel Laser Optik GmbH & Co. KG of Darmstadt, Germany (collectively L.O.T.) to establish a new European joint venture to distribute II-VI Incorporated and Laser Power Corporation products in Germany. The Company purchased a 75% controlling interest in this joint venture, called II-VI L.O.T. GmbH (II-VI/L.O.T.), for approximately \$2.8 million net of taxes already or to be refunded to the Company. II-VI/L.O.T. will be based in Darmstadt, Germany and will provide distribution, marketing and laser specific know-how needed to successfully sell both II-VI and Laser Power products in Germany to OEM and aftermarket customers.

#### Yen Loan

On September 23, 2002, the Company replaced its 237 million Yen loan with PNC Bank, with a 300 million Yen loan with the same bank. This loan matures on September 25, 2007. Interest is at a rate equal to the Japanese Yen base rate, as defined in the loan agreement, plus 1.49%. Due to this event, the aggregate annual amounts of principal payments required on the long-term debt as of June 30, 2002 were revised to reflect this transaction (see Note F).

#### SCHEDULE II

#### II-VI INCORPORATED AND SUBSIDIARIES

VALUATION AND QUALIFYING ACCOUNTS
YEARS ENDED JUNE 30, 2000, 2001 AND 2002
(IN THOUSANDS OF DOLLARS)

	Addit	ions (1)		
Balance at	Charged	Charged	Deduction	Balance
Beginning	to	to Other	from	at End
of Year	Expense	Accounts	Reserves	of Year

YEAR ENDED
JUNE 30, 2000:
Allowance for

doubtful accounts & warranty returns	\$	457	\$ 213	\$	7	\$ 102	(2)	\$ 575
YEAR ENDED JUNE 30, 2001: Allowance for doubtful accounts & warranty returns	\$	575	\$ 232	\$	94	\$ 152	(2)	\$ 749
YEAR ENDED JUNE 30, 2002: Allowance for doubtful accounts & warranty returns Other (3)	\$ \$	749	158 780	\$ \$	42	\$ 102 88	(2)	847 692

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#### QUARTERLY FINANCIAL DATA

### FISCAL 2002

	·	DECEMBER 31,	•	JUNE 3
QUARTER ENDED	2001	2001	2002	2002
(\$000 except per share data)				
Net revenues	\$28,693	\$27,446	\$27,441	\$30,10
Cost of goods sold		18,640	19,848	19,55
Internal research and development	990	1,345	•	95
Selling, general and administrative		4,876	4,824	5,90
Interest expense	542	358	313	23
Other expense (income) - net	(565)	(95)	(353)	1,42
Earnings before income taxes	3,491	2,322	1,656	2,04
Income taxes	1,152	577	492	2
Net earnings	\$ 2,339	\$ 1,745	\$ 1,164	\$ 2,01
Basic earnings per share	\$ 0.17	\$ 0.13	\$ 0.08	\$ 0.1
Diluted earnings per share	\$ 0.16	\$ 0.12	\$ 0.08	\$ 0.1
	======	======	======	=====

<sup>(1)</sup> Amounts primarily relate to businesses acquired, warranty returns and the effects of foreign currency translation.

<sup>(2)</sup> Uncollectible accounts written off, net of recovery

<sup>(3)</sup> Primarily relates to the closing of manufacturing operations in Mexico and the costs related to consolidating several of the Company's European distribution arrangements.

	· · · · · · · · · · · · · · · · · · ·	DECEMBER 31,	·	
QUARTER ENDED	2000	2000	2001	2001
(\$000 except per share data)				
Net revenues	\$26,713	\$31,738	\$32,531	\$32 <b>,</b> 35
Cost of goods sold	16,180	19,364	20,847	19,40
Internal research and development	992	1,166	1,088	1,25
Selling, general and administrative	6,268	6 <b>,</b> 239	6,083	6 <b>,</b> 17
Interest expense	337	837	657	49
Other expense (income) - net	67	543	180	59
Earnings before income taxes	2 <b>,</b> 869	3 <b>,</b> 589	3 <b>,</b> 676	4,42
Income taxes	909	1,246	1,241	1,66
Net earnings	\$ 1,960	\$ 2,343	\$ 2,435	\$ 2,75
Basic earnings per share	\$ 0.15	\$ 0.17	\$ 0.18	\$ 0.2
Diluted earnings per share	\$ 0.14	\$ 0.16	\$ 0.17	\$ 0.1
	======	======	======	=====

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

#### PART III

#### ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT

The information set forth above in Part I under the caption "Executive Officers of the Registrant" is incorporated herein by reference. The other information required by this item is incorporated herein by reference to the information set forth under the captions "Election of Directors", "Board of Directors and Board Committees" and "Other Matters - Section 16(a) Beneficial Ownership Reporting Compliance" in the Company's definitive proxy statement for the 2002 Annual Meeting of Shareholders filed pursuant to Regulation 14A of the Securities Exchange Act of 1934, as amended.

#### ITEM 11. EXECUTIVE COMPENSATION

The information required by this item is incorporated herein by reference to the information set forth in the second paragraph under the caption "Board of Directors and Board Committees" and the information set forth under the caption "Executive Compensation and Other Information" in the Company's definitive proxy statement for the 2002 Annual Meeting of Shareholders filed pursuant to Regulation 14A of the Securities Exchange Act of 1934, as amended.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Equity Compensation Plan Information	Equity	Compensation	Plan	Information
--------------------------------------	--------	--------------	------	-------------

Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation pla (excluding securities reflected in column (a)
	(a)	(b)	(c)
Equity compensation plans approved by security holders Equity compensation	1,061,281	\$8.07	1,242,377
plans not approved by security holders	0	0	0
Total	1,061,281	\$8.07	1,242,377
	= =======	=====	=======

The other information required by this item is incorporated herein by reference to the information set forth under the caption "Principal Shareholders" in the Company's definitive proxy statement for the 2002 Annual Meeting of Shareholders filed pursuant to Regulation 14A of the Securities Exchange Act of 1934, as amended.

#### ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

The information required by this item is incorporated herein by reference to the information set forth under the caption "Board of Directors and Board Committees" in the Company's definitive proxy statement for the 2002 Annual Meeting of Shareholders filed pursuant to Regulation 14A of the Securities Exchange Act of 1934, as amended.

# ITEM 14. CONTROLS AND PROCEDURES

Not yet applicable.

#### PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES AND REPORTS ON FORM  $8\text{-}\mbox{K}$ 

#### (a) (1) Financial Statements

The financial statements are set forth under Item 8 of this annual report on Form  $10\mbox{-}K$ .

# (2) Schedules

Schedule II - Valuation and Qualifying Accounts for each of the three years in the period ended June 30, 2002 is set forth under Item 8 of this annual report on Form 10-K.

Financial statements, financial statement schedules and exhibits not listed have been omitted where the required information is included in the consolidated financial statements or notes thereto, or is not applicable or required.

# (3) Exhibits.

Exhibit

Number	Description of Exhibit	
3.01	Amended and Restated Articles of Incorporation of II-VI Incorporated	Incorporated herein by Exhibit 3.02 to reference is Registration Statement No. 33-16389 on Form S-1.
3.02	Amended and Restated By-Laws of II-VI Incorporated	Incorporated herein by reference is II-VI's Annual Report on Form 10-K for the fiscal year ended June 30, 2002.
4.01	Rights Agreement dated as of August 11, 2001	Incorporated herein by reference is Exhibit 1 to the Company's Exchange Act Registration Statement on Form 8-A (file number 0-16195) filed on August 28, 2001.
10.01	II-VI Incorporated Employees' Stock Purchase Plan	Incorporated herein by reference is Exhibit 10.03 to Registration Statement No. 33-16389 on Form S-1.
10.02	II-VI Incorporated Amended and Restated Employees' Stock Purchase Plan	Incorporated herein by reference is Exhibit 10.04 to Registration Statement No. 33-16389 on Form S-1.
10.03	First Amendment to the II-VI Incorporated Amended and Restated Employees' Stock Purchase Plan	Incorporated herein by reference Exhibit 10.01 to II-VI's Form 10-Q for the Quarter Ended March 31, 1996.
10.04	II-VI Incorporated Amended and Restated Employees' Profit -Sharing Plan and Trust Agreement, as amended	Incorporated herein by reference is Exhibit 10.05 to Registration Statement No. 33-16389 on Form S-1.

10.05	Form of Representative Agreement between II-VI and its foreign representatives	Incorporated herein by reference is Exhibit 10.15 to Registration Statement No. 33-16389 on Form S-1.
Exhibit Number	Description of Exhibit	
10.06	Form of Employment Agreement*	Incorporated herein by reference is Exhibit 10.16 to Registration Statement 33-16389 on Form S-1.
10.07	Description of Management-By- Objective Plan*	Incorporated herein by reference is Exhibit 10.09 to II-VI's Annual Report on Form 10-K for the fiscal year ended June 30, 1993.
10.08	II-VI Incorporated 1994 Nonemployee Directors Stock Option Plan*	Incorporated herein by reference is Exhibit A to II-VI's Proxy Statement dated September 30, 1994.
10.09	II-VI Incorporated Deferred Compensation Plan*	Incorporated herein by reference is Exhibit 10.12 to II-VI's Annual Report on Form 10-K for the fiscal year ended June 30, 1996.
10.10	Trust Under the II-VI Incorporated Deferred Compensation Plan*	Incorporated herein by reference is Exhibit 10.13 to II-VI's Annual Report on Form 10-K for the fiscal year ended June 30, 1996.
10.11	Description of Bonus Incentive Plan*	Incorporated herein by reference is Exhibit 10.14 to II-VI's Annual Report on Form 10-K for the fiscal year ended June 30, 1996.
10.12	Amended and Restated II-VI Incorporated Deferred Compensation Plan*	Incorporated herein by reference is Exhibit 10.01 to II-VI's Form 10-Q for the Quarter Ended December 31, 1996.
10.13	Amended and Restated II-VI Incorporated 1997 Stock Option Plan*	Incorporated herein by reference is Exhibit 10.04 to II-VI's Annual Report on

Form 10-K for the fiscal year ended June 30, 1998.

10.14	Agreement by and between PNC Bank, National Association and II-VI Incorporated for Amended and Restated Letter Agreement for Committed Line of Credit and Japanese Yen Term Loan	Incorporated herein by reference is Exhibit 10.01 to II-VI's Form 10-Q for the Quarter Ended March 31, 1999.
10.15	Credit Agreement by and among II-VI Incorporated, its subsidiary guarantors, various lenders and PNC Bank, National Association dated as of August 14, 2000	Incorporated herein by reference is Exhibit (b)(1) to Amendment No. 3 to the Company's Tender Offer Statement on Schedule TO filed on August 24, 2000.
10.16	II-VI Incorporated Stock Option Plan of 2001	Incorporated herein by reference is Exhibit 10.01 to II-VI's Form 10-Q for the quarter ended December 31, 2001.
Exhibit		
Number	Description of Exhibit	
Number 10.17	Pescription of Exhibit First Amendment to Credit Agreement by and among II-VI Incorporated, its subsidiary guarantors, various lenders and PNC Bank, National Association dated as of June 28, 2002	Incorporated herein by reference as filed with II-VI's Annual Report on Form 10-K for the fiscal year ended June 30, 2002.
	First Amendment to Credit Agreement by and among II-VI Incorporated, its subsidiary guarantors, various lenders and PNC Bank, National Association dated as of	reference as filed with II-VI's Annual Report on Form 10-K for the fiscal
10.17	First Amendment to Credit Agreement by and among II-VI Incorporated, its subsidiary guarantors, various lenders and PNC Bank, National Association dated as of June 28, 2002 List of Subsidiaries of	reference as filed with II-VI's Annual Report on Form 10-K for the fiscal year ended June 30, 2002.  Incorporated herein by reference as filed with II-VI's Annual Report on Form 10-K for the fiscal

99.01	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 for Carl J. Johnson	Incorporated herein by reference as filed with II-VI's Annual Report on Form 10-K for the fiscal year ended June 30, 2002.
99.02	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 for Craig A. Creaturo	Incorporated herein by reference as filed with II-VI's Annual Report on Form 10-K for the fiscal year ended June 30, 2002.
99.03	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 for Carl J. Johnson	Filed herewith.
99.04	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 for Craig A. Creaturo	Filed herewith.

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The Registrant will furnish to the Commission upon request copies of any instruments not filed herewith which authorize the issuance of long-term obligations of Registrant not in excess of 10% of the Registrant's total assets on a consolidated basis.

- (b) No reports on Form 8-K have been filed during the fourth quarter of fiscal year 2002.
- (c) The Company hereby files as exhibits to this Form 10-K the exhibits set forth in Item  $15\,(a)\,(2)$  above.

#### SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this amended annual report to be signed on its behalf by the undersigned thereunto duly authorized.

II-VI INCORPORATED
(Registrant)

 $<sup>^{\</sup>star}$  Denotes management contract or compensatory plan, contract or arrangement.

Date: September 30, 2002 By: /s/ Carl J. Johnson
Carl J. Johnson
Chairman and Chief Executive Officer

#### CERTIFICATIONS

I, Carl J. Johnson, certify that:

- 1. I have reviewed this amended annual report on Form 10-K/A of II-VI Incorporated;
- 2. Based on my knowledge, this amended annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this amended annual report; and
- 3. Based on my knowledge, the financial statements, and other financial information included in this amended annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this amended annual report.

September 30, 2002

By: /s/ Carl J. Johnson
Carl J. Johnson
Chairman, Chief Executive Officer
and Director

I, Craig A. Creaturo, certify that:

- 1. I have reviewed this amended annual report on Form 10-K/A of II-VI Incorporated;
- 2. Based on my knowledge, this amended annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this amended annual report; and
- 3. Based on my knowledge, the financial statements, and other financial information included in this amended annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this amended annual report.

September 30, 2002

By: /s/ Craig A. Creaturo

Craig A. Creaturo

Treasurer (principal financial officer)

# EXHIBIT INDEX

Exhibit Number	Description of Exhibit	
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4.01	Rights Agreement dated as of August 11, 2001	Incorporated herein by reference is Exhibit 1 to the Company's Exchange Act Registration Statement on Form 8-A (file number 0-16195) filed on August 28, 2001.
10.01	II-VI Incorporated Employees' Stock Purchase Plan	Incorporated herein by reference is Exhibit 10.03 to Registration Statement No. 33-16389 on Form S-1.
10.02	II-VI Incorporated Amended and Restated Employees' Stock Purchase Plan	Incorporated herein by reference is Exhibit 10.04 to Registration Statement No. 33-16389 on Form S-1.
10.03	First Amendment to the II-VI Incorporated Amended and Restated Employees' Stock Purchase Plan	Incorporated herein by reference Exhibit 10.01 to II-VI's Form 10-Q for the Quarter Ended March 31, 1996.
10.04	II-VI Incorporated Amended and Restated Employees' Profit -Sharing Plan and Trust Agreement, as amended	Incorporated herein by reference is Exhibit 10.05 to Registration Statement No. 33-16389 on Form S-1.
10.05	Form of Representative Agreement between II-VI and its foreign representatives	Incorporated herein by reference is Exhibit 10.15 to Registration Statement No. 33-16389 on Form S-1.

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10.08	II-VI Incorporated 1994 Nonemployee Directors Stock Option Plan*	Incorporated herein by reference is Exhibit A to II-VI's Proxy Statement dated September 30, 1994.
Exhibit Number	Description of Exhibit	
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10.14	Agreement by and between PNC Bank, National Association and II-VI Incorporated for	Incorporated herein by reference is Exhibit 10.01 to II-VI's Form 10-Q for

	3 3	
	Amended and Restated Letter Agreement for Committed Line of Credit and Japanese Yen Term Loan	the Quarter Ended March 31, 1999.
10.15	Credit Agreement by and among II-VI Incorporated, its subsidiary guarantors, various lenders and PNC Bank, National Association dated as of August 14, 2000	Incorporated herein by reference is Exhibit (b)(1) to Amendment No. 3 to the Company's Tender Offer Statement on Schedule TO filed on August 24, 2000.
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10.17	First Amendment to Credit Agreement by and among II-VI Incorporated, its subsidiary guarantors, various lenders and PNC Bank, National Association dated as of June 28, 2002	Incorporated herein by reference as filed with II-VI's Annual Report on Form 10-K for the fiscal year ended June 30, 2002.
21.01	List of Subsidiaries of II-VI Incorporated	Incorporated herein by reference as filed with II-VI's Annual Report on Form 10-K for the fiscal year ended June 30, 2002.
Exhibit Number	Description of Exhibit	
23.01	Consent of Deloitte & Touche LLP	Incorporated herein by reference as filed with II-VI's Annual Report on Form 10-K for the fiscal year ended June 30, 2002.
23.02	Consent of Deloitte & Touche LLP	Filed herewith.
99.01	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act	Incorporated herein by reference as filed with II-VI's Annual Report on Form 10-K for the fiscal year ended June 30, 2002.

of 2002 for Carl J. Johnson

99.02	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 for Craig A. Creaturo	Incorporated herein by reference as filed with II-VI's Annual Report on Form 10-K for the fiscal year ended June 30, 2002.
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99.04	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 for Craig A. Creaturo	Filed herewith.

<sup>-----</sup>

style="font-family:inherit;font-size:8pt;">

# 11. COMMITMENTS AND CONTINGENCIES

We are subject to legal claims and litigation arising in the ordinary course of business, such as product liability, employment or intellectual property claims. The outcome of any such matters is currently not determinable. Although we do not expect that such legal claims and litigation will ultimately have a material adverse effect on our consolidated financial position or results of operations, an adverse result in one or more matters could negatively affect our results in the period in which they occur.

# 12. ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS)

The components of comprehensive income (loss), net of income taxes, are as follows (in thousands):

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<sup>\*</sup> Denotes management contract or compensatory plan, contract or arrangement.

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	Three Months Ended		
	December 31, 2011	January 1, 2011	
Net income	\$17,051	\$19,113	
Other comprehensive income (loss):			
Translation adjustment	(10,321	(11,426	)
Changes in unrealized gains on available-for-sale securities, net of taxes	16	(1	)
Other comprehensive income (loss), net of tax	(10,305)	(11,427	)
Comprehensive income (loss)	\$6,746	\$7,686	

Accumulated other comprehensive income (net of tax) at December 31, 2011 is comprised of accumulated translation adjustments of \$40.9 million. Accumulated other comprehensive income (net of tax) at October 1, 2011 is comprised of accumulated translation adjustments of \$51.2 million.

#### 13. EARNINGS PER SHARE

Basic earnings per share is computed based on the weighted average number of shares outstanding during the period, excluding unvested restricted stock. Diluted earnings per share is computed based on the weighted average number of shares outstanding during the period increased by the effect of dilutive employee stock awards, including stock options, restricted stock awards and stock purchase plan contracts, using the treasury stock method.

The following table presents information necessary to calculate basic and diluted earnings per share (in thousands, except per share data):

	Three Months Ended	
	December 31,	January 1,
	2011	2011
Weighted average shares outstanding —basic	23,462	24,688
Dilutive effect of employee stock awards	499	580
Weighted average shares outstanding—diluted	23,961	25,268
Net income	\$17,051	\$19,113
Net income per basic share	\$0.73	\$0.77
Net income per diluted share	\$0.71	\$0.76

A total of 207,517 and 52,192 potentially dilutive securities have been excluded from the dilutive share calculation for the three months ended December 31, 2011 and January 1, 2011, respectively, as their effect was anti-dilutive.

#### 14. OTHER INCOME (EXPENSE)

Other income (expense) is as follows (in thousands):

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	Three Months	Ended
	December 31,	January 1,
	2011	2011
Foreign exchange gain	\$313	\$6
Gain (loss) on deferred compensation investments, net	(41	1,554
Interest and dividend income	202	183
Interest expense	(2	) (15
Other—net	46	26
Other income (expense), net	\$518	\$1,754

# 15. STOCK REPURCHASES

On August 25, 2011, we announced that the Board of Directors had authorized the repurchase of up to \$50.0 million of our common stock. The program is authorized for 12 months from the date of authorization. At October 1, 2011, \$25.0 million of shares remained authorized for repurchase under this stock repurchase program.

During the quarter ended December 31, 2011, we repurchased and retired 450,500 shares of outstanding common stock at an average price of \$45.84 per share for a total of \$20.7 million, excluding expenses. Such repurchases were accounted for as a reduction in additional paid in capital.

At December 31, 2011, \$4.3 million remains authorized for repurchase under our current stock repurchase program. The timing and size of any purchases will be subject to, among other things, market conditions.

#### 16. INCOME TAXES

Income tax expense includes a provision for federal, state and foreign taxes based on the annual estimated effective tax rate applicable to us and our subsidiaries, adjusted for items which are considered discrete to the period. Our estimated effective tax rate for the three months ended December 31, 2011 was 34.0%. Our effective tax rate for the three months ended December 31, 2011 was lower than the statutory rate of 35% primarily due to permanent differences related to the benefit of income subject to foreign tax rates that are lower than U.S. tax rates, the benefit of foreign tax credits, the benefit of federal and California research and development tax credits and the benefit of a domestic production activities deduction. These amounts are partially offset by deemed dividend inclusions under the Subpart F tax rules, state income taxes, limitations on the utilization of certain foreign losses, stock compensation not deductible for tax purposes and limitations on the deductibility of compensation under IRC Section 162(m).

Determining the consolidated provision for income taxes, income tax liabilities and deferred tax assets and liabilities involves judgment. We calculate and provide for income taxes in each of the tax jurisdictions in which we operate, which involves estimating current tax exposures as well as making judgments regarding the recoverability of deferred tax assets in each jurisdiction. The estimates used could differ from actual results, which may have a significant impact on operating results in future periods.

As of December 31, 2011, the total amount of gross unrecognized tax benefits was \$28.8 million of which \$19.8 million, if recognized, would affect our effective tax rate. Our total gross unrecognized tax benefits, net of certain deferred tax assets, were classified as other long-term liabilities in the condensed consolidated balance sheets.

Our policy is to include interest and penalties related to unrecognized tax benefits within the provision for income taxes. As of December 31, 2011, the total amount of gross interest and penalties accrued was \$3.5 million, which is

classified as other long-term liabilities in the condensed consolidated balance sheets.

We are subject to taxation and file income tax returns in the U.S. federal jurisdiction and in many state and foreign jurisdictions. For U.S. federal income tax purposes, all years prior to 2005 are closed. In our major state jurisdiction and our major foreign jurisdiction, the years subsequent to 2000 and 2005, respectively, currently remain open and could be subject to examination by the taxing authorities. In December 2011 and January 2012, our three German subsidiaries received notices of tax audits for the fiscal years 2006 through 2010. These audits have either commenced or are expected to begin by March 2012.

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#### **Table of Contents**

Management believes that it has adequately provided for any adjustments that may result from tax examinations. The Company regularly engages in discussions and negotiations with tax authorities regarding tax matters in various jurisdictions. It is reasonably possible that certain federal, foreign and state tax matters may be concluded in the next 12 months and we anticipate a lapse in certain statute of limitations which could result in a release of interest expense under ASC 740 "Income Taxes." Specific positions that may be resolved include issues involving research and development credits, transfer pricing and various other matters. The Company estimates that the net unrecognized tax benefits and related interest at December 31, 2011 could be reduced by approximately \$1.0 million to \$3.0 million in the next 12 months.

#### **Deferred Income Taxes**

As of December 31, 2011, our condensed consolidated balance sheet included net deferred tax assets, before valuation allowance, of approximately \$63.3 million, which consists of tax credits carryovers, accruals and reserves, competent authority offset to transfer pricing tax reserves, employee stock-based compensation expenses, and certain other liabilities. Management periodically evaluates the realizability of our net deferred tax assets based on all available evidence, both positive and negative. The realization of net deferred tax assets is solely dependent on our ability to generate sufficient future taxable income in the applicable jurisdictions during periods prior to the expiration of tax statutes to fully utilize these assets. After evaluating all available evidence, we have determined that it is "more likely than not" that a portion of the deferred tax assets would not be realized and we have a total valuation allowance of \$8.5 million as of December 31, 2011. We intend to maintain the valuation allowance until sufficient positive evidence exists to support reversal of the valuation allowance.

#### 17. SEGMENT INFORMATION

We are organized into two reportable operating segments: Commercial Lasers and Components ("CLC") and Specialty Lasers and Systems ("SLS"). This segmentation reflects the go-to-market strategies for various products and markets. While both segments work to deliver cost-effective solutions, CLC focuses on higher volume products that are offered in set configurations. The product architectures are designed for easy exchange at the point of use such that product service and repairs are generally based upon advanced replacement and depot (i.e., factory) repair. CLC's primary markets include OEM components and instrumentation and materials processing. SLS develops and manufactures configurable, advanced-performance products largely serving the microelectronics and scientific research markets. The size and complexity of many of the SLS products generally require service to be performed at the customer site by factory-trained field service engineers.

We have identified CLC and SLS as operating segments for which discrete financial information is available. Both units have dedicated engineering, manufacturing, product business management and product line management functions. A small portion of our outside revenue is attributable to projects and recently developed products for which a segment has not yet been determined. The associated direct and indirect costs are presented in the category of Corporate and other, along with other corporate costs as described below.

Our Chief Executive Officer has been identified as the chief operating decision maker (CODM) as he assesses the performance of the segments and decides how to allocate resources to the segments. Income (loss) from operations is the measure of profit and loss that our CODM uses to assess performance and make decisions. As assets are not a measure used to assess the performance of the company by the CODM, asset information is not tracked or compiled by segment and is not available to be reported in our disclosures. Income (loss) from operations represents the net sales less the cost of sales and direct operating expenses incurred within the operating segments as well as allocated expenses such as shared sales and manufacturing costs. We do not allocate to our operating segments certain operating

expenses which we manage separately at the corporate level. These unallocated costs include stock-based compensation and corporate functions (certain research and development, management, finance, legal and human resources) and are included in the results below under Corporate and other in the reconciliation of operating results. Management does not consider unallocated Corporate and other costs in its measurement of segment performance.

The following table provides net sales and income (loss) from operations for our operating segments (in thousands):

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	Three Months Ended		
	December 31,	January 1,	
	2011	2011	
Net sales:			
Commercial Lasers and Components	\$55,150	\$61,358	
Specialty Laser Systems	135,617	121,753	
Corporate and other	<del></del>	_	
Total net sales	\$190,767	\$183,111	
Income (loss) from operations:			
Commercial Lasers and Components	\$4,020	\$8,325	
Specialty Laser Systems	31,030	28,861	
Corporate and other	(9,737	) (11,495	)
Total income from operations	\$25,313	\$25,691	

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

#### **COMPANY OVERVIEW**

#### **BUSINESS BACKGROUND**

We are one of the world's leading suppliers of photonics-based solutions in a broad range of commercial and scientific research applications. We design, manufacture, service and market lasers and related accessories for a diverse group of customers. Since

inception in 1966, we have grown through internal expansion and through strategic acquisitions of complementary businesses, technologies, intellectual property, manufacturing processes and product offerings.

We are organized into two operating segments: Commercial Lasers and Components ("CLC") and Specialty Lasers and Systems ("SLS"). This segmentation reflects the go-to-market strategies for various products and markets. While both segments deliver cost-effective photonics solutions, CLC focuses on higher volume products that are offered in set configurations. The product architectures are designed for easy exchange at the point of use such that substantially all product service and repairs are based upon advanced replacement and depot (i.e., factory) repair. CLC's primary markets include materials processing and original equipment manufacturer ("OEM") components and instrumentation. SLS develops and manufactures configurable, advanced performance products largely serving the microelectronics, OEM components and instrumentation and scientific research and government programs markets. The size and complexity of many of the SLS products require service to be performed at the customer site by factory trained field service engineers.

Income (loss) from operations is the measure of profit and loss that our chief operating decision maker ("CODM") uses to assess performance and make decisions. Income (loss) from operations represents the sales less the cost of sales and direct operating expenses incurred within the operating segments as well as allocated expenses such as shared sales and manufacturing costs. We do not allocate to our operating segments certain operating expenses, which we manage separately at the corporate level. These unallocated costs include stock-based compensation and corporate functions (certain advanced research and development, management, finance, legal and human resources) and are included in Corporate and other. Management does not consider unallocated Corporate and other costs in its measurement of segment performance.

#### MARKET APPLICATIONS

Our products address a broad range of applications that we group into the following markets: Microelectronics, Scientific Research and Government Programs, OEM Components and Instrumentation and Materials Processing.

# **OUR STRATEGY**

We strive to develop innovative and proprietary products and solutions that meet the needs of our customers and that are based on our core expertise in lasers and optical technologies. In pursuit of our strategy, we intend to:

Leverage our technology portfolio and application engineering to lead the proliferation of photonics into

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broader markets—We will continue to identify opportunities in which our technology portfolio and application engineering can be used to offer innovative solutions and gain access to new markets. We plan to utilize our expertise to expand into new markets, such as laser-based processing development tools for solar manufacturing and high power materials processing solutions.

Optimize our leadership position in existing markets—There are a number of markets where we have historically been at the forefront of technological development and product deployment and from which we have derived a substantial portion of our revenues. We plan to optimize our financial returns from these markets.

Maintain and develop additional strong collaborative customer and industry relationships—We believe that the Coherent brand name and reputation for product quality, technical performance and customer satisfaction will help us to further develop our loyal customer base. We plan to maintain our current customer relationships and develop new ones with customers who are industry leaders and work together with these customers to design and develop innovative product systems and solutions as they develop new technologies.

Develop and acquire new technologies and market share—We will continue to enhance our market position through our existing technologies and develop new technologies through our internal research and development efforts, as well as through the acquisition of additional complementary technologies, intellectual property, manufacturing processes and product offerings.

Streamline our manufacturing structure and improve our cost structure—We will focus on optimizing the mix of products that we manufacture internally and externally. We will utilize vertical integration where our internal manufacturing process is considered proprietary and seek to leverage external sources when the capabilities and cost structure are well developed and on a path towards commoditization.

Focus on long-term improvement of adjusted EBITDA, in dollars and as a percentage of net sales—We define adjusted EBITDA as operating income adjusted for depreciation, amortization, stock compensation expenses, major restructuring costs and certain other non-operating income and expense items. Key initiatives to reach our goals for EBITDA improvements include utilization of our Asian manufacturing locations, rationalizing our supply chain and continued leveraging of our infrastructure.

### APPLICATION OF CRITICAL ACCOUNTING POLICIES

Our discussion and analysis of financial condition and results of operations are based upon our condensed consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America and pursuant to the rules and regulations of the SEC. The preparation of these consolidated financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. We have identified the following as the items that require the most significant judgment and often involve complex estimation: revenue recognition, accounting for long-lived assets (including goodwill and intangible assets), inventory valuation, warranty reserves, stock-based compensation and accounting for income taxes.

# Revenue Recognition

We recognize revenue when all four revenue recognition criteria have been met: persuasive evidence of an arrangement exists, the product has been delivered or the service has been rendered, the price is fixed or determinable and collection is probable. Revenue from product sales is recorded when all of the foregoing conditions are met and risk of loss and title passes to the customer. Our products typically include a warranty and the estimated cost of product warranty claims (based on historical experience) is recorded at the time the sale is recognized. Sales to customers are generally not subject to any price protection or return rights.

The vast majority of our sales are made to original equipment manufacturers (OEMs), distributors, resellers and end-users in the non-scientific market. Sales made to these customers do not require installation of the products by us and are not subject to other post-delivery obligations, except in occasional instances where we have agreed to perform installation or provide training. In those instances, we defer revenue related to installation services or training until these services have been rendered. We allocate revenue from multiple element arrangements to the various elements based upon fair values or a selling price hierarchy, for arrangements entered into subsequent to October 2, 2010, as discussed below.

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Should changes in conditions cause management to determine these criteria are not met for certain future transactions, revenue recognized for any reporting period could be adversely affected. Failure to obtain anticipated orders due to delays or cancellations of orders could have a material adverse effect on our revenue. In addition, pressures from customers to reduce our prices or to modify our existing sales terms may have a material adverse effect on our revenue in future periods.

Our sales to distributors, resellers and end-user customers typically do not have customer acceptance provisions and only certain of our sales to OEM customers have customer acceptance provisions. Customer acceptance is generally limited to performance under our published product specifications. For the few product sales that have customer acceptance provisions because of higher than published specifications, (1) the products are tested and accepted by the customer at our site or by the customer's acceptance of the results of our testing program prior to shipment to the customer, or (2) the revenue is deferred until customer acceptance occurs.

Sales to end-users in the scientific market typically require installation and, thus, involve post-delivery obligations; however our post-delivery installation obligations are not essential to the functionality of our products. We defer revenue related to installation services until completion of these services.

For most products, training is not provided; therefore, no post-delivery training obligation exists. However, when training is provided to our customers, it is typically priced separately and recognized as revenue after these services have been provided.

In October 2009, the FASB issued a new accounting standard for multiple deliverable revenue arrangements. The new standard changes the requirements for establishing separate units of accounting in a multiple element arrangement and requires the allocation of arrangement consideration to each deliverable to be based on the relative selling price. The FASB also issued a new accounting standard for certain revenue arrangements that include software elements. This new standard excludes software that is contained on a tangible product from the scope of software revenue guidance if the software is essential to the tangible product's functionality. We prospectively adopted both these standards in the first quarter of fiscal 2011. The impact of adopting these standards was not material to net sales or our condensed consolidated financial statements for the three months ended January 1, 2011.

Under these new standards, when a sales arrangement contains multiple elements, such as products and/or services, we allocate revenue to each element based on a selling price hierarchy. Using the selling price hierarchy, we determine the selling price of each deliverable using vendor specific objective evidence ("VSOE"), if it exists, and otherwise third-party evidence ("TPE"). If neither VSOE nor TPE of selling price exists, we use estimated selling price ("ESP"). We generally expect that we will not be able to establish TPE due to the nature of the markets in which we compete, and, as such, we typically will determine selling price using VSOE or if not available, ESP.

Our basis for establishing VSOE of a deliverable's selling price consists of standalone sales transactions when the same or similar product or service is sold separately. However, when services are never sold separately, such as product installation services, VSOE is based on the product's estimated installation hours based on historical experience multiplied by the standard service billing rate. In determining VSOE, we require that a substantial majority of the selling price for a product or service fall within a reasonably narrow price range, as defined by us. We also consider the geographies in which the products or services are sold, major product and service groups, and other environmental variables in determining VSOE. Absent the existence of VSOE and TPE, our determination of a deliverable's ESP involves evaluating several factors based on the specific facts and circumstances of these arrangements, which include pricing strategy and policies driven by geographies, market conditions, competitive landscape, correlation between proportionate selling price and list price established by management having the relevant authority, and other environmental variables in which the deliverable is sold.

For multiple element arrangements which include extended maintenance contracts, we allocate and defer the amount of consideration equal to the separately stated price and recognize revenue on a straight-line basis over the contract period.

# Long-Lived Assets and Goodwill

We evaluate long-lived assets and amortizable intangible assets whenever events or changes in business circumstances or our planned use of assets indicate that their carrying amounts may not be fully recoverable or that their useful lives are no longer appropriate. Reviews are performed to determine whether the carrying values of assets are impaired based on comparison to the undiscounted expected future cash flows identifiable to such long-lived and amortizable intangible assets. If the comparison indicates that impairment exists, the impaired asset is written down to its fair value.

We have determined that our reporting units are the same as our operating segments as each constitutes a business for which discrete financial information is available and for which segment management regularly reviews the operating results. We

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make this determination in a manner consistent with how the operating segments are managed. Based on this analysis, we have identified two reporting units which are our reportable segments: CLC and SLS.

Goodwill is tested for impairment on an annual basis and between annual tests in certain circumstances, and written down when impaired (see Note 7 in the Notes to Condensed Consolidated Financial Statements). We perform our annual impairment tests during the fourth quarter of each fiscal year using the opening balance sheet as of the first day of the fourth quarter, with any resulting impairment recorded in the fourth quarter of the fiscal year.

During the three months ended December 31, 2011, we noted no indications of impairment or triggering events to cause us to review goodwill for potential impairment.

At December 31, 2011, we had \$74.8 million of goodwill, \$16.4 million of purchased intangible assets and \$106.0 million of property and equipment on our condensed consolidated balance sheet.

It is reasonably possible that the estimates of anticipated future net revenue, the remaining estimated economic life of the products and technologies, or both, could differ from those used to assess the recoverability of these assets. In addition, if the price of our common stock were to significantly decrease combined with any other adverse change in market conditions, thus indicating that the underlying fair value of our reporting units or other long-lived assets may have decreased, we may be required to assess the recoverability of such assets in the period such circumstances are identified. In that event, impairment charges or shortened useful lives of certain long-lived assets may be required.

# **Inventory Valuation**

We record our inventory at the lower of cost (computed on a first-in, first-out basis) or market. We write-down our inventory to its estimated market value based on assumptions about future demand and market conditions. Inventory write-downs are generally recorded within guidelines set by management when the inventory for a device exceeds 12 months of its demand and when individual parts have been in inventory for greater than 12 months. If actual market conditions are less favorable than those projected by management, additional inventory write-downs may be required which could materially affect our future results of operations. Due to rapidly changing forecasts and orders, additional write-downs for excess or obsolete inventory, while not currently expected, could be required in the future. In the event that alternative future uses of fully written down inventories are identified, we may experience better than normal profit margins when such inventory is sold. Differences between actual results and previous estimates of excess and obsolete inventory could materially affect our future results of operations. We write-down our demonstration inventory by amortizing the cost of demonstration inventory over a twenty month period starting from the fourth month after such inventory is placed in service.

### Warranty Reserves

We provide warranties on certain of our product sales and allowances for estimated warranty costs are recorded during the period of sale. The determination of such allowances requires us to make estimates of product return rates and expected costs to repair or replace the products under warranty. We currently establish warranty reserves based on historical warranty costs for each product line. The weighted average warranty period covered is approximately 15 months. If actual return rates and/or repair and replacement costs differ significantly from our estimates, adjustments to cost of sales may be required in future periods.

# **Stock-Based Compensation**

We account for stock-based compensation using fair value. We estimate the fair value of stock options granted using the Black-Scholes Merton model and estimate the fair value of market-based performance restricted stock units

granted using a Monte Carlo simulation model. We use historical data to estimate pre-vesting option forfeitures and record stock-based compensation expense only for those awards that are expected to vest. We amortize the fair value of stock options on a straight-line basis over the requisite service periods of the awards, which are generally the vesting periods. We value service-based restricted stock units using the intrinsic value method and amortize the value on a straight-line basis over the restriction period. We value market-based performance restricted stock units using a Monte Carlo simulation model and amortize the value over the performance period, with no adjustment in future periods, based upon the actual shareholder return over the performance period. See Note 10 "Stock-Based Compensation" for a description of our stock-based employee compensation plans and the assumptions we use to calculate the fair value of stock-based employee compensation.

**Income Taxes** 

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As part of the process of preparing our consolidated financial statements, we are required to estimate our income tax provision (benefit) in each of the jurisdictions in which we operate. This process involves estimating our current income tax provision (benefit) together with assessing temporary differences resulting from differing treatment of items for tax and accounting purposes. These differences result in deferred tax assets and liabilities, which are included within our condensed consolidated balance sheets.

We record a valuation allowance to reduce our deferred tax assets to an amount that more likely than not will be realized. While we have considered future taxable income and ongoing prudent and feasible tax planning strategies in assessing the need for the valuation allowance, in the event we were to determine that we would be able to realize our deferred tax assets in the future in excess of our net recorded amount, an adjustment to the allowance for the deferred tax assets would increase income in the period such determination was made. Likewise, should we determine that we would not be able to realize all or part of our net deferred tax assets in the future, an adjustment to the valuation allowance for the deferred tax assets would be charged to income in the period such determination was made.

We evaluate our need for reserves for our uncertain tax positions using a two-step approach. The first step, recognition, occurs when we conclude (based solely on the technical aspects of the matter) that a tax position is more likely than not to be sustained upon examination by a taxing authority. The second step, measurement, is only considered after step one has been satisfied and measures any tax benefit at the largest amount that is deemed more likely than not to be realized upon ultimate settlement of the uncertainty. These determinations involve significant judgment by management. Tax positions that fail to qualify for initial recognition are recognized in the first subsequent interim period that they meet the more likely than not standard or when they are resolved through negotiation or litigation with factual interpretation, judgment and certainty. Tax laws and regulations themselves are complex and are subject to change as a result of changes in fiscal policy, changes in legislation, evolution of regulations and court filings. Therefore, the actual liability for U.S. or foreign taxes may be materially different from our estimates, which could result in the need to record additional tax liabilities or potentially to reverse previously recorded tax liabilities.

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#### KEY PERFORMANCE INDICATORS

The following is a summary of some of the quantitative performance indicators (as defined below) that may be used to assess our results of operations and financial condition:

·	Three Months Ended							
	December 31, 2011		January 1, 201	1	Change		% Change	
	(Dollars in thousands)							
Bookings	\$201,848		\$234,424		\$(32,576	)	(13.9	)%
Book-to-bill ratio	1.06		1.28		(0.22)	)	(17.2	)%
Net sales—Commercial Lasers and Components	\$55,150		\$61,358		\$(6,208	)	(10.1	)%
Net sales—Specialty Lasers and Systems	\$135,617		\$121,753		\$13,864		11.4	%
Gross profit as a percentage of net sales—Commercial Lasers and Components	39.0	%	43.7	%	(4.7	)%	(10.8	)%
Gross profit as a percentage of net sales— Specialty Lasers and Systems	43.8	%	46.0	%	(2.2	)%	(4.8	)%
Research and development as a percentage of net sales	9.8	%	10.1	%	(0.3	)%	(3.0	)%
Income before income taxes	\$25,831		\$27,445		\$(1,614	)	(5.9	)%
Net cash provided by operating activities	\$16,135		\$29,969		\$(13,834	)	(46.2	)%
Days sales outstanding in receivables	61.6		53.1		8.5		16.0	%
First quarter inventory turns	3.0		3.3		(0.3	)	(9.1	)%
Capital spending as a percentage of net sales	s 4.3	%	2.8	%	1.5	%	53.6	%

Definitions and analysis of these performance indicators are as follows:

# Bookings and Book-to-Bill Ratio

Bookings represent orders expected to be shipped within 12 months and services to be provided pursuant to service contracts. While we generally have not experienced a significant rate of cancellation, bookings are generally cancelable by our customers without substantial penalty and, therefore, we cannot assure all bookings will be converted to net sales.

The book-to-bill ratio is calculated as quarterly bookings divided by quarterly net sales. This is an indication of the strength of our business but can sometimes be impacted by a single large order. A ratio of greater than 1.0 indicates that demand for our products is greater than what we supply in the quarter.

Although bookings decreased 13.9% in the first quarter of fiscal 2012 compared to the same quarter one year ago, the book-to-bill ratio was 1.06. Decreases in all four markets included a significant decrease in the microelectronics market. Compared to the fourth quarter of fiscal 2011, bookings increased 3.3% with a significant increase in the microelectronics market offset by decreases in the OEM components and instrumentation, materials processing and scientific and government programs markets.

### Microelectronics

Microelectronics bookings decreased 23% compared to the same quarter one year ago but increased 34% from bookings in the fourth quarter of fiscal 2011. The book-to-bill for the first quarter of fiscal 2012 was 1.08.

Flat panel display orders in the first quarter of fiscal 2012 increased significantly from the fourth quarter of fiscal 2011, including system orders from new customers as well as increases in service orders. We expect this market to be strong in the remainder of fiscal 2012 as the primary market driver, the proliferation of smartphones and tablets, remains intact. Our facility expansion in Göttingen and new service center in Korea will start shipping product in the third quarter of fiscal 2012.

In the first quarter of fiscal 2012, the semiconductor capital equipment market was strong, with increased orders for new systems and service suggesting improvement in utilization rates. We expect this market to improve further during the remainder of fiscal 2012. We continue to develop next generation technologies to support higher throughput and higher accuracy.

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In spite of strong demand for smartphones and tablets, the advanced packaging (API) market is being impacted by tight credit in China where it is difficult for customers to establish letters of credit for new equipment purchases. We expect that China's credit policies will improve in the second quarter of fiscal 2012. We anticipate that market growth will come from increased adoption of smartphones and tablets as well as from the 3D packaging market.

### **Materials Processing**

Materials processing orders decreased 10% compared to the same quarter one year ago and decreased 18% from the fourth quarter of fiscal 2011. The book-to-bill for the first quarter of fiscal 2012 was 0.98. During the first quarter of fiscal 2012, materials processing orders were negatively impacted by the tight credit policies in China and sovereign debt issues in Europe.

Marking and engraving for commodity and consumer product applications remains our largest submarket, with modest growth anticipated in fiscal 2012. We introduced several new products at the Fabtech tradeshow in November 2011 to diversify our laser systems and manufacturing tools to address more applications. In addition, our upcoming kilowatt class fiber laser will address metal cutting and we expect first revenue shipments in fiscal 2012.

# **OEM Components and Instrumentation**

OEM Components and Instrumentation orders decreased 2% compared to the same quarter one year ago but decreased 26% from the fourth quarter of fiscal 2011. The book-to-bill for the first quarter of fiscal 2012 was 0.99.

The decrease compared to the fourth quarter of fiscal 2011 is primarily due to timing in the medical OEM market as the fourth quarter of fiscal 2011included several large orders to address market growth in Asia. While these orders were not repeated in the first quarter of fiscal 2012, we expect market growth to remain high, especially due to government investment in China. Markets for eye disease management and home-based aesthetic products remain strong.

We have increased our product offerings for the instrumentation market with new versions of the Sapphire<sup>TM</sup> optically pumped semiconductor ("OPS") laser and wavelength extensions of our OBIS<sup>TM</sup> platform, which can be used in a wide array of applications including super resolution microscopy and cytometry.

# Scientific and Government Programs

Scientific and government programs orders decreased slightly compared to the same quarter one year ago and decreased 3% from the fourth quarter of fiscal 2011. The book-to-bill for the first quarter of fiscal 2012 was 1.12.

Scientific orders remain strong, with orders for multiphoton spectroscopy applications the largest contributor to first quarter fiscal 2012 bookings. Our Chameleon<sup>TM</sup> product family continues to lead this market due to a combination of power, stability and tunability. First quarter bookings were favorably impacted by significant investment in biological research in China, which is consistent with the country's five-year research plan. In addition, multi photon excitation bookings were also strong in Europe.

### Net Sales

Net sales include sales of lasers, laser tools, related accessories and service contracts. Net sales for the first fiscal quarter decreased 10.1% in our CLC segment and increased 11.4% in our SLS segment from the same quarter one year ago. For a description of the reasons for changes in net sales refer to the "Results of Operations" section of this

quarterly report.

Gross Profit as a Percentage of Net Sales

Gross profit as a percentage of net sales ("gross profit percentage") is calculated as gross profit for the period divided by net sales for the period. Gross profit percentage in the first quarter decreased from 43.7% to 39.0% in our CLC segment and decreased from 46.0% to 43.8% in our SLS segment from the same quarter one year ago. For a description of the reasons for changes in gross profit refer to the "Results of Operations" section of this quarterly report.

Research and Development as a Percentage of Net Sales

Research and development as a percentage of net sales ("R&D percentage") is calculated as research and development expense for the period divided by net sales for the period. Management considers R&D percentage to be an important indicator in

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managing our business as investing in new technologies is a key to future growth. R&D percentage decreased to 9.8% from 10.1% in our first fiscal quarter compared to the same period one year ago. For a description of the reasons for changes in R&D spending refer to the "Results of Operations" section of this quarterly report.

# Net Cash Provided by Operating Activities

Net cash provided by operating activities as reflected on our Condensed Consolidated Statements of Cash Flows primarily represents the excess or shortfall of cash collected from billings to our customers and other receipts over cash paid to our vendors for expenses and inventory purchases to run our business. We believe that cash flows from operations is an important performance indicator because cash generation over the long term is essential to maintaining a healthy business and providing funds to help fuel growth. For a description of the reasons for changes in Net Cash Provided by Operating Activities refer to the "Liquidity and Capital Resources" section of this quarterly report.

# Days Sales Outstanding in Receivables

We calculate days sales outstanding ("DSO") in receivables as net receivables at the end of the period divided by net sales during the period and then multiplied by the number of days in the period, using 90 days for quarters. DSO in receivables indicates how well we are managing our collection of receivables, with lower DSO in receivables resulting in working capital availability. The more money we have tied up in receivables, the less money we have available for research and development, acquisitions, expansion, marketing and other activities to grow our business. Our DSO in receivables for the first quarter of fiscal 2012 increased 8.5 days from the same quarter one year ago primarily due to a higher mix of receivables and revenue in regions with longer payment terms.

### **Annualized Inventory Turns**

We calculate annualized inventory turns as the cost of sales during the quarter annualized and divided by net inventories at the end of the period. This indicates how well we are managing our inventory levels, with higher inventory turns resulting in more working capital availability and a higher return on our investments in inventory. The more money we have tied up in inventory, the less money we have available for research and development, acquisitions, expansion, marketing and other activities to grow our business. Our annualized inventory turns for the first quarter of fiscal 2012 decreased by 0.3 turns from the same quarter one year ago primarily due to increased inventory levels to support increasing volumes.

### Capital Spending as a Percentage of Net Sales

Capital spending as a percentage of net sales ("capital spending percentage") is calculated as capital expenditures for the period divided by net sales for the period. Capital spending percentage indicates the extent to which we are expanding or improving our operations, including investments in technology. Management monitors capital spending levels as this assists management in measuring our cash flows, net of capital expenditures. Our capital spending percentage increased to 4.3% from 2.8% for the first quarter of fiscal 2012 compared to the same period one year ago primarily due to building improvements and purchases of production-related assets to support our expansion in Asia and higher sales volumes.

# SIGNIFICANT EVENTS

On August 25, 2011, the Board of Directors authorized the repurchase of up to \$50.0 million of our common stock. The program is authorized for 12 months from the date of authorization. At October 1, 2011, \$25.0 million remained authorized for repurchase under this stock repurchase program. During the quarter ended December 31, 2011, we

repurchased and retired 450,500 shares of outstanding common stock at an average price of \$45.84 per share for a total of \$20.7 million, excluding expenses.

# RESULTS OF OPERATIONS

# CONSOLIDATED SUMMARY

The following table sets forth, for the periods indicated, the percentage of total net sales represented by the line items reflected in our condensed consolidated statements of operations:

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	Three Months Ended			
	December 31,		January 1,	
	2011		2011	
Net sales	100.0	%	100.0	%
Cost of sales	57.9	%	55.0	%
Gross profit	42.1	%	45.0	%
Operating expenses:				
Research and development	9.8	%	10.1	%
Selling, general and administrative	18.2	%	19.7	%
Amortization of intangible assets	0.9	%	1.2	%
Total operating expenses	28.9	%	31.0	%
Income from operations	13.2	%	14.0	%
Other income (net)	0.3	%	1.0	%
Income before income taxes	13.5	%	15.0	%
Provision for income taxes	4.6	%	4.6	%
Net income	8.9	%	10.4	%

Net income for the first quarter of fiscal 2012 was \$17.1 million (\$0.71 per diluted share) including \$2.7 million of after-tax stock-related compensation expense. Net income for the first quarter of fiscal 2011 was \$19.1 million (\$0.76 per diluted share) including \$2.2 million of after-tax stock-related compensation expense.

### **NET SALES**

# Market Application

The following tables set forth, for the periods indicated, the amount of net sales and their relative percentages of total net sales by market application (dollars in thousands):

	Three Months	s Ended				
	December 31, 2011			January 1, 2011		
	Amount	Percentage of total net sales		Amount	Percentage of total net sales	
Consolidated:						
Microelectronics	\$92,892	48.7	%	\$84,431	46.1	%
OEM components and instrumentation	35,940	18.8	%	38,350	20.9	%
Materials processing	23,379	12.3	%	22,275	12.2	%
Scientific and government programs	38,556	20.2	%	38,055	20.8	%
Total	\$190,767	100.0	%	\$183,111	100.0	%

Net sales for the first quarter of fiscal 2012 increased by \$7.7 million, or 4%, including an increase of \$3.2 million due to the impact of foreign currency exchange rates, compared to the first quarter of fiscal 2011. Sales increases in the microelectronics, materials processing and scientific and government programs markets were partially offset by a decrease in the OEM components and instrumentation market.

The increase in the microelectronics market of \$8.5 million, or 10%, was due to higher sales in flat panel display applications partially offset by lower shipments for advanced packaging, semiconductor, solar and micro materials processing applications. The decrease in the OEM components and instrumentation market of \$2.4 million, or 6%, was due primarily to lower shipments for military, machine vision and bio-instrumentation applications partially offset by higher shipments for medical applications. Sales in the materials processing market increased \$1.1 million, or 5%,

primarily due to higher shipments for marking and engraving applications. Sales in the scientific and government programs market increased \$0.5 million, or 1%, primarily due to higher demand for advanced research applications used by university and government research groups.

Segments

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We are organized into two reportable operating segments: Commercial Lasers and Components ("CLC") and Specialty Lasers and Systems ("SLS"). CLC focuses on higher volume products that are offered in set configurations. CLC's primary markets include OEM components and instrumentation and materials processing. SLS develops and manufacturers configurable, advanced-performance products largely serving the microelectronics and scientific research markets.

The following tables set forth, for the periods indicated, the amount of net sales and their relative percentages of total net sales by segment (dollars in thousands):

	Three Months E					
	December 31, 2011		January 1, 2011			
	Amount	Percentage of total net sales		Amount	Percentage of total net sales	
Consolidated:						
Commercial Lasers and Components (CLC)	\$55,150	28.9	%	\$61,358	33.5	%
Specialty Lasers and Systems (SLS)	135,617	71.1	%	121,753	66.5	%
Total	\$190,767	100.0	%	\$183,111	100.0	%

Net sales for the first quarter of fiscal 2012 increased by \$7.7 million, or 4%, compared to the first quarter of fiscal 2011, with increases of \$13.9 million, or 11%, in our SLS segment and decreases of \$6.2 million, or 10%, in our CLC segment.

The increase in our SLS segment sales was primarily due to higher revenue for flat panel display applications partially offset by lower shipments for materials processing, semiconductor, solar and micro materials processing applications. The decrease in our CLC segment sales was primarily due to lower advanced packaging, flat panel display and military application sales partially offset by higher materials processing application sales.

### **GROSS PROFIT**

### Consolidated

Our gross profit rate decreased to 42.1% in the first quarter of fiscal 2012 from 45.0% in the first quarter of fiscal 2011. The decrease in the gross profit rate was primarily due to unfavorable product margins (1.9%) due to lower volumes in several business units, higher manufacturing expense to expand Excimer tube production in Korea and increased expense related to the flooding in Thailand, higher warranty and installation costs (0.7%) for installations to support the service and flat panel display markets, higher other costs (0.2%) due to higher inventory provisions and higher stock-based compensation expense (0.1%).

Our gross profit rate has been and will continue to be affected by a variety of factors including market mix, pricing on volume orders, manufacturing efficiencies, excess and obsolete inventory write-downs, warranty costs, pricing by competitors or suppliers, new product introductions, production volume, customization and reconfiguration of systems, commodity prices and foreign currency fluctuations.

# Commercial Lasers and Components

The gross profit rate in our CLC segment decreased to 39.0% in the first quarter of fiscal 2012 from 43.7% in the first quarter of fiscal 2011. The 4.7% decrease in the gross profit rate was primarily due to unfavorable product costs (2.2%) primarily due to the impact of lower volumes in a few business units serving primarily the advanced packaging

and components markets, higher warranty costs (1.4%) due to a higher installed base from high sales volumes in fiscal 2011 and lower current quarter volumes and higher other costs (1.1%) primarily due to higher inventory provisions.

# Specialty Lasers and Systems

The gross profit rate in our SLS segment decreased to 43.8% in the first quarter of fiscal 2012 from 46.0% in the first quarter of fiscal 2011. The 2.2% decrease in the gross profit rate was primarily due to unfavorable product costs (1.9%) due to lower volumes in several business units serving primarily non-flat panel display markets, increased investments in Excimer manufacturing capabilities to support the growing flat panel display revenue net of favorable product mix within the microelectronics market and higher installation costs net of lower warranty costs (0.3%) due to higher service costs to support installations of a growing number of laser annealing systems in the flat panel display market.

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#### **OPERATING EXPENSES:**

	Three Months Ended December 31, 2011			January 1, 2011		
	Amount	Percentage of total net sales		Amount	Percentage of total net sales	
	(Dollars in thousands)					
Research and development	\$18,779	9.8	%	\$18,530	10.1	%
Selling, general and administrative	34,631	18.2	%	36,078	19.7	%
Amortization of intangible assets	1,636	0.9	%	2,095	1.2	%
Total operating expenses	\$55,046	28.9	%	\$56,703	31.0	%

# Research and development

Research and development ("R&D") expenses increased \$0.2 million, or 1%, during the first fiscal quarter ended December 31, 2011 compared to the same quarter one year ago. The increase was primarily due to higher project spending (\$0.6 million), the acquisition of Hypertronics in the second quarter of fiscal 2011 (\$0.3 million) and higher stock-related compensation expense (\$0.1 million) partially offset by lower payroll spending (\$0.5 million) due to lower performance-related compensation net of increased headcount, lower charges for increases in deferred compensation plan liabilities (\$0.2 million) and higher net reimbursements from customers for development projects (\$0.1 million). On a segment basis as compared to the prior year period, CLC spending decreased \$0.4 million primarily due to lower project spending and lower payroll spending. SLS research and development spending increased \$0.8 million primarily due to higher project spending and the acquisition of Hypertronics in the second quarter of fiscal 2011 partially offset by lower payroll spending and higher net reimbursements from customers for development projects. Corporate and other spending decreased \$0.2 million due to lower charges for increases in deferred compensation plan liabilities partially offset by higher stock-related compensation expense.

# Selling, general and administrative

Selling, general and administrative ("SG&A") expenses decreased \$1.4 million or 4%, during the first fiscal quarter ended December 31, 2011 compared to the same quarter one year ago. The decrease was primarily due to \$2.2 million lower payroll spending due to lower performance-related compensation spending partially offset by higher headcount and increased salaries, \$1.4 million lower charges for increases in deferred compensation plan liabilities with the related earnings for increases in deferred compensation plan assets recorded in other income (expense) and decreased spending on legal and consulting related to acquisitions (\$0.7 million) partially offset by \$0.9 million higher stock-related compensation expense, the acquisition of Hypertronics in the second quarter of fiscal 2011 (\$0.7 million), higher spending on demo amortization and tradeshows (\$0.6 million), the impact of foreign currency exchange rates (\$0.3 million) and higher other variable net spending (\$0.4 million). On a segment basis as compared to the prior year period, CLC spending decreased \$0.4 million primarily due to lower payroll spending. SLS segment expenses increased \$0.7 million primarily due to the acquisition of Hypertronics, higher spending on demo amortization and tradeshows and the impact of foreign exchange rates partially offset by lower payroll spending. Spending for Corporate and other decreased \$1.7 million primarily due to lower charges for increases in deferred compensation plan liabilities, lower payroll spending and decreased spending on legal and consulting related to acquisitions partially offset by higher stock-related compensation expense.

# Amortization of intangible assets

Amortization of intangible assets decreased \$0.5 million in the three months ended December 31, 2011 compared to the same period last year primarily due to the completion of amortization of intangibles from older acquisitions partially offset by amortization of intangibles from the acquisition of Hypertronics in the second quarter of fiscal 2011.

# OTHER INCOME (EXPENSE) — NET

Other income, net of other expense, decreased \$1.2 million during the three months ended December 31, 2011 compared to the same period one year ago. The decrease was primarily due to lower gains, net of expenses, on our deferred compensation plan assets (\$1.6 million) partially offset by higher net foreign exchange gains (\$0.3 million).

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#### **INCOME TAXES**

The effective tax rate for the first quarter of fiscal 2012 of 34.0% was lower than the statutory rate of 35% primarily due to permanent differences related to the benefit of income subject to foreign tax rates that are lower than U.S. tax rates, the benefit of foreign tax credits, the benefit of federal and California research and development tax credits and the benefit of a domestic production activities deduction. These amounts are partially offset by deemed dividend inclusions under the Subpart F tax rules, state income taxes, limitations on the utilization of certain foreign losses, stock compensation not deductible for tax purposes and limitations on the deductibility of compensation under IRC Section 162(m).

The effective tax rate for the first quarter of fiscal 2011 of 30.4% was lower than the statutory rate of 35% primarily due to permanent differences related to the benefit of income subject to foreign tax rates that are lower than U.S. tax rates, the benefit of federal research and development tax credits, including additional credits reinstated from fiscal 2010 resulting from the enactment of the "Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010," and the benefit of unrealized gain on life insurance policy investments related to our deferred compensation plans. These amounts are partially offset by deemed dividend inclusions under the Subpart F tax rules, state income taxes, limitations on the deductibility of compensation under IRC Section 162(m) and stock compensation not deductible for tax purposes.

### **DEFERRED INCOME TAXES**

As of December 31, 2011, our condensed consolidated balance sheet included net deferred tax assets, before valuation allowance, of approximately \$63.3 million, which consists of tax credit carryovers, accruals and reserves, competent authority offset to transfer pricing tax reserves, employee stock-based compensation expenses, and certain other liabilities. Management periodically evaluates the realizability of our net deferred tax assets based on all available evidence, both positive and negative. The realization of net deferred tax assets is solely dependent on our ability to generate sufficient future taxable income in the applicable jurisdictions during periods prior to the expiration of tax statutes to fully utilize these assets. After evaluating all available evidence, we have determined that it is "more likely than not" that a portion of the deferred tax assets would not be realized and we have a total valuation allowance of \$8.5 million as of December 31, 2011. We intend to maintain the valuation allowance until sufficient positive evidence exists to support reversal of the valuation allowance.

# LIQUIDITY AND CAPITAL RESOURCES

At December 31, 2011, we had assets classified as cash and cash equivalents, as well as time deposits and fixed income securities classified as short-term investments, in an aggregate amount of \$203.1 million, compared to \$220.2 million at October 1, 2011. At December 31, 2011, approximately \$142.5 million of this cash and securities was held outside the U.S. in certain of our foreign operations, the majority of which was denominated in the Euro. In January 2012, we converted \$89.8 million of these assets to U.S. dollars and invested those funds in U.S. Treasury securities within a European subsidiary whose functional currency is the U.S. dollar. Accordingly, there will be no future translation expense arising from these U.S. dollar denominated investments. The converted funds were not repatriated to the U.S. and no U.S. tax was triggered on the transfer of these funds to the European subsidiary. We expect to incur additional foreign income taxes of approximately \$650,000 related to this distribution. We currently intend to permanently reinvest approximately \$135 million of the cash held by our foreign subsidiaries, including the investment in U.S. Treasury securities. If, however, a portion of these funds were needed for and distributed to our operations in the United States, we would be subject to additional U.S. income taxes and foreign withholding taxes. The amount of the taxes due would depend on the amount and manner of repatriation, as well as the location from where the funds are repatriated. We actively monitor the third-party depository institutions that hold these assets,

primarily focusing on the safety of principal and secondarily maximizing yield on these assets. We diversify our cash and cash equivalents and investments among various financial institutions, money market funds and sovereign debt in order to reduce our exposure should any one of these financial institutions or financial instruments fail or encounter difficulties. To date, we have not experienced any material loss or lack of access to our invested cash, cash equivalents or short-term investments. However, we can provide no assurances that access to our invested cash, cash equivalents or short-term investments will not be impacted by adverse conditions in the financial markets.

#### Sources and Uses of Cash

Historically, our primary source of cash has been provided by operations. Other sources of cash in the past three fiscal years include proceeds received from the sale of our stock through our employee stock option and purchase plans. Our historical uses of cash have primarily been for the repurchase of our common stock, capital expenditures and acquisitions of businesses and technologies. Supplemental information pertaining to our historical sources and uses of cash is presented as follows and should

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be read in conjunction with our condensed consolidated statements of cash flows and the notes to condensed consolidated financial statements:

	Three Months End			
	December 31,	January 1,		
	2011	2011		
	(in thousands)			
Net cash provided by operating activities	\$16,135	\$29,969		
Sales of shares under employee stock plans	4,568	17,331		
Repurchase of common stock	(20,665	) —		
Capital expenditures	(8,139	) (5,129	)	

Net cash provided by operating activities decreased by \$13.8 million for the first three months of fiscal 2012 compared to the same period one year ago. The decrease in cash provided by operating activities was primarily due to higher tax payments and lower cash flows from accounts payable and other current liabilities, including accrued variable compensation. We believe that our existing cash, cash equivalents and short term investments combined with cash to be provided by operating activities will be adequate to cover our working capital needs and planned capital expenditures for at least the next 12 months to the extent such items are known or are reasonably determinable based on current business and market conditions. However, we may elect to finance certain of our capital expenditure requirements through borrowings under our bank credit facilities or other sources of capital. We continue to follow our strategy to further strengthen our financial position by using available cash flow to fund operations.

We intend to continue pursuing acquisition opportunities at valuations we believe are reasonable based upon market conditions as demonstrated by our acquisition of Hypertronics in the second quarter of fiscal 2011. However, we cannot accurately predict the timing, size and success of our acquisition efforts or our associated potential capital commitments. Furthermore, we cannot assure you that we will be able to acquire businesses on terms acceptable to us. We expect to fund future acquisitions through existing cash balances and cash flows from operations. If required, we will look for additional borrowings or consider the issuance of securities. The extent to which we will be willing or able to use our common stock to make acquisitions will depend on its market value at the time and the willingness of potential sellers to accept it as full or partial payment.

On August 25, 2011, the Board of Directors authorized the repurchase of up to \$50.0 million of our common stock. The program is authorized for 12 months from the date of authorization. At October 1, 2011, \$25.0 million of shares remained authorized for repurchase under this stock repurchase program. During the quarter ended December 31, 2011, we repurchased and retired 450,500 shares of outstanding common stock at an average price of \$45.84 per share for a total of \$20.7 million, excluding expenses.

During fiscal year 2008, we initiated restructuring plans to decrease costs by consolidating facilities and by reducing our workforce. As of December 31, 2011, we had made payments in connection with the restructuring plans in the amount of \$27.7 million. We completed payments for substantially all anticipated costs related to the restructuring plans in the third quarter of fiscal 2011.

Additional sources of cash available to us were domestic and international currency lines of credit and bank credit facilities totaling \$60.2 million as of December 31, 2011, of which \$57.4 million was unused and available. These unsecured credit facilities were used in Europe and Japan during the first three months of fiscal 2012. Our domestic line of credit consists of a \$40 million unsecured revolving credit account with Union Bank of California, which expires on March 31, 2012 and is subject to covenants related to financial ratios and tangible net worth. No amounts have been drawn upon our domestic line of credit and \$2.8 million of the international currency lines has been used as of December 31, 2011.

Our ratio of current assets to current liabilities was 3.8:1 at December 31, 2011 compared to 3.6:1 at October 1, 2011. The increase in our ratio from October 1, 2011 to December 31, 2011 is primarily due to a higher proportion of decreases in current liabilities (taxes payable, accounts payable and other current liabilities) than current assets (short-term investments and accounts receivable). Our cash and cash equivalents, short-term investments, working capital and debt obligations are as follows:

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	December 31, 2011	October 1, 2011	
	(in thousands)		
Cash and cash equivalents	\$167,662	\$167,061	
Short-term investments	35,421	53,142	
Working capital	412,065	418,241	
Total debt obligations	30	34	

# Contractual Obligations and Off-Balance Sheet Arrangements

We have no off-balance sheet arrangements as defined under Regulation S-K of the Securities Act of 1933. Information regarding our long-term debt payments, operating lease payments, asset retirement obligations, purchase commitments with suppliers and purchase obligations is provided in Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations" of our Annual Report on Form 10-K for the fiscal year ended October 1, 2011. There have been no material changes in contractual obligations outside of the ordinary course of business since October 1, 2011. Information regarding our other financial commitments at December 31, 2011 is provided in the notes to the condensed consolidated financial statements in this filing.

# Changes in Financial Condition

Cash provided by operating activities during the first three months of fiscal 2012 was \$16.1 million, which included net income of \$17.1 million, depreciation and amortization of \$7.5 million and stock-based compensation expense of \$4.0 million partially offset by cash used by operating assets and liabilities of \$11.3 million, decreases in net deferred tax assets of \$0.5 million due to utilization of tax credits and \$0.7 million other.

Cash provided by investing activities during the first three months of fiscal 2012 was \$9.5 million, which included \$17.6 million net sales of available-for-sale securities partially offset by \$8.1 million used to acquire property and equipment and improve buildings.

Cash used by financing activities during the first three months of fiscal 2012 was \$18.8 million, which included \$20.7 million used to repurchase our common stock and \$2.7 million other partially offset by \$4.6 million generated from our employee stock option and stock purchase plans.

Changes in exchange rates during the first three months of fiscal 2012 used \$6.2 million.

# RECENT ACCOUNTING STANDARDS

See Note 2. "Recent Accounting Standards" in the Notes to Condensed Consolidated Financial Statements for a full description of recent accounting pronouncements, including the respective dates of adoption or expected adoption and effects on our condensed consolidated financial position, results of operations and cash flows.

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# ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

### Market risk disclosures

We are exposed to market risk related to changes in interest rates and foreign currency exchange rates. We do not use derivative financial instruments for speculative or trading purposes.

# Interest rate sensitivity

A portion of our investment portfolio is composed of fixed income securities. These securities are subject to interest rate risk and will fall in value if market interest rates increase. If market interest rates were to increase immediately and uniformly by 10% from levels at December 31, 2011, the fair value of the portfolio, based on quoted market prices in active markets involving similar assets, would decline by an immaterial amount. We have the ability to generally hold our fixed income investments until maturity and therefore we would not expect our operating results or cash flows to be affected to any significant degree by the effect of a sudden change in market interest rates on our securities portfolio. If necessary, we may sell short-term investments prior to maturity to meet our liquidity needs.

At December 31, 2011, the fair value of our available-for-sale debt securities was \$33.4 million, all of which were classified as short-term investments. Gross unrealized gains and losses on available-for-sale debt securities were \$276,000 and \$(6,000), respectively, at December 31, 2011.

### Foreign currency exchange risk

We maintain operations in various countries outside of the United States and have foreign subsidiaries that manufacture and sell our products in various global markets. The majority of our sales are transacted in U.S. dollars. However, we do generate revenues in other currencies, primarily the Euro, the Japanese Yen and the Korean Won. As a result, our earnings, cash flows and cash balances are exposed to fluctuations in foreign currency exchange rates. A substantial portion of our cash balance is Euro denominated. We attempt to limit these exposures through financial market instruments. We utilize derivative instruments, primarily forward contracts with maturities of two months or less, to manage our exposure associated with anticipated cash flows and net asset and liability positions denominated in foreign currencies. Gains and losses on the forward contracts are mitigated by gains and losses on the underlying instruments. We do not use derivative financial instruments for speculative or trading purposes.

We do not anticipate any material adverse effect on our consolidated financial position, results of operations or cash flows resulting from the use of these instruments. There can be no assurance that these strategies will be effective or that transaction losses can be minimized or forecasted accurately. If a financial counterparty to any of our hedging arrangements experiences financial difficulties or is otherwise unable to honor the terms of the foreign currency hedge, we may experience material financial losses. In the current economic environment, the risk of failure of a financial party remains high.

At December 31, 2011, approximately \$142.5 million of our cash, cash equivalents and short-term investments were held outside the U.S. in certain of our foreign operations, the majority of which was denominated in the Euro. In January 2012, we converted \$89.8 million of these assets to U.S. dollars and invested those funds in U.S. Treasury securities within a European subsidiary whose functional currency is the U.S. dollar. Accordingly, there will be no future translation expense arising from these U.S. dollar denominated investments.

A hypothetical 10% change in foreign currency rates on our forward contracts would not have a material impact on our results of operations.

The following table provides information about our foreign exchange forward contracts at December 31, 2011. The table presents the weighted average contractual foreign currency exchange rates, the value of the contracts in U.S. dollars at the contract exchange rate as of the contract maturity date and fair value. The U.S. notional fair value represents the contracted amount valued at December 31, 2011 rates.

Forward contracts to sell (buy) foreign currencies for U.S. dollars (in thousands, except contract rates):

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	Average Contract	U.S. Notional	U.S. Notional	
	Rate	Contract Value	Fair Value	
Euro	1.3188	\$(47,843)	\$(47,344	)
Japanese Yen	77.722	\$10,688	\$10,711	
Canadian Dollar	0.9714	\$562	\$571	
British Pound	1.5571	\$6,043	\$6,056	
Korean Won	1,157.325	\$22,798	\$22,820	
Chinese Renminbi	6.3770	\$7,443	\$7,505	
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#### ITEM 4. CONTROLS AND PROCEDURES

Management's Evaluation of Disclosure Controls and Procedures

We have evaluated the effectiveness of the design and operation of our disclosure controls and procedures; as such term is defined in Rule 13a-15(e) under the Securities Exchange Act of 1934, as of December 31, 2011 ("Evaluation Date"). The controls evaluation was conducted under the supervision and with the participation of management, including our Chief Executive Officer and Chief Financial Officer. Based on this evaluation, our Chief Executive Officer and Chief Financial Officer concluded as of the Evaluation Date that our disclosure controls and procedures were effective in providing reasonable assurance that information required to be disclosed by us in reports that we file or submit under the Securities Exchange Act of 1934, as amended, is (i) recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms and (ii) accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosures.

Changes in Internal Control over Financial Reporting

There was no change in our internal control over financial reporting that occurred during the quarter ended December 31, 2011 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Inherent Limitations over Internal Control

Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles ("GAAP"). Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate. Our internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with GAAP. Our internal control over financial reporting includes those policies and procedures that:

- (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets;
  - provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial
- (ii) statements in accordance with generally accepted accounting principles, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and
- (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of our assets that could have a material effect on the financial statements.

Management, including our Chief Executive Officer and Chief Financial Officer, does not expect that our internal controls will prevent or detect all errors and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of internal controls can provide absolute assurance that all control issues and instances of fraud, if any, have been detected. Also, any evaluation of the effectiveness of controls in future periods are subject to the risk that those internal controls may become inadequate because of changes in business conditions, or that the degree of compliance with the policies or

procedures may deteriorate.

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### PART II. OTHER INFORMATION

### ITEM 1. LEGAL PROCEEDINGS

We are subject to legal claims and litigation arising in the ordinary course of business, such as product liability, employment or intellectual property claims, including, but not limited to, the matters described below. The outcome of any such matters is currently not determinable. Although we do not expect that such legal claims and litigation will ultimately have a material adverse effect on our consolidated financial position or results of operations, an adverse result in one or more matters could negatively affect our results in the period in which they occur.

### **Income Tax Audits**

We are subject to taxation and file income tax returns in the U.S. federal jurisdiction and in many state and foreign jurisdictions. For U.S. federal income tax purposes, all years prior to 2005 are closed. In our major state jurisdiction and our major foreign jurisdiction, the years subsequent to 2000 and 2005, respectively, currently remain open and could be subject to examination by the taxing authorities. In December 2011 and January 2012, our three German subsidiaries received notices of tax audits for the fiscal years 2006 through 2010. These audits have either commenced or are expected to begin by March 2012.

Management believes that it has adequately provided for any adjustments that may result from tax examinations. The Company regularly engages in discussions and negotiations with tax authorities regarding tax matters in various jurisdictions. It is reasonably possible that certain federal, foreign and state tax matters may be concluded in the next 12 months and we anticipate a lapse in certain statute of limitations which could result in a release of interest expense under ASC 740 "Income Taxes." Specific positions that may be resolved include issues involving research and development credits, transfer pricing and various other matters. The Company estimates that the net unrecognized tax benefits and related interest at December 31, 2011 could be reduced by approximately \$1.0 million to \$3.0 million in the next 12 months.

# ITEM 1A. RISK FACTORS

You should carefully consider the followings risks when considering an investment in our Common Stock. These risks could materially affect our business, results of operations or financial condition, cause the trading price of our Common Stock to decline materially or cause our actual results to differ materially from those expected or those expressed in any forward-looking statements made by or on behalf of Coherent. These risks are not exclusive, and additional risks to which we are subject include, but are not limited to, the factors mentioned under "Forward-Looking Statements." Additionally, these risks and uncertainties described herein are not the only ones facing us. Other events that we do not currently anticipate or that we currently deem immaterial also may affect our business, results of operations or financial conditions.

### BUSINESS ENVIRONMENT AND INDUSTRY TRENDS

Risks Associated with Our Industry, Our Business and Market Conditions

Our operating results, including net sales, net income (loss) and adjusted EBITDA percentage in dollars and as a percentage of net sales, as well as our stock price have varied in the past, and our future operating results will continue to be subject to quarterly and annual fluctuations based upon numerous factors, including those discussed in this Item 1A and throughout this report. Our stock price will continue to be subject to daily variations as well. Our future operating results and stock price may not follow any past trends or meet our guidance and expectations.

Our net sales and operating results, such as adjusted EBITDA percentage, net income (loss) and operating expenses, and our stock price have varied in the past and may vary significantly from quarter to quarter and from year to year in the future. We believe a number of factors, many of which are outside of our control, could cause these variations and make them difficult to predict, including:

general economic uncertainties in the macroeconomic and local economies facing us, our customers and the markets we serve;

access to applicable credit markets by us, our customers and their end customers;

fluctuations in demand for our products or downturns in the industries that we serve;

the ability of our suppliers, both internal and external, to produce and deliver components and parts, including sole or

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limited source components, in a timely manner, in the quantity, quality and prices desired;

the timing of conversion of booking to revenue;

timing or cancellation of customer orders and shipment scheduling;

fluctuations in our product mix;

the ability of our customers' suppliers to provide sufficient material to support our customers' products;

currency fluctuations and stability, in particular the Euro;

commodity pricing;

introductions of new products and product enhancements by our competitors, entry of new competitors into our markets, pricing pressures and other competitive factors;

our ability to develop, introduce, manufacture and ship new and enhanced products in a timely manner without defects;

our ability to manage our capacity and that of our suppliers;

our increased reliance on domestic and foreign contract manufacturing;

the rate of market acceptance of our new products;

the ability of our customers to pay for our products;

expenses associated with acquisition-related activities;

seasonal sales trends;

delays or reductions in customer purchases of our products in anticipation of the introduction of new and enhanced products by us or our competitors;

our ability to control expenses;

the level of capital spending of our customers;

potential excess and/or obsolescence of our inventory;

costs and timing of adhering to current and developing governmental regulations and reviews relating to our products and business;

costs related to acquisitions of technology or businesses;

impairment of goodwill, intangible assets and other long term assets;

our ability to meet our expectations and forecasts and those of public market analysts and investors;

costs and expenses from litigation;

the availability of research funding by governments with regard to our customers in the scientific business, such as universities;

continued government spending on defense-related projects where we are a subcontractor;

government support of the alternative energy industries, such as solar;

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maintenance of supply relating to products sold to the government on terms which we would prefer not to accept;

changes in policy, interpretations, or challenges to the allowability of costs incurred under government cost accounting standards;

damage to our reputation as a result of coverage in social media, Internet blogs or other media outlets;

managing our and other parties' compliance with contracts in multiple languages and jurisdictions;

managing our internal and third party sales representatives and distributors, including compliance with all applicable laws;

costs associated with designing around or payment of licensing fees associated with issued patents in our fields of business;

the future impact of legislation, rulemaking, and changes in accounting, tax, defense procurement, or export policies; and

distraction of management related to acquisition or divestment activities.

In addition, we often recognize a substantial portion of our sales in the last month of our fiscal quarters. Our expenses for any given quarter are typically based on expected sales and if sales are below expectations in any given quarter, the adverse impact of the shortfall on our operating results may be magnified by our inability to adjust spending quickly enough to compensate for the shortfall. We also base our manufacturing on our forecasted product mix for the quarter. If the actual product mix varies significantly from our forecast, we may not be able to fill some orders during that quarter, which would result in delays in the shipment of our products. Accordingly, variations in timing of sales, particularly for our higher priced, higher margin products, can cause significant fluctuations in quarterly operating results.

Due to these and other factors, we believe that quarter-to-quarter and year-to-year comparisons of our historical operating results may not be meaningful. You should not rely on our results for any quarter or year as an indication of our future performance. Our operating results in future quarters and years may be below public market analysts' or investors' expectations, which would likely cause the price of our stock to fall. In addition, over the past several years, the stock market has experienced extreme price and volume fluctuations that have affected the stock prices of many technology companies. There has not always been a direct correlation between this volatility and the performance of particular companies subject to these stock price fluctuations. Further, over the last twelve months, equity markets around the world have significantly fluctuated across most sectors. These factors, as well as general economic and political conditions or investors' concerns regarding the credibility of corporate financial statements, may have a material adverse effect on the market price of our stock in the future.

We are exposed to risks associated with worldwide economic conditions and related uncertainties.

Volatility and disruption in the capital and credit markets, depressed consumer confidence, negative economic conditions, volatile corporate profits and reduced capital spending could negatively impact demand for our products. In particular, it is difficult to develop and implement strategy, sustainable business models and efficient operations, as well as effectively manage supply chain relationships in the face of such conditions including uncertainty regarding the ability of some of our suppliers to continue operations and provide us with uninterrupted supply flow. Our ability to maintain our research and development investments in our broad product offerings may be adversely impacted in the event that our sales decline and do not increase in the future. Spending and the timing thereof by consumers and

businesses has a significant impact on our results and, where such spending is delayed or canceled, it could cause a material negative impact on our operating results. The current global economic conditions remain uncertain and challenging. Weakness in our end markets could negatively impact our revenue, gross margin and operating expenses, and consequently have a material adverse effect on our business, financial condition and results of operations.

The recent financial turmoil affecting the banking system and financial markets and the possibility that additional financial institutions may consolidate or go out of business have resulted in continued tightening in the credit markets, and lower levels of liquidity in some financial markets. There could be a number of follow-on effects from the tightened credit environment on our business, including the insolvency of key suppliers or their inability to obtain credit to finance development and/or manufacture products resulting in product delays; inability of customers to obtain credit to finance purchases of our products and/or customer insolvencies; and failure of financial institutions negatively impacting our treasury functions. In the event our customers are unable to obtain credit or otherwise pay for our shipped products it could significantly impact our ability to

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collect on our outstanding accounts receivable. Other income and expense also could vary materially from expectations depending on gains or losses realized on the sale or exchange of financial instruments; impairment charges resulting from revaluations of debt and equity securities and other investments; interest rates; cash balances; and changes in fair value of derivative instruments. Volatility in the financial markets and any overall economic uncertainty increase the risk that the actual amounts realized in the future on our financial instruments could differ significantly from the fair values currently assigned to them. Uncertainty about current global economic conditions could also continue to increase the volatility of our stock price.

In addition, political and social turmoil related to international conflicts, terrorist acts and civil unrest may put further pressure on economic conditions in the United States and abroad. Unstable economic, political and social conditions make it difficult for our customers, our suppliers and us to accurately forecast and plan future business activities. If such conditions persist, our business, financial condition and results of operations could suffer. Additionally, unstable economic conditions can provide significant pressures and burdens on individuals, which could cause them to engage in inappropriate business conduct. See "Part I, Item 4. CONTROLS AND PROCEDURES-Inherent Limitations over Internal Control."

Our cash and cash equivalents and short-term investments are managed through various banks around the world and volatility in the capital and credit market conditions could cause financial institutions to fail or materially harm service levels provided by such banks, both of which could have an adverse affect on our ability to timely access funds.

World capital and credit markets have been and may continue to experience volatility and disruption. In some cases, the markets have exerted downward pressure on stock prices and credit capacity for certain issuers, as well as pressured the solvency of some financial institutions. These financial institutions, including banks, have had difficulty timely performing regular services and in some cases have failed or otherwise been largely taken over by governments. We maintain our cash, cash equivalents and short-term investments with a number of financial institutions around the world. Should some or all of these financial institutions fail or otherwise be unable to timely perform requested services, we would likely have a limited ability to timely access our cash deposited with such institutions, or, in extreme circumstances the failure of such institutions could cause us to be unable to access cash for the foreseeable future. If we are unable to quickly access our funds when we need them, we may need to increase the use of our existing credit lines or access more expensive credit, if available. If we are unable to access our cash or if we access existing or additional credit or are unable to access additional credit, it could have a negative impact on our operations, including our reported net income.

We are exposed to credit risk and fluctuations in the market values of our investment portfolio.

Although we have not recognized any material losses on our cash, cash equivalents and short-term investments, future declines in their market values could have a material adverse effect on our financial condition and operating results. Given the global nature of our business, we have investments both domestically and internationally. There has recently been growing pressure on the creditworthiness of sovereign nations, particularly in Europe where a majority of our cash, cash equivalents and short-term investments are invested, which results in corresponding pressure on the valuation of the securities issued by such nations. Additionally, our overall investment portfolio is often concentrated in certificates of deposit and money market funds. We maintain a mix of government-issued securities. Credit ratings and pricing of these investments can be negatively impacted by liquidity, credit deterioration or losses, financial results, or other factors. Additionally, liquidity issues or political actions by sovereign nations could result in decreased values for our investments in certain government securities. As a result, the value or liquidity of our cash, cash equivalents and short-term investments could decline or become materially impaired, which could have a material adverse effect on our financial condition and operating results. See "Item 3. Quantitative and Qualitative Disclosures about Market Risk."

We depend on sole source or limited source suppliers, both internal and external, for some of our key components and materials, including exotic materials, certain cutting-edge optics and crystals, in our products, which make us susceptible to supply shortages or price fluctuations that could adversely affect our business.

We currently purchase several key components and materials used in the manufacture of our products from sole source or limited source suppliers, both internal and external. Our failure to timely receive these key components and materials, such as the large optics used in our flat panel display manufacturing applications, could cause delays in the shipment of our products. Some of these suppliers are relatively small private companies that may discontinue their operations at any time and which may be particularly susceptible to prevailing economic conditions. Some of our suppliers are located in regions which may be susceptible to natural disasters, such as the recent flooding in Thailand and the earthquake, tsunami and resulting nuclear disaster in Japan. We typically purchase our components and materials through purchase orders or agreed upon terms and conditions and we do not have guaranteed supply arrangements with many of these suppliers. We may fail to obtain these supplies in a timely manner in the future. We may experience difficulty identifying alternative sources of supply for certain components used in our products. We would experience further delays while identifying, evaluating and testing the products of

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these potential alternative suppliers. Furthermore, financial or other difficulties faced by these suppliers or significant changes in demand for these components or materials could limit their availability. We continue to consolidate our supply base and move supplier locations. When we transition locations we may increase our inventory of such products as a "safety stock" during the transition, which may cause the amount of inventory reflected on our balance sheet to increase. Additionally, many of our customers rely on sole source suppliers. In the event of a disruption of supply, orders from our customers could decrease or be delayed. Any interruption or delay in the supply of any of these components or materials, or the inability to obtain these components and materials from alternate sources at acceptable prices and within a reasonable amount of time, or our failure to properly manage these moves, would impair our ability to meet scheduled product deliveries to our customers and could cause customers to cancel orders.

We have historically relied exclusively on our own production capability to manufacture certain strategic components, crystals, semiconductor lasers, lasers and laser-based systems. Because we manufacture, package and test these components, products and systems at our own facilities, and such components, products and systems are not readily available from other sources, any interruption in manufacturing would adversely affect our business. In addition, our failure to achieve adequate manufacturing yields of these items at our manufacturing facilities may materially and adversely affect our operating results and financial condition.

Our future success depends on our ability to increase our sales volumes and decrease our costs to offset potential declines in the average selling prices ("ASPs") of our products and, if we are unable to realize greater sales volumes and lower costs, our operating results may suffer.

Our ability to increase our sales volume and our future success depends on the continued growth of the markets for lasers, laser systems and related accessories, as well as our ability to identify, in advance, emerging markets for laser-based systems. We cannot assure you that we will be able to successfully identify, on a timely basis, new high-growth markets in the future. Moreover, we cannot assure you that new markets will develop for our products or our customers' products, or that our technology or pricing will enable such markets to develop. Future demand for our products is uncertain and will depend to a great degree on continued technological development and the introduction of new or enhanced products. If this does not continue, sales of our products may decline and our business will be harmed.

We have in the past experienced decreases in the ASPs of some of our products. As competing products become more widely available, the ASPs of our products may decrease. If we are unable to offset any decrease in our ASPs by increasing our sales volumes, our net sales will decline. In addition, to maintain our gross margins, we must continue to reduce the cost of manufacturing our products while maintaining their high quality. From time to time, our products, like many complex technological products, may fail in greater frequency than anticipated. This can lead to further charges, which can result in higher costs, lower gross margins and lower operating results. Furthermore, as ASPs of our current products decline, we must develop and introduce new products and product enhancements with higher margins. If we cannot maintain our gross margins, our operating results could be seriously harmed, particularly if the ASPs of our products decrease significantly.

Our future success depends on our ability to develop and successfully introduce new and enhanced products that meet the needs of our customers.

Our current products address a broad range of commercial and scientific research applications in the photonics markets. We cannot assure you that the market for these applications will continue to generate significant or consistent demand for our products. Demand for our products could be significantly diminished by disrupting technologies or products that replace them or render them obsolete. Furthermore, the new and enhanced products generally continue to be smaller in size and have lower ASPs, and therefore, we have to sell more units to maintain revenue levels. Accordingly, we must continue to invest in research and development in order to develop competitive products.

Our future success depends on our ability to anticipate our customers' needs and develop products that address those needs. Introduction of new products and product enhancements will require that we effectively transfer production processes from research and development to manufacturing and coordinate our efforts with those of our suppliers to achieve volume production rapidly. If we fail to transfer production processes effectively, develop product enhancements or introduce new products in sufficient quantities to meet the needs of our customers as scheduled, our net sales may be reduced and our business may be harmed.

We face risks associated with our foreign operations and sales that could harm our financial condition and results of operations.

For the three months ended December 31, 2011, 76% of our net sales were derived from customers outside of the United States.

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For fiscal 2011, fiscal 2010 and fiscal 2009, 74%, 67% and 66%, respectively, of our net sales were derived from customers outside of the United States. We anticipate that foreign sales, particularly in Asia, will continue to account for a significant portion of our revenues in the foreseeable future.

A global economic slowdown or a natural disaster could have a negative effect on various foreign markets in which we operate, such as the earthquake, tsunami and resulting nuclear disaster during fiscal 2011 in Japan and the recent flooding in Thailand. Such a slowdown may cause us to reduce our presence in certain countries, which may negatively affect the overall level of business in such countries. Our foreign sales are primarily through our direct sales force. Additionally, some foreign sales are made through foreign distributors and resellers. Our foreign operations and sales are subject to a number of risks, including:

longer accounts receivable collection periods;

the impact of recessions and other economic conditions in economies outside the United States;

unexpected changes in regulatory requirements;

certification requirements;

environmental regulations;

reduced protection for intellectual property rights in some countries;

potentially adverse tax consequences;

political and economic instability;

import/export regulations, tariffs and trade barriers;

compliance with applicable United States and foreign anti-corruption laws;

cultural and management differences;

preference for locally produced products; and

shipping and other logistics complications.

Our business could also be impacted by international conflicts, terrorist and military activity, civil unrest and pandemic illness which could cause a slowdown in customer orders or cause customer order cancellations.

We are also subject to the risks of fluctuating foreign currency exchange rates, which could materially adversely affect the sales price of our products in foreign markets, as well as the costs and expenses of our foreign subsidiaries. While we use forward exchange contracts and other risk management techniques to hedge our foreign currency exposure, we remain exposed to the economic risks of foreign currency fluctuations.

We may not be able to protect our proprietary technology which could adversely affect our competitive advantage.

Maintenance of intellectual property rights and the protection thereof is important to our business. We rely on a combination of patent, copyright, trademark and trade secret laws and restrictions on disclosure to protect our

intellectual property rights. We cannot assure you that our patent applications will be approved, that any patents that may be issued will protect our intellectual property or that any issued patents will not be challenged by third parties. Other parties may independently develop similar or competing technology or design around any patents that may be issued to us. We cannot be certain that the steps we have taken will prevent the misappropriation of our intellectual property, particularly in foreign countries where the laws may not protect our proprietary rights as fully as in the United States. Further, we may be required to enforce our intellectual property or other proprietary rights through litigation, which, regardless of success, could result in substantial costs and diversion of management's attention. Additionally, there may be existing patents of which we are unaware that could be pertinent to our business and it is not possible for us to know whether there are patent applications pending that our products might infringe upon since these applications are often not publicly available until a patent is issued or published.

We may, in the future, be subject to claims or litigation from third parties, for claims of infringement of their proprietary

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rights or to determine the scope and validity of our proprietary rights or the proprietary rights of competitors or other rights holders. These claims could result in costly litigation and the diversion of our technical and management personnel. Adverse resolution of litigation may harm our operating results or financial condition.

In recent years, there has been significant litigation in the United States involving patents and other intellectual property rights. This has been seen in our industry, for example in the recently concluded patent-related litigation between IMRA America, Inc. and IPG Photonics Corporation. From time to time, like many other technology companies, we have received communications from other parties asserting the existence of patent rights, copyrights, trademark rights or other intellectual property rights which such third parties believe may cover certain of our products, processes, technologies or information. In the future, we may be a party to litigation to protect our intellectual property or as a result of an alleged infringement of others' intellectual property whether through direct claims or by way of indemnification claims of our customers, as, in some cases, we contractually agree to indemnify our customers against third-party infringement claims relating to our products. These claims and any resulting lawsuit, if successful, could subject us to significant liability for damages or invalidation of our proprietary rights. These lawsuits, regardless of their success, would likely be time-consuming and expensive to resolve and would divert management time and attention. Any potential intellectual property litigation could also force us to do one or more of the following:

•stop manufacturing, selling or using our products that use the infringed intellectual property;

obtain from the owner of the infringed intellectual property right a license to sell or use the relevant technology, although such license may not be available on reasonable terms, or at all; or

redesign the products that use the technology.

If we are forced to take any of these actions or are otherwise a party to lawsuits of this nature, we may incur significant losses for which we do not have insurance and our business may be seriously harmed. We do not have insurance to cover potential claims of this type.

If our goodwill or intangible assets become impaired, we may be required to record a significant charge to earnings.

Under accounting principles generally accepted in the United States, we review our intangible assets for impairment when events or changes in circumstances indicate the carrying value may not be recoverable. Goodwill is required to be tested for impairment at least annually. Factors that may be considered a change in circumstances indicating that the carrying value of our goodwill or other intangible assets may not be recoverable include declines in our stock price and market capitalization or future cash flows projections. We recorded a material charge during the first quarter of fiscal 2009 related to the impairment of goodwill in our CLC operating segment. A decline in our stock price, or any other adverse change in market conditions, particularly if such change has the effect of changing one of the critical assumptions or estimates we used to calculate the estimated fair value of our reporting units, could result in a change to the estimation of fair value that could result in an impairment charge. Any such material charges, whether related to goodwill or purchased intangible assets, may have a material negative impact on our financial and operating results.

We are exposed to lawsuits in the normal course of business which could have a material adverse effect on our business, operating results, or financial condition.

We are exposed to lawsuits in the normal course of our business, including product liability claims, if personal injury, death or commercial losses occur from the use of our products. While we typically maintain business insurance, including directors' and officers' policies, litigation can be expensive, lengthy, and disruptive to normal business operations, including the potential impact of indemnification obligations for individuals named in any such lawsuits.

We may not, however, be able to secure insurance coverage on terms acceptable to us in the future. Moreover, the results of complex legal proceedings are difficult to predict. An unfavorable resolution of a particular lawsuit, including a recall or redesign of products if ultimately determined to be defective, could have a material adverse effect on our business, operating results, or financial condition.

We depend on skilled personnel to operate our business effectively in a rapidly changing market, and if we are unable to retain existing or hire additional personnel when needed, our ability to develop and sell our products could be harmed.

Our ability to continue to attract and retain highly skilled personnel will be a critical factor in determining whether we will be successful in the future. Recruiting and retaining highly skilled personnel in certain functions continues to be difficult. At certain locations where we operate, the cost of living is extremely high and it may be difficult to retain key employees and management at a reasonable cost. We may not be successful in attracting, assimilating or retaining qualified personnel to fulfill

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our current or future needs. Our failure to attract additional employees and retain our existing employees could adversely affect our growth and our business.

Our future success depends upon the continued services of our executive officers and other key engineering, sales, marketing, manufacturing and support personnel, any of whom may leave, which could harm our business and our results of operations.

The long sales cycles for our products may cause us to incur significant expenses without offsetting revenues.

Customers often view the purchase of our products as a significant and strategic decision. As a result, customers typically expend significant effort in evaluating, testing and qualifying our products before making a decision to purchase them, resulting in a lengthy initial sales cycle. While our customers are evaluating our products and before they place an order with us, we may incur substantial sales and marketing and research and development expenses to customize our products to the customer's needs. We may also expend significant management efforts, increase manufacturing capacity and order long lead-time components or materials prior to receiving an order. Even after this evaluation process, a potential customer may not purchase our products. As a result, these long sales cycles may cause us to incur significant expenses without ever receiving revenue to offset such expenses.

The markets in which we sell our products are intensely competitive and increased competition could cause reduced sales levels, reduced gross margins or the loss of market share.

Competition in the various photonics markets in which we provide products is very intense. We compete against a number of large public and private companies, including CVI Melles Griot, Cymer, Inc., GSI Group, Inc., IPG Photonics Corporation, JDS Uniphase Corporation, Newport Corporation, Rofin-Sinar Technologies, Inc., and Trumpf GmbH, as well as other smaller companies. Some of our competitors are large companies that have significant financial, technical, marketing and other resources. These competitors may be able to devote greater resources than we can to the development, promotion, sale and support of their products. Some of our competitors are much better positioned than we are to acquire other companies in order to gain new technologies or products that may displace our product lines. Any of these acquisitions could give our competitors a strategic advantage. Any business combinations or mergers among our competitors, forming larger companies with greater resources, could result in increased competition, price reductions, reduced margins or loss of market share, any of which could materially and adversely affect our business, results of operations and financial condition.

Additional competitors may enter the markets in which we serve, both foreign and domestic, and we are likely to compete with new companies in the future. We may encounter potential customers that, due to existing relationships with our competitors, are committed to the products offered by these competitors. Further, our current or potential customers may determine to develop and produce products for their own use which are competitive to our products. As a result of the foregoing factors, we expect that competitive pressures may result in price reductions, reduced margins, loss of sales and loss of market share. In addition, in markets where there are a limited number of customers, competition is particularly intense.

Some of our laser systems are complex in design and may contain defects that are not detected until deployed by our customers, which could increase our costs and reduce our revenues.

Laser systems are inherently complex in design and require ongoing regular maintenance. The manufacture of our lasers, laser products and systems involves a highly complex and precise process. As a result of the technological complexity of our products, changes in our or our suppliers' manufacturing processes or the inadvertent use of defective materials by us or our suppliers could result in a material adverse effect on our ability to achieve acceptable manufacturing yields and product reliability. To the extent that we do not achieve and maintain our projected yields or

product reliability, our business, operating results, financial condition and customer relationships would be adversely affected. We provide warranties on a majority of our product sales, and reserves for estimated warranty costs are recorded during the period of sale. The determination of such reserves requires us to make estimates of failure rates and expected costs to repair or replace the products under warranty. We typically establish warranty reserves based on historical warranty costs for each product line. If actual return rates and/or repair and replacement costs differ significantly from our estimates, adjustments to cost of sales may be required in future periods which could have an adverse effect on our results of operations.

Our customers may discover defects in our products after the products have been fully deployed and operated under the end user's peak stress conditions. In addition, some of our products are combined with products from other vendors, which may contain defects. As a result, should problems occur, it may be difficult to identify the source of the problem. If we are unable to identify and fix defects or other problems, we could experience, among other things:

loss of customers;

increased costs of product returns and warranty expenses;

damage to our brand reputation;

failure to attract new customers or achieve market acceptance;

diversion of development and engineering resources; and

• legal actions by our customers and/or their end users.

The occurrence of any one or more of the foregoing factors could seriously harm our business, financial condition and results of operations.

If we fail to accurately forecast component and material requirements for our products, we could incur additional costs and incur significant delays in shipments, which could result in a loss of customers.

We use rolling forecasts based on anticipated product orders and material requirements planning systems to determine our product requirements. It is very important that we accurately predict both the demand for our products and the lead times required to obtain the necessary components and materials. We depend on our suppliers for most of our product components and materials. Lead times for components and materials that we order vary significantly and depend on factors including the specific supplier requirements, the size of the order, contract terms and current market demand for components. For substantial increases in our sales levels of certain products, some of our suppliers may need at least nine months lead-time. If we overestimate our component and material requirements, we may have excess inventory, which would increase our costs. If we underestimate our component and material requirements, we may have inadequate inventory, which could interrupt and delay delivery of our products to our customers. Any of these occurrences would negatively impact our net sales, business or operating results.

Our increased reliance on contract manufacturing and other outsourcing may adversely impact our financial results and operations due to our decreased control over the performance and timing of certain aspects of our manufacturing.

Our manufacturing strategy includes partnering with contract manufacturers to outsource non-core subassemblies and less complex turnkey products, including some performed at international sites located in Asia and Eastern Europe. Additionally, we have outsourced the manufacture of certain of our optics components to a third party. Our ability to resume internal manufacturing operations for certain products and components in a timely manner may be eliminated. The cost, quality, performance and availability of contract manufacturing operations are and will be essential to the successful production and sale of many of our products. Our financial condition or results of operation could be adversely impacted if any contract manufacturer or other supplier is unable for any reason, including as a result of the impact of worldwide economic conditions, to meet our cost, quality, performance, and availability standards. We may not be able to provide contract manufacturers with product volumes that are high enough to achieve sufficient cost savings. If shipments fall below forecasted levels, we may incur increased costs or be required to take ownership of the inventory. Also, our ability to control the quality of products produced by contract manufacturers may be limited and quality issues may not be resolved in a timely manner, which could adversely impact our financial condition or results of operations.

If we fail to effectively manage our growth or, alternatively, our spending during downturns, our business could be disrupted, which could harm our operating results.

The growth in sales, combined with the challenges of managing geographically dispersed operations, can place a significant strain on our management systems and resources, and our anticipated growth in future operations could continue to place such a strain. The failure to effectively manage our growth could disrupt our business and harm our operating results. Our ability to successfully offer our products and implement our business plan in evolving markets requires an effective planning and management process. In economic downturns, we must effectively manage our spending and operations to ensure our competitive position during the downturn, as well as our future opportunities when the economy improves, remain intact. The failure to effectively manage our spending and operations could disrupt our business and harm our operating results.

Historically, acquisitions have been an important element of our strategy. However, we may not find suitable acquisition candidates in the future and we may not be able to successfully integrate and manage acquired businesses. Any acquisitions we make could disrupt our business and harm our financial condition.

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We have in the past made strategic acquisitions of other corporations and entities, as well as asset purchases, and we continue to evaluate potential strategic acquisitions of complementary companies, products and technologies. In the event of any future acquisitions, we could:

\*ssue stock that would dilute our current stockholders' percentage ownership;

pay cash that would decrease our working capital;

incur debt;

assume liabilities; or

incur expenses related to impairment of goodwill and amortization.

Acquisitions also involve numerous risks, including:

problems combining the acquired operations, systems, technologies or products;

an inability to realize expected operating efficiencies or product integration benefits;

difficulties in coordinating and integrating geographically separated personnel, organizations, systems and facilities;

difficulties integrating business cultures;

unanticipated costs or liabilities, including the costs associated with improving the internal controls of the acquired company;

diversion of management's attention from our core businesses;

adverse effects on existing business relationships with suppliers and customers;

potential loss of key employees, particularly those of the purchased organizations;

incurring unforeseen obligations or liabilities in connection with acquisitions; and

the failure to complete acquisitions even after signing definitive agreements which, among other things, would result in the expensing of potentially significant professional fees and other charges in the period in which the acquisition or negotiations are terminated.

We cannot assure you that we will be able to successfully identify appropriate acquisition candidates, to integrate any businesses, products, technologies or personnel that we might acquire in the future or achieve the anticipated benefits of such transactions, which may harm our business.

We use standard laboratory and manufacturing materials that could be considered hazardous and we could be liable for any damage or liability resulting from accidental environmental contamination or injury.

Although most of our products do not incorporate hazardous or toxic materials and chemicals, some of the gases used in our excimer lasers and some of the liquid dyes used in some of our scientific laser products are highly toxic. In addition, our operations involve the use of standard laboratory and manufacturing materials that could be considered

hazardous. Also, if a facility fire were to occur at our Sunnyvale, California site and were to spread to a reactor used to grow semiconductor wafers, it could release highly toxic emissions. We believe that our safety procedures for handling and disposing of such materials comply with all federal, state and offshore regulations and standards. However, the risk of accidental environmental contamination or injury from such materials cannot be entirely eliminated. In the event of such an accident involving such materials, we could be liable for damages and such liability could exceed the amount of our liability insurance coverage and the resources of our business which could have an adverse effect on our financial results or our business as a whole.

Compliance or the failure to comply with current and future environmental regulations could cause us significant expense.

We are subject to a variety of federal, state, local and foreign environmental regulations relating to the use, storage, discharge

and disposal of hazardous chemicals used during our manufacturing process or requiring design changes or recycling of products we manufacture. If we fail to comply with any present and future regulations, we could be subject to future liabilities, the suspension of production or a prohibition on the sale of products we manufacture. In addition, such regulations could restrict our ability to expand our facilities or could require us to acquire costly equipment, or to incur other significant expenses to comply with environmental regulations, including expenses associated with the recall of any non-compliant product and the management of historical waste.

From time to time new regulations are enacted, and it is difficult to anticipate how such regulations will be implemented and enforced. We continue to evaluate the necessary steps for compliance with regulations as they are enacted. These regulations include, for example, the Registration, Evaluation, Authorization and Restriction of Chemical substances ("REACH"), the Restriction on the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Directive ("RoHS") and the Waste Electrical and Electronic Equipment Directive ("WEEE") enacted in the European Union which regulate the use of certain hazardous substances in, and require the collection, reuse and recycling of waste from, certain products we manufacture. This and similar legislation that has been or is in the process of being enacted in Japan, China, Korea and various states of the United States may require us to re-design our products to ensure compliance with the applicable standards, for example by requiring the use of different types of materials. These redesigns or alternative materials may detrimentally impact the performance of our products, add greater testing lead-times for product introductions or have other similar effects. We believe we comply with all such legislation where our products are sold and we will continue to monitor these laws and the regulations being adopted under them to determine our responsibilities. In addition, we are monitoring legislation relating to the reduction of carbon emissions from industrial operations to determine whether we may be required to incur any additional material costs or expenses associated with our operations. We are not currently aware of any such material costs or expenses. Our failure to comply with any of the foregoing regulatory requirements or contractual obligations could result in our being directly or indirectly liable for costs, fines or penalties and third-party claims, and could jeopardize our ability to conduct business in the United States and foreign countries.

Our operations would be seriously harmed if our logistics or facilities or those of our suppliers, our customers' suppliers or our contract manufacturers were to experience catastrophic loss.

Our operations, logistics and facilities and those of our suppliers and contract manufacturers could be subject to a catastrophic loss from fire, flood, earthquake, volcanic eruption, work stoppages, power outages, acts of war, pandemic illnesses, energy shortages, theft of assets, other natural disasters or terrorist activity, such as the recent flooding in Thailand. A substantial portion of our research and development activities, manufacturing, our corporate headquarters and other critical business operations are located near major earthquake faults in Santa Clara, California, an area with a history of seismic events. Any such loss or detrimental impact to any of our operations, logistics or facilities could disrupt our operations, delay production, shipments and revenue and result in large expenses to repair or replace the facility. While we have obtained insurance to cover most potential losses, after reviewing the costs and limitations associated with earthquake insurance, we have decided not to procure such insurance. We believe that this decision is consistent with decisions reached by numerous other companies located nearby. We cannot assure you that our existing insurance coverage will be adequate against all other possible losses.

Difficulties with our enterprise resource planning ("ERP") system and other parts of our global information technology system could harm our business and results of operation. If our network security measures are breached and unauthorized access is obtained to a customer's data or our data or our information technology systems, we may incur significant legal and financial exposure and liabilities.

Like many modern multinational corporations, we maintain a global information technology system, including software products licensed from third parties. Any system, network or Internet failures, misuse by system users, the hacking into or disruption caused by the unauthorized access by third parties or loss of license rights could disrupt our ability to timely and accurately manufacture and ship products or to report our financial information in compliance with the timelines mandated by the Securities and Exchange Commission. Any such failure, misuse, hacking,

disruptions or loss would likely cause a diversion of management's attention from the underlying business and could harm our operations. In addition, a significant failure of our global information technology system could adversely affect our ability to complete an evaluation of our internal controls and attestation activities pursuant to Section 404 of the Sarbanes-Oxley Act of 2002.

As part of our day-to-day business, we store our data and certain data about our customers in our global information technology system. While our system is designed with access security, if a third party gain unauthorized access to our data, including any regarding our customers, such security breach could expose us to a risk of loss of this information, loss of business, litigation and possible liability. These security measures may be breached as a result of third-party action, including intentional misconduct by computer hackers, employee error, malfeasance or otherwise. Additionally, third parties may attempt to fraudulently induce employees or customers into disclosing sensitive information such as user names, passwords or other information in order to gain access to our customers' data or our data, including our intellectual property and other confidential

business information, or our information technology systems. Because the techniques used to obtain unauthorized access, or to sabotage systems, change frequently and generally are not recognized until launched against a target, we may be unable to anticipate these techniques or to implement adequate preventative measures. Any security breach could result in a loss of confidence by our customers, damage our reputation, disrupt our business, lead to legal liability and negatively impact our future sales.

Changes in tax rates, tax liabilities or tax accounting rules could affect future results.

As a global company, we are subject to taxation in the United States and various other countries and jurisdictions. Significant judgment is required to determine worldwide tax liabilities. Our future tax rates could be affected by changes in the composition of earnings in countries or states with differing tax rates, changes in the valuation of our deferred tax assets and liabilities, or changes in the tax laws. In addition, we are subject to regular examination of our income tax returns by the Internal Revenue Service ("IRS") and other tax authorities. From time to time the United States, foreign and state governments make substantive changes to tax rules and the application of rules to companies, including various announcements from the United States government potentially impacting our ability to defer taxes on international earnings. We regularly assess the likelihood of favorable or unfavorable outcomes resulting from these examinations to determine the adequacy of our provision for income taxes. Although we believe our tax estimates are reasonable, there can be no assurance that any final determination will not be materially different than the treatment reflected in our historical income tax provisions and accruals, which could materially and adversely affect our operating results and financial condition.

Compliance with changing regulation of corporate governance and public disclosure may create uncertainty regarding compliance matters.

Federal securities laws, rules and regulations, as well as the rules and regulations of self-regulatory organizations such as NASDAO and the NYSE, require companies to maintain extensive corporate governance measures, impose comprehensive reporting and disclosure requirements, set strict independence and financial expertise standards for audit and other committee members and impose civil and criminal penalties for companies and their chief executive officers, chief financial officers and directors for securities law violations. These laws, rules and regulations have increased and will continue to increase the scope, complexity and cost of our corporate governance, reporting and disclosure practices, which could harm our results of operations and divert management's attention from business operations. Changing laws, regulations and standards relating to corporate governance and public disclosure may create uncertainty regarding compliance matters. New or changed laws, regulations and standards are subject to varying interpretations in many cases. As a result, their application in practice may evolve over time. We are committed to maintaining high standards of ethics, corporate governance and public disclosure. Complying with evolving interpretations of new or changed legal requirements may cause us to incur higher costs as we revise current practices, policies and procedures, and may divert management time and attention from revenue generating to compliance activities. If our efforts to comply with new or changed laws, regulations and standards differ from the activities intended by regulatory or governing bodies due to ambiguities related to practice, our reputation may also be harmed.

Governmental regulations, including duties, affecting the import or export of products could negatively affect our revenues.

The United States and many foreign governments impose tariffs and duties on the import and export of products, including some of those which we sell. In particular, given our worldwide operations, we pay duties on certain products when they are imported into the United States for repair work as well as on certain of our products which are manufactured by our foreign subsidiaries. These products can be subject to a duty on the product value. Additionally, the United States and various foreign governments have imposed tariffs, controls, export license requirements and restrictions on the import or export of some technologies, especially encryption technology. From time to time,

government agencies have proposed additional regulation of encryption technology, such as requiring the escrow and governmental recovery of private encryption keys. Governmental regulation of encryption technology and regulation of imports or exports, or our failure to obtain required import or export approval for our products, could harm our international and domestic sales and adversely affect our revenues. From time to time our duty calculations and payments are audited by government agencies.

In addition, compliance with the directives of the Directorate of Defense Trade Controls ("DDTC") may result in substantial expenses and diversion of management. Any failure to adequately address the directives of DDTC could result in civil fines or suspension or loss of our export privileges, any of which could have a material adverse effect on our business or financial position, results of operations, or cash flows.

Our market is unpredictable and characterized by rapid technological changes and evolving standards demanding a significant investment in research and development, and, if we fail to address changing market conditions, our business and operating results will be harmed.

The photonics industry is characterized by extensive research and development, rapid technological change, frequent new product introductions, changes in customer requirements and evolving industry standards. Because this industry is subject to rapid change, it is difficult to predict its potential size or future growth rate. Our success in generating revenues in this industry will depend on, among other things:

maintaining and enhancing our relationships with our customers;

the education of potential end-user customers about the benefits of lasers and laser systems; and

our ability to accurately predict and develop our products to meet industry standards.

For the three months ended December 31, 2011, our research and development costs were \$18.8 million (9.8% of net sales). For our fiscal years 2011, 2010 and 2009, our research and development costs were \$81.2 million (10.1% of net sales), \$72.4 million (12.0% of net sales) and \$61.4 million (14.1% of net sales), respectively. We cannot assure you that our expenditures for research and development will result in the introduction of new products or, if such products are introduced, that those products will achieve sufficient market acceptance or to generate sales to offset the costs of development. Our failure to address rapid technological changes in our markets could adversely affect our business and results of operations.

We participate in the microelectronics market, which requires significant research and development expenses to develop and maintain products and a failure to achieve market acceptance for our products could have a significant negative impact on our business and results of operations.

The microelectronics market is characterized by rapid technological change, frequent product introductions, the volatility of product supply and demand (particularly in the semiconductor industry), changing customer requirements and evolving industry standards. The nature of this market requires significant research and development expenses to participate, with substantial resources invested in advance of material sales of our products to our customers in this market. In the event either our customers' or our products fail to gain market acceptance, or the microelectronics market fails to grow, it would likely have a significant negative effect on our business and results of operations.

Continued volatility in the semiconductor manufacturing industry could adversely affect our business, financial condition and results of operations.

A portion of our net sales in the microelectronics market depend on the demand for our products by semiconductor equipment companies. The semiconductor market has historically been characterized by sudden and severe cyclical variations in product supply and demand, which have often severely affected the demand for semiconductor manufacturing equipment, including laser-based tools and systems. The timing, severity and duration of these market cycles are difficult to predict, and we may not be able to respond effectively to these cycles. The continuing uncertainty in this market severely limits our ability to predict our business prospects or financial results in this market.

During industry downturns, our revenues from this market may decline suddenly and significantly. Our ability to rapidly and effectively reduce our cost structure in response to such downturns is limited by the fixed nature of many of our expenses in the near term and by our need to continue our investment in next-generation product technology and to support and service our products. In addition, due to the relatively long manufacturing lead times for some of the systems and subsystems we sell to this market, we may incur expenditures or purchase raw materials or components for products we cannot sell. Accordingly, downturns in the semiconductor capital equipment market may materially harm our operating results. Conversely, when upturns in this market occur, we must be able to rapidly and

effectively increase our manufacturing capacity to meet increases in customer demand that may be extremely rapid, and if we fail to do so we may lose business to our competitors and our relationships with our customers may be harmed.

Failure to maintain effective internal controls may cause a loss of investor confidence in the reliability of our financial statements or to cause us to delay filing our periodic reports with the SEC and adversely affect our stock price.

The SEC, as directed by Section 404 of the Sarbanes-Oxley Act of 2002, adopted rules requiring public companies to include a report of management on internal control over financial reporting in their annual reports on Form 10-K that contain an assessment by management of the effectiveness of the Company's internal control over financial reporting. In addition, our independent registered public accounting firm must attest to and report on the effectiveness of our internal control over financial reporting. Although we test our internal control over financial reporting in order to ensure compliance with the Section 404 requirements, our failure to maintain adequate internal controls over financial reporting could result in an adverse

reaction in the financial marketplace due to a loss of investor confidence in the reliability of our financial statements or a delay in our ability to timely file our periodic reports with the SEC, which ultimately could negatively impact our stock price.

Provisions of our charter documents and Delaware law, and our Change-of-Control Severance Plan may have anti-takeover effects that could prevent or delay a change in control.

Provisions of our certificate of incorporation and bylaws may discourage, delay or prevent a merger or acquisition or make removal of incumbent directors or officers more difficult. These provisions may discourage takeover attempts and bids for our common stock at a premium over the market price. These provisions include:

the ability of our Board of Directors to alter our bylaws without stockholder approval;

4 imiting the ability of stockholders to call special meetings; and

establishing advance notice requirements for nominations for election to our Board of Directors or for proposing matters that can be acted on by stockholders at stockholder meetings.

We are subject to Section 203 of the Delaware General Corporation Law, which prohibits a publicly-held Delaware corporation from engaging in a merger, asset or stock sale or other transaction with an interested stockholder for a period of three years following the date such person became an interested stockholder, unless prior approval of our board of directors is obtained or as otherwise provided. These provisions of Delaware law also may discourage, delay or prevent someone from acquiring or merging with us without obtaining the prior approval of our board of directors, which may cause the market price of our common stock to decline. In addition, we have adopted a change of control severance plan, which provides for the payment of a cash severance benefit to each eligible employee based on the employee's position. If a change of control occurs, our successor or acquirer will be required to assume and agree to perform all of our obligations under the change of control severance plan which may discourage potential acquirors or result in a lower stock price.

# ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

There were no sales of unregistered securities during the first quarter of fiscal 2012.

Stock repurchases during the three months ended December 31, 2011 were as follows:

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Dollar Value that May Yet Be Purchased Under the Plans or Programs (1)
October 2, 2011 - October 29, 2011	334,200	\$45.28	334,200	\$9,852,000
October 30, 2011 - November 26, 2011	26,100	\$47.96	26,100	\$8,600,000
November 27, 2011 - December 31, 2011	90,200	\$47.30	90,200	\$4,333,000
Total	450,500	\$45.84	450,500	\$4,333,000

(1) On August 25, 2011, we announced that the Board of Directors had authorized the repurchase of up to \$50.0 million of our common stock. The timing and size of any purchases will be subject to market conditions. The program is authorized for 12 months from the date of authorization.

# ITEM 5. OTHER INFORMATION

None

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### ITEM 6. EXHIBITS

Exhibit No.	Description
10.1‡	Coherent, Inc. 2005 Deferred Compensation Plan, as amended.
31.1	Certification of Chief Executive Officer pursuant to Exchange Act Rule 13a-14(a)/15d-14(a) as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Chief Financial Officer pursuant to Exchange Act Rule 13a-14(a)/15d-14(a) as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS*	XBRL Instance Document
101.SCH*	XBRL Taxonomy Extension Schema
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase
101.DEF*	XBRL Taxonomy Extension Definition Linkbase
101.LAB*	XBRL Taxonomy Extension Label Linkbase
101.PRE*	XBRL Taxonomy Extension Presentation Linkbase

Identifies management contract or compensatory plans or arrangements required to be filed as an exhibit.

In accordance with Rule 406T of Regulation S-T, the information in these exhibits is furnished and deemed

\* not filed or part of a registration statement or prospectus for purposes of sections 11 or 12 of the Securities Act of 1933, is deemed not filed for purposes of section 18 of the Exchange Act of 1934, and otherwise is not subject to liability under these sections.

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COHERENT, INC.

### **SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this Report to be signed on its behalf by the undersigned, thereunto duly authorized.

Coherent, Inc. (Registrant)

Date: February 8, 2012 /s/: JOHN R. AMBROSEO

John R. Ambroseo

President and Chief Executive Officer

(Principal Executive Officer)

Date: February 8, 2012 /s/: HELENE SIMONET

Helene Simonet

**Executive Vice President and Chief** 

Financial Officer

(Principal Financial and Accounting

Officer)

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