

CYBEROPTICS CORP  
Form 10-K  
March 10, 2009  
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**SECURITIES AND EXCHANGE COMMISSION**

WASHINGTON, D.C. 20549

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**FORM 10-K**

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ANNUAL REPORT PURSUANT TO SECTION 13 or 15(d) of the Securities Exchange Act of 1934 for the Year Ended December 31, 2008.

TRANSITION PURSUANT TO SECTION 13 or 15(d) of the Securities Exchange Act of 1934 for the transition period from \_\_\_\_\_ to \_\_\_\_\_.

COMMISSION FILE NO. (0-16577)

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**CYBEROPTICS CORPORATION**

(Exact name of registrant as specified in its charter)

**Minnesota**

(State or other jurisdiction of incorporation or organization)

**41-1472057**

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

**5900 Golden Hills Drive**

**MINNEAPOLIS, MINNESOTA**

(Address of principal executive offices)

**55416**

(Zip Code)

**(763) 542-5000**

(Registrant's telephone number, including area code)

**Securities registered pursuant to Section 12(b) of the Exchange Act: Title of each class: Common Stock, no par value Name of Exchange: NASDAQ Stock Market LLC**

**Securities registered pursuant to Section 12(g) of the Exchange Act: None**

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Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

YES  NO

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Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.

YES  NO

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405 of this chapter) 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.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company.

Large accelerated filer  Accelerated filer  Non-accelerated filer  Smaller Reporting Company

Indicate by checkmark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

YES  NO

State the aggregate market value of the voting and non-voting common equity held by non-affiliates computed by reference to the price at which the common equity was last sold, or the average bid and asked price of such common equity, as of the last business day of the registrant's most recently completed second fiscal quarter: \$76,986,850.

As of February 28, 2009, there were 6,769,295 shares of the registrant's Common Stock, no par value, issued and outstanding.

## DOCUMENTS INCORPORATED BY REFERENCE:

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## **PART I.**

### **ITEM 1. DESCRIPTION OF BUSINESS**

#### **Background**

CyberOptics® Corporation was founded in 1984 by Dr. Steven K. Case (Chairman of the Board of CyberOptics and full-time employee), a former professor at the University of Minnesota, with the goal of commercializing technology for non-contact three-dimensional sensing. Our headquarters are located at 5900 Golden Hills Drive in Golden Valley, Minnesota. Our website address is [www.cyberoptics.com](http://www.cyberoptics.com). You can access, free of charge, our filings with the Securities and Exchange Commission, including our annual report on Form 10-K, our quarterly reports on Form 10-Q, current reports on Form 8-K and any other amendments to those reports, at our website, or at the Commission's website at [www.sec.gov](http://www.sec.gov). Proxy materials for our upcoming 2009 annual shareholders meeting to be held on May 18, 2009 may be accessed electronically via the internet at the following address: <http://www.idelivercommunications.com/proxy/cybe>.

We are a leading global supplier of optical process control sensors and inspection systems that are used to control the manufacturing process and to ensure the quality of electronic circuit boards manufactured by our customers using surface mount technology (SMT). We also manufacture and sell sensors that assist with yield improvement, and the placement and transport of wafers during semiconductor fabrication. Our products assist the global SMT and semiconductor industries in meeting the rigorous quality demands for printed circuit board assembly and semiconductor wafers. Using a variety of proprietary technologies such as lasers, optics and machine vision, combined with software, electronics and mechanical design, our products enable manufacturers to increase production volume, product yields and quality by measuring the characteristics and placement of components both during and after the manufacturing process.

Our business is organized in two operating segments. Our Electronic Assembly segment designs, manufactures and sells optical process control sensors and inspection systems for the electronic assembly equipment market. Our Semiconductor segment designs, manufactures and sells optical and other process control sensors and related equipment for the semiconductor capital equipment market.

Most of our products (88% of revenue in 2008) are developed and sold for use in SMT electronic circuit board assembly or with equipment used in SMT electronic circuit board assembly as part of our Electronic Assembly segment. We sell products in this market both as sensor components that are incorporated into products manufactured by other companies for sale to circuit board assembly companies, and as more complete systems that are sold directly to circuit board assembly companies. Our sensor products are sold to manufacturers of pick-and-place machines to align electronic surface mount components during placement on the circuit board and to solder paste printer companies to align stencils with circuit boards. Our systems products are sold to contract manufacturers and other companies with surface mount assembly lines, to control quality as in-line systems. These system level products are used by manufacturers of circuit boards to measure screen printed solder paste, to inspect circuit boards and components after component placement, to confirm proper placement after full assembly of circuit boards and to inspect solder joints on printed circuit boards. Manufacturers of DRAM memory also use our system products to inspect assembly of their memory modules.

Our Semiconductor segment develops and sells products that assist with yield improvement in semiconductor fabrication, and for use with the robotic equipment that handles semiconductor wafers during the semiconductor fabrication process. In addition, we sell a frame grabber product line for general industrial applications. These product lines are sold through CyberOptics Semiconductor, Inc. which was formed from the combination of HAMA Sensors, Inc. and Imagenation® Corporation, companies acquired in 1999 and 2000. Semiconductor products were

12% of total revenues in 2008.

### **Market Conditions Recent Developments of the Business**

Our operations are heavily influenced by market conditions in worldwide electronics markets, and particularly in the SMT electronic assembly segment of these markets. Historically, these markets have been very cyclical, with periods of strong growth followed by periods of excess capacity and reduced levels of capital spending.

Our results were favorably impacted in 2006 and 2007 as our markets experienced periods of strong demand, with revenue hitting a peak in the third quarter of 2007. Following this period of strong demand, our revenue declined sequentially each quarter throughout 2008, as our results were negatively impacted by reduced levels of capital spending for electronic manufacturing capacity brought about by deepening weakness in the global economy. The weakness in the United States capital markets caused by the deepening global recession, as well as our reduced level of profitability, caused a significant drop in our market capitalization, resulting in a \$3.9 million non-cash pre-tax goodwill impairment charge in the fourth quarter of 2008. We presently anticipate that significant weakness in our markets and the global economy will continue, at least through the first half of 2009.

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In addition to the impact of global economic conditions on our sales, we have determined not to pursue new alignment products for use with future generations of equipment being developed by Assembleon. Sales of alignment products to Assembleon constituted 10% of revenue in 2008. Assembleon has informed us that they currently plan to start transitioning away from our alignment products in the third quarter of 2009, with the transition continuing into the second quarter of 2010.

In February 2008, we announced plans to move a significant portion of our systems related product development and manufacturing for all system products to Singapore, the location of our Asian sales office. The transition of systems related product development to Singapore was substantially complete by the end of the fourth quarter of 2008. We anticipate that the transition of manufacturing for our system products will be complete by the middle of 2009. These moves will allow us to become more responsive to the needs of our growing base of Asian SMT systems customers, permit our core Minneapolis based optical engineering resources to work on future OEM opportunities, and attain significant cost savings.

In response to the significant weakness in our markets and the global economy, and also due to our transition of a significant portion of our business to Singapore, we will have reduced our workforce by approximately 50 employees or 25% from the start of the fourth quarter of 2008 through the end of the second quarter of 2009. Other cost saving measures include salary reductions of 12% for all officer and internal director level positions, 10% for other employees with salaries exceeding \$100,000 and a smaller percentage reduction for employees with salaries ranging between \$35,000 and \$100,000. In addition, we will also reduce spending for non-labor costs such as travel, supplies and the like.

Consistent with our past practice, we continue to invest heavily in new product development for both our electronic assembly sensor and inspection system products and our WaferSense semiconductor products. We expect this trend to continue in 2009, even given the current weak global economic conditions.

Late in 2006 we completed development of our 5<sup>th</sup> generation LaserAlign sensor for the industry leading line of pick-and-place machines of Juki Corporation. The new sensor provides Juki with a 25% throughput improvement, alignment capability for the smallest components, improved reliability and the lowest cost of ownership. Sales to Juki accounted for 21% of our total revenue in 2008. We believe that the introduction of this new sensor will help ensure that Juki remains a significant customer for the foreseeable future.

Within the last three years, we have introduced an enhanced version of our Flex series automated optical inspection (AOI) system, the Flex Ultra. We subsequently introduced the Flex Ultra HR, a new version of our Flex Ultra system that provides higher image resolution for the smaller component sizes used in the latest electronic devices. We have made continual improvements to both our Flex AOI and industry leading SE 300 solder paste inspection system products to improve speed, measurement performance, reliability and ease of use, including simplified operator interfaces with foreign language capability.

We expect to introduce our next-generation solder paste inspection system, as scheduled, in the second quarter of 2009. To be manufactured in Singapore and based on a new cost-reduced platform, it will be the fastest and most accurate solder paste inspection system available on the market. We believe this system will have capabilities not available on our current SE 300, thus strengthening our competitive position in the inspection market. In early 2009, we will also start working on our next generation automated optical inspection (AOI) system.

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We are continuing to pursue several promising R&D initiatives for our inspection technology. Our efforts related to these projects are aimed at lowering the cost of inspection, while providing faster production through-put speeds, better ease of use, and improved resolution for inspecting progressively smaller electronic components. Reflecting our progress, we have signed an OEM contract in third quarter of 2008 for our embedded inspection technology. We expect to generate revenue from this contract starting in 2010. We are currently pursuing several other promising business opportunities for this technology as well.

We have introduced and continue to develop various new sensors for our WaferSense family of precision measurement tools, including new automated leveling, gapping, teaching, vibration and particle detection sensors to assist with process optimization and yield improvement in the semiconductor fabrication process.

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#### **Objective**

Our objective is to develop complete surface mount technology process control solutions for our customers. We intend to build upon our innovative products in systems for solder paste inspection, automated optical inspection and component alignment, with new sensing products that will be embedded inside SMT production equipment. We eventually intend to tie these products together as a full-line process control solution. We believe our new embedded process verification (EPV) sensor will eventually gain acceptance among manufacturers of pick and place machines as a further enhancement to inspection and control. Our research and development efforts are creating new inspection technologies for both OEM and end user markets which we believe will lower the cost of inspection and provide faster production through-put speeds, better ease of use, and improved resolution for inspecting progressively smaller electronic components. In addition, we expect that our research and development efforts will have applicability to new markets, including solar wafer manufacturing and printed electronics, among others.

During the last several years, our Semiconductor segment continued to invest in our WaferSense product line, a family of wireless, wafer like precision measurement tools for in-situ setup, calibration and process optimization in semiconductor processing equipment. Our first WaferSense product, the Automatic Leveling Sensor (ALS) was introduced late in 2004. During 2007 and 2008, we introduced several new additions to the WaferSense family of products, including gapping, teaching and vibration sensors that will improve up-time and yield for semiconductor manufacturers.

We established a sales office in Singapore in 2001 and in China in 2004 to further penetrate the growing market for manufacturing production equipment in Asia and to increase the percentage of worldwide production lines that use inspection in their production process to improve production yields and reduce cost. In order to bring our development and manufacturing closer to these markets, to reduce cost and to free development personnel at our home office in Minneapolis to focus on sensor technology development, we initiated a plan in 2008 to transition a portion of our development, and all manufacturing operations for our systems products, to Singapore. The transition of our systems related product development to Singapore was substantially complete by the end of 2008. We anticipate that transition of manufacturing operations for all of our system products to Singapore will be complete by the middle of 2009. During 2008 we entered into a new lease for a larger facility in Singapore to accommodate all of our development, manufacturing and sales office activities located in that country.

Our ability to implement our strategy effectively is subject to numerous uncertainties and risks, including the risks identified in Item 1A of this Annual Report on Form 10-K. We cannot assure you that our efforts will be successful.

#### **OPERATIONS AND PRODUCTS**

We develop, manufacture and sell intelligent, non-contact sensors and systems for process control and inspection. Our products are used primarily in the SMT electronic assembly and semiconductor fabrication sectors of the electronics industry and enable manufacturers to increase operating efficiencies, product yields and quality. In addition to proprietary hardware designs that combine precision optics, various light sources and multiple detectors, our products incorporate software that controls the hardware and filters and converts raw data into application specific information. Our product offerings are sold both to original equipment manufacturers that supply the SMT and semiconductor fabrication industries and to end-user customers who use our SMT systems products directly for process and quality control in the circuit board manufacturing process.

##### **SMT Electronic Assembly Sensors**

Our SMT electronic assembly sensor product line, which has generated the largest component of our sales during the past ten years, is a family of sensors that uses similar technology, but that are customized for each customer and incorporated into the equipment manufactured by our customers for use in SMT circuit board assembly. We work closely with our original equipment manufacturer customers to integrate sensors

into their equipment.

Sales of these products, including service repairs, to Juki Corporation accounted for approximately 21% of our revenue in 2008 and 28% of our revenue in 2007. Sales of these products, including service repairs, to Assembleon B.V., accounted for approximately 15% of our revenue in 2008 and 20% of our revenue in 2007. Accordingly, revenues and operations are currently heavily influenced by the level of purchases from these two customers and by the cyclical nature of the SMT production industry.

We have decided not to pursue new alignment sensor products for use with evolving pick and place technology being developed by one of our key OEM customers, Assembleon, for future generations of its equipment. Sales of alignment sensors to Assembleon (consisting of LaserAlign sensors and board alignment cameras) constituted 10% of revenue in 2008. Assembleon has informed us that they currently plan to start transitioning away from our sensor products in the third quarter of 2009, with the transition continuing into the second quarter of 2010. We anticipate that we will continue to repair older generations of our products for Assembleon, so repair revenue will continue into the future. We will continue to work with current and prospective new customers to integrate our new OEM inspection technologies into their platforms.

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**LaserAlign.** Our LaserAlign sensor family has accounted for the vast majority of sales in the SMT electronic assembly sensors product line. These sensors are sold for incorporation into component placement machines used in the SMT production line that are manufactured by a number of different OEM customers.

The LaserAlign family of products aligns extremely small surface mount components, known as chip capacitors and resistors during transport on a pick-and-place machine prior to placement on a circuit board. LaserAlign sensors are incorporated into the placement heads of component placement machines to ensure accurate component placement at high production speeds. Various high-speed component placement machines use between one and twenty LaserAlign sensors per machine. LaserAlign integrates an intelligent sensor, composed of a laser, optics and detectors with a microprocessor and software for making specific measurements. LaserAlign enables quick and accurate alignment of each component as it is being transported by the pick-and-place arm for surface mount assembly. Using non-contact technology, LaserAlign facilitates orientation and placement of components at higher speeds than can be achieved using conventional mechanical or machine vision component centering systems.

The LaserAlign sensor is offered in several different configurations to satisfy the requirements of the different machines on which it is used. The latest version of the LaserAlign sensor technology was introduced in 2006 in a 5<sup>th</sup> generation sensor for Juki Corporation. Revenue from new product shipments of LaserAlign sensors has been a principal contributor to our growth during the past five years and accounted for 26% of our revenue in 2008, 35% in 2007 and 36% in 2006.

**BoardAlign Camera (BA Camera).** The BA Camera, which is incorporated directly into the placement head of component placement machines, identifies fiducial markings on a circuit board and aligns the board in the component placement machine prior to component placement. The BA Camera was introduced in a sensor for Assembleon B.V. during 2003 to be incorporated into their latest version component placement machine. Revenue from shipments of BA Camera sensors to Assembleon B.V. accounted for 6% of our revenue in 2008, 7% in 2007 and 6% in 2006.

**InPrinter Inspection Camera.** The InPrinter Inspection Camera, which is mounted directly in screen printers manufactured by DEK International GmbH, identifies fiducial markings on a circuit board to ensure accurate board registration prior to placement of solder paste, as well as to provide an upgraded capability for 2D solder paste and stencil inspection. The InPrinter Inspection Camera was introduced for DEK International GmbH during the third quarter 2005. Revenue from shipments of the InPrinter Inspection Camera accounted for 5% of our revenue in 2008 and 4% of our revenue in both 2007 and 2006.

## **SMT Systems Products**

Our SMT systems product line consists of stand-alone measurement and inspection systems used in the SMT electronic assembly industry for process control and inspection. These systems are sold directly to end-user manufacturing customers that use them in a production line or along-side a production line to maintain process and quality control. Our products incorporate proprietary sensors as well as substantial, off the shelf, translation or robotics hardware and complete computer systems or processors with internally developed software.

**SE 300 Ultra.** We introduced the SE 300, our first in-line solder paste measurement machine, in March 2000. During 2005, we introduced the SE 300 Ultra, an enhanced version of our SE 300 product that offers faster inspection speeds, a conveyor that can accommodate a greater range of board sizes than the SE 300, flexible conveyor options and additional defect review options in run-time software. In addition, we introduced a sensor upgrade for the SE 300 that will provide some of the performance improvements that are available in the SE 300 Ultra.

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The SE 300 Ultra is an in-line system that measures in three dimensions the amount of solder paste applied to the circuit board after the first step of the SMT assembly process. Because of the small size of the components that must be placed on each pad of solder paste and the density of components placed on the circuit board, a significant amount of SMT assembly problems are related to the quality of solder paste deposition. Misplaced solder paste or excess or inadequate amounts of paste can lead to improper connections or bridges between leads causing an entire circuit board to malfunction. The SE 300 Ultra inspects the height, area and volume of 100% of a circuit board at production line speeds and with resolution that allows it to measure the smallest chip scale packages and micro ball array component sites. The SE 300 Ultra can be integrated into most SMT production lines, providing real time quality control immediately after a printed circuit board leaves the screen printer and before component placement commences.

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We have continued to enhance the SE 300 Ultra to improve speed, reliability and ease of use, including simplified operator interfaces with foreign language capability, to provide an inspection capability for flexible circuits, and to offer a MicroPad sensor as an option to improve inspection measurement performance for the smallest solder paste deposits. In 2007, we started work on our next generation system product for solder paste inspection. Introduction of this machine, which incorporates a cost-reduced platform with enhanced performance, is scheduled for introduction during the second quarter of 2009. We believe that this system will be the fastest and most accurate solder paste inspection system available on the market and that it will strengthen our competitive position in the inspection market.

Revenues from shipments of the SE 300, SE 300 Ultra and sensor upgrades accounted for 24% of our revenue in 2008, 23% of our revenue in 2007 and 20% in 2006.

**Automated Optical Inspection (Flex Ultra and Flex Ultra HR) Products.** The Flex Ultra series of Automated Optical Inspection (AOI) products were initially introduced in the fourth quarter of 2000 and incorporate technology acquired from Kestra, Ltd. in 1999. Our Flex Ultra products allow for a variety of machine configurations (different number of cameras based on board size and resolution requirements) based on customer needs. These in-line products measure and inspect circuit boards after component placement to determine whether all components are present, that all components have been placed correctly and measure the quality of solder joints after reflow. These products incorporate high-resolution color cameras for improved imaging, and are designed to inspect the placement of the smallest components on circuit boards. The principal advantage of the Flex Ultra series of AOI products is the low level of false calls at in line speeds compared to other AOI machines.

We have introduced a number of versions of the Flex series AOI products since their initial introduction in 2000. The latest Flex version introduced in 2007, the Flex Ultra HR, is capable of inspecting down to 0105 components with 5.0 megapixel camera technology. We continue to sell both our Flex Ultra and Flex Ultra HR products. Flex Ultra HR offers improved imaging resolution, while Flex Ultra offers faster inspection speeds than the Flex Ultra HR. In early 2009, we will also start working on our next generation automated optical inspection (AOI) system.

Revenues from shipments of the Flex and Flex Ultra accounted for 15% of our revenue in 2008, 12% of our revenue in 2007 and 11% in 2006.

### **Semiconductor Products**

Our principal semiconductor products, the WaferSense family of products, are a series of wireless sensors that provide measurements of critical factors in the semiconductor fabrication process. Other semiconductor products include sensors that inspect the presence and orientation of semiconductor wafers in cassettes and FOUPS during the fabrication process, and frame grabber and machine vision subsystems that were developed and sold by Imagenation Corporation, a company we acquired in 2000. We sell our semiconductor products to both original equipment manufacturers and to end-user customers through a network of distributors. Sales of our semiconductor products constituted 12% of our revenue in 2008, 9% of our revenue in 2007, and 10% in 2006.

**WaferSense Sensors.** Our WaferSense family of sensors are intended to go where wafers go in semiconductor fabrication and provide measurements of critical factors that are currently impossible or extremely difficult to obtain without powering down the fabrication process equipment.

We introduced our first WaferSense product, the automatic leveling sensor (ALS), a level calibration tool for semiconductor process tools, in late 2004. The WaferSense ALS is a wireless, vacuum-compatible sensor that can be placed in cassettes, FOUPS, on end effectors, aligners, in load locks and process chambers used in semiconductor fabrication to ensure that all stations are level and coplanar. We have continued to enhance our WaferSense ALS products and recently introduced a thinner version of WaferSense ALS.

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In 2007, we introduced three new products in the WaferSense family, the automatic gapping sensor (AGS), the automatic teaching sensor (ATS) and the automatic vibration sensor (AVS). AGS is a gapping tool that measures the gap in three places between the shower head and pedestal in semiconductor process equipment. The automatic teaching sensor (ATS), measures X-Y-Z offset from robotic transfers of wafers to the pedestal in semiconductor process equipment. The amount of gap and offset after robotic transfer of wafers to the shower pedestal can affect film thickness and uniformity when material is deposited on semiconductor wafers, impacting quality and product yields. The automatic vibration sensor (AVS) measures X-Y-Z acceleration for shock and vibration, which can generate wafer particles, scratches or wafer breakage, thereby reducing yield. Because the user is not required to break down semiconductor fabrication equipment when using our WaferSense products, we believe significant time is saved and accuracy is increased compared to the manual techniques currently used by many customers when checking the process parameters measured by our WaferSense products. As a result, up-time, through-put and process yield for semiconductor fabrication equipment is improved.

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In 2008 we continued to make improvements to our existing WaferSense products and also started development of additional products for the WaferSense family, including a particle detection sensor.

**Wafer Mapping and Alignment Sensors.** We manufacture and sell laser based reflective sensors that improve the performance of robotic wafer handling equipment. During the fabrication process, semiconductor wafers are stored in slotted cassettes during transport to various fabrication tools. Robotic equipment removes the wafers from the cassettes and inserts them into a fabrication tool. Our wafer mapping sensors inspect for the presence of wafers in the cassettes and determine if the wafer is properly present and located in the cassette. We introduced an improved version of the wafer mapper product, the EXQ mapper, in late 2003, and a new smaller form factor of this product, the EXQS, in 2005.

**Frame Grabber Products and Machine Vision Subsystems.** Frame grabber products are a machine vision component that captures, digitizes, and stores video images. These products are currently sold into a broad array of applications in a number of different industries, with strategic emphasis on semiconductor customers. We offer both digital and analog versions of frame grabbers under the Imagenation brand.

### **Markets and Customers**

We sell the vast majority of our products into the electronics manufacturing market (88% of total revenues in 2008); particularly the portion servicing manufacturers doing SMT circuit board assembly. The value of automation is high in this market because the products produced have high unit costs and are manufactured at speeds too high for effective human intervention. Moreover, the trend in these industries toward smaller devices with higher circuit densities, smaller circuit paths and extremely small components requires manufacturing and testing equipment capable of extremely accurate alignment and multidimensional measurement such as achieved using non-contact optical sensors. Customers in these industries also employ knowledgeable engineers who are competent with computer-related equipment. Our LaserAlign products are sold to OEMs serving this market and the SE 300 Ultra, Flex Ultra and Flex Ultra HR inspection systems are sold to end-user electronic assembly manufacturers in this market.

We sell our semiconductor products into the semiconductor capital equipment market for use in the fabrication of semiconductor devices. This market has many of the same characteristics as the SMT electronics assembly market and requires non-contact optical measurement tools that enable the production of more complex, higher density and smaller semiconductor devices. We sell our wafer mapping and alignment sensors to manufacturers of equipment that transport wafers during the semiconductor manufacturing (front-end fabrication) process. Our WaferSense family of precision measurement tools for process optimization in semiconductor processing equipment is sold directly to semiconductor fabrication facilities for use by process and equipment engineers during the production of semiconductor wafers.

A large proportion of our end-user SMT system sales are being originated in the low cost geographies of Asia where a significant portion of the new worldwide production capacity for circuit board assembly has been added. Consequently, most capital equipment suppliers are increasing their sales and operational capabilities in Asia to pursue sales in this market. In response, we opened our Singapore office in 2001 to support SMT systems sales throughout Asia and opened a sales office in China in October 2004. This market is also important to our OEM electronic assembly sensor product lines as our OEM customers are looking to sell their pick-and-place equipment into this market.

In February 2008, in part to be more responsive to our growing base of Asian SMT systems customers, we announced plans to move a portion of our systems related product development and all manufacturing for our system products to Singapore, the location of our Asian sales office. The move of systems related product development to Singapore was substantially complete by the end of 2008. We anticipate that the transition of all manufacturing operations for our system products will be complete by the middle of 2009.



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We sell our products worldwide to many of the leading manufacturers of electronic circuit board assembly equipment, manufacturers of semiconductor DRAM memory, semiconductor capital equipment manufacturers and end-user electronic assembly manufacturers, including Asian original design manufacturers (ODM s) and EMS s, who manufacture cell phones, notebook computers and server boards, among other electronic devices. Although we maintain sales offices in the UK, Singapore and China, all manufacturing of our products through the end of 2008 occurred in the United States and all sales originate in the United States. Singapore based manufacturing of SMT systems is expected to commence in the first quarter of 2009 and be completely transitioned to Singapore by the middle of 2009.

Export sales represented a large percentage of our total sales from 2006 to 2008 as the result of the majority of new worldwide electronics and semiconductor capacity being added outside the United States. In addition, a significant portion of our export sales to Europe are OEM electronic assembly sensors that ultimately are sold by our OEM customer into Asia.

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The following table sets forth the percentage of total sales revenue represented by total export sales (sales for delivery to countries other than the United States, including sales delivered through distributors) by location during the past three years:

	Year Ended December 31,		
	2008	2007	2006
Asia	49%	51%	50%
Europe	33%	34%	33%
Other (1)	4%	2%	1%

(1) Includes export sales in the Americas, primarily export sales to Canada, Mexico and Latin America. See Note 11 to the Company s Consolidated Financial Statements contained in item 8 of this Form 10-K.

All export sales are negotiated, invoiced and paid in U.S. dollars. Accordingly, although changes in exchange rates do not affect revenue and income per unit, they can influence the willingness of customers to purchase units.

### **Sales and Marketing**

Our electronic assembly sensors are sold to large OEM customers by direct sales staff located in Minnesota. Our systems products are primarily sold through independent representatives and distributors managed by direct sales personnel located in Minnesota, as well as in the UK, Singapore and China. We have agreements with 14 representatives and distributors in North and South America who focus primarily on SMT systems products sold to end-users. We make most of our sales to international end-users of systems products through 26 representatives and distributors covering Europe (15) and the Pacific Rim (11).

We have established a worldwide sales representative organization for our WaferSense semiconductor products. We currently have agreements in place or in process with sales representatives in the U.S. (3), Europe (3) and the Pacific Rim (7). Most of these sales representatives will also be authorized to sell wafer mapping semiconductor products. Our wafer mapping semiconductor products are sold to large OEM customers by a direct sales staff located in Oregon. We sell our semiconductor frame grabber products through direct sales staff located in Portland, Oregon, and through 13 sales representatives throughout the world. These representatives are not under contract, but are authorized to sell frame grabber products and in many cases act as system integrators for our products.

We market our products through appearances at industry trade shows, advertising in industry journals, articles published in industry and technical journals and on the Internet. In addition, we have strategic relationships with certain key customers that serve as highly visible references.

### **Backlog**

Our products are typically shipped two weeks to two months after the receipt of an order. Product backlog was \$3.9 million at December 31, 2008, compared to \$6.1 million on December 31, 2007, and \$6.9 million on December 31, 2006. Backlog at December 31, 2008 totaling \$3.3 million is deliverable in the first quarter of 2009. Sales of some surface mount technology (SMT) products may require customer acceptance due to performance or other acceptance criteria included in the terms of sale. For these SMT product sales, revenue is recognized at the time of customer acceptance. Although our business is generally not of a highly seasonal nature, sales may vary based on the capital

procurement practices in the electronics and semiconductor industries. For example, production capacity expansion for anticipated holiday or back to school demands can impact our revenue. In addition, New Year celebrations in Asia may have some impact on first quarter sales. We are not able to quantify with any level of precision, the impact of these events on our sales in any given quarterly period. Our scheduled backlog at any time may vary significantly based on the timing of orders from OEM customers. Accordingly, backlog may not be an accurate indicator of performance in the future.

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**Research and Development**

We differentiate our products primarily on the basis of customer benefits afforded by the use of clever and proprietary technology and on our ability to combine several different technical disciplines to address industry and customer needs. CyberOptics was founded by research scientists and has retained relationships with academic institutions to ensure that the most current information on technological developments is obtained. In addition, we actively seek ongoing strategic customer relationships with leading product innovators in our served markets and actively investigate the needs of, and seek input from, these customers to identify opportunities to improve manufacturing processes. Our engineers have frequent interactions with our customers to ensure adoption of current technologies. In some instances, we receive funding from these customers through development contracts that provide the customer with an exclusive selling period but allow us to retain technology and distribution rights.

We believe that continued and timely development of new products and enhancements to existing products is essential to maintaining our industry leading position in the market. As a technology based company, we commit substantial resources to research and development efforts, which play a critical role in maintaining and advancing our position as a leading provider of optical sensors and systems. During 2006 through 2008, research and development efforts were focused on a number of development activities, including a 5<sup>th</sup> generation LaserAlign sensor for Juki, continued development of our Embedded Process Verification (EPV®) technology initiative, and continued development of and enhancements to the SE and Flex series inspection systems, including our SE 300 Ultra solder paste inspection system, new Flex Ultra and Flex Ultra HR automated optical inspection systems and a next generation system product for solder paste inspection scheduled for introduction in the second quarter of 2009.

Throughout the last several years, we have continued to development our WaferSense family of precision measurement tools, including new automated leveling, gapping, teaching and vibration sensors to assist with process automation and yield improvement in the semiconductor fabrication process, along with development of other new planned product additions for the WaferSense family.

Research and development expenses were \$10.4 million in 2008, \$9.8 million in 2007 and \$8.1 million in 2006. These amounts represented 23% of revenues in 2008, 17% of revenues in 2007 and 14% of revenues in 2006. Research and development expenses consist primarily of salaries, project materials, contract labor and other costs associated with ongoing product development and enhancement efforts. Research and development resource utilization is centrally managed based on market opportunities and the status of individual projects. We expect research and development expenses in 2009 to decrease as our transition of a portion of our development for systems to Singapore is now complete, eliminating further transition expense and reducing our overall cost structure. In addition, the workforce reductions we initiated in November 2008 and February 2009 will also reduce development costs in 2009.

**Manufacturing**

Much of our product manufacturing, which is primarily circuit board manufacturing, lens manufacturing and metal parts production, is contracted with outside suppliers. Our production personnel inspect incoming parts, assemble sensor heads and calibrate and perform final quality control testing of finished products. Our products are not well suited for the large production runs that would justify the capital investment necessary for complete internal manufacturing.

Both our electronic assembly sensor products and SMT systems products were assembled in Minneapolis, Minnesota through the end of 2008. Although we continue to manufacture sensor products in Minneapolis, all SMT system products will be manufactured in Singapore by the middle of 2009. We believe that sourcing of mechanical components for our system products in Asia and distribution of these products from Singapore to our customers, the majority of whom are located in Asia, will be less expensive than if we continued these activities at our U.S. headquarters facility. Our semiconductor products were assembled in Portland, Oregon through the end of 2008. We intend to transition the assembly of these products to our Minneapolis Minnesota headquarters facility by the middle of 2009.

A variety of components used in our products are available only from single sources and involve relatively long order cycles, in some cases over one year. We believe we have identified alternative assembly contractors for most of our subassemblies. Use of those alternative contractors could require substantial rework of the product designs, resulting in periods during which we could not satisfy customer orders. An

actual change in such contractors would likely require a period of training and testing. Accordingly, an interruption in a supply relationship or the production capacity of one or more of such contractors could result in the inability to deliver one or more products for a period of several months. To help prevent delays in the shipment of our products, we maintain in inventory, or on scheduled delivery from suppliers, what we believe to be a sufficient amount of certain components based on forecasted demand (forecast extends a minimum of 6 months).

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**Competition**

Although we believe that our products offer unique capabilities, competitors offer technologies and systems that perform some of the visual inspection and alignment functions performed by our products. We face competition from a number of companies in the machine vision, image processing and inspection systems market, some of which are larger and have greater financial resources.

Our electronic assembly sensor products face competition in the market for alignment and inspection on OEM component placement machines primarily from manufacturers of vision (camera and software based) systems. Potential competitors in these markets include Cognex Corporation and Electro Scientific Industries, Inc. We compete in this market based on our ability to custom design products with stringent physical form requirements, speed, flexibility, cost and ease of control. In addition, our products compete with systems developed by OEMs using their own design staff for incorporation into their products. Our electronic assembly sensor products have historically competed favorably on the basis of these factors, and particularly on the basis of speed and product cost. We believe our sensor products are also better suited to align the smaller electronic component sizes currently available in the market. Nevertheless, advances in terms of speed by vision systems have reduced some of the advantages of our products in some configurations. We have introduced newer configurations adapted by several customers that we believe allow our sensors, and the component placement machines in which they are incorporated, to compete favorably based on the speed and accuracy of their performance, and their price. In addition, we are expanding our focus to incorporate additional inspection capabilities into our sensors, including our embedded process verification (EPV) technology initiative, which could give us a competitive advantage in this market.

The primary competition for sales of our SE 300 Ultra solder paste inspection product has been from Asian based companies such as KohYoung Technology (Korea), and Test Research, Inc. (Taiwan). Agilent Technologies, Inc., CKD Corporation (Japan) and Orbotech, Ltd. (Israel) have also been competitors. We believe that a few of these competing systems have a lower price position than our SE 300 Ultra product. Although we believe our SE 300 Ultra product competes favorably against these competitive products on the basis of performance and reliability, the introduction of lower cost competitive models has required us to decrease the price of our SE 300 Ultra product in some markets. In addition, some manufacturers of screen printing equipment provide optional 2-D solder paste inspection, and other machine vision companies (AOI companies) have started offering 2-D and occasionally 3-D solder paste inspection products. In the second quarter of 2009 we will introduce our next generation 3-D solder paste inspection system, which will replace our current SE 300 machine, and incorporate a cost-reduced platform with enhanced performance. We believe that this system will be the fastest and most accurate solder paste inspection system available on the market and that it will strengthen our competitive position in the inspection market.

Our AOI inspection system products (Flex Ultra and Flex Ultra HR products) face competition from a large number of AOI companies, the most significant being Agilent (formerly MVT), MirTech, Ltd. (Korea), Viscom (Germany), Saki Corporation (Japan) and Omron, Ltd. (Japan). We believe that the technology used in the Flex Ultra series is differentiated from the competition and that it will compete effectively in this market based on measurement accuracy, cost, ease of use at rapid production line speeds and the low rate of false calls.

Our WaferSense family of sensors is intended to go where wafers go in semiconductor fabrication and provide measurements of critical factors that are currently impossible or extremely difficult to obtain. We believe our WaferSense products are unique to the marketplace and primarily face competition from the manual techniques currently used by most customers to monitor their semiconductor fabrication equipment. Because the user is not required to break down semiconductor fabrication equipment, or pressurize a vacuum chamber, we believe that our WaferSense products will save significant time and increase measurement accuracy over the manual techniques currently used by customers and will improve equipment up-time, through-put and process yield.

Our other semiconductor products face competition in the wafer mapping and alignment market primarily from manufacturers of through-beam sensors developed by our customers using inexpensive sensors from general industrial market suppliers like Banner Engineering Corporation, Omron, Ltd (Japan) and Keyence, Ltd (Japan). We believe that our sensors compete favorably in this market based on performance and the unique advantages of the reflective mode of operations.

Although we believe our current products offer several advantages in terms of price and suitability for specific applications and although we have attempted to protect the proprietary nature of such products, it is possible that any of our products could be duplicated by other companies in the same general market.

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Table of Contents**Employees**

As of December 31, 2008, we had 179 full-time employees worldwide, including 40 in sales, marketing and customer support, 64 in manufacturing, purchasing and production engineering, 56 in research and development and 19 in finance, administration and information services. Of these employees, 110 are located at our corporate headquarters in Minneapolis and 69 are located in other offices (7 in the UK, 18 in Oregon, 33 in Singapore, 10 in China and 1 in Japan). All of our employees located in Oregon work in our Semiconductor business. In February 2009, we announced a further reduction in work force that will decrease our aggregate work force by 24 additional employees. To date, we have been successful in attracting and retaining qualified technical personnel, although there can be no assurance that this success will continue. None of our employees are covered by collective bargaining agreements or are members of a union.

**Proprietary Protection**

We rely on the technical expertise and know-how of our personnel and trade secret protection, as well as on patents, to maintain our competitive position. We attempt to protect intellectual property by restricting access to proprietary methods by a combination of technical and internal security measures. In addition, we make use of non-disclosure agreements with customers, consultants, suppliers and employees. Nevertheless, there can be no assurance that any of the above measures will be adequate to protect our proprietary technology.

We hold 97 patents (63 U.S. and 34 foreign) on a number of technologies, including those used in the LaserAlign systems and other products. Some of the patents relate to equipment such as pick-and-place machines, into which our sensor products are integrated. In addition, we have 156 pending patents (41 U.S. and 115 foreign). We protect the proprietary nature of our software primarily through copyright and license agreements, but also through close integration with our hardware offerings. We utilize 21 trademarks, 15 of which are registered trademarks, and 3 of which are foreign. We currently have 6 trademarks pending registration. We also have 13 domain names and several common law trademarks. It is our policy to protect the proprietary nature of our new product developments whenever they are likely to become significant sources of revenue. No guarantee can be given that we will be able to obtain patent or other protection for other products.

As the number of our products increases and the functionality of those products expands, we may become increasingly subject to attempts to duplicate our proprietary technology and to infringement claims. In addition, although we do not believe that any of our products infringe the rights of others, there can be no assurance that third parties will not assert infringement claims in the future or that any such assertion will not require us to enter into a royalty arrangement or result in litigation.

**Government Regulation**

Many of our products contain lasers. Products containing lasers are classified as either Class I, Class II or Class IIIb Laser Products under applicable rules and regulations of the Center for Devices and Radiological Health (CDRH) of the Food and Drug Administration. Such regulations generally require a self-certification procedure pursuant to which a manufacturer must file with the CDRH with respect to each product incorporating a laser device, periodic reporting of sales and purchases and compliance with product labeling standards. Our lasers are generally not harmful to human tissue, but could result in injury if directed into the eyes of an individual or otherwise misused. We are not aware of any incident involving injury or a claim of injury from our laser devices and believe that our sensors and sensor systems comply with all applicable laws for the manufacture of laser devices.

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Our operations are subject to a number of risks and uncertainties that may effect our financial results, our accounting, and the accuracy of the forward looking statements we make in this Form 10-K. We make statements regarding anticipated product introductions, changes in markets, customers and customer order rates, expenditures in research and development, growth in revenue, taxation levels, the effects of pricing, and the ability to continue to price foreign transactions in U.S. currency, all of which represent our expectations and beliefs about future events. Our actual results may vary from these expectations because of a number of factors that affect our business, the most important of which include the following:

**Our business has been and may continue to be significantly impacted by the recent deterioration in worldwide economic conditions, and the current uncertainty in the outlook for the global economy makes it more likely that our actual results will differ materially from expectations.** Global credit and financial markets have been experiencing extreme disruptions in recent months, including severely diminished liquidity and credit availability, declines in consumer confidence, declines in economic growth, increases in unemployment rates, and uncertainty about economic stability. There can be no assurance that there will not be further deterioration in credit and financial markets and confidence in economic conditions. These economic uncertainties affect businesses such as ours in a number of ways, making it difficult to accurately forecast and plan our future business activities. The current tightening of credit in financial markets may lead consumers and businesses to postpone spending, which may cause our customers to cancel, decrease or delay their existing and future orders with us. In addition, financial difficulties experienced by our suppliers or distributors could result in product delays, increased accounts receivable defaults and inventory challenges. The original equipment manufacturers to which we sell our sensors supply SMT manufacturers, and those manufacturers, as well as the circuit board manufacturers that purchase our SMT systems products directly, are largely dependent on continued demand for consumer and commercial electronics, including cell phones and computers. Demand for electronics is a function of the health of the economies in the United States and around the world and as these economies have moved into a recession, the demand for overall electronics has been adversely affected and therefore, demand for our products and our operating results has been adversely affected. We cannot predict the timing, strength or duration of any economic disruption or subsequent economic recovery, worldwide, in the United States, in our industry, or in the electronics market. These and other economic factors have had and may continue to have a material adverse effect on demand for our products and on our financial condition and operating results.

**Pending loss of significant customer for our electronic assembly sensors.** Historically, we have been dependent on two customers for a significant amount of our revenue. Sales to Assembleon constituted 15% of our total revenue in 2008 and 20% of our total revenue in 2007. Assembleon has informed us that they plan to start transitioning away from our sensor products in the third quarter of 2009, with the transition continuing into the second quarter of 2010. Although we expect to continue to generate some repair revenue from Assembleon and its customers, we expect that the 10% of our revenue that was generated from new product sales to Assembleon will be eliminated by the end of 2010. Our results of operations and cash flows would be further negatively impacted if Assembleon transitions away from our products sooner than expected.

**Sales to one customer constitute a significant portion of our revenue and loss of that customer, or a decline in the customer's business, would have a materially adverse impact on our results of operation.** Sales to our largest customer constituted 21% of our total revenue in 2008 and 28% of our total revenue in 2007. Although we believe our relationship with this customer is excellent and we continue to pursue joint development projects with them, like most suppliers to the electronics manufacturing markets, their business has been impacted by the global economic downturn and they have advised us that their orders for additional sensor products from us during the first and second quarters of 2009 will be unusually low due to the difficult global economic conditions. If their order rate does not return to its historical level or if they are unsuccessful in selling the products into which our sensors are incorporated, or if they design their products to function without our sensors, purchase sensors from other suppliers, or otherwise terminate their relationship with us, our long-term results of operations would be significantly adversely affected.

**Although our move of systems product development and manufacturing operations to Singapore is intended to save cost, increase responsiveness to Asian systems customers and free US development staff for sensor development, we might not achieve these objectives and the move could prove costly or result in reduced control and efficiency of systems operations.** Our move to Singapore presents a number of risks related to the retention of personnel, management of development and manufacturing, control over administrative, manufacturing and business processes, regulatory and legal issues we may encounter and other matters relating to foreign operations. We cannot be certain that we will be able to retain software development personnel in Singapore of the caliber required for our products, we will be able to retain management on whom we can rely, or that these personnel, or manufacturing personnel, can be retained at attractive rates. Although we anticipate that components for our systems products may be more readily available there, we cannot be certain that we will be able to import the hardware components used in our systems products necessary for manufacture in Singapore at efficient rates. Our future financial performance, ability to serve our customers and manufacture products could be negatively impacted if the move of our systems related manufacturing operations to Singapore takes longer than intended, costs more than expected to hire experienced employees in a timely manner, or if we are unable to locate suitable sources of supply for our products manufactured in Asia.

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**The market for capital equipment for the electronics industry in which we operate is cyclical and we cannot predict with precision when market downturns will occur.** We operate in a very cyclical market—the electronics capital equipment market—that periodically adjusts independent of global economic conditions. We have been unable to predict with accuracy the timing or magnitude of periodic downturns in this market. These downturns, particularly the severe downturn in electronics production markets from 2001 through 2003, have severely affected our operations in the past and generated several years of

unprofitable operations. We are currently experiencing another significant downturn in our markets due to the current severe global economic recession. We are presently unable to determine the duration or severity of the downturn in our markets, and the long-term impact that it may have on our business.

**World events beyond our control may effect our operations.** Our operations and markets could be negatively affected by world events that effect economies and commerce in countries, such as China, Singapore and Japan, in which we do business. Natural disasters, such as the SARS outbreak, have affected travel patterns and accessibility in these countries in the past and other natural occurrences, such as a bird flu outbreak, could affect the business we do in these countries in the future. Further, these countries may be affected by economic forces that are different from the forces that affect the United States and change the amount of business we conduct.

**We are dependent upon a single product line in our systems business for approximately a quarter of our revenue.** During 2008, approximately 24% of our total revenue was generated by sales of a single SMT systems product line, the SE 300 Ultra. Sales of this product have been subject to increasing competition in the Asian markets, negatively impacting our market share and sales prices for our products. If we are not successful in continuing to sell and differentiate this product line relative to our competition, our results of operations would be negatively affected. In addition, we will be introducing a next generation solder paste inspection system to replace the SE 300 Ultra during the second quarter of 2009. Our revenue could be negatively affected if we encounter unanticipated product quality or performance issues with this new product, if we experience further delays in its introduction, or if the product is not accepted by the marketplace in the manner we currently expect.

**We generate more than three quarters of our revenue (approximately 86% in 2008) from export sales that are subject to risks of international operations.** Our export sales are subject to many of the risks of international operations including:

- currency controls and fluctuations in currency exchange rates;
- changes in local market business requirements and increased cost and development time required to modify and translate our products for local markets;
- inability to recruit qualified personnel in a specific country or region;
- difficulty in establishing and maintaining relationships with local vendors;
- differing foreign technical standards;
- differing regulatory requirements;
- export restrictions and controls, tariffs and other trade barriers;
- difficulties in staffing and managing international operations;
- reduced protection for intellectual property rights;
- changes in political and economic conditions;
- seasonal reductions in business activity;
- potentially adverse tax assessments; and
- terrorism, disease, or other events that may affect local economies and access.

**Because we price our products in US dollars, our products may have difficulty competing in periods of increasing strength of the dollar.** All of our international export sales are negotiated, invoiced and paid in U.S. dollars, and accordingly, currency fluctuations do not affect our revenue and income per unit. However, significant fluctuations in the value of the U.S. dollar relative to other currencies could have an impact on the price competitiveness of our products relative to foreign competitors, which could impact the willingness of customers to purchase our products and have an impact on our results of operations.

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**Our products could become obsolete.** Our current products, as well as the products we have under development, are designed to operate with the technology we believe currently exists or may exist for electronic components, printed circuit boards and memory modules. The technology for these components changes rapidly and, because it takes considerable time to develop new products, we must anticipate technological developments in order to effectively compete. Further, because we do not have unlimited development resources, we might choose to forgo the pursuit of what becomes a leading technology and devote our resources to technology that is less successful. If we incorrectly anticipate technology developments, or have inadequate resources to develop our products to deal with changes in technology, our products could become obsolete.

**We compete in the electronics assembly sensor market with larger companies.** Our electronic assembly sensor products compete with products made by larger machine vision companies, other optical sensor companies, and by solutions internally developed by our customers. Advances in machine vision technology in recent years have eliminated some, but not all, of the features that have differentiated our products from some of these competitors.

**The market for surface mount capital equipment has become very price competitive.** The electronics capital equipment market for surface mount technologies is becoming more mature, resulting in increased price pressure on suppliers of equipment. Consequently, our electronic assembly system and sensor products have become subject to increased levels of price competition and competition from other suppliers and technologies, including suppliers in Asia who have specifically designed their products to compete favorably against our products.

**Our systems products carry lower margins.** We use a different distribution network to sell our end-user systems products, and generate lower margins from these products, than the distribution system and margins from our electronic assembly sensor and semiconductor products. To the extent our end-user systems constitute a larger portion of our business, our profit margins may be affected.

**Competitors in Asia may be able to compete favorably with us based on lower production and employee costs.** We compete with large multinational systems companies in sales of end-user systems products, many of which are able to take advantage of greater financial resources and larger sales distribution networks. We also compete with new Asian based suppliers of end-user systems products, many of which may have lower overall production and employee costs and are willing to offer their products at lower selling prices to customers.

**We are dependent upon outside suppliers for components of our products, and delays in or unavailability of those components would adversely affect our results.** We use outside contractors to manufacture the components used in many of our products and some of the components we order require significant lead times that could affect our ability to sell our products if not available. In addition, if these components do not meet stringent quality requirements or become subject to obsolescence, there could be delays in product availability, and we could be required to make significant investments in designing replacement components.

**Our operations could be effected by lead-free regulations.** New regulations have been enacted in various countries requiring the reduction of hazardous substances in electronics products and capital equipment in future years. New regulations are also increasing the obligations of manufacturers of electronics products and capital equipment to ensure proper disposal of their products when they are no longer being used by the customer. When effective, these regulations will impact production processes of our customers and require us to incorporate lead-free components into our products. If the production processes of our customers are interrupted, or we are not able to complete the transition to lead-free components in our products by the effective date of these regulations, our results of operations could be negatively affected. In addition the new regulations requiring us to ensure proper disposal of our products will increase our costs, and our results of operations could be negatively affected.

**Our growth has been dependent on technical innovation and is affected by the timing and success of product introductions. Although our results are cyclical, our objective is to grow revenue and profitability over the long term. Our growth has been in the past, and we anticipate that it will be in the future, dependent upon our ability to introduce new and innovative products.** We plan to continue to introduce new products during 2009 and beyond. If those introductions are delayed, our revenue and profitability could be negatively affected. We have devoted and continue to devote significant resources to our SMT system products, including enhancements to SE 300 Ultra, Flex Ultra, Flex Ultra HR, next generation system products and also our WaferSense family of products. In addition, we have devoted and continue to devote significant resources to complete development and commence sale of our embedded process verification (EPV) products. The introduction of these and other new products could be delayed because of economic conditions affecting our customers, required adaptations for OEM requirements and other issues and these products have yet to generate substantial commercial sales.

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## ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

## ITEM 2. PROPERTIES

We lease a 60,217 square foot mixed office and warehouse facility built to our specifications in Golden Valley, Minnesota, which functions as our corporate headquarters and primary manufacturing facility for our sensor products. The lease for this space will expire in June 2011. During 2008 we entered into a new lease for a mixed office and warehouse facility in Singapore, to serve as a sales, development and manufacturing facility for our systems products. The lease for our new facility in Singapore expires in May 2011. As of December 31, 2008, we also have operating leases in Oregon (for our semiconductor business), the United Kingdom, and Shanghai, China, which expire in December 2009, June 2010 and August 2010, respectively. We believe that our leased facilities are adequate for our anticipated needs for the foreseeable future.

**ITEM 3. LEGAL PROCEEDINGS**

We are not currently subject to any material pending or threatened legal proceedings.

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

No matters were submitted during the fourth quarter of 2008.

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**PART II.****ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES**

Our common stock is traded on the Nasdaq Global Market. The following table sets forth, for the fiscal periods indicated, the high and low sales prices for our common stock as reported by the Nasdaq Global Market. These prices do not reflect adjustments for retail markups, markdowns or commissions.

Quarter	2008		2007	
	High	Low	High	Low
First	\$ 12.41	\$ 9.69	\$ 14.60	\$ 12.73
Second	\$ 11.70	\$ 7.88	\$ 14.80	\$ 11.73
Third	\$ 10.74	\$ 8.51	\$ 13.75	\$ 11.50
Fourth	\$ 9.60	\$ 4.26	\$ 13.75	\$ 10.51

As of February 28, 2009, there were approximately 200 holders of record of common stock and approximately 3,000 beneficial holders. We have never paid a dividend on our common stock. Dividends are payable at the discretion of the Board of Directors out of funds legally available therefor. Our board has no current intention of paying dividends.

**Equity Compensation Plan Information**

The following table describes shares of our common stock that are available on December 31, 2008 for purchase under outstanding stock-based awards, or reserved for issuance under stock-based awards or other rights that may be granted in the future, under our equity compensation plans:

Plan Category	(a) Number of securities to be issued upon exercise of outstanding options, warrants and rights	(b) Weighted-average exercise price of outstanding options, warrants and rights	(c) Number of securities remaining available for future issuance under equity compensation plans (excluding those reflected in column (a))
<b><u>Equity compensation plans approved by security holders</u></b>			
Restated Stock Option Plan	80,125	\$ 8.16	
1998 Stock Incentive Plan (1)	503,222	\$ 8.79	230,857
Stock Option Plan for Non Employee Directors	125,000	\$ 14.43	
Stock Grant Plan for Non Employee Directors	N/A	N/A	27,000
Employee Stock Purchase Plan (2)	N/A	N/A	112,812
<b><u>Equity compensation plans not approved by security holders</u></b>			
	50,000	\$ 11.87	



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Options issued to executives and certain other employees upon initial employment (3)

<b>Total</b>	758,347	\$	9.85	370,669
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- (1) In addition to options, shares may be issued in restricted stock awards, performance awards and other stock-based awards.
- (2) Shares are issued based on employees' elections to participate in the plan.
- (3) Represent options received by executives and certain other employees prior to 2003 upon their initial employment and granted on the same terms as those options granted under equity compensation plans approved by security holders. None of these options qualify as incentive stock options.

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#### Shareholder Return

The following graph compares the cumulative total shareholder return on our common stock from January 1, 2004 through December 31, 2008 with the cumulative total return on a broad market index (the Nasdaq US Index) and a peer group index (the Nasdaq Computer and Data Processing Index). In each case, we have calculated the cumulative return assuming an investment of \$100 on January 1, 2004, and reinvestment of all dividends.

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## ITEM 6. SELECTED FINANCIAL DATA

### Five-Year Financial Summary

#### CyberOptics Corporation

(In thousands, except per share information)

Year Ended December 31	2008(1)	2007	2006	2005(2)	2004
Revenues	\$ 45,452	\$ 58,776	\$ 57,089	\$ 42,179	\$ 58,037
Income (loss) from operations	\$ (10,463)	\$ 5,540	\$ 7,121	\$ 3,104	\$ 12,325
Net income (loss)	\$ (6,671)	\$ 5,028	\$ 6,390	\$ 7,150	\$ 10,626
Net income (loss) per share:					
Basic	\$ (0.87)	\$ 0.57	\$ 0.71	\$ 0.80	\$ 1.23
Diluted	\$ (0.87)	\$ 0.56	\$ 0.70	\$ 0.79	\$ 1.18
Cash and cash equivalents	\$ 4,516	\$ 18,864	\$ 30,056	\$ 19,592	\$ 25,416
Marketable securities	25,267	33,754	18,951	21,548	14,868
Working capital	30,461	47,939	55,662	48,515	38,921
Total assets	58,949	87,039	82,010	73,027	65,096
Stockholders' equity	50,880	78,116	73,020	66,190	57,951

- (1) 2008 results include a non-cash pre-tax charge for goodwill impairment of \$3.9 million, a \$650,000 pre-tax charge for inventory obsolescence, and a \$770,000 pre-tax charge for severance and recruitment costs related to our move to Singapore and November 2008 workforce reduction.
- (2) 2005 results include a \$3.7 million non-cash income tax benefit related to a reduction in the valuation allowance for deferred income taxes.

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

**Results of Operations for the Three Years Ended December 31, 2008:**

**General Overview**

Our products are sold primarily into the electronics assembly, semiconductor DRAM memory, and semiconductor fabrication capital equipment markets, where we sell products both to original equipment manufacturers of production equipment and to end-user customers that produce circuit boards and semiconductor wafers and devices. Historically these markets have been very cyclical, with periods of rapid growth as worldwide capacity is added to support increased consumer demand for electronic products, and new capital equipment is purchased as a result of technology changes in electronics components, such as miniaturization, and changing production requirements. These periods of growth have historically been followed by periods of excess capacity and reduced capital spending.

Our results were favorably impacted in 2006 and 2007 as the worldwide demand for cell phones, laptops and other consumer electronics remained strong, driving the need for increased production of printed circuit boards and memory modules, and thereby increasing demand for our electronic assembly and semiconductor products. After peaking in the third quarter of 2007, our revenue declined sequentially each quarter throughout 2008, as our results were negatively impacted by reduced levels of capital spending for electronics manufacturing capacity brought about by the deepening weakness in the global economy. New orders dropped off particularly sharply late in the fourth quarter of 2008 as the global economy fell into a severe recession.

Reflecting the impact of the weakening economy, our consolidated revenues decreased by 23% in 2008 from 2007 levels to \$45.5 million. The decline in revenue was the principle reason for our 2008 operating loss of \$10.5 million. We also continued to experience pricing pressure for our products, particularly our SMT system products. In addition to the drop in revenue and pricing pressure, several significant charges and strategic investments also contributed to our operating loss, including the following:

In February 2008, we announced plans to move a significant portion of our systems related product development and manufacturing for all system products to Singapore, the location of our Asian sales office. The transition of systems related product development to Singapore was substantially complete by the end of the fourth quarter of 2008. We anticipate that the transition of manufacturing for our system products will be complete by the middle of 2009. We estimate that the transition to Singapore increased our 2008 expenses by approximately \$1.5 million. Transition costs in 2009 are not expected to be significant.

The weakness in the United States capital markets caused by the deepening global recession, as well as our reduced level of profitability, caused a significant drop in our market capitalization, resulting in a \$3.9 million non-cash pre-tax goodwill impairment charge in the fourth quarter of 2008. We presently anticipate that significant weakness in our markets and the global economy will continue, at least through the first half of 2009.

In addition to the impact of global economic conditions on our sales, we have determined not to pursue new alignment products for use with future generations of equipment being developed by Assembleon. Sales of alignment products to Assembleon constituted 10% of revenue in 2008. Assembleon has informed us that they currently plan to start transitioning away from our alignment products in the third quarter of 2009, with the transition continuing into the second quarter of 2010. The timing of Assembleon's transition away from our sensor products, combined with the sharp drop-off in orders in the fourth quarter of 2008 and our expectation for continued weakness into 2009, resulted in a \$650,000 charge for excess and obsolete inventory in the fourth quarter of 2008.

In response to the significant weakness in our markets and the global economy, we reduced our workforce by approximately 20 employees or 10% in November 2008, resulting in a \$234,000 severance charge in the fourth quarter of 2008. Further cost savings measures were implemented in February 2009, including additional workforce and salary reductions, consolidation of manufacturing operations for our semi-conductor products into our Minneapolis Minnesota facility and reductions in spending for non-labor costs such as travel, supplies and the like.

From the start of the fourth quarter of 2008 through the end of the second quarter of 2009, we will have reduced our workforce by 50 employees or approximately 25%, resulting from the move to Singapore, relocation of manufacturing for our semiconductor operations, and the November 2008 and February 2009 workforce reductions.

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During 2008, we invested heavily in our next-generation solder past inspection system which we expect to introduce in the second quarter of 2009. To be manufactured in Singapore and based on a new cost-reduced platform, we believe this machine will be the fastest and most accurate solder paste inspection system available and that it will strengthen our competitive position in the inspection market.

During 2008 we repurchased 2.1 million shares of our common stock for \$20.9 million. Our balance sheet remains strong and we are well positioned financially. We have no debt and our cash and marketable securities of \$29.8 million at December 31, 2008 are more than adequate to fund our operations and various growth opportunities for an extended period of time, even given our expectation for weak financial results through at least the first half of 2009, due to the severe global economic recession.

We continue to pursue several promising R&D initiatives for our inspection technology. Our efforts related to these projects are aimed at lowering the cost of inspection, while providing faster production through-put speeds, better ease of use, and improved resolution for inspecting progressively smaller electronic components.

### **Segment Results**

Our business consists of two operating segments, the electronic assembly and semiconductor segments. The electronic assembly segment designs, manufactures and sells optical process control sensors and inspection systems for the electronic assembly equipment market. The semiconductor segment designs, manufactures and sells optical and other process control sensors and related equipment for the semiconductor capital equipment market. Segment information follows:

(In thousands)	Year Ended December 31,		
	2008	2007	2006
<b>Revenue:</b>			
Electronic assembly	\$ 40,193	\$ 53,203	\$ 51,142
Semiconductor	5,259	5,573	5,947
Total	\$ 45,452	\$ 58,776	\$ 57,089
<b>Gross margin:</b>			
Electronic assembly	\$ 15,867	\$ 26,631	\$ 25,926
Semiconductor	3,198	3,616	3,975
Total	\$ 19,065	\$ 30,247	\$ 29,901
<b>Operating expense:</b>			
Electronic assembly	\$ 26,206	\$ 21,223	\$ 18,110
Semiconductor	3,322	3,484	4,670
Total	\$ 29,528	\$ 24,707	\$ 22,780
<b>Income (loss) from operations:</b>			
Electronic assembly	\$ (10,339)	\$ 5,408	\$ 7,816
Semiconductor	(124)	132	(695)
Total income (loss) from operations	\$ (10,463)	\$ 5,540	\$ 7,121
Interest income and other	1,193	2,214	1,943
Income (loss) before income taxes	\$ (9,270)	\$ 7,754	\$ 9,064

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### **Revenues**

Our revenues decreased by 23% to \$45.5 million in 2008 from \$58.8 million in 2007 and increased by 3% in 2007 from \$57.1 million in 2006. The following table sets forth, for the years indicated, revenues by product line (in thousands):

	2008	2007	2006
Electronic Assembly			

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OEM Sensors	\$ 20,250	\$ 31,774	\$ 32,006
SMT Systems	19,943	21,429	19,136
Total Electronic Assembly	40,193	53,203	51,142
Semiconductor	5,259	5,573	5,947
Total	\$ 45,452	\$ 58,776	\$ 57,089

### *Electronic Assembly*

Revenue from our electronic assembly sensors was down \$11.5 million or 36% in 2008 compared to 2007 due to the negative impact of reduced levels of capital spending for electronics manufacturing capacity brought about by the weak global economy. Revenues from our electronic assembly sensors were down approximately \$200,000 or 1% in 2007 compared to 2006 and increased \$10.4 million or 48 % in 2006 compared to 2005. During 2007 and 2006, revenue from electronic assembly sensors were positively impacted by favorable worldwide demand for cell phones, laptops and other consumer electronics, driving the need for increased production of printed circuit boards and memory modules. In addition, the economies in the countries where most of our products are sold remained strong. In addition to the impact of the economic recession, which has caused orders of our sensors to drop significantly, our decision not to develop sensors for the next generation of equipment for Assemblon will adversely effect our sensor revenue in future periods.

Revenues from our SMT systems products decreased by \$1.5 million or 7% in 2008, after increasing \$2.3 million or 12% in 2007 and increasing \$4.0 million or 27% in 2006. Revenue from our SMT system products was negatively impacted by the deepening global recession in 2008, after being positively impacted during 2007 and 2006 by favorable worldwide demand for electronics and favorable market conditions in the countries where most of our products are sold. Unlike our sensor revenue, which is closely tied to the need for added production capacity for printed circuit boards, a portion of our SMT systems revenue is derived from the retro-fit of existing production lines as companies seek to improve their production yields, thereby reducing manufacturing costs.

We believe that increased use of outsourcing for circuit board assembly, production difficulties associated with smaller component sizes, increased production speeds and increased cost pressure on companies manufacturing circuit boards caused increased demand for our inspection equipment, prior to the recent global economic recession. However, our revenue has been impacted by increasing competition and price pressure on our SMT inspection systems, particularly in Asia.

Revenue from our systems products is impacted by the timing of the introduction of new system products, including our Flex Ultra and our Flex Ultra HR automated optical inspection (AOI) systems. Sales of our Flex AOI systems remained virtually unchanged in 2008 at \$6.9 million, after increasing \$339,000 or 5% in 2007 and increasing \$2.3 million or 55% in 2006. Sales of our SE 300 Ultra solder paste inspection system decreased \$1.5 million or 10% in 2008, after increasing \$2.0 million or 16% in 2007 and increasing \$1.7 million or 16% in 2006. We believe that the introduction of our next generation solder paste inspection system in the second quarter of 2009, with its improved speed and other new capabilities will strengthen our competitive position in the inspection market.

Export revenue from electronic assembly sensors and SMT systems totaled \$36.7 million in 2008, \$49.4 million in 2007, and \$46.5 million in 2006, comprising 91% of electronic assembly revenue in 2008, 93% of electronic assembly revenue in 2007, and 91% of electronic assembly revenue in 2006. Sales to international customers continue to be significant, as manufacturing of electronic components has migrated offshore, particularly to China and other areas of Asia.

We believe the market trend toward automated inspection using SMT inspection systems is continuing to grow and emerge due to ongoing miniaturization of SMT circuit board components. Required for downsizing products, some new generation components have become so small that it is now virtually impossible for the human eye to inspect circuit boards for defects in solder paste quality, component placement and solder joints. For this reason, we believe automated inspection has become the only viable means for inspecting SMT circuit boards with such tiny components, and we believe that our SMT systems products will be one of our primary growth drivers over the next few years. We presently anticipate that significant weakness in our markets and the global economy will have a negative impact on our sales, at least through the first half of 2009.

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#### *Semiconductor*

Revenues from semiconductor products decreased by \$314,000 or 6% in 2008 compared to 2007 and decreased by \$374,000 or 6% in 2007 compared to 2006. The decrease in revenue for both years was due to difficult conditions in the market for semiconductor fabrication equipment and declining revenue from our older wafer mapper and frame grabber products, partially offset by additional revenue from our new WaferSense family of products. Total WaferSense revenue increased to \$1.7 million in 2008 from \$1.1 million in 2007 and \$517,000 in 2006.

Our wafer mapping and frame grabber products are relatively mature. We anticipate that future growth in our semiconductor revenues, exclusive of changes related to capital procurement cycles, will come from our new WaferSense products. WaferSense is a family of wireless, wafer like precision measurement tools for in-situ setup, calibration and process optimization in semiconductor processing equipment. We have recently introduced several new additions to the WaferSense product line, including additional leveling sensors, along with new gapping, teaching and vibration sensors.

Export revenue from semiconductor products totaled \$2.4 million or 46% of total semiconductor revenue in 2008, \$1.8 million or 32% of total semiconductor revenue in 2007 and \$1.8 million or 31% of total semiconductor revenue in 2006. The level of international sales and percentage of sales coming from international markets increased substantially in 2008 due to the large increase in WaferSense sales, which have a higher concentration of international sales than our other semiconductor products. In addition, sales of our wafer mapping products, which do not generate significant international sales, declined more in 2008 than our frame grabber products, which do generate significant international sales.

## **Gross Margin**

### *Electronic Assembly*

Gross margin as a percentage of electronic assembly sales were 39% in 2008, 50% in 2007 and 51% in 2006. Significantly lower sales of higher margin electronic assembly sensors accounted for most of the decrease in gross margin percentage in 2008. Other factors having a negative impact on our gross margin for 2008 included Juki's transition to our next generation LNC 60 sensor, which carries a lower gross margin than the older sensors we sell to Juki and increasing price competition for our SMT system products. In addition, our gross margin in 2008 was negatively impacted by a \$650,000 charge for excess and obsolete inventory (2% gross margin reduction). As discussed earlier, Assembleon intends to start their transition away from our sensor products in the third quarter of 2009. The timing of Assembleon's transition away from our sensor products, combined with the sharp drop-off in orders in the fourth quarter of 2008 and our expectation for continued weakness into 2009, resulted in a \$650,000 charge for excess and obsolete inventory in the fourth quarter of 2008.

The decrease in gross margin as a percentage of sales in 2007 compared to 2006 was due to increasing competition resulting in lower sales prices for our electronic assembly products, particularly our SMT system products. Increased competition and resulting price pressure on our SMT system products reduced gross margin as a percentage of electronic assembly sales in 2007 by four percentage points, offset in part by a one percentage point improvement from cost reduction programs. Increasing price competition for our electronic assembly sensor products also impacted our gross margin. The gross margin decrease in 2007 resulting from the increase in price competition was partially offset by a \$250,000 benefit from a warranty recovery. Our gross margin as a percentage of sales is generally lower for our system products as compared to our sensor products.

The market for automated inspection has become increasingly competitive, causing us to decrease the selling prices of our products in some markets. With respect to our systems products, we anticipate that pricing pressures will continue in 2009 due to the competitive nature of the marketplace for all forms of automated circuit board inspection. The severe global economic recession may also have a further negative impact on pricing, as some competitors may be inclined to discount their prices in order to deal with excess inventory levels.

We have implemented our own cost reduction programs to reduce the impact of these pricing pressures on our gross margins. We expect to introduce our next-generation solder paste inspection system, as scheduled, in the second quarter of 2009. To be manufactured in Singapore and based on a new cost-reduced platform, we believe it will be the fastest and most accurate solder paste inspection system available on the market. We believe this system will have capabilities not available on our current SE 300, thus strengthening our competitive position in the inspection market. Other new systems platforms we expect to introduce in the future will be based on new technology that will allow for reduced cost and improvement in margins.

In response to significant weakness in our markets resulting from the global recession, and transition of manufacturing for our SMT system products to Singapore, we will have reduced our manufacturing workforce by over 30 employees or 45% by the end of the second quarter of 2009. We anticipate that transition of manufacturing for our SMT system products to Singapore will be complete by the middle of 2009. We will also consolidate manufacturing for our semiconductor products into our Minneapolis Minnesota headquarters facility. These actions will allow us to reduce our overall manufacturing costs and better leverage our manufacturing operations, thereby favorably impacting our gross margins not only in the second half of 2009, but also in future periods. We estimate savings by the middle of 2009 from our factory cost reduction actions and transition to Singapore of approximately \$2.0 million per year.

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Gross margin as a percentage of sales were 61% in 2008, 65% in 2007 and 67% in 2006. Gross margin as a percentage of sales for the semiconductor segment is dependent on revenue mix and the level of production volume over which to spread fixed manufacturing overhead costs. Gross margins decreased as a percentage of revenue in 2008 and 2007 due to a change in revenue mix, with our highest margin wafer mapping sensors representing a smaller percentage of total semiconductor revenue.

We currently expect gross margins as a percentage of revenue from our semiconductor products to remain consistent or increase slightly in 2009 from 2008 levels, due to anticipated revenue from new WaferSense product introductions as these products have higher gross margins than our existing products. The consolidation of manufacturing for our semiconductor products into our Minneapolis Minnesota headquarters facility will also have a favorable impact on semiconductor gross margins.

### **Operating Expenses**

We believe continued investment in research and development of new products, coupled with continued investment in and development of our sales channel is critical to future growth and profitability. We maintain research and development and sales and marketing expenses at relatively high levels, even during periods of downturn in our electronic assembly and semiconductor capital equipment markets, as we continue to fund development of important new products, and continue to invest in our sales channels and develop new sales territories.

In February 2008, we announced plans to move a significant portion of our systems related product development and manufacturing for all system products to Singapore, the location of our Asian sales office. The transition of systems related product development to Singapore was substantially complete by the end of the fourth quarter of 2008. We anticipate that the transition of manufacturing for our system products will be complete by the middle of 2009. These moves will allow us to become more responsive to the needs of our growing base of Asian SMT systems customers, permit our core Minneapolis based optical engineering resources to work on future OEM opportunities, and attain significant cost savings. We estimate that the transition to Singapore increased our 2008 expenses by approximately \$1.5 million. Transition costs in 2009 are not expected to be significant.

In response to the significant weakness in our markets and the global economy, and also due to our transition of a significant portion of our operations to Singapore, we will have reduced our workforce by 50 employees or 25% (over 30 in manufacturing and approximately 20 in development, sales and marketing) from the start of the fourth quarter of 2008 through the end of the second quarter of 2009. Other cost saving measures include salary reductions of 12% for all officer and internal director level positions, 10% for other employees with salaries exceeding \$100,000 and a smaller percentage reduction for employees with salaries ranging between \$35,000 and \$100,000. In addition, we will also reduce spending for non-labor costs such as travel, supplies and the like. We anticipate that the workforce reductions, salary reductions and other cost saving measures, combined with savings from our transition to Singapore will provide annual operating expense savings by the middle of 2009 of almost \$3.0 million per year. These savings are in addition to the \$2.0 million of annual factory cost reductions noted above.

We are continually evaluating existing and new research and development projects, and may elect to increase or decrease expenditures based on an assessment of the future revenue and profit potential of these projects.

### ***Electronic Assembly***

Research and development expenses for our electronic assembly segment were \$8.8 million or 22% of revenue in 2008, \$8.1 million or 15% of revenue in 2007 and \$6.3 million or 12% of revenue in 2006. The 7% increase in research and development expense in 2008 compared to 2007 resulted from costs incurred to transition our systems related research and development to Singapore. Throughout most of 2008, we maintained our Minneapolis-based systems development team while we trained our new Singapore based team, resulting in extra costs for wages, training, travel, and other costs, during the initial start-up and training period. Singapore transition costs totaled \$1.5 million in 2008. Of this amount, transition costs included in 2008 research and development expense totaled \$879,000.

The 29% increase in research and development expense in 2007 compared to 2006 was due to increased costs for contract labor of \$1.4 million, excluding customer funded expenses, \$231,000 for employee compensation associated with annual wage increases and new employees, and \$73,000 for proto-type expenses and lab supplies. A significant portion of our product development efforts in 2007 were targeted at next generation SMT inspection system products and continued enhancements to our SE 300 Ultra solder paste inspection system and Flex Ultra and Flex Ultra HR automated optical inspection systems.

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Selling, general and administrative expenses for our electronic assembly segment were \$12.7 million or 32% of revenue in 2008, \$13.0 million or 24% of revenue in 2007 and \$11.7 million or 23% of revenue in 2006. The slight decrease in selling, general and administrative expenses in 2008 compared to 2007 was due to a \$178,000 reduction in wage expense resulting from reduced incentive and stock compensation

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costs and a \$105,000 reduction in commissions for third party sales representatives resulting from the lower level of system sales. Selling general and administrative expense in 2007 included approximately \$200,000 of expense related to a canceled acquisition. The savings from this non-recurring activity were partially offset by additional expense related to our Singapore transition.

The 11% increase in selling, general and administrative expenses in 2007 compared to 2006 was due to a \$406,000 increase in sales commissions to distributors and other third parties and an approximate \$300,000 increase in travel. We also incurred approximately \$200,000 of expenses in 2007 from a cancelled acquisition. The remaining increase in selling, general and administrative expense for 2007 was due to the 12% increase in SMT system sales in 2007 compared to 2006.

### *Semiconductor*

Research and development expenses for our semiconductor segment were \$1.7 million or 31% of revenue in 2008, \$1.7 million or 31% of revenue in 2007 and \$1.8 million or 31% of revenue in 2006. Research and development expenses for semiconductor have remained relatively constant during the last three years, as we have continued to develop various new sensors for our WaferSense family of precision measurement tools, including new automated leveling, gapping, teaching and vibration sensors to assist with process optimization and yield improvement in the semiconductor fabrication process.

Selling, general and administrative expenses for our semiconductor segment were \$1.5 million or 29% of revenue in 2008, \$1.7 million or 30% of revenue in 2007 and \$2.3 million or 39% of revenue in 2006. The decrease in selling, general and administrative expense for both 2008 and 2007 was due to a small workforce reduction which occurred early in 2007, and lower costs for incentive compensation.

### **Severance, Recruitment and Singapore Transition**

We started to incur severance costs in February 2008 in connection with our decision to move a significant portion of development and manufacturing for our systems products to Singapore. The transition of development was substantially complete by the fourth quarter of 2008; and transition of manufacturing is expected to be complete by the middle of 2009. Severance costs incurred in 2008 in connection with the February 2008 decision totaled \$302,000. We also incurred expenses totaling \$234,000 for outside service providers to assist us with recruitment of our new Singapore based development and manufacturing team. We maintained our Minneapolis-based systems development team while we trained our new Singapore based team, resulting in extra costs totaling \$879,000 for wages, training, travel, and other costs, during the initial start-up and training period. These costs have been classified in our statement of operations as research and development expense. Other start-up costs totaling \$112,000 have been classified in our statement of operations as selling, general and administrative expense. Singapore transition costs totaled approximately \$1.5 million in 2008. Transition costs in 2009 are not expected to be significant.

Additional severance costs of \$234,000 were incurred in November 2008 when we reduced our workforce by approximately 10% or 20 employees in response to the weak global economic conditions. All of the aforementioned costs related to the November 2008 workforce reduction have been classified as severance and recruitment in our statement of operations.

A summary of our severance and recruitment accruals follows:

(in thousands)	Electronic Assembly			Semi-conductor		
	February 2008 Singapore Move	Recruitment	November 2008 Workforce Reduction	Total	November 2008 Workforce Reduction	Total
Balance, January 1, 2008	\$	\$	\$	\$	\$	\$
Costs incurred	302	234	155	691	79	770
Payments made	(95)	(234)	(51)	(380)	(75)	(455)
Balance, December 31, 2008	\$ 207	\$	\$ 104	\$ 311	\$ 4	\$ 315

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In February 2009, we further reduced our workforce by 24 positions in response to weakening conditions in the global economy and our decision to consolidate manufacturing for our semiconductor products in our Minneapolis facility. We anticipate that all of these employees will have departed by the end of the second quarter of 2009. Severance expense related to these actions of approximately \$325,000 is expected in the first half of 2009.

### **Goodwill Impairment and Amortization of Intangibles**

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We assess our goodwill for impairment in the fourth quarter of each year, and whenever events or changes in circumstances indicate that the carrying value may not be recoverable. For 2008, our annual impairment review coincided with a series of facts and circumstances indicating that our goodwill might be impaired, including weakness in the United States capital markets, caused by the deepening global recession, as well as our reduced level of profitability, causing a significant drop in our market capitalization.

We measure for potential impairment of goodwill associated with each of our reporting units based on a projected discounted cash flow method using a discount rate that we believe is commensurate with the risk inherent in our current business model. The evaluation of asset impairment requires us to make assumptions about future cash flows over the life of the asset being evaluated. These assumptions require significant judgment and actual results may differ from assumed or estimated amounts.

Upon completion of our analysis, we concluded that the goodwill related to our electronic assembly segment was fully impaired, resulting in a \$3.9 million pre-tax impairment charge. We also concluded that the goodwill related to semiconductor segment in the amount of \$569,000 was not impaired.

No change in the amount of amortization expense related to acquired intangible assets for either our electronic assembly or semiconductor segments is expected in 2009.

### **Interest Income and Other**

Interest income and other includes interest earned on investments, realized gains and losses from sales of investments, gains and losses associated with foreign current transactions and in 2008, an unrealized loss on an available for sale equity security.

Interest income and other decreased in 2008 compared to 2007 due to lower rates of interest earned on invested funds and lower invested balances of cash and marketable securities resulting from significant repurchases of our common stock in 2008 totaling \$20.9 million. We recognized a \$166,000 unrealized loss on an available for sale equity security in the second quarter of 2008. The decline in market value for this security was determined to be other than temporary resulting in recognition of the unrealized loss in our statement of operations. We also incurred net UK sterling related foreign currency losses of \$176,000 in 2008, compared to net UK sterling related foreign currency gains of \$38,000 in 2007.

Interest income and other increased during 2007 and 2006 as the result of additional invested funds and higher rates of interest earned on those funds.

### **Income Taxes**

We recorded an income tax benefit of \$2.6 million in 2008, reflecting an effective income tax rate of 28.0%, compared to an effective income tax rate of 35.2% in 2007 and 29.5% in 2006. Our effective income tax rate for 2008 was negatively impacted by 10.5% due to the non-deductibility of a large portion of our goodwill impairment charge. A reduction in our reserve for income tax exposures reduced our effective rate by approximately 1.1% in 2008. Our effective rate was 2.3% higher in 2007 due to an increase in our reserve for income tax exposures.

Our effective tax rate was higher in 2007 compared to 2006 due to elimination of the extra territorial income exclusion in 2007 and an approximate \$200,000 income tax benefit recorded in 2006 from favorable resolution of a tax contingency accrual for prior year's income taxes, resulting from the closing of a domestic statute of limitations.

Our 2006 federal income tax return is currently being audited by the Internal Revenue Service. We are not able to reasonably estimate the timing of any potential payments that may result from this audit.

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We currently have significant deferred tax assets as a result of temporary differences between taxable income on our tax returns and income before income taxes under U.S. generally accepted accounting principals, research and development tax credit carry forwards and foreign net operating loss carry forwards. A deferred tax asset generally represents future tax benefits to be received when temporary differences previously reported in our financial statements become deductible for income tax purposes, or when net operating loss carry forwards are applied against future taxable income, or when tax credit carry forwards are applied against future tax liabilities. We assess the realizability of our deferred tax assets and the need for a valuation allowance based on Statement of Financial Accounting Standards No. 109.



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Significant judgment is required in determining the realizability of our deferred tax assets. The assessment of whether valuation allowances are required considers, among other matters, the nature, frequency and severity of current and cumulative losses, forecasts of future profitability, the duration of statutory carry forwards periods, our experience with loss carry forwards not expiring unused and tax planning alternatives.

Our analysis of the need for valuation allowances considered that we have positive cumulative profit over the past three years even without the exclusion of the \$2.9 million non-deductible goodwill impairment in 2008. We also considered the forecasts of future profitability, the duration of statutory carry forward periods and tax planning alternatives. We further evaluated our past cycles which tend to average five years in length (from peak to trough) and also considered our five year cumulative results ended December 31, 2008 which also had strong profits. Finally, we evaluated where these cumulative three and five year measures might be at the end of 2009 and considered other positive evidence to conclude no incremental valuation allowance was needed at December 31, 2008.

While we have a recent history of profits, our results have been impacted by the recent global economic slowdown, and we incurred a loss in the United States in 2008 where most of our net deferred tax assets are recorded. Therefore, achievement of profitability in the United States will be a significant factor in determining our continuing ability to carry these deferred tax assets without recording a valuation allowance.

If future results from our operations are less than projected, a valuation allowance may be required to reduce the deferred tax assets. If we continue to incur losses for several more quarters, and if our operations and outlook show no sign of improvement by as early as the second quarter of 2009, we may be required to record as much as a full valuation allowance against virtually all of our deferred tax assets, which could have a material impact on our results of operations in the period in which it is recorded.

### Liquidity and Capital Resources

Our cash and cash equivalents decreased by \$14.3 million during 2008 primarily because of repurchases of \$20.9 million of common stock, and purchases of \$2.2 million of capital assets, partly offset by \$8.6 million of maturities and sales of marketable securities, net of purchases, \$94,000 of cash generated from operating activities and \$241,000 of cash received from the exercise of stock options and share purchases under our employee stock purchase plan. Our cash and cash equivalents fluctuate in part because of maturities of marketable securities, and investment of cash balances in marketable securities, or from other sources of cash, in addition to marketable securities. Accordingly, we believe the combined balances of cash and marketable securities provide a more reliable indication of our available liquidity. Combined balances of cash and marketable securities declined by \$22.8 million to \$29.8 million as of December 31, 2008 from \$52.6 million as of December 31, 2007.

We generated \$94,000 of cash from operations in 2008. Cash generated from operations included our net loss of \$6.7 million, which included a \$3.9 million non-cash goodwill impairment charge and other non-cash expenses totaling \$3.1 million for depreciation and amortization, provisions for inventory obsolescence and doubtful accounts, deferred taxes, non-cash gains and losses from foreign currency transactions, gain and loss activity from marketable securities and stock compensation expenses.

Changes in operating assets and liabilities include a decrease in accounts receivable of \$2.9 million. Cash generated from the reduction in accounts receivable was mostly offset by an increase in inventories of \$880,000, an increase in other current assets of \$1.3 million, a decrease in accounts payable of \$441,000, and decreases in accrued expenses and advance customer payments of \$452,000. The reduction in accounts receivable and the increase in inventory resulted from the significant and rapid decline in our sales during the later half of 2008. We recorded revenue of \$6.7 million in the fourth quarter of 2008 compared to \$14.9 million in the fourth quarter of 2007. The increase in other current assets reflects the anticipated tax refund we expect to receive from the carry back of our 2008 taxable loss to earlier years. The decrease in accounts payable resulted from a reduction in new inventory purchases late in the year, in anticipation of the current global economic recession and its impact on near term sales in 2009. The decrease in accrued expenses and advance customer payments primarily resulted from the elimination of incentive bonuses in 2008 given our financial performance.

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We generated \$5.6 million of cash from operations during 2007. Cash generated from operations included net income of \$5.0 million, which included \$3.5 million of net non-cash expenses for depreciation and amortization, provisions for inventory obsolescence, doubtful accounts and deferred taxes, foreign currency transactions and stock compensation expense. Changes in operating assets and liabilities included a decrease in accounts receivable of \$592,000 and an increase in advance customer payments of \$718,000. This cash generated was offset partly by increases in inventory of \$3.1 million and other assets of \$484,000 and a decrease in accounts payable of \$571,000. The decrease in accounts receivable was due to a heightened emphasis on collections during the fourth quarter of 2007. The increase in advance customer payments is due to more sales to customers who pay prior to recognition of revenue. Inventories were up due to a shift in the mix of products sold compared to our original sales forecast. Other assets were higher because of more value added and income tax refunds due from various governmental authorities. The decrease in accounts payable is the result of the timing of inventory purchases. Inventory purchases were down in the fourth

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quarter of 2007 compared to 2006, resulting in a reduction in the accounts payable balance, as payments for inventory exceeded new purchases.

We generated \$6.4 million of cash from investing activities in 2008 compared to using \$15.8 million of cash for investing activities in 2007. Changes in the level of investment in marketable securities, resulting from the purchases, sales and maturities of those securities provided \$8.6 million of cash in 2008 and used \$14.5 million of cash in 2007. We used \$2.2 million of cash in 2008 and \$1.3 million of cash in 2007 for the purchase of fixed asset and capitalized patent costs.

We used \$20.7 million of cash for financing activities in 2008, compared to \$930,000 of cash for financing activities in 2007. We spent \$20.9 million in 2008 to repurchase 2.1 million shares of our common stock. Cash spent for share repurchases totaled \$1.9 million in 2007. There are currently no share repurchase authorizations in effect. Stock option exercises and issuance of common stock under our Employee Stock Purchase Plan generated \$241,000 of cash in 2008 compared to \$971,000 of cash in 2007.

At December 31, 2008, we did not have any relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, which would have been established for the purpose of establishing off-balance sheet arrangements or other contractually narrow or limited purposes. We do not believe we are exposed to any financing, liquidity, market or credit risk that could arise if we had engaged in such relationships.

Except for our obligations under facilities leases and purchase contracts, we had no material commitments for expenditures as of December 31, 2008. While there were no material commitments, we evaluate investment opportunities that come to our attention and could make a significant commitment in the future.

Our cash, cash equivalents and marketable securities totaled \$29.8 million at December 31, 2008. We believe that on-hand cash, cash equivalents and marketable securities, coupled with anticipated future cash flow from operations, will be adequate to fund our cash flow needs for the foreseeable future, including contractual obligations discussed below.

The following summarizes our contractual obligations at December 31, 2008, and the effect such obligations are expected to have on our liquidity and cash flow in future periods.

December 31, 2008 (in 000 s)	Total	Less Than 1 Year	1	4 Years	After 4 Years
<b>Contractual Obligations:</b>					
Non-cancelable operating lease obligations	\$ 3,600	\$ 1,556	\$	2,044	\$
Purchase obligations	4,603	4,603			
Reserve for income taxes under FIN 48	1,578			1,578	
<b>Total contractual cash obligations</b>	<b>\$ 9,781</b>	<b>\$ 6,159</b>	<b>\$</b>	<b>3,622</b>	<b>\$</b>

We lease a 60,217 square foot mixed office and warehouse facility built to our specifications in Golden Valley, Minnesota, which functions as our corporate headquarters and primary manufacturing facility. The lease for this space is set to expire in June 2011. During 2008, we entered into a new three year lease for a mixed office and warehouse facility in Singapore. The lease provides for a 3 year term from May 15, 2008, annual rent of approximately \$350,000 and a two year renewal option.

Purchase obligations are defined as agreements to purchase goods or services that are enforceable and legally binding. Included in the purchase obligations category above are obligations related to purchase orders for inventory purchases under our standard terms and conditions and under negotiated agreements with vendors and utilities. We expect to receive consideration (products or services) for these purchase obligations. The purchase obligation amounts do not represent all anticipated purchases in the future, but represent only those items for which we are contractually obligated. The majority of our products and services are purchased as needed, with no contractual commitment. Consequently, these amounts will not provide a reliable indicator of our expected future cash outflows on a stand-alone basis.

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Our 2006 federal income tax return is currently being audited by the Internal Revenue Service. We are not able to reasonably estimate the timing of any potential payments that may result from this audit. See Note 6 for further discussion on income taxes.

### **Fair Value Measurements**

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In September 2006, the FASB issued Statement of Financial Accounting Standards (SFAS) No. 157 Fair Value Measurements, which defines fair value, establishes a framework for measuring fair value in generally accepted accounting principles (GAAP), and expands disclosures about fair value measurements. SFAS No. 157 will apply whenever another standard requires (or permits) assets or liabilities to be measured at fair value. The standard does not expand the use of fair value to any new circumstances, and was effective for fiscal years beginning after December 31, 2007. The FASB has provided a one year deferral for certain non-financial assets and liabilities. We adopted SFAS No. 157, effective January 1, 2008, for all financial assets and liabilities that were not deferred. The adoption of SFAS No. 157 for our financial assets and liabilities had no impact on our financial position or results of operations. We do not expect the standard to have a material impact on our consolidated results of operations and financial condition when fully adopted in 2009.

In accordance with SFAS No. 157, we value our cash equivalents and marketable securities based on a three-level fair value hierarchy. The fair value hierarchy gives the highest priority to quoted prices in active markets for identical assets or liabilities (Level 1). The next highest priority is based on quoted prices for similar assets or liabilities in active markets or quoted prices for identical or similar assets or liabilities in non-active markets or other observable inputs (Level 2). The lowest priority is given to unobservable inputs (Level 3).

The following table provides information regarding fair value measurements for our cash equivalents and marketable securities as of December 31, 2008 according to the three-level fair value hierarchy:

(In thousands)	Fair Value Measurements at Reporting Date Using			
	Balance December 31, 2008	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Cash equivalents	\$ 2,421	\$	\$ 2,421	\$
U.S. government and agency obligations	\$ 21,151	\$	\$ 21,151	\$
Corporate debt securities	\$ 2,527	\$	\$ 2,527	\$
Asset backed securities	\$ 1,559	\$	\$ 1,559	\$
Equity securities	\$ 30	\$ 30	\$	\$

Changes in the fair value of these investments for the year ended December 31, 2008 resulting from our adoption of SFAS No. 157 had no impact on our consolidated financial statements. Our foreign currency swap agreements are structured to mature on the last day of each quarter. As a result, the fair value associated with these agreements is inconsequential.

In February 2007, the FASB issued Statement No. 159, The Fair Value Option for Financial Assets and Financial Liabilities, which provides companies with an option to report selected financial assets and liabilities at fair value. This standard was effective beginning after December 31, 2007. We elected not to adopt the provisions of SFAS No. 159 in 2008.

### Related Party Transactions

We did not engage in any related party transactions during the three year period ended December 31, 2008.

### Inflation and Foreign Currency Transactions

Changes in our revenues have resulted primarily because of changes in the level of unit shipments and the relative strength of the worldwide electronics and semiconductor fabrication capital equipment markets. We believe that inflation has not had a significant effect on our operations. All of our international export sales are negotiated, invoiced and paid in U.S. dollars. Accordingly, although currency fluctuations do not significantly affect our revenue and income per unit, they can influence the price competitiveness of our products and the willingness of existing and potential customers to purchase units.

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We enter into foreign currency swap agreements to hedge short term inter-company financing transactions with our subsidiary in the United Kingdom. These currency swap agreements are structured to mature near the last day of each quarter, and are designated as cash flow hedges. At December 31, 2008, we had one open swap agreement that was purchased on that day. As a result, any unrealized gains or losses as of December 31, 2008 were inconsequential. During the year ended December 31, 2008, gains from the settlement of foreign currency swap agreements totaling \$277,000 partially offset non-cash transaction losses on the underlying inter-company balance of \$453,000.

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We have sales offices located in the UK, Singapore, and China. We do not believe that currency fluctuations will have a material impact on our consolidated financial statements.

### Recent Accounting Developments

In December 2007, the FASB issued Statement No. 141R, *Business Combinations*, which establishes principles for how an acquirer recognizes and measures in its financial statements the identifiable assets acquired and liabilities assumed in a business combination, recognizes and measures the goodwill acquired in a business combination, and determines what information to disclose to enable users of the financial statements to evaluate the nature and financial effects of a business combination. We are required to apply this standard prospectively to business combinations for which the acquisition date is on or after January 1, 2009. Earlier application is not permitted.

In March 2008, the FASB issued Statement No. 161 *Disclosures about Derivative Instruments and Hedging Activities* which amends and expands Statement No. 133 *Accounting for Derivative Instruments and Hedging Activities*. SFAS No. 161 requires disclosure of the fair value of derivative instruments and their gains or losses in tabular format, information about credit-risk-related contingent features in derivative agreements, counterparty credit risk, along with strategies and objectives for using derivative instruments. This standard must be applied prospectively for interim periods and fiscal years beginning after November 15, 2008. We are presently analyzing the impact of SFAS No. 161 on our financial statement disclosures.

### Critical Accounting Policies and Estimates

Our discussion and analysis of financial condition and results of operations is based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. On an on-going basis, we evaluate these estimates, including those related to revenue recognition, bad debts, warranty obligations, inventory valuation, intangible assets, and income taxes. We base these estimates on historical experience and on various other assumptions that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Our actual results may differ from these estimates under different assumptions or conditions. The estimates and judgments that we believe have the most effect on our reported financial position and results of operations are as follows:

#### *Revenue Recognition.*

Revenue from all customers, including distributors, is recognized when all significant contractual obligations have been satisfied and collection of the resulting receivable is reasonably assured. Generally, revenues are recognized upon shipment under FOB shipping point terms. Estimated returns and warranty costs are recorded at the time of sale. Sales of some surface mount technology (SMT) products may require customer acceptance due to performance or other acceptance criteria included in the terms of sale. For these SMT product sales, revenue is recognized at the time of customer acceptance.

When a sale involves multiple elements, revenue is allocated to each respective element in accordance with Emerging Issues Task Force (EITF) 00-21 *Accounting for Revenue Arrangements with Multiple Deliverables*. Allocation of revenue to undelivered elements of the arrangement is based on fair value of the element being sold on a stand-alone basis.

Costs related to products delivered are recognized in the period revenue is recognized. Cost of goods sold consists primarily of direct labor, allocated manufacturing overhead, raw materials and components and excludes amortization of intangible assets.

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#### *Allowance for Doubtful Accounts.*

We maintain allowances for doubtful accounts for estimated losses resulting from the inability of our customers to make required payments. In making the determination of the appropriate allowance for doubtful accounts, we consider specific accounts, historical write-offs, changes in customer relationships and credit worthiness and concentrations of credit risk. Specific accounts receivable are written-off once a determination is made that the account is uncollectible. If the financial condition of our customers were to deteriorate, resulting in an impairment of their ability to make payments, additional allowances may be required. The allowance for doubtful accounts is \$250,000 as of December 31, 2008.

#### *Allowance for Warranty Expenses.*

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We provide for the estimated cost of product warranties at the time revenue is recognized. While we engage in extensive product quality programs and processes, including actively monitoring and evaluating the quality of component suppliers, warranty obligations are affected by product failure rates, material usage and service delivery costs incurred in correcting a product failure. Should actual product failure rates, material usage or service delivery costs differ from our estimates, revisions to the estimated warranty liability would be required. The allowance for warranties is \$823,000 at December 31, 2008.

### *Reserve for Inventory Obsolescence.*

We write down inventory for estimated obsolescence or unmarketable inventory equal to the difference between the cost of inventory and the estimated market value based upon assumptions about future demand and market conditions. If actual market conditions are less favorable than those projected, or if in the future we decide to discontinue sales and marketing of any of our products, additional inventory write-downs may be required. At December 31, 2008, we had a reserve for obsolete and excess inventory of \$1.1 million.

### *Valuation of Intangible and Long-Lived Assets.*

We assess the impairment of identifiable intangible assets, long lived assets and related goodwill whenever events or changes in circumstances indicate the carrying value may not be recoverable. Factors we consider important, which could trigger an impairment review include the following:

Significant under-performance relative to expected historical or projected future operating results.

Significant changes in the manner of our use of the acquired assets or the strategy for our overall business.

Significant negative industry or economic trends.

Significant decline in our stock price for a sustained period; and our market capitalization relative to net book value.

For intangible assets and long-lived assets, if the carrying value of the asset exceeds the undiscounted cash flows from such asset.

When we determine that the carrying value of intangibles, long-lived assets and related goodwill may not be recoverable based upon the existence of one or more of the above indicators of impairment, we measure any potential impairment based on a projected discounted cash flow method using a discount rate that we believe is commensurate with the risk inherent in our current business model. Annually, we also test for impairment of goodwill for each of our reporting units by estimating their fair value, utilizing a discounted cash flow methodology to determine a reasonable valuation. The evaluation of asset impairment requires us to make assumptions about future cash flows over the life of the asset being evaluated. These assumptions require significant judgment and actual results may differ from assumed or estimated amounts.

In the fourth quarter of 2008, we reviewed our identifiable intangible assets, long-lived assets and goodwill for impairment because facts and circumstances similar to those noted above indicated that the assets might be impaired, including weakness in the United States capital markets caused by the deepening global recession, and our reduced level of profitability, causing a significant drop in our market capitalization.

An impairment loss for our identifiable intangible and long lived assets would be recognized when future undiscounted cash flows expected to result from use of the asset and eventual disposition are less than the carrying amount. As of December 31, 2008, we projected our future undiscounted cash flows associated with these assets and concluded that there was no impairment.

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In evaluating whether goodwill was impaired, we compared the fair value of our two reporting units to which goodwill is assigned to their carrying value (Step 1 of the impairment test). In calculating fair value, we used the income approach. The income approach is a valuation technique under which we estimate future cash flows using the reporting units' financial forecasts. Future estimated cash flows are discounted to their present value to calculate fair value. The summation of our reporting units' fair values is compared and reconciled to our market capitalization as of the date of our impairment test. In the situation where a reporting unit's carrying amount exceeds its fair value, the amount of the impairment loss must be measured. The measurement of the impairment (Step 2 of the impairment test) is calculated by determining the implied fair value of a reporting unit's goodwill. In calculating the implied fair value of goodwill, the fair value of the reporting unit is allocated to all other assets and liabilities of that unit based on their fair values. The excess of the fair value of a reporting unit over the amount assigned to its other assets and liabilities is the implied fair value of goodwill. The goodwill impairment is measured as the excess of the carrying amount of goodwill over its implied fair value.

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In determining the fair value of our reporting units under the income approach, our expected cash flows are affected by various assumptions. Fair value on a discounted cash flow basis uses forecasts over a 3 year period with an estimation of residual growth rates thereafter. We use our business plans and projections as the basis for expected future cash flows. The significant assumptions incorporated in these forecasts for the most recent goodwill impairment tests include our expectations regarding revenue during the 3 year period, a 7 percent terminal growth rate and a 25% discount rate for both our electronic assembly and semiconductor reporting units. The selection of discount rates may have a significant impact on the determination of fair value. However, for the 2008 test, an increase or decrease of one percent in the discount rate would have had no impact on the impairment recorded for our electronic assembly reporting unit.

For purposes of our goodwill impairment test, we reconciled the fair value for each of our reporting units to our overall fair value. The publicly traded market price of our common stock and a control premium of 30 percent was used in our determination of fair value, which represents the value an investor would pay above minority interest transaction prices in order to obtain a controlling interest in the company. The control premium was determined by a review of premiums paid for similar companies over the past five years. While the control premium is a significant assumption in determining our overall fair value, it had a minimal impact on the determination of goodwill impairment in 2008. An increase in the assumed control premium by five percent to 35 percent would have had no impact on the impairment recorded for our electronic assembly reporting unit.

Our remaining goodwill at December 31, 2008, in the amount of \$569,000 relates to our semiconductor reporting unit. Our recent analyses indicate that this goodwill is not impaired. However, our conclusion could change in the future, if our assumptions about future economic conditions, revenue growth or profitability change. Any resulting impairment charge could have a material effect on our financial position and results of operations in the future.

### ***Income Taxes.***

Significant judgment is required in determining worldwide income tax expense based upon tax laws in the various jurisdictions in which we operate. We have established reserves for uncertain tax positions by applying the more likely than not criteria of FIN 48, under which the recognition threshold is met when an entity concludes that a tax position, based solely on its technical merits, is more likely than not to be sustained upon examination by the relevant tax authority. All tax positions are analyzed periodically and adjustments are made as events occur that warrant modification, such as the completion of audits or the expiration of statutes of limitations, which may result in future charges or credits to income tax expense.

As part of the process of preparing consolidated financial statements, management is required to estimate income taxes in each of the jurisdictions in which we operate. This process involves estimating the current tax liability, as well as assessing temporary differences arising from the different treatment of items for financial statement and tax purposes. These differences result in deferred tax assets and liabilities, which are recorded on our balance sheet.

We currently have significant deferred tax assets as a result of temporary differences between taxable income on our tax returns and income before income taxes under U.S. generally accepted accounting principals, research and development tax credit carry forwards and foreign net operating loss carry forwards. A deferred tax asset generally represents future tax benefits to be received when temporary differences previously reported in our financial statements become deductible for income tax purposes, or when net operating loss carry forwards are applied against future taxable income, or when tax credit carry forwards are applied against future tax liabilities. We assess the realizability of our deferred tax assets and the need for a valuation allowance based on Statement of Financial Accounting Standards No. 109.

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Significant judgment is required in determining the realizability of our deferred tax assets. The assessment of whether valuation allowances are required considers, among other matters, the nature, frequency and severity of current and cumulative losses, forecasts of future profitability, the duration of statutory carry forward periods, our experience with loss carry forwards not expiring unused and tax planning alternatives.

Our analysis of the need for valuation allowances considered that we have positive cumulative profit over the past three years even without the exclusion of the \$2.9 million non-deductible goodwill impairment in 2008. We also considered the forecasts of future profitability, the duration of statutory carry forward periods and tax planning alternatives. We further evaluated our past cycles which tend to average five years in length (from peak to trough) and also considered our five year cumulative results ended December 31, 2008 which also had strong profits. Finally, we evaluated where these cumulative three and five year measures might be at the end of 2009 and considered other positive evidence to conclude no incremental valuation allowance was needed at December 31, 2008.

While we have a recent history of profits, our results have been impacted by the recent global economic slowdown, and we incurred a loss in the United States in 2008 where most of our net deferred tax assets are recorded. Therefore, achievement of profitability in the United States will be a significant factor in determining our continuing ability to carry these deferred tax assets without recording a valuation allowance.

If future results from our operations are less than projected, a valuation allowance may be required to reduce the deferred tax assets. If we continue to incur losses for several more quarters, and if our operations and outlook show no sign of improvement by as early as the second quarter of 2009, we may be required to record as much as a full valuation allowance against virtually all of our deferred tax assets, which could have a material impact on our results of operations in the period in which it is recorded.

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

We invest excess funds not required for current operations in marketable securities. The investment policy for these marketable securities is approved annually by the Board of Directors and administered by management. A third party, approved by our Board of Directors, manages the portfolio at the direction of our management. The investment policy dictates that marketable securities consist of U.S. Government or U.S. Government agency securities, various tax exempt securities or certain approved corporate instruments with effective maturities of five years or less and an average portfolio maturity of not more than 18 months. The policy also provides for investment in certain specified marketable equity securities. As of December 31, 2008 our portfolio of marketable securities had a weighted average maturity of 1.2 years. All marketable securities are classified as available for sale and carried at fair value. We estimate that a hypothetical 1% increase in market interest rates would decrease the market value of our marketable securities by approximately \$325,000. If such a rate increase occurred, our net income would only be impacted if securities were sold prior to maturity.

We enter into foreign currency swap agreements to hedge short term inter-company financing transactions with our subsidiary in the United Kingdom. These currency swap agreements are structured to mature near the last day of each quarter, and are designated as cash flow hedges. At December 31, 2008, we had one open swap agreement that was purchased on that day. As a result, any unrealized gains or losses as of December 31, 2008 were inconsequential. During the year ended December 31, 2008, gains from the settlement of foreign currency swap agreements totaling \$277,000 partially offset non-cash transaction losses on the underlying inter-company balance of \$453,000.

Our foreign currency swap agreements contain credit risk to the extent that our bank counter-parties may be unable to meet the terms of the agreements. We minimize such risk by limiting our counter-parties to major financial institutions. We do not expect material losses as a result of defaults by other parties.

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

**CONSOLIDATED BALANCE SHEETS  
CYBEROPTICS CORPORATION**

(In thousands, except share information)	As of December 31,	
	2008	2007
<b>ASSETS</b>		
Cash and cash equivalents	\$ 4,516	\$ 18,864
Marketable securities	10,433	11,953
Accounts receivable, less allowance for doubtful accounts of \$250 at December 31, 2008 and \$310 at December 31, 2007	6,951	9,781
Inventories	9,869	10,640
Other current assets	2,579	1,466
Deferred tax assets, net	2,604	2,575
Total current assets	36,952	55,279

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Marketable securities	14,834	21,801
Equipment and leasehold improvements, net	2,615	1,944
Intangible and other assets, net	956	1,069
Goodwill	569	5,207
Other assets	189	
Deferred tax assets, net	2,834	1,739
Total assets	\$ 58,949	\$ 87,039

LIABILITIES AND STOCKHOLDERS' EQUITY

Accounts payable	\$ 2,753	\$ 3,209
Advance customer payments	684	794
Accrued expenses	3,054	3,337
Total current liabilities	6,491	7,340
Reserve for income taxes	1,578	1,583
Total liabilities	8,069	8,923

Commitments and contingencies (notes 7 and 14)

Stockholders' equity:

Preferred stock, no par value, 5,000,000 shares authorized, none outstanding		
Common stock, no par value, 37,500,000 shares authorized, 6,769,295 shares issued and outstanding at December 31, 2008 and 8,793,059 shares issued and outstanding at December 31, 2007	29,156	49,303
Accumulated other comprehensive loss	(530)	(112)
Retained earnings	22,254	28,925
Total stockholders' equity	50,880	78,116

Total liabilities and stockholders' equity	\$ 58,949	\$ 87,039
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THE ACCOMPANYING NOTES ARE AN INTEGRAL PART OF THE CONSOLIDATED FINANCIAL STATEMENTS.

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**CONSOLIDATED STATEMENTS OF OPERATIONS  
CYBEROPTICS CORPORATION**

(In thousands, except per share amounts)	Year ended December 31,		
	2008	2007	2006
Revenues	\$ 45,452	\$ 58,776	\$ 57,089
Cost of revenues	26,387	28,529	27,188
Gross margin	19,065	30,247	29,901
Research and development expenses	10,406	9,824	8,112
Selling, general and administrative expenses	14,229	14,701	14,077
Amortization of intangibles	182	182	591
Severance and recruitment	770		
Goodwill impairment	3,941		
Income (loss) from operations	(10,463)	5,540	7,121
Interest income and other	1,193	2,214	1,943
Income (loss) before income taxes	(9,270)	7,754	9,064
Income tax provision (benefit)	(2,599)	2,726	2,674
Net income (loss)	\$ (6,671)	\$ 5,028	\$ 6,390



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Net income (loss) per share	Basic	\$	(0.87)	\$	0.57	\$	0.71
Net income (loss) per share	Diluted	\$	(0.87)	\$	0.56	\$	0.70
Weighted average shares outstanding	Basic		7,703		8,897		8,991
Weighted average and common equivalent shares outstanding	Diluted		7,703		8,975		9,081

THE ACCOMPANYING NOTES ARE AN INTEGRAL PART OF THE CONSOLIDATED FINANCIAL STATEMENTS.

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**CONSOLIDATED STATEMENTS OF CASH FLOWS  
CYBEROPTICS CORPORATION**

(In thousands)	Year ended December 31,		
	2008	2007	2006
<b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>			
Net income (loss)	\$ (6,671)	\$ 5,028	\$ 6,390
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	2,246	1,907	1,884
Provision for doubtful accounts	(34)	98	38
Provision for inventory obsolescence	1,007	253	373
Deferred income tax provision (benefit)	(1,349)	604	735
Foreign currency transaction (gains) losses	485	(22)	(294)
Excess tax benefits from equity compensation plans	(2)	(33)	(185)
Stock compensation expense	580	693	778
Unrealized loss on available for sale equity security	166		
Realized gains on available for sale equity security	(40)		
Goodwill impairment	3,941		
Changes in operating assets and liabilities:			
Accounts receivable	2,864	592	(734)
Inventories	(880)	(3,115)	(1,573)
Other assets	(1,326)	(484)	79
Accounts payable	(441)	(571)	1,143
Advance customer payments	(110)	718	(352)
Accrued expenses and other liabilities	(342)	(111)	1,527
Net cash provided by operating activities	94	5,557	9,809
<b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>			
Proceeds from maturities of available for sale marketable securities	15,199	17,591	16,670
Proceeds from sales of available for sales marketable securities	6,860		
Purchases of available for sale marketable securities	(13,502)	(32,064)	(13,983)
Additions to equipment and leasehold improvements	(1,834)	(1,017)	(1,131)
Additions to patents	(343)	(279)	(266)
Net cash provided (used) by investing activities	6,380	(15,769)	1,290
<b>CASH FLOWS FROM FINANCING ACTIVITIES:</b>			
Proceeds from exercise of stock options	12	632	1,459
Excess tax benefits from equity compensation plans	2	33	185
Proceeds from issuance of common stock under Employee Stock Purchase Plan	227	306	326
Repurchase of common stock	(20,949)	(1,901)	(2,579)
Net cash used by financing activities	(20,708)	(930)	(609)
Effects of exchange rate changes on cash and cash equivalents	(114)	(50)	(26)
Net increase (decrease) in cash and cash equivalents	(14,348)	(11,192)	10,464
Cash and cash equivalents beginning of year	18,864	30,056	19,592
Cash and cash equivalents end of year	\$ 4,516	\$ 18,864	\$ 30,056

THE ACCOMPANYING NOTES ARE AN INTEGRAL PART OF THE CONSOLIDATED FINANCIAL STATEMENTS.

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Table of Contents**CONSOLIDATED STATEMENTS OF STOCKHOLDERS EQUITY AND COMPREHENSIVE INCOME  
CYBEROPTICS CORPORATION**

(In thousands)	Common Stock		Accumulated Other Comprehensive Income (Loss)	Retained Earnings	Total Stockholders Equity
	Shares	Amount			
BALANCE, DECEMBER 31, 2005	8,899	\$ 49,351	\$ (700)	\$ 17,539	\$ 66,190
Excess tax benefit from exercise of stock options		185			185
Exercise of stock options net of shares exchanged	144	1,459			1,459
Stock compensation		802			802
Issuance of common stock under Employee Stock Purchase Plan	29	326			326
Repurchase of common stock	(210)	(2,579)			(2,579)
Comprehensive income:					
Market value adjustments of marketable securities			58		58
Cumulative translation adjustment			189		189
Net income				6,390	6,390
Total comprehensive income					6,637
BALANCE, DECEMBER 31, 2006	8,862	\$ 49,544	\$ (453)	\$ 23,929	\$ 73,020
Reduction in retained earnings related to the adoption of FIN 48				(32)	(32)
Excess tax benefit from exercise of stock options		29			29
Exercise of stock options and vesting of restricted stock units, net of shares exchanged	60	632			632
Stock compensation		693			693
Issuance of common stock under Employee Stock Purchase Plan	29	306			306
Repurchase of common stock	(158)	(1,901)			(1,901)
Comprehensive income:					
Market value adjustments of marketable securities			268		268
Cumulative translation adjustment			73		73
Net income				5,028	5,028
Total comprehensive income					5,369
BALANCE, DECEMBER 31, 2007	8,793	\$ 49,303	\$ (112)	\$ 28,925	\$ 78,116
Excess tax benefit from exercise of stock options, net of deferred tax shortfall related to stock options and restricted stock units		(17)			(17)
Exercise of stock options, vesting of restricted stock units, net of shares exchanged as payment	7	12			12
Share issuances to board members and officers for compensation purposes	23	127			127
Stock compensation		453			453
Issuance of common stock under Employee Stock Purchase Plan	28	227			227
Repurchase of common stock	(2,082)	(20,949)			(20,949)
Comprehensive income:					
Market value adjustments of marketable securities, net of reclassification adjustment			120		120
Cumulative translation adjustment			(538)		(538)
Net loss				(6,671)	(6,671)
Total comprehensive loss					(7,089)

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BALANCE, DECEMBER 31, 2008 6,769 \$ 29,156 \$ (530) \$ 22,254 \$ 50,880

THE ACCOMPANYING NOTES ARE AN INTEGRAL PART OF THE CONSOLIDATED FINANCIAL STATEMENTS.

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## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS CYBEROPTICS CORPORATION

### NOTE 1 BUSINESS DESCRIPTION AND SIGNIFICANT ACCOUNTING POLICIES

#### **Description of Business**

We are a leading global supplier of optical process control sensors and inspection systems that are used to control the manufacturing process and to ensure the quality of electronic circuit boards manufactured by our customers using surface mount technology (SMT). We also manufacture and sell sensors that assist with yield improvement, and the placement and transport of wafers during semiconductor fabrication.

#### **Principles of Consolidation**

The consolidated financial statements include the accounts of CyberOptics Corporation and its wholly-owned subsidiaries. In these Notes to the Consolidated Financial Statements, these companies are collectively referred to as CyberOptics, we, us, or our. All significant inter-company accounts and transactions have been eliminated in consolidation.

#### **Use of Estimates**

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

#### **Cash Equivalents**

We consider all highly liquid investments purchased with an original maturity of 90 days or less to be cash equivalents. Cash and cash equivalents consist of funds maintained in demand deposit accounts, money market accounts, corporate debt instruments and U.S. government backed obligations.

#### **Marketable Securities**

All marketable securities are classified as available for sale and consist of U.S. government backed obligations, corporate debt instruments, asset backed securities or equity securities. Marketable securities are classified as short-term or long-term in the balance sheet based on their maturity date and expectations regarding sales.

Available for sale securities are carried at fair value, with unrealized gains and losses reported as a separate component of stockholders' equity until realized, or an other-than temporary impairment is recognized in current operations. These fair values are primarily determined using quoted market prices. The carrying amounts of securities, for purposes of computing unrealized gains and losses, are determined by specific identification. The cost of securities sold is also determined by specific identification.

We monitor the carrying value of our investments compared to their fair value to determine whether an other-than-temporary impairment has occurred. If a decline in fair value is determined to be other-than-temporary, an impairment charge related to that specific investment is recorded in current operations.

#### **Inventories**

Inventories are stated at the lower of cost or market, with cost determined using the first-in, first-out (FIFO) method. Appropriate consideration is given to deterioration, obsolescence, and other factors in evaluating net realizable value.

#### **Allowance for Doubtful Accounts**

Allowances for doubtful accounts are maintained for estimated losses resulting from the inability of our customers to make required payments. In making the determination of the appropriate allowance for doubtful accounts, we consider specific accounts, historical write-offs, changes in customer relationships and credit worthiness and concentrations of credit risk. Specific accounts receivable are written-off once a determination is made that the account is uncollectible.

#### **Equipment and Leasehold Improvements**

Equipment and leasehold improvements are stated at cost. Significant additions or improvements extending asset lives are capitalized, while repairs and maintenance are charged to expense as incurred. In progress costs are capitalized with depreciation beginning when assets are placed in service. Depreciation is recorded using the straight-line method over the estimated useful lives of the assets, ranging from three to ten years. Leasehold improvements are depreciated using the straight-line method over the shorter of the asset useful life or the underlying lease term.

Gains or losses on dispositions are included in current operations.

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### **Intangible Assets and Goodwill**

Identified intangible assets (excluding goodwill) primarily developed technology and trademarks are being amortized on a straight-line basis over periods ranging from four to ten years, based upon their estimated life. The straight-line method of amortization reflects an appropriate allocation of the cost of intangible assets to earnings in proportion to the economic benefits obtained by us in each reporting period.

Intangible and other long lived assets are reviewed for impairment when events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. An impairment loss would be recognized when future undiscounted cash flows expected to result from use of the asset and eventual disposition are less than the carrying amount. We periodically assess the potential impairment of our intangible and other long-lived assets based on anticipated undiscounted cash flows.

Goodwill represents the excess of purchase price over the fair value of net assets acquired in a business combination. We evaluate the carrying value of goodwill for our reporting units during the fourth quarter of each year and between annual evaluations if events occur or circumstances change that indicate goodwill might be impaired. Goodwill is tested by comparing the fair value of each reporting unit, as determined based on their future estimated discounted cash flows, to the carrying value for each reporting unit.

### **Patents**

Patents consist of legal and patent registration costs for protection of our proprietary sensor technology. We amortize patent costs on a straight-line basis over a three year period, based upon their estimated life.

### **Revenue Recognition**

Revenue from all customers, including distributors, is recognized when all significant contractual obligations have been satisfied and collection of the resulting receivable is reasonably assured. Generally, revenues are recognized upon shipment under FOB shipping point terms. Estimated returns and warranty costs are recorded at the time of sale. Sales of some surface mount technology (SMT) products may require customer acceptance due to performance or other acceptance criteria included in the terms of sale. For these SMT product sales, revenue is recognized at the time of customer acceptance.

When a sale involves multiple elements revenue is allocated to each respective element in accordance with Emerging Issues Task Force (EITF) 00-21 Accounting for Revenue Arrangements with Multiple Deliverables. Allocation of revenue to undelivered elements of the arrangement is based on fair value of the element being sold on a stand-alone basis.

Costs related to products delivered are recognized in the period revenue is recognized. Cost of goods sold consists primarily of direct labor, manufacturing overhead, raw materials and components and excludes amortization of intangible assets.

### **Foreign Currency Translation**

Financial position and results of operations of our international subsidiaries are measured using local currency as the functional currency. Assets and liabilities of these operations are translated at the exchange rates in effect at each fiscal year-end. Statements of operations accounts are translated at the average rates of exchange prevailing during the year. Translation adjustments arising from the use of differing exchange rates from period to period are included as a cumulative translation adjustment in stockholders' equity. Foreign currency transaction gains and losses are included as a component of net income (loss).

### **Research and Development**

Research and development (R&D) costs, including software development, are expensed when incurred. Software development costs are required to be expensed until the point that technological feasibility and proven marketability of the product are established; costs otherwise capitalizable after such point also are expensed because they are insignificant. All other R&D costs are expensed as incurred. Research and development expenses consist primarily of salaries, project materials, contract labor and other costs associated with ongoing product development and enhancement efforts.

### **Advertising Costs**

We expense all advertising costs as incurred, and the amounts were not material for all periods presented.

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### **Income Taxes**

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In July 2006, the FASB issued Interpretation No. 48, *Accounting for Uncertainty in Income Taxes*. FIN 48 supersedes SFAS No. 5, *Accounting for Contingencies*, as it relates to income tax liabilities and lowers the minimum threshold a tax position is required to meet before being recognized in the financial statements from *probable* to *more likely than not* (i.e., a likelihood of occurrence greater than fifty percent). Under FIN 48, the recognition threshold is met when an entity concludes that a tax position, based solely on its technical merits, is more likely than not to be sustained upon examination by the relevant taxing authority. Those tax positions failing to qualify for initial recognition are recognized in the first interim period in which they meet the more likely than not standard, or are resolved through negotiation or litigation with the taxing authority, or upon expiration of the statute of limitations. De-recognition of a tax position that was previously recognized occurs when an entity subsequently determines that a tax position no longer meets the more likely than not threshold of being sustained.

We adopted FIN 48 on January 1, 2007, at which time differences between the amounts recognized in the financial statements prior to the adoption of FIN 48 and the amounts recognized after adoption were accounted for as a cumulative effect adjustment recorded to the beginning balance of retained earnings. Under FIN 48, only the portion of the liability that is expected to be paid within one year is classified as a current liability. As a result, liabilities expected to be resolved without the payment of cash (e.g. resolution due to the expiration of the statute of limitations) or are not expected to be paid within one year are not classified as current. It is our policy to record estimated interest and penalties as income tax expense and tax credits as a reduction in income tax expense.

Deferred income taxes are recorded to reflect the tax consequences in future years of differences between the financial reporting and tax bases of assets and liabilities. Income tax expense is the sum of the tax currently payable and the change in the deferred tax assets and liabilities during the period, excluding changes in deferred tax assets recorded to equity and goodwill. Valuation allowances are established when, in the opinion of management, there is uncertainty that some portion or all of the deferred tax assets will not be realized. We assess the realizability of our deferred tax assets and the need for a valuation allowance based on Statement of Financial Accounting Standards No. 109.

### **Net Income (Loss) Per Share**

Basic net income (loss) per share is computed by dividing net income (loss) by the weighted average number of common shares outstanding during the period. Net income per diluted share is computed by dividing net income by the weighted average number of common and common equivalent shares outstanding during the period. Common equivalent shares consist of common shares to be issued upon exercise of stock options, restricted stock units and from participation in our employee stock purchase plan, as calculated using the treasury stock method.

No common equivalent shares were included in the calculation of net loss per diluted share for the year ended December 31, 2008 due to their anti-dilutive effect. The calculation of net income per diluted share includes 78,000 common equivalents for the year ended December 31, 2007 and 90,000 common equivalents for the year ended December 31, 2006. The calculation of net income (loss) per diluted share excludes potentially dilutive shares of 813,000 for the year ended December 31, 2008, 304,000 for the year ended December 31, 2007 and 260,000 for the year ended December 31, 2006, because their effect would be anti-dilutive.

### **Stock-Based Compensation**

Effective January 1, 2006, we adopted SFAS No. 123(R), *Share-Based Payment*, applying the modified prospective method. This statement requires all equity-based payments to employees, including grants of employee stock options, to be recognized in the consolidated statement of operations based on the grant date fair value of the award.

Under the modified prospective method, we are required to record equity-based compensation expense for all awards granted after the date of adoption, and for all unvested shares granted prior to the date of adoption. We utilize the straight-line method of expense recognition over the award's service period for our graded vesting options. The fair values of stock options granted before and after adoption of SFAS No. 123(R) have been determined using the Black-Scholes model. The compensation expense recognized for all equity based awards is net of estimated forfeitures. We have classified equity based compensation within our statement of operations in the same manner as our cash based employee compensation costs. We elected to use the alternative transition guidance known as the *short-cut method* provided by FASB Staff Position No. FAS 123(R)-3 to determine our pool of windfall tax benefits at adoption of SFAS No. 123(R).

See Note 3 to the Consolidated Financial Statements for additional information on stock-based compensation under SFAS No. 123(R).

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### **Recent Accounting Developments**

In December 2007, the FASB issued Statement No. 141R, *Business Combinations*, which establishes principles for how an acquirer recognizes and measures in its financial statements the identifiable assets acquired and liabilities assumed in a business combination, recognizes and measures the goodwill acquired in a business combination, and determines what information to disclose to enable users of the financial statements to evaluate the nature and financial effects of a business combination. We are required to apply this standard prospectively to business combinations for which the acquisition date is on or after January 1, 2009. Earlier application is not permitted.

In March 2008, the FASB issued Statement No. 161 *Disclosures about Derivative Instruments and Hedging Activities* which amends and expands Statement No. 133 *Accounting for Derivative Instruments and Hedging Activities*. SFAS No. 161 requires disclosure of the fair value

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of derivative instruments and their gains or losses in tabular format, information about credit-risk-related contingent features in derivative agreements, counterparty credit risk, along with strategies and objectives for using derivative instruments. This standard must be applied prospectively for interim periods and fiscal years beginning after November 15, 2008. We are presently analyzing the impact of SFAS No. 161 on our financial statement disclosures.

### Comprehensive Income (Loss)

Components of comprehensive income (loss) include net income (loss), foreign-currency translation adjustments, unrealized gains on available-for-sale securities and reclassification adjustments. At December 31, 2008 and 2007, components of accumulated other comprehensive loss is as follows:

(In thousands)	Foreign Currency Translation	Net Unrealized Gains on Securities	Accumulated Other Comprehensive Loss
Balance December 31, 2007	\$ (368)	\$ 256	\$ (112)
Unrealized gains on investments, net of tax of \$20		38	38
Reclassification adjustment for realized gains and impairment losses on securities, net of tax of \$44		82	82
Translation adjustments	(538)		(538)
Other comprehensive loss	(538)	120	(418)
Balance December 31, 2008	\$ (906)	\$ 376	\$ (530)

Net unrealized gains on securities include deferred tax liabilities of \$205,000 at December 31, 2008 and \$141,000 at December 31, 2007.

### NOTE 2 MARKETABLE SECURITIES

Investments in marketable securities classified as available for sale with a carrying amount of \$25,267,000 at December 31, 2008 and \$33,754,000 at December 31, 2007 consist of the following:

December 31, 2008				
(In thousands)	Cost	Unrealized Gains	Unrealized Losses	Recorded Basis
U.S. government and agency obligations	\$ 8,793	130		8,923
Corporate debt securities and certificates of deposit	1,500	10		1,510
Marketable securities short term	\$ 10,293	140		10,433
U.S. government and agency obligations	\$ 11,739	489		12,228
Corporate debt securities	1,010	9	(2)	1,017
Asset backed securities	1,560	9	(10)	1,559
Equity securities	84		(54)	30
Marketable securities long term	\$ 14,393	507	(66)	14,834

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December 31, 2007				
(In thousands)	Cost	Unrealized Gains	Unrealized Losses	Recorded Basis
U.S. government and agency obligations	\$ 11,114	44		11,158
Corporate debt securities and certificates of deposit	795			795
Marketable securities short term	\$ 11,909	44		11,953

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U.S. government and agency obligations	\$ 14,655	342	14,997
Corporate debt securities	3,008	38	3,046
Asset backed securities	3,535	43	3,578
Equity securities	250	(70)	180
Marketable securities long term	\$ 21,448	423	(70) 21,801

Our long term investments in marketable debt securities all had maturities of less than five years. As of December 31, 2008, our investment in equity securities was in a \$54,000 unrealized loss position due to weak economic and stock market conditions. In 2008 we recognized a \$166,000 impairment charge for this security resulting from a decline in market value which we determined to be other than temporary. We intend to hold this security indefinitely. No other impairment charges were recognized for marketable securities in 2008, 2007 or 2006. At December 31, 2008, marketable debt securities valued at \$1,592,000 were in an unrealized loss position totaling \$12,000 (all had been in an unrealized loss position for less than twelve months). All remaining marketable debt securities valued at \$23,645,000 were in an unrealized gain position totaling \$647,000.

Net pre-tax unrealized gains of \$581,000 at December 31, 2008 and \$397,000 at December 31, 2007 were recorded as a component of accumulated other comprehensive income (loss) in stockholders equity. In 2008, we recognized a gain of \$40,000 from the sale of marketable securities and received sale proceeds totaling \$6,860,000. There were no sales of marketable securities in 2007 or 2006.

### NOTE 3 ACCOUNTING FOR STOCK BASED COMPENSATION

#### Share Based Compensation Information under SFAS No. 123R

The following is a summary of pre-tax equity based compensation expense for the three year period ended December 31, 2008:

(In thousands)	2008	2007	2006
Pre-tax equity compensation expense	\$ 580	\$ 693	\$ 778
Income tax benefits related to equity based compensation	\$ 144	\$ 132	\$ 123

Pre-tax equity compensation expense for 2008 includes \$366,000 for stock options and restricted stock units, \$87,000 for our employee stock purchase plan and \$127,000 for 23,040 shares issued to board members and officers for compensation purposes (weighted average grant date fair value of \$5.49). Inventory balances include capitalized equity compensation costs totaling \$21,000 at December 31, 2008 and \$24,000 at December 31, 2007.

We use historical data to estimate pre-vesting forfeitures. At December 31, 2008, the total unrecognized compensation cost related to non vested equity based compensation arrangements was \$956,000 and the related weighted average period over which it is expected to be recognized is 2.3 years. The total fair value of shares vested was \$393,000 in 2008, \$758,000 in 2007 and \$1,089,000 in 2006.

The fair values of the options granted to our employees were estimated on the date of grant using the Black-Scholes model. The Black Scholes valuation model incorporates ranges of assumptions that are disclosed in the table below. The risk-free interest rate is based on the United States Treasury yield curve at the time of grant with a remaining term equal to the expected life of the awards. We estimated the expected term for our graded vesting options, representing the length of time in years that the options are expected to be outstanding, using the simplified method as specified in Staff Accounting Bulletin No. 107, Valuation of Share-Based Payment Arrangements for Public Companies. We continued to use the simplified method in 2008 because our historical exercise experience is not expected to be representative of exercise patterns in the future, due to our recent restructuring activities. For immediate vesting options granted to our outside directors in 2007 and 2006, the expected life representing the length of time in years that the options are expected to be outstanding was calculated using historical exercise data. No stock options were granted to our outside directors in 2008. Instead, each of our three outside directors received 1,000 shares of our common stock and an increase in their annual cash retainer for service on our board. Expected volatility was computed based on historical fluctuations in the daily price of our common stock.

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For stock options granted during the three year period ended December 31, 2008, we utilized the fair value of our common stock on the date of grant and employed the following key assumptions in computing fair value using the Black-Scholes option-pricing model:

2008	2007	2006
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Risk-free interest rates	1.67%	3.51% - 4.73%	4.0% - 5.04%
Expected life in years	4.75	4.75 - 6.86	4.75 - 6.33
Expected volatility	44%	43% - 52%	48% - 60%
Expected dividends	None	None	None
Weighted average fair value on grant date	\$1.95	\$5.99	\$6.65

### Stock Options

We have three stock incentive plans that are administered under the supervision of the Compensation Committee of the Board of Directors which have 989,204 shares of common stock reserved in the aggregate for issuance of options and other stock based benefits, including restricted stock units, to employees, officers and others. Reserved shares underlying canceled options are available for future grant under our active plans. Options are granted at an option price per share equal to or greater than the market value at the date of grant. Generally, options granted to employees vest over a four-year period and expire five, seven or ten years after the date of grant. The plans allow for option holders to tender shares of our common stock as consideration for the option price provided that the tendered shares have been held by the option holder at least six months. In anticipation of adopting SFAS No. 123(R), we did not modify the terms of any previously granted options. As of December 31, 2008, there are 230,857 shares of common stock available for future issuance under these plans. In addition, there are 50,000 shares reserved and included in the plan summaries below that are not part of the three stock incentive plans.

The following is a summary of stock option activity for each of the years in the three year period ended December 31, 2008:

Shares	Year ended December 31		
	2008	2007	2006
Outstanding, beginning of year	607,346	763,721	901,176
Granted	133,900	48,800	55,970
Exercised	(2,250)	(57,625)	(148,500)
Expired	(20,150)	(145,300)	(38,875)
Forfeited	(3,200)	(2,250)	(6,050)
Outstanding, end of year	715,646	607,346	763,721
Exercisable	515,134	491,543	601,851
<b>Weighted average exercise price per share</b>	<b>2008</b>	<b>2007</b>	<b>2006</b>
Outstanding, beginning of year	\$ 11.71	\$ 12.11	\$ 11.96
Granted	\$ 4.99	\$ 12.54	\$ 13.23
Exercised	\$ 5.20	\$ 11.11	\$ 10.26
Expired	\$ 12.57	\$ 14.32	\$ 17.31
Forfeited	\$ 14.06	\$ 11.88	\$ 12.64
Outstanding, end of year	\$ 10.44	\$ 11.71	\$ 12.11
Exercisable	\$ 11.56	\$ 11.45	\$ 12.15

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The intrinsic value of an option is the amount by which the fair value of the underlying stock exceeds its exercise price. For options outstanding at December 31, 2008, the weighted average remaining contractual term was 3.75 years and the aggregate intrinsic value was \$43,000. For options exercisable at December 31, 2008, the weighted average remaining contractual term was 2.80 years and the aggregate intrinsic value was \$15,000. The aggregate intrinsic value of stock options exercised was \$12,000 in 2008, \$132,000 in 2007 and \$631,000 in 2006. We received proceeds of \$12,000 and realized an income tax benefit of \$2,000 from the exercise of stock options in 2008. New shares are issued for all option exercises, upon vesting of restricted stock units, for share issuances to board members and officers or for share issuances under our Employee Stock Purchase Plan.

The following is a summary of outstanding options as of December 31, 2008:

Exercise Price	Options Outstanding	Weighted Average Remaining Life	Weighted Average Exercise Price	Options Exercisable	Weighted Average Remaining Life	Weighted Average Exercise Price
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	(in years)			(in years)		
Less than \$6.22	223,150	4.71	\$ 5.28	89,250	1.37	\$ 5.73
\$6.22 to \$9.45	1,000	1.75	\$ 9.45	1,000	1.75	\$ 9.45
\$9.45 to \$14.99	455,096	3.30	\$ 12.04	388,484	3.06	\$ 11.93
\$14.99 to \$19.01	4,500	2.50	\$ 18.55	4,500	2.50	\$ 18.55
Over \$19.01	31,900	3.64	\$ 22.53	31,900	3.64	\$ 22.53
<b>Total</b>	<b>715,646</b>	<b>3.75</b>	<b>\$ 10.44</b>	<b>515,134</b>	<b>2.80</b>	<b>\$ 11.56</b>

### Restricted Stock Units

Our 1998 Stock Incentive Plan also permits our Compensation Committee to grant other stock-based benefits, including restricted stock units. Restricted stock units are valued at a price equal to the fair market value of our common stock on the date of grant, vest over a four year period and entitle the holders to one share of our common stock for each restricted unit. The weighted average grant date fair value for each restricted stock unit was \$4.99 in 2008, \$12.34 in 2007 and \$12.95 in 2006. The aggregate fair value of outstanding restricted stock units based on the closing share price of our common stock as of December 31, 2008 was \$222,000. The aggregate fair value of restricted stock units that vested, based on the closing share price of our common stock on the vesting date, was \$25,000 for the year ended December 31, 2008 and \$36,000 for the year ended December 31, 2007. No restricted stock units vested during the year ended December 31, 2006.

A summary of activity in non vested restricted stock units for the year ended December 31, 2008 follows:

Non vested restricted stock units	Shares	Weighted Date Fair Value	Average Grant Date Fair Value
Non vested at December 31, 2007	17,120	\$	12.65
Granted	31,219	\$	4.99
Vested	(4,938)	\$	12.70
Forfeited	(700)	\$	12.65
Non vested at December 31, 2008	42,701	\$	7.05

### Employee Stock Purchase Plan

We have an Employee Stock Purchase Plan available to eligible U.S. employees. Under terms of the plan, eligible employees may designate from 1% to 10% of their compensation to be withheld through payroll deductions, up to a maximum of \$6,500 in each plan year, for the purchase of common stock at 85% of the lower of the market price on the first or last day of the offering period. Under the plan, 800,000 shares of common stock have been reserved for issuance. Share issuances under the Employee Stock Purchase Plan were 28,505 for the year ended December 31, 2008, 28,859 for the year ended December 31, 2007 and 29,398 for the year ended December 31, 2006. As of December 31, 2008, 112,812 shares remain available for issuance under this plan.

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#### Stock Grant Plan for Non-Employee Directors

In 2008, our shareholders approved a stock grant plan for our non-employees directors. The plan provides for automatic grants of 1,000 shares of our common stock to each of our non-employee directors upon their re-election to the board of directors. The plan took the place of our stock option plan for non-employee directors, under which each director received a stock option to purchase 4,500 shares of common stock exercisable at market value on the date of their re-election.

The plan provides for a total of 30,000 shares of our common stock for issuance to directors and will expire on May 19, 2018. We issued 3,000 shares under this plan in 2008 to non-employee directors, and 27,000 shares remain available at December 31, 2008 for future issuance. The shares issued in 2008 had a fair market value on the date of grant equal to \$27,000.

#### NOTE 4 OTHER FINANCIAL STATEMENT DATA

Inventories consist of the following:

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(In thousands)	December 31,	
	2008	2007
Raw materials and purchased parts	\$ 3,442	\$ 4,563
Work in process	724	1,280
Finished goods	5,703	4,797
	\$ 9,869	\$ 10,640

Equipment and Leasehold Improvements consist of the following:

(In thousands)	December 31,	
	2008	2007
Equipment	\$ 10,657	\$ 9,823
Leasehold improvements	1,487	1,328
	12,144	11,151
Accumulated depreciation and amortization	(9,529)	(9,207)
	\$ 2,615	\$ 1,944

Total depreciation expense related to equipment and leasehold improvements was \$1,147,000 for the year ended December 31, 2008, \$901,000 for the year ended December 31, 2007 and \$716,000 for the year ended December 31, 2006.

Intangible and Other Assets consist of the following:

(In thousands)	December 31, 2008			December 31, 2007		
	Gross Carrying Amount	Accumulated Amortization	Net	Gross Carrying Amount	Accumulated Amortization	Net
Developed technology	\$ 7,775	\$ (7,304)	\$ 471	\$ 7,775	\$ (7,122)	\$ 653
Patents and trademarks	2,730	(2,245)	485	2,562	(2,146)	416
	\$ 10,505	\$ (9,549)	\$ 956	\$ 10,337	\$ (9,268)	\$ 1,069

Amortization expense for the three years ended December 31, 2008, 2007 and 2006 is as follows:

(In thousands)	Year ended December 31		
	2008	2007	2006
Developed technology	\$ 182	\$ 182	\$ 582
Patents and trademarks	274	243	207
	\$ 456	\$ 425	\$ 789

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As of December 31, 2008, the weighted average remaining life of our intangible assets was approximately 2.7 years for developed technology and 1.8 years for patents and trademarks. Estimated aggregate amortization expense based on current intangibles for the next three years is expected to be as follows: \$455,000 in 2009, \$343,000 in 2010 and \$158,000 in 2011.

In the fourth quarter of 2008, we reviewed our identifiable intangible and long lived assets for impairment because a series of facts and circumstances indicated that the assets might be impaired, including weakness in the United States capital markets caused by the deepening global recession, and our reduced level of profitability, causing a significant drop in our market capitalization.

An impairment loss for our identifiable intangible and long lived assets would be recognized when future undiscounted cash flows expected to result from use of the asset and eventual disposition are less than the carrying amount. As of December 31, 2008, we projected our future undiscounted cash flows associated with these assets and concluded that there was no impairment.

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Accrued Expenses consist of the following:

(In thousands)	December 31	
	2008	2007
Wages and benefits	\$ 1,429	\$ 1,977
Warranty costs	823	819
Severance	315	
Income taxes payable	45	59
Other	442	482
	\$ 3,054	\$ 3,337

We provide for the estimated cost of product warranties at the time revenue is recognized. While we engage in extensive product quality programs and processes, including actively monitoring and evaluating the quality of component suppliers, warranty obligations are affected by product failure rates, material usage and service delivery costs incurred in correcting a product failure. Should actual product failure rates, material usage or service delivery costs differ from our estimates, revisions to the estimated warranty liability would be required. At the end of each reporting period we revise our estimated warranty liability based on these factors.

A reconciliation of the changes in our estimated warranty liability is as follows:

(In thousands)	Year ended December 31	
	2008	2007
Balance at the beginning of period	\$ 819	\$ 796
Accruals for warranties	1,084	961
Settlements made during the period	(1,080)	(938)
Balance at the end of period	\$ 823	\$ 819

### NOTE 5 GOODWILL

During the fourth quarter of 2005, we reorganized our business into two operating segments, the electronic assembly and semiconductor segments, in order to increase focus and management attention on growth opportunities in our markets. As required by SFAS No. 142, when an entity reorganizes its reporting structure in a manner that changes the composition of one or more of its reporting units, goodwill is reassigned to the affected reporting units using a relative fair value allocation approach. The fair value of each segment (reporting unit) is compared to the fair value of the business immediately prior to the reorganization. The fair value for our segments was determined using a discounted cash flow methodology.

We assess our goodwill for impairment in the fourth quarter of each year, and whenever events or changes in circumstances indicate that the carrying value may not be recoverable. For 2008, our annual impairment review coincided with a series of facts and circumstances indicating that our goodwill might be impaired, including weakness in the United States capital markets, caused by the deepening global recession, as well as our reduced level of profitability, causing a significant drop in our market capitalization.

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In evaluating whether goodwill was impaired, we compared the fair value of our two reporting units to which goodwill is assigned to their carrying value (Step 1 of the impairment test). In calculating fair value, we used the income approach. The income approach is a valuation technique under which we estimate future cash flows using the reporting units' financial forecasts. Future estimated cash flows are discounted to their present value to calculate fair value. The summation of our reporting units' fair values is compared and reconciled to our market capitalization as of the date of our impairment test. In the situation where a reporting unit's carrying amount exceeds its fair value, the amount of the impairment loss must be measured. The measurement of the impairment (Step 2 of the impairment test) is calculated by determining the implied fair value of a reporting unit's goodwill. In calculating the implied fair value of goodwill, the fair value of the reporting unit is allocated to all other assets and liabilities of that unit based on their fair values. The excess of the fair value of a reporting unit over the amount assigned to its other assets and liabilities is the implied fair value of goodwill. The goodwill impairment is measured as the excess of the carrying amount of goodwill over its implied fair value.

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In determining the fair value of our reporting units under the income approach, our expected cash flows are affected by various assumptions. Fair value on a discounted cash flow basis uses forecasts over a 3 year period with an estimation of residual growth rates thereafter. We use our business plans and projections as the basis for expected future cash flows. The significant assumptions incorporated in these forecasts for the most recent goodwill impairment tests include our expectations regarding revenue during the 3 year period, a 7 percent terminal growth rate and a 25% discount rate for both our electronic assembly and semiconductor reporting units. The selection of discount rates may have a significant impact on the determination of fair value. However, for the 2008 test, an increase or decrease of one percent in the discount rate would have had no impact on the impairment recorded for our electronic assembly reporting unit.

For purposes of our goodwill impairment test, we reconciled the fair value for each of our reporting units to our overall fair value. The publicly traded market price of our common stock and a control premium of 30 percent was used in our determination of fair value, which represents the value an investor would pay above minority interest transaction prices in order to obtain a controlling interest in the company. The control premium was determined by a review of premiums paid for similar companies over the past five years. While the control premium is a significant assumption in determining our overall fair value, it had a minimal impact on the determination of goodwill impairment in 2008. An increase in the assumed control premium by five percent to 35 percent would have had no impact on the impairment recorded for our electronic assembly reporting unit.

Upon completion of our analysis, we concluded that the goodwill related to our electronic assembly reporting unit was fully impaired, resulting in a \$3,941,000 impairment charge. Our remaining goodwill at December 31, 2008, in the amount of \$569,000 relates to our semiconductor reporting unit. Our recent analyses indicate that this goodwill is not impaired. However, our conclusion could change in the future, if our assumptions about future economic conditions, revenue growth or profitability change. Any resulting impairment charge could have a material effect on our financial position and results of operations in the future.

Changes to our goodwill balance include the following:

(In thousands)	Electronic Assembly Segment	Semiconductor Segment	Total
Goodwill, December 31, 2006	\$ 4,591	\$ 569	\$ 5,160
Translation adjustment	47		47
Goodwill, December 31, 2007	\$ 4,638	\$ 569	\$ 5,207
Translation adjustment	(697)		(697)
Impairment	(3,941)		(3,941)
Goodwill, December 31, 2008	\$	\$ 569	\$ 569

Goodwill translation adjustments on foreign denominated goodwill balances relate to our wholly owned subsidiary in the UK, CyberOptics Holdings Ltd.

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#### **NOTE 6 INCOME TAXES**

Income (loss) before income taxes consists of the following:

(In thousands)	2008	Year ended December 31, 2007	2006
Sources of income (loss) before income taxes:			
United States	\$ (6,881)	\$ 6,403	\$ 7,708
Foreign	(2,389)	1,351	1,356
Total income (loss) before income taxes	\$ (9,270)	\$ 7,754	\$ 9,064

The provision (benefit) for income taxes consists of the following:

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(In thousands)	Year ended December 31,		
	2008	2007	2006
<b>Current:</b>			
Federal	\$ (1,196)	\$ 2,025	\$ 1,795
State	(78)	69	102
Foreign	24	28	42
Total current	\$ (1,250)	\$ 2,122	\$ 1,939
<b>Deferred:</b>			
Federal	\$ (1,431)	\$ 311	\$ 214
State	(80)	(2)	86
Foreign	162	295	435
Total deferred	\$ (1,349)	\$ 604	\$ 735
Total provision (benefit) for income taxes	\$ (2,599)	\$ 2,726	\$ 2,674

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

	Year ended December 31,		
	2008	2007	2006
Federal statutory rate	(34.0)%	34.0%	34.0%
State income taxes, net of federal benefit	(2.0)	(0.1)	0.5
Non-deductible goodwill impairment charge	10.5		
ETI and manufacturing tax incentives		(1.5)	(4.3)
U.S. Subpart F income	0.4	2.1	0.7
Stock based compensation	0.7	1.4	1.6
Research and experimentation credit	(3.1)	(3.9)	(3.2)
Foreign rate difference	(1.2)	0.1	0.2
Reserve for income taxes under FIN 48	(1.1)	2.3	
Valuation allowance	1.5	0.7	0.9
Other, net	0.3	0.1	(0.9)
Effective tax rate	(28.0)%	35.2%	29.5%

We recorded a \$3,941,000 non-cash goodwill impairment charge in 2008, of which \$2,860,000 is not tax deductible, resulting in a 10.5% increase in our effective income tax rate for 2008.

In July 2006, the FASB issued Interpretation No. 48, Accounting for Uncertainty in Income Taxes (FIN 48). FIN 48 supersedes SFAS No. 5, Accounting for Contingencies, as it relates to income tax liabilities and lowers the minimum threshold a tax position is required to meet before being recognized in the financial statements from probable to more likely than not (i.e. a likelihood of occurrence greater than fifty percent). Under FIN 48, the recognition threshold is met when an entity concludes that a tax position, based solely on its technical merits, is more likely than not to be sustained upon examination by the relevant taxing authority.

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Those tax positions failing to qualify for initial recognition are recognized in the first interim period in which they meet the more likely than not standard, or are resolved through negotiation or litigation with the taxing authority, or upon expiration of the statute of limitations. De-recognition of a tax position that was previously recognized occurs when an entity subsequently determines that a tax position no longer meets the more likely than not threshold of being sustained. Differences between the amounts recognized in the financial statements prior to the adoption of FIN 48 and the amounts recognized after adoption are accounted for as a cumulative effect adjustment recorded to the beginning balance of retained earnings. Under FIN 48, only the portion of the liability that is expected to be paid within one year is classified as a current liability. As a result, liabilities expected to be resolved without the payment of cash (e.g., resolution due to the expiration of the statute of limitations) or are not expected to be paid within one year are not classified as current. Accordingly, our liability for uncertain tax positions has been classified as non-current at both December 31, 2008 and 2007.

We adopted the provisions of FIN 48 on January 1, 2007. As a result of our implementation of FIN 48, we recognized a \$32,000 increase in the liability for unrecognized tax benefits, which was accounted for as a reduction to the January 1, 2007, balance of retained earnings. A reconciliation of the beginning and ending amount of gross unrecognized tax benefits ( UTB ) is as follows:

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(In thousands)	2008	2007
Gross UTB balance at beginning of year	\$ 2,381	\$ 2,148
Additions based on tax positions related to the current year	306	233
Additions for tax positions of prior years		
Reductions for tax positions of prior years		
Settlements		
Reductions due to lapse of applicable statute of limitations	(216)	
Gross UTB balance at end of year	\$ 2,471	\$ 2,381
Net UTB impacting the effective tax rate at end of year	\$ 1,578	\$ 1,583

The total amount of unrecognized tax benefits that, if recognized, would affect the effective tax rate was \$1,578,000 as of December 31, 2008, \$1,583,000 as of December 31, 2007 and \$1,246,000 as of January 1, 2007. The ending net UTB results from adjusting the gross balance for items such as Federal, State, and non-U.S. deferred items, interest and penalties, and deductible taxes. The net UTB is a long term income tax reserve within our Consolidated Balance Sheet. We recognize interest and penalties accrued related to unrecognized tax benefits in tax expense. Accrued interest and penalties on a gross basis were \$167,000 as of December 31, 2008, \$192,000 as of December 31, 2007 and \$143,000 as of January 1, 2007.

During the year ended December 31, 2008, we recorded a \$98,000 decrease in liabilities, net of deferred taxes, for uncertain tax positions that were recorded as an income tax benefit. The estimated gross reduction in interest and penalties included in this amount total \$25,000. During the year ended December 31, 2007, we recorded a \$182,000 increase in liabilities, net of deferred tax benefit, for uncertain tax positions that was recorded as income tax expense. Estimated gross interest and penalties included in this amount total \$49,000.

We file income tax returns in the U.S. federal jurisdiction, and various state and foreign jurisdictions. We are no longer subject to U.S. federal, state and local income tax examinations by tax authorities for years before 2005. Our 2006 federal income tax return is currently being audited by the Internal Revenue Service. We are not able to reasonably estimate the timing of any potential payments that may result from this audit. Our liability for unrecognized tax benefits could decline by \$200,000 during the next 12 months due to expiration of domestic statute of limitations.

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Deferred tax assets consist of the following:

(In thousands)	December 31, 2008	2007
Fixed asset and intangible amortization, net	\$ 1,422	\$ 1,073
Inventory allowances	986	768
Accrued liabilities	244	212
Warranty accrual	290	292
Deferred revenue	525	470
Accounts receivable allowance	88	113
Federal and state tax credits	1,491	673
Foreign net operating loss carry forwards	587	984
Stock based compensation	295	232
Other, net	150	96
Sub-total	6,078	4,913
Valuation allowance	(640)	(599)
Total net deferred tax assets	\$ 5,438	\$ 4,314

We currently have significant deferred tax assets as a result of temporary differences between taxable income on our tax returns and income before income taxes under U.S. generally accepted accounting principals, research and development tax credit carry forwards and foreign net operating loss carry forwards. A deferred tax asset generally represents future tax benefits to be received when temporary differences previously reported in our financial statements become deductible for income tax purposes, or when net operating loss carry forwards are applied against future taxable income, or when tax credit carry forwards are applied against future tax liabilities. We assess the realizability of our deferred tax assets and the need for a valuation allowance based on Statement of Financial Accounting Standards No. 109.

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Significant judgment is required in determining the realizability of our deferred tax assets. The assessment of whether valuation allowances are required considers, among other matters, the nature, frequency and severity of current and cumulative losses, forecasts of future profitability, the duration of statutory carry forward periods, our experience with loss carry forwards not expiring unused and tax planning alternatives.

Our analysis of the need for valuation allowances considered that we have positive cumulative profit over the past three years even without the exclusion of the \$2.9 million non-deductible goodwill impairment in 2008. We also considered the forecasts of future profitability, the duration of statutory carry forward periods and tax planning alternatives. We further evaluated our past cycles which tend to average five years in length (from peak to trough) and also considered our five year cumulative results ended December 31, 2008 which also had strong profits. Finally, we evaluated where these cumulative three and five year measures might be at the end of 2009 and considered other positive evidence to conclude no incremental valuation allowance was needed at December 31, 2008.

While we have a recent history of profits, our results have been impacted by the recent global economic slowdown, and we incurred a loss in the United States in 2008 where most of our net deferred tax assets are recorded. Therefore, achievement of profitability in the United States will be a significant factor in determining our continuing ability to carry these deferred tax assets without recording a valuation allowance.

If future results from our operations are less than projected, a valuation allowance may be required to reduce the deferred tax assets. If we continue to incur losses for several more quarters, and if our operations and outlook show no sign of improvement by as early as the second quarter of 2009, we may be required to record as much as a full valuation allowance against virtually all of our deferred tax assets, which could have a material impact on our results of operations in the period in which it is recorded.

Deferred tax assets at December 31, 2008, include \$587,000 of net operating loss carry forwards incurred in the UK by CyberOptics Ltd., which was acquired in 1999. The utilization of these net operating loss carry forwards is dependent on CyberOptics Ltd.'s ability to generate sufficient UK taxable income during the carry forward period. We reduced our deferred tax asset for UK net operating loss carry forwards by \$64,000 in 2007 due to a reduction in the future UK income tax rate. Deferred tax assets at December 31, 2008 also include \$739,000 of federal R&D tax credits that will begin to expire in 2026 if unused.

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The valuation allowances at December 31, 2008 and 2007 are needed for various state tax credit carry forwards, state operating loss carry forwards and capital losses for which recovery is not deemed to be more likely than not. The valuation allowance was increased in 2008 for additional state tax credit carry forwards, and an unrealized capital loss that failed to satisfy the more likely than not criteria for recovery.

Cash payments for income taxes, net of refunds received, were \$100,000 for the year ended December 31, 2008, \$1,979,000 for the year ended December 31, 2007, and \$1,779,000 for the year ended December 31, 2006.

On October 22, 2004, the President signed the American Jobs Creation Act of 2004. The Act provides a deduction for income from qualified domestic production activities, which will be phased in from 2005 through 2010. In return, the Act also provides for a two-year phase-out of the extraterritorial income exclusion (ETI) for foreign sales. Our 2006 effective tax rate includes a benefit from the ETI. No benefit from the ETI was available starting in 2007 due to the phase-out.

It is the intention of management to permanently reinvest all undistributed earnings of international subsidiaries, and accordingly, we have not provided United States taxes on such earnings. These earnings relate to ongoing operations and were not significant as of December 31, 2008. It is not practicable to determine the income tax liability that would be payable if such earnings were not indefinitely reinvested.

### **NOTE 7 OPERATING LEASES**

On March 27, 2006 we signed a new lease for our primary office space consisting of 60,217 square feet. The lease has a term of 61 months and began on June 1, 2006. The lease also provides for one month of free rent, other lease incentives and escalating rents over the lease term. Rental expense, including the effects of lease incentives, will be recognized on a straight-line basis over the term of the lease. We are also required to pay insurance, property taxes and other operating expenses related to the leased facility. Future minimum lease payments under this lease due within one year from December 31, 2008 are \$1,032,000 and due from one to three years are \$1,539,000. We have two consecutive options to renew the lease, each for an additional term of 3 years, at then current fair market rent as defined in the lease.

During 2008, we entered into a new three year lease for a mixed office and warehouse facility in Singapore. The lease provides for a 3 year term from May 15, 2008, annual rent of approximately \$350,000 and a two year renewal option. We also lease other facilities for the operations of our subsidiaries under operating leases that expire from December 2009 through August 2010.

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Total rent expense was \$1,423,000 for the year ended December 31, 2008, \$1,141,000 for the year ended December 31, 2007 and \$1,057,000 for the year ended December 31, 2006. At December 31, 2008, the future minimum lease payments required under non-cancelable operating lease agreements, are as follows:

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Year ending December 31,	(In thousands)
2009	\$ 1,556
2010	1,435
2011	609
Total	\$ 3,600

### NOTE 8 DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES

We enter into foreign currency swap agreements to hedge short term inter-company financing transactions with our subsidiary in the UK. These currency swap agreements are structured to mature on or about the last day of each quarter and are designated as cash flow hedges. At December 31, 2008, the Company had one open swap agreement that was purchased on December 31, 2008. As a result, any unrealized gains or losses as of December 31, 2008 were inconsequential. We recognized net gains (losses) from settlement of foreign currency swap agreements of \$277,000 for the year ended December 31, 2008, (\$61,000) for the year ended December 31, 2007, and (\$346,000) for the year ended December 31, 2006, that offset foreign currency transaction gains (losses) on the underlying inter-company balance of (\$453,000) for the year ended December 31, 2008, \$22,000 for the year ended December 31, 2007 and \$294,000 for the year ended December 31, 2006. These gains and losses are recognized in interest income and other in our statement of operations.

Our foreign currency swap agreements contain credit risk to the extent that our bank counter-parties may be unable to meet the terms of the agreements. We minimize such risk by limiting our counter-parties to major financial institutions. Management does not expect material losses as a result of defaults by other parties.

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### NOTE 9 COMMON STOCK REPURCHASES

We spent \$20,949,000 to repurchase a total 2,082,000 shares of our common stock in 2008. These repurchases were accomplished through of series of repurchase programs and a modified dutch auction tender approved by our board of directors. The modified dutch auction tender offer closed on July 29, 2008, with the purchase of 1,499,996 shares of our common stock at a price of \$10.00 per share. We spent \$1,901,000 to repurchase a total of 158,000 shares of our common stock in 2007 through a series of repurchase programs approved by our board of directors.

All common share repurchase programs have been canceled and we presently have no authorization from our board of directors to repurchase shares of our common stock.

### NOTE 10 401(K) PLAN

We have a retirement savings plan pursuant to Section 401(k) of the Internal Revenue Code (the Code), whereby eligible employees may contribute a portion of their earnings, not to exceed annual amounts allowed under the Code. In addition, we may also make contributions at the discretion of the Board of Directors. We provided matching contributions to employees totaling \$301,000 in 2008, \$297,000 in 2007 and \$274,000 in 2006.

### NOTE 11 BUSINESS SEGMENTS AND SIGNIFICANT CUSTOMERS

Statement of Financial Accounting Standards (SFAS) No. 131, "Disclosure about Segments of an Enterprise and Related Information" requires the management approach in determining business segments. The management approach designates the internal organization that is used by management for making operating decisions and assessing performance as the source of our reportable segments. We have determined that our business operates as two reportable segments. Balance sheet and income statement information for all periods presented has been allocated to our two segments. The electronic assembly segment is the design, manufacture and sale of optical process control sensors and inspection systems for the electronic assembly equipment market. The semiconductor segment is the design, manufacture and sale of optical and other process control sensors and related equipment for the semiconductor capital equipment market.

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Information regarding our segments is as follows:

(In thousands)	Year Ended December 31,		
	2008	2007	2006
<b>Revenue:</b>			
Electronic assembly			
OEM Sensors	\$ 20,250	\$ 31,774	\$ 32,006
SMT Systems	19,943	21,429	19,136
Total electronic assembly	40,193	53,203	51,142
Semiconductor	5,259	5,573	5,947
Total	\$ 45,452	\$ 58,776	\$ 57,089
<b>Income (loss) from operations:</b>			
Electronic assembly	\$ (10,339)	\$ 5,408	\$ 7,816
Semiconductor	(124)	132	(695)
Total income (loss) from operations	\$ (10,463)	\$ 5,540	\$ 7,121
Interest income and other	1,193	2,214	1,943
Income (loss) before income taxes	\$ (9,270)	\$ 7,754	\$ 9,064
<b>Depreciation and amortization:</b>			
Electronic assembly	\$ 1,978	\$ 1,680	\$ 1,280
Semiconductor	268	227	604
Total	\$ 2,246	\$ 1,907	\$ 1,884
<b>Expenditures for long-lived assets:</b>			
Electronic assembly	\$ 1,998	\$ 1,088	\$ 1,262
Semiconductor	179	208	135
Total	\$ 2,177	\$ 1,296	\$ 1,397
<b>Total assets (end of year):</b>			
Electronic assembly	\$ 27,563	\$ 31,326	\$ 30,976
Semiconductor	3,698	3,658	3,453
Corporate	27,688	52,055	47,581
Total	\$ 58,949	\$ 87,039	\$ 82,010

The following summarizes certain significant customer information:

(In thousands)	Significant Customer	Revenues	Percentage of Revenues
Year ended December 31, 2008	A	\$ 9,592	21%
	B	\$ 6,672	15%
Year ended December 31, 2007	A	\$ 16,213	28%
	B	\$ 11,661	20%
Year ended December 31, 2006	A	\$ 16,683	29%
	B	\$ 11,196	20%

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The significant customers listed above are related to our electronic assembly segment. As of December 31, 2008, accounts receivable from significant customer A were \$723,000 and accounts receivable from significant customer B were \$376,000. As of December 31, 2007, accounts receivable from significant customer A were \$1,313,000 and accounts receivable from significant customer B were \$1,363,000. Our LaserAlign sensor family has accounted for a significant portion of our electronic assembly sales. Revenue from new product shipments of LaserAlign sensors accounted for 26% of our revenue in 2008, 35% in 2007 and 36% in 2006.

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We have determined not to pursue new alignment products for use with future generations of equipment being developed by Assembleon (significant customer B above). Assembleon has informed us that they currently plan to start transitioning away from our alignment products in the third quarter of 2009, with the transition continuing into the second quarter of 2010. Our revenue, results of operations and cash flows would be further negatively impacted if our other LaserAlign customers are unsuccessful selling the products into which our sensors are incorporated, design their products to function without our sensors, purchase sensors from other suppliers, or otherwise terminate their relationships with us.

Export sales as a percentage of total sales were 86% for the year ended December 31, 2008, 87% for the year ended December 31, 2007, and 85% for the year ended December 31, 2006. Export sales are attributed to the country where the product is shipped. All export sales are negotiated, invoiced and paid in U.S. dollars.

Export sales by geographic area are summarized as follows:

(In thousands)	2008	2007	2006
Americas	\$ 1,740	\$ 927	\$ 381
Netherlands	6,338	10,717	10,285
Other Europe	8,871	9,508	8,813
China	7,176	6,038	5,231
Japan	10,066	16,901	16,746
Other Asia	4,901	7,077	6,847
Other	10	3	3
	\$ 39,102	\$ 51,168	\$ 48,306

Long-lived assets include equipment and leasehold improvements attributable to each geographic area's operations. Long-lived assets at December 31, 2008, 2007 and 2006 are as follows:

(In thousands)	2008	2007	2006
Long-lived assets:			
United States	\$ 1,798	\$ 1,906	\$ 1,772
Europe	5	10	12
Asia and other	812	28	30
Total long-lived assets	\$ 2,615	\$ 1,944	\$ 1,814

### NOTE 12 SEVERANCE, RECRUITMENT AND SINGAPORE TRANSITION

We started to incur severance costs in February 2008 in connection with our decision to move a significant portion of development and manufacturing for our systems products to Singapore. The transition of development was substantially complete by the fourth quarter of 2008; transition of manufacturing is expected to be complete by the middle of 2009. Severance costs incurred in 2008 in connection with the February 2008 decision totaled \$302,000. We also incurred expenses totaling \$234,000 for outside service providers to assist us with recruitment of our new Singapore based development and manufacturing team. We maintained our Minneapolis-based systems development team while we trained our new Singapore based team, resulting in extra costs totaling \$879,000 for wages, training, travel, and other costs, during the initial start-up and training period. These costs have been classified in our statement of operations as research and development expense. Other start-up costs totaling \$112,000 have been classified in our statement of operations as selling, general and administrative expense. Singapore transition costs totaled approximately \$1.5 million in 2008. Transition costs in 2009 are not expected to be significant.

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Additional severance costs of \$234,000 were incurred in November 2008 when we reduced our workforce by approximately 10% or 20 employees in response to the weak global economic conditions. All of the aforementioned costs related to the November 2008 workforce reduction have been classified as severance and recruitment in our statement of operations.

A summary of our severance and recruitment accruals follows:

(in thousands)	Electronic Assembly			Semi-conductor		
	February 2008 Singapore Move	Recruitment	November 2008 Workforce Reduction	Total	November 2008 Workforce Reduction	Total
Balance, January 1, 2008	\$	\$	\$	\$	\$	\$
Costs incurred	302	234	155	691	79	770
Payments made	(95)	(234)	(51)	(380)	(75)	(455)
Balance, December 31, 2008	\$ 207	\$	\$ 104	\$ 311	\$ 4	\$ 315

In February 2009, we further reduced our workforce by 24 positions in response to weakening conditions in the global economy, our transition to Singapore and our decision to consolidate manufacturing for our semiconductor products in our Minneapolis facility. We anticipate that all of these employees will have departed by the end of the second quarter of 2009. Severance expense related to these actions of approximately \$325,000 is expected in the first half of 2009.

### NOTE 13 FAIR VALUE MEASUREMENTS

In September 2006, the FASB issued Statement of Financial Accounting Standards (SFAS) No. 157 Fair Value Measurements, which defines fair value, establishes a framework for measuring fair value in generally accepted accounting principles (GAAP), and expands disclosures about fair value measurements. SFAS No. 157 will apply whenever another standard requires (or permits) assets or liabilities to be measured at fair value. The standard does not expand the use of fair value to any new circumstances, and was effective for fiscal years beginning after December 31, 2007. The FASB has provided a one year deferral for certain non-financial assets and liabilities. We adopted SFAS No. 157, effective January 1, 2008, for all financial assets and liabilities that were not deferred. The adoption of SFAS No. 157 for our financial assets and liabilities had no impact on our financial position or results of operations. We do not expect the standard to have a material impact on our consolidated results of operations and financial condition when fully adopted in 2009.

In accordance with SFAS No. 157, we value our cash equivalents and marketable securities based on a three-level fair value hierarchy. The fair value hierarchy gives the highest priority to quoted prices in active markets for identical assets or liabilities (Level 1). The next highest priority is based on quoted prices for similar assets or liabilities in active markets or quoted prices for identical or similar assets or liabilities in non-active markets or other observable inputs (Level 2). The lowest priority is given to unobservable inputs (Level 3).

The following table provides information regarding fair value measurements for our cash equivalents and marketable securities as of December 31, 2008 according to the three-level fair value hierarchy:

(In thousands)	Fair Value Measurements at Reporting Date Using			
	Balance December 31, 2008	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Cash equivalents	\$ 2,421	\$	\$ 2,421	\$
U.S. government and agency obligations	\$ 21,151	\$	\$ 21,151	\$
Corporate debt securities	\$ 2,527	\$	\$ 2,527	\$
Asset backed securities	\$ 1,559	\$	\$ 1,559	\$
Equity securities	\$ 30	\$ 30	\$	\$

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Changes in the fair value of these investments for the year ended December 31, 2008 resulting from our adoption of SFAS No. 157 had no impact on our consolidated financial statements. Our foreign currency swap agreements are structured to mature on the last day of each quarter. As a result, the fair value associated with these agreements is inconsequential.

In February 2007, the FASB issued Statement No. 159, The Fair Value Option for Financial Assets and Financial Liabilities, which provides companies with an option to report selected financial assets and liabilities at fair value. This standard was effective beginning after December 31, 2007. We elected not to adopt the provisions of SFAS No. 159 in 2008.

### NOTE 14 CONTINGENCIES

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In the ordinary course of business, we are a defendant in miscellaneous claims and disputes. While the outcome of these matters cannot be predicted with certainty, management presently believes the disposition of these matters will not have a material effect on our financial position, results of operations or cash flows.

In the normal course of business to facilitate sales of our products and services, we at times indemnify other parties, including customers, with respect to certain matters. In these instances, we have agreed to hold the other parties harmless against losses arising out of intellectual property infringement or other types of claims. These agreements may limit the time within which indemnification claims can be made and almost always limit the amount of the claim. It is not possible to determine the maximum potential amount under these indemnification agreements due to the limited history of prior indemnification claims and the unique facts and circumstances involved in each particular agreement. Historically, payments made, if any, under these agreements have not had a material impact on our operating results, financial position or cash flows.

### NOTE 15 QUARTERLY FINANCIAL INFORMATION (UNAUDITED) (In thousands, except per share amounts)

2008	March 31 (2)	June 30 (2)	Sept. 30 (2)	Dec. 31 (3)
Revenues	\$ 13,807	\$ 13,391	\$ 11,570	\$ 6,684
Gross margin	6,439	5,922	4,992	1,712
Income (loss) from operations	159	(733)	(1,716)	(8,173)
Net income (loss)	427	(269)	(772)	(6,057)
Net income (loss) per share Basic (1)	0.05	(0.03)	(0.11)	(0.90)
Net income (loss) per share Diluted (1)	0.05	(0.03)	(0.11)	(0.90)

2007	March 31	June 30	Sept. 30	Dec. 31
Revenues	\$ 13,741	\$ 13,974	\$ 16,173	\$ 14,888
Gross margin	7,132	7,094	8,263	7,758
Income from operations	1,174	1,274	1,806	1,286
Net income	1,153	1,198	1,473	1,204
Net income per share Basic (1)	0.13	0.13	0.17	0.14
Net income per share Diluted (1)	0.13	0.13	0.16	0.13

- (1) The summation of quarterly per share amounts may not equal the calculation for the full year, as each quarterly calculation is performed discretely.
- (2) Severance and recruitment costs related to our move to Singapore in 2008 were \$193,000 in the first quarter, \$185,000 in the second quarter and \$98,000 in the third quarter.
- (3) 2008 fourth quarter results include a non-cash pre-tax charge for goodwill impairment of \$3.9 million, a \$650,000 pre-tax charge for inventory obsolescence and \$294,000 pre-tax charge for severance and recruitment costs related to our move to Singapore and a November 2008 workforce reduction.

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### Report of Independent Registered Public Accounting Firm

To Stockholders and the Board of Directors of CyberOptics Corporation:

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of operations, consolidated statements of cash flows and consolidated statements of stockholders' equity and comprehensive income present fairly, in all material respects, the financial position of CyberOptics Corporation and its subsidiaries at December 31, 2008 and 2007, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2008 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2008, based on criteria established in *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these financial statements, for maintaining

effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control over Financial Reporting appearing under Item 9A(i). Our responsibility is to express opinions on these financial statements and on the Company's internal control over financial reporting based on our integrated audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

As described in Note 6 to the consolidated financial statements, the Company changed the manner in which it accounts for uncertain tax positions effective January 1, 2007.

A company's 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. A company's 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 the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of 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.

PricewaterhouseCoopers LLP  
Minneapolis, Minnesota  
March 9, 2009

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

NONE.

**ITEM 9A. CONTROLS AND PROCEDURES**

Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we evaluated the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934 (the Exchange Act)). Based upon that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that, as of the end of the period covered by this report, our disclosure controls and procedures were effective in ensuring that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in applicable rules and forms and that such information is accumulated and communicated to management, including our Chief Executive Officer and Chief Financial Officer, in a manner that allows timely decisions regarding required disclosure.

**(i). MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING**

Management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in the Securities Exchange Act of 1934 Rule 13a-15(f), and for performing an assessment of the effectiveness of our internal control over financial reporting as of December 31, 2008. 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. Our system of 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 the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Management performed an assessment of the effectiveness of the Company's internal control over financial reporting as of December 31, 2008 based upon criteria in *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on our assessment, management determined that the Company's internal control over financial reporting was effective as of December 31, 2008 based on the criteria in *Internal Control-Integrated Framework* issued by the COSO.

The effectiveness of the Company's internal control over financial reporting as of December 31, 2008 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which appears herein.

(ii). During the quarter ended December 31, 2008, there has been no change in our internal control over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act) that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

## **ITEM 9B. OTHER INFORMATION**

NONE.

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## **PART III.**

### **ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE**

The information contained under the headings "Proposal I Election of Directors," "Information About our Board of Directors and its Committees and Other Corporate Governance Matters" and "Section 16(a) Beneficial Ownership Reporting Compliance" of the Company's definitive proxy statement for its annual meeting of shareholders to be held May 18, 2009 (hereafter, the Proxy Statement), is hereby incorporated by reference.

### **ITEM 11. EXECUTIVE COMPENSATION**

The information under the headings "Information About our Board of Directors and its Committees and Other Corporate Governance Matters" "Compensation of Directors," and "Executive Compensation" of the Proxy Statement is hereby incorporated by reference.

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

The information contained under the headings "Executive Compensation" "Equity Compensation Plan Information," and "Shares Outstanding" of the Proxy Statement is hereby incorporated by reference.

### **ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE**

The information under the headings "Election of Directors" "Compensation of Directors" of the Proxy Statement is hereby incorporated by reference.

### **ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES**

The information under the heading "Relationship with Independent Accountants" of the Proxy Statement is hereby incorporated by reference.

**PART IV.**

**ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES**

(a)(1) Financial Statements: The Consolidated Financial Statements included in Item 8 to this Form 10-K consist of the following:

Consolidated Balance Sheets as of December 31, 2008 and 2007.  
 Consolidated Statements of Operations for the years ended December 31, 2008, 2007 and 2006.  
 Consolidated Statements of Cash Flows for the years ended December 31, 2008, 2007 and 2006.  
 Consolidated Statements of Stockholders' Equity and Comprehensive Income for the years ended December 31, 2008, 2007 and 2006.  
 Notes to the Consolidated Financial Statements

(a)(2) Financial Statement Schedule:

Schedule II, Valuation and Qualifying Accounts for the years ended December 31, 2008, 2007 and 2006, is attached as Item 15(c).  
 Report of Independent Registered Public Accounting Firm on Financial Statement Schedule, is attached as Item 15(c).

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(b) LIST OF EXHIBITS

<b>Exhibit Number</b>	<b>Description</b>
3.1	Articles of Incorporation of Company, as amended (incorporated by reference to Exhibit 3.1 to the Company's Annual Report on Form 10-K for the year ended December 31, 1997).
3.2	Bylaws of the Company (incorporated by reference to Exhibit 3ii to the current report on Form 8-K dated November 9, 2007).
4.1	Restated Stock Option Plan of the Company, as amended (incorporated by reference to Exhibit 4.1 of the Company's Registration Statement on Form S-8 filed August 18, 1998 (file no 333-61711)).
4.2	CyberOptics Corporation Stock Option Plan for Non-Employee Directors, as amended (incorporated by reference to Exhibit 4.2 of the Company's Registration Statement on Form S-8 filed August 10, 2006 (file no 333-136500)).
4.3	CyberOptics Corporation 1998 Stock Incentive Plan, as amended (incorporated by reference to Exhibit 4.1 to the Company's Registration Statement on Form S-8 filed December 4, 2000 (file no. 333-51200)).
4.4	CyberOptics Corporation Employee Stock Purchase Plan (incorporated by reference to Exhibit 4.1 of the Company's Registration Statement on Form S-8 filed August 10, 2006 (file no 333-136500)).
4.5	CyberOptics Corporation Stock Grant Plan for Non-Employee Directors (incorporated by reference to Exhibit 4.1 of the Company's Registration Statement on Form S-8 filed August 14, 2008 (file no 333-153015)).
*10.1	Letter of engagement dated September 13, 2002 between Kathleen Iverson and the Company (incorporated by reference to Exhibit 10.5 to the Company's annual report on Form 10-K for the year ended December 31, 2002).
*10.2	Offer of employment between Steven J. DiMarco and the Company (incorporated by reference to Exhibit 10.2 to the Company's annual report on Form 10-K for the year ended December 31, 2005).
10.3	Lease Agreement between FirstCal Industrial 2 Acquisitions LLC and the Company dated March 27, 2006 (incorporated by reference to Exhibit 10.1 to the Company's quarterly report on Form 10-Q for the quarter ended March 31, 2006).
*10.4	Severance Pay Agreement with Steven K. Case (incorporated by reference to Exhibit 10.1 to the current report on Form 8-K dated June 23, 2008)

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- \*10.5 Severance Pay Agreement with Kathleen P. Iverson (incorporated by reference to Exhibit 10.2 to the current report on Form 8-K dated June 23, 2008)
- \*10.6 Severance Pay Agreement with Jeffrey A. Bertelsen (incorporated by reference to Exhibit 10.3 to the current report on Form 8-K dated June 23, 2008)
- 10.7 Tenancy Agreement between Brilliant Manufacturing LTD and CyberOptics PTE LTD (Singapore) Term 15 May 2008 to 14 May 2011. (incorporated by reference to Exhibit 10.1 to the Company's quarterly report on Form 10-Q for the quarter ended March 31, 2008).
- 21.0 Subsidiaries of the Company.
- 23.1 Consent of Independent Registered Public Accounting Firm.
- 31.1 Certification of Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.

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- 31.2 Certification of Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 32.0 Certification of Chief Executive Officer and Chief Financial Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

\* Management Contract or Compensatory Plan or Arrangement

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(c) FINANCIAL STATEMENT SCHEDULES:

**SCHEDULE II**

**CYBEROPTICS CORPORATION  
VALUATION AND QUALIFYING ACCOUNTS AND RESERVES  
FOR THE YEARS ENDED DECEMBER 31, 2008, 2007 AND 2006**

Description	Balance at Beginning of Period	Charged to Costs and Expenses	Deductions	Balance at end of Period
Allowance for doubtful accounts:				
Year ended December 31, 2008	\$ 310,000	\$ (34,000)	\$ (26,000)	\$ 250,000
Year ended December 31, 2007	\$ 221,000	\$ 98,000	\$ (9,000)	\$ 310,000



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Year ended December 31, 2006 \$ 286,000 \$ 38,000 \$ (103,000) \$ 221,000

Description	Balance at Beginning of Period	Charged to Costs and Expenses	Deductions	Balance at end of Period
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Allowance for obsolete inventory:

Year ended December 31, 2008 \$ 520,000 \$ 1,007,000 \$ (442,000) \$ 1,085,000

Year ended December 31, 2007 \$ 882,000 \$ 253,000 \$ (615,000) \$ 520,000

Year ended December 31, 2006 \$ 802,000 \$ 373,000 \$ (293,000) \$ 882,000

Description	Balance at Beginning of Period	Charged to Costs and Expenses	Other Increases (Deductions)	Balance at end of Period
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Allowance for deferred tax assets:

Year ended December 31, 2008 \$ 599,000 \$ 135,000 \$ (94,000) \$ 640,000

Year ended December 31, 2007 \$ 451,000 \$ 54,000 \$ 94,000 \$ 599,000

Year ended December 31, 2006 \$ 371,000 \$ 80,000 \$ \$ 451,000

**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM ON FINANCIAL STATEMENT SCHEDULE**  
**To the Stockholders and the Board of Directors of CyberOptics Corporation:**

Our audits of the consolidated financial statements and of the effectiveness of internal control over financial reporting referred to in our report dated March 9, 2009 appearing in Item 8 of this Form 10-K also included an audit of the financial statement schedule listed in Item 15(a)(2) of this Form 10-K. In our opinion, this financial statement schedule presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements.

PricewaterhouseCoopers LLP  
 Minneapolis, Minnesota  
 March 9, 2009

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**SIGNATURES**

Pursuant to the requirements of Section 13 or 15(d) 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.

CYBEROPTICS CORPORATION

*/s/ KATHLEEN P. IVERSON*

By Kathleen P. Iverson, President and CEO

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

<i>Name</i>	<i>Title</i>	<i>Date</i>
<i>/s/ KATHLEEN P. IVERSON</i> <i>Kathleen P. Iverson</i>	<i>Director and CEO</i> <i>(Principal Executive Officer)</i>	<i>March 4, 2009</i>

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<i>/s/ STEVEN K. CASE</i> <i>Steven K. Case</i>	<i>Chairman and Director</i>	<i>March 4, 2009</i>
<i>/s/ ALEX B. CIMOCHOWSKI</i> <i>Alex B. Cimochofski</i>	<i>Director</i>	<i>March 4, 2009</i>
<i>/s/ MICHAEL M. SELZER, JR.</i> <i>Michael M. Selzer, Jr.</i>	<i>Director</i>	<i>March 4, 2009</i>
<i>/s/ IRENE M. QUALTERS</i> <i>Irene M. Qualters</i>	<i>Director</i>	<i>March 4, 2009</i>
<i>/s/ JEFFREY A. BERTELSEN</i> <i>Jeffrey A. Bertelsen</i>	<i>Vice President and CFO</i> <i>(Principal Financial Officer</i> <i>and Principal Accounting Officer)</i>	<i>March 4, 2009</i>

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