CYBEROPTICS CORP
Form 10-K
March 11, 2010

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SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-K

x ANNUAL REPORT PURSUANT TO SECTION 13 or 15(d) of the Securities Exchange Act of 1934 for the Year Ended December 31, 2009.

o 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)

CYBEROPTICS CORPORATION

(Exact name of registrant as specified in its charter)

Minnesota	**41-1472057**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
5900 Golden Hills Drive MINNEAPOLIS, MINNESOTA	**55416**
(Address of principal executive offices)	(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

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.
YES o NO x

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 o NO x

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).
YES o NO o

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. x
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 o Accelerated filer o Non-accelerated filer o Smaller Reporting Company x

Indicate by checkmark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).
YES o NO x
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: $38,396,032.

As of February 28, 2010, there were 6,845,391 shares of the registrant s Common Stock, no par value, issued and outstanding.

DOCUMENTS INCORPORATED BY REFERENCE:
The responses to Part III items 10, 11, 12, 13 and 14 herein are incorporated by reference to certain information in the Company s definitive Proxy Statement for its Annual Meeting of Shareholders to be held May 21, 2010.

CYBEROPTICS CORPORATION
FORM 10-K
For the Fiscal Year Ended December 31, 2009

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PART I.

ITEM 1. DESCRIPTION OF BUSINESS

Background

CyberOptics® Corporation was founded in 1984 to commercialize 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. 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. Proxy materials for our upcoming 2010 annual shareholders meeting to be held on May 21, 2010 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 wafer fabrication. 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 into two operating segments. Our Electronic Assembly segment designs, manufactures and sells alignment and embedded inspection sensors and stand alone 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 2009) 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 complete stand alone systems that are sold directly to circuit board assembly companies. Our alignment 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 screen printer companies to align stencils with circuit boards. Our stand alone system products are sold to contract manufacturers and other companies with surface mount assembly lines, to control quality as in-line systems. These stand alone system 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 stand alone 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. Semiconductor products were 12% of total revenues in 2009.

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 the worldwide demand for cell phones, smart 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 through the first quarter of 2009, 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 sharply late in the fourth quarter of 2008 as the global economy fell into a severe recession, and our results for 2009 were adversely affected by the ongoing weakness in the global electronics market. Revenues were $27.1 million in 2009, down 40% from $45.5 million in 2008. We lost $11.2 million from operations in 2009, down from a $10.5 million loss from operations in 2008. Our loss from operations in 2008 included a $3.9 million non-cash pre-tax charge for goodwill impairment.

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We are starting to see signs of strengthening in the global electronics market. Manufacturers of SMT assembly equipment, who did not place sensor orders in the first half of 2009, have resumed ordering. In addition, demand for stand alone SE500 solder paste inspection and AOI systems is improving. For the quarter ending March 31, 2010, we are forecasting near break-even results on revenue of $11.0-$12.0 million, up from revenue of $9.0 million in the quarter ending December 31, 2009. We are forecasting a return to full year profitability in 2010.

Throughout 2008 and into the first six months of 2009, we continued to restructure our operations, improve efficiency and reduce costs in response to the severe global economic recession. Significant restructuring actions included the following:

In February 2008, we announced plans to move a significant portion of our systems-related product development and manufacturing to Singapore. The transition of these functions to Singapore was substantially complete by the end of the first quarter of 2009 and has resulted in lower costs and a more focused R&D effort.

In response to the significant weakness in our markets and the global economy, we implemented workforce reductions in November 2008 and February 2009. Additional cost savings measures were implemented in February 2009, including consolidation of manufacturing operations for our semiconductor products into our Minneapolis, Minnesota headquarters facility.

From the start of the fourth quarter of 2008 through the end of the second quarter of 2009, we reduced our workforce by 50 employees or approximately 25%, and reduced our use of contractors, resulting from the move to Singapore, relocation of our manufacturing operations for our semiconductor products, and the November 2008 and February 2009 workforce reductions. We incurred a $363,000 charge for severance in 2009 related to these actions. We expect implementation of these cost reduction actions to provide for a more focused R&D effort, for both our alignment sensors and systems products.

We also continued to work on our next generation inspection technology and various other growth programs. Significant initiatives undertaken by us in 2008 and 2009 and other events impacting our future prospects include the following:

We announced in September 2009 that Assembleon has elected to continue to use our alignment products on its current and future pick-and-place platforms. We previously disclosed in 2008 that Assembleon intended to start transitioning away from our alignment products when it introduced its next generation of equipment in 2010. Sales of new alignment sensors to Assembleon accounted for 12% of total revenue in 2009 and 10% in 2008.

During 2008, we invested heavily in our next-generation SE500 solder paste inspection system. We believe the SE500 is the fastest and most accurate solder paste inspection system available on the market. We believe the SE500 has been favorably received in the market since its recent introduction and should enable us to gain a larger share of the global solder paste inspection market, while also improving our margins due to its cost-reduced platform.

One of our strategies is to increase the size of our addressable market for inspection by pursuing embedded inspection solutions and by offering a tiered product strategy for our stand alone inspection systems that allows customers to purchase the level of functionality and performance they desire. The foundation of this strategy is common platforms for our next-generation hardware and sensing capabilities that allows essentially the same sensor technology to be used across a variety of applications. We believe these features will enable us to remove significant cost from several new products, resulting in a menu of tiered offerings at various price points for different segments of the inspection market. By expanding our addressable market to electronics manufacturers that desire a lower-cost inspection solution and to those who currently do not use any form of inspection, we believe we can generate longer-term returns on our R&D investments.

Our next-generation QX500 AOI system, which was introduced in November 2009, features a cost reduced design by leveraging our next-generation common hardware platforms and sensor technology. We believe this product will exceed many of the performance metrics of our current AOI offering and those of our competitors.

We continue to pursue several promising growth opportunities for our next generation inspection technologies. In the past year, we have signed two new OEM development contracts for our embedded inspection technology with manufacturers of electronic assembly equipment. One of these new products provides two-dimensional inspection of 100% of the solder paste printed during surface mount assembly without slowing the assembly process. The other new product incorporates our embedded process verification or EPV inspection technology into component placement equipment used in the surface mount assembly process. Both of these products expand our addressable market for inspection solutions.

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We also recently signed a third OEM development contract for an embedded sensor for the photovoltaic solar market. Initial shipments of this product will occur in the first and second quarters of 2010.

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.

We believe that these anticipated new products, which we anticipate can be sold at improved margins, will generate significant sales, and will allow us to address the various price points desired by our customers within the electronic assembly market and the greater efficiencies we are realizing through our strategic repositioning in Asia, will lead to improved operating results as the global electronics market continues to recover from the current economic recession. Nevertheless, our ability to implement our strategy effectively is subject to numerous uncertainties and risk, 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.

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. Since that time, we have introduced several new additions to the WaferSense family of products, including gapping, teaching and vibration sensors that improve up-time and yield for semiconductor manufacturers.

In order to bring our development and manufacturing for our stand alone inspection systems products closer to the markets in Asia where the majority of our customers are located, 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 plan was substantially complete by the end of the first quarter of 2009. We had established sales offices in Singapore in 2001 and China in 2004 to further serve 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.

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.

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SMT Electronic Assembly Alignment Sensors

Our SMT electronic assembly alignment sensors product line, which has generated the largest component of our sales during the past ten years, is a family of alignment sensors that are customized 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 8% of our revenue in 2009 and 21% of our revenue in 2008. Sales of these products, including service repairs, to Assembleon B.V. accounted for approximately 16% of our revenue in 2009 and 15% of our revenue in 2008. 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.

LaserAlign. Our LaserAlign sensor family has accounted for the vast majority of sales in the SMT electronic assembly alignment sensors product line. These sensors are sold for incorporation into component placement machines used in the SMT production lines 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 5th generation sensor for Juki Corporation. Revenue from new product shipments of LaserAlign sensors has been a principal contributor to revenue during the past five years and accounted for 13% of our revenue in 2009, 26% in 2008 and 35% in 2007.

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 and is incorporated into the latest version of Assembleon s component placement machine. Revenue from shipments of BA Camera sensors to Assembleon B.V. accounted for 6% of our revenue in 2009, 6% in 2008 and 7% in 2007.

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 of 2005. Revenue from shipments of the InPrinter Inspection Camera accounted for 5% of our revenue in 2009, 5% in 2008 and 4% in 2007.

Alignment Sensors for New Markets

Solar Wafer Alignment Camera. We recently entered into an OEM agreement with a global supplier of state-of-the art solutions for photovoltaic (Solar) cell manufacturing for our Solar Wafer Alignment Camera. The Solar Wafer Alignment Camera performs accurate high-speed alignment measurements within the wafer print nest and can align a broad range of wafer technologies, including selective emitter, metal wrap-through, and print-on-print. This camera also has the ability to perform traditional wafer edge alignment of both monocrystalline and polycrystalline wafer materials. We recently received our first orders for the Solar Wafer Alignment Camera and expect initial shipments in the first quarter of 2010.

Embedded Inspection Solutions

2D Embedded Solder Paste Inspection. We are completing development of an inspection module that will allow two dimensional solder paste inspection with a DEK solder paste screen printer. Equipped with this module, which will be offered as an option, DEK systems will be able to improve yields and productivity by allowing solder paste screen printing concurrently with high-speed, 100% two dimensional inspection

that does not decrease line or printer speed. Initial shipments of DEK screen printers with embedded inspection are anticipated late in the second quarter of 2010.

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Embedded Process Verification. We recently entered into an agreement with Juki Corporation, our largest LaserAlign customer, for our embedded process verification, or EPV , inspection technology. Juki has incorporated EPV into its KE-2070 robotic assembly platform. Equipped with our EPV inspection technology, the KE-2070 is the industry s first robotic assembly machine capable of inspecting for the presence or absence of electronic components on SMT circuit boards immediately following their placement. With EPV inspection technology, Juki s KE-2070 platform is the only system in the world that can visualize feeder action during the electronic component placement process with images of both component pick and placement and movie mode. EPV technology also provides line engineers with a tool for root cause failure analysis during the assembly process to improve circuit board yields and minimize costly rework or scrap. Our EPV technology is comprised of six ultra small cameras mounted on a placement head for on-the-fly imaging with no cycle time penalty for the inspection process. The resulting inspection for missing components on the SMT circuit board operates at the full placement speed of the KE-2070. The JUKI KE-2070 platform also will continue to deploy CyberOptics LaserAlign® component placement sensors to ensure that electronic components placed on the circuit board are properly aligned and positioned.

SMT Stand Alone Inspection Systems Products

Our SMT inspection 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.

Solder Paste Inspection (SPI) Products

SE500. In 2009, we introduced our next-generation SE500 solder paste inspection system. Based on a new cost-reduced platform, we believe the SE500 is the fastest and most accurate solder paste inspection system available on the market. The SE500 is an in-line system that measures in three dimensions (3D) 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 SE500 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 SE500 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. A version of the SE500 capable of accommodating large board sizes has also been introduced.

In 2010, we expect to introduce a new SPI system at a lower price point for a different segment of the inspection market; those customers requiring a solder paste inspection capability, but not the full functionality and superior measurement performance of our SE500 product. We expect to start production shipments of this product by the middle of 2010.

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 offered faster inspection speeds, a conveyor that can accommodate a greater range of board sizes than the earlier generation SE 300, flexible conveyor options and additional defect review options in run-time software. Since its introduction, 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, an inspection capability for flexible circuits, and a MicroPad sensor option to improve inspection measurement performance for the smallest solder paste deposits.

Revenues from shipments of our SE500 and SE 300 Ultra products accounted for 30% of our revenue in 2009, 24% in 2008 and 23% in 2007.

Automated Optical Inspection Products.

Flex Ultra HR. 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.

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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.

QX500. Our next-generation QX500 AOI system, which was introduced in November 2009, features a cost reduced design by leveraging our next-generation common hardware platforms and sensor technology. We believe this new product will exceed many of the performance metrics of our current Flex Ultra AOI offerings and those of our competitors. We expect to start production shipments of this product by the middle of 2010.

Revenues from shipments of our Flex Ultra products accounted for 21% of our revenue in 2009, 15% in 2008 and 12% in 2007.

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. 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 2009, 12% in 2008, and 9% in 2007.

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. 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.

We introduced our first WaferSense product in late 2004 and have continued to add new products to the WaferSense family each year. The automatic leveling sensor (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. The automatic gapping sensor (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. The automatic particle sensor (APS) allows engineers to efficiently detect and classify particles and their exact sources in a process as wafers are transferred, slit valves actuate and chambers are cycled, pumped down and purged. APS is compatible with front-ends, coater/developer tracks, deposition and etch equipment.

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.

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 an emphasis on semiconductor customers. We offer both digital and analog versions of frame grabbers under the Imagenation brand.

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Markets and Customers

We sell the vast majority of our products into the electronics manufacturing market (88% of total revenue in 2009); 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 and embedded inspection products are sold to OEM s serving this market and our stand alone solder paste and automated optical inspection (AOI) 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. 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. We sell our wafer mapping and alignment sensors to manufacturers of equipment that transport wafers during the semiconductor manufacturing (front-end fabrication) process.

A large proportion of our stand alone inspection system sales are originating in the low cost geographies of Asia where a significant portion of the new worldwide production capacity for circuit board assembly has been added. In order to bring our development and manufacturing for our stand alone inspection systems products closer to the markets in Asia where the majority of our sales occur, 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 stand alone systems products, to Singapore. This transition was substantially complete by the end of the first quarter of 2009. We had established sales offices in Singapore in 2001 and China in 2004 to serve 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.

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 electronic manufacturing service providers (EMS s), who manufacture cell phones, smart phones, notebook computers and server boards, among other electronic devices. We manufacture our alignment sensors, embedded inspection solutions, the sensors used in our stand alone inspection systems and all of our semiconductor products in our Minneapolis, Minnesota headquarters facility. All manufacturing for our stand alone system products takes place in our Singapore facility.

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

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,		
	2009	**2008**	**2007**
Asia	37%	49%	51%
Europe	33%	33%	34%
Other (1)	8%	4%	2%

(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.

Virtually 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.

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Sales and Marketing

Our electronic assembly alignment sensors are sold to large OEM customers by a direct sales staff located in Minnesota. Our stand alone system products are primarily sold through independent representatives and distributors managed by direct sales personnel located in Singapore, as well as in the UK, US and China. We have agreements with 44 independent representatives and distributors who focus on sales and service of our stand alone system products to end-user customers. These agreements cover North and South America (17), Europe (15) and China and the rest of Asia (12).

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). 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 located 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 $7.1 million on December 31, 2009, compared to $3.9 million on December 31, 2008, and $6.1 million on December 31, 2007. Backlog at December 31, 2009 totaling $6.1 million is deliverable in the first quarter of 2010. Sales of some stand alone surface mount technology (SMT) inspection systems 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. 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.

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 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 the past several years, research and development efforts have been focused on a number of development activities critical to our future growth and success, including the following:

Our stand alone next generation SE500 solder paste inspection system and QX500 automated optical inspection (AOI) systems, additional stand alone solder paste and AOI systems, including a new lower-tier solder paste inspection system that we expect to introduce in the second quarter of 2010.

Our common hardware platforms and sensor technology utilized in both our new QX500 automated optical inspection (AOI) system and a new embedded inspection solution we have developed for DEK offering 100% 2D solder paste inspection with no

cycle time penalty.

Our Embedded Process Verification (EPV®) technology.

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A new solar wafer alignment camera capable of performing accurate high-speed alignment measurements within the wafer print nest, including traditional wafer edge alignment of both monocrystalline and polycrystalline wafer materials.

Continued development of our WaferSense family of precision measurement tools, including new automated leveling, gapping, teaching, vibration and particle sensors to assist with process automation and yield improvement.

Research and development expenses were $7.1 million in 2009, $10.4 million in 2008 and $9.8 million in 2007. These amounts represented 26% of revenues in 2009, 23% of revenues in 2008, and 17% of revenues in 2007. 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 2010 to increase slightly as we continue to focus on new products, including our next generation QX500 automated optical inspection (AOI) system, a new embedded inspection solution for DEK offering 100% 2D solder paste inspection, new stand alone inspection systems products, completion of our solar wafer alignment camera and other new WaferSense products.

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, perform final assembly 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.

Our electronic assembly alignment sensor products and our semiconductor products are assembled at our Minneapolis, Minnesota headquarters facility. Our stand alone SMT inspection systems products are assembled in Singapore. Prior to the second quarter of 2009, all of our stand alone SMT system products had been assembled at our Minneapolis, Minnesota. headquarters facility. 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 Minneapolis headquarters facility. Prior to the third quarter of 2009, all of our semiconductor products had been assembled at our Portland, Oregon facility. With the move of our stand alone SMT inspection systems products to Singapore, we concluded that it would be most efficient to assemble our semiconductor products at our Minneapolis headquarters facility.

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).

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 alignment 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 alignment 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.

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The primary competition for sales of our next generation SE500 solder paste inspection system has been from Asian based companies such as KohYoung Technology (Korea) and Test Research, Inc. (Taiwan). We believe the SE500 solder paste inspection system competes favorably against these competitive products on the basis of performance and reliability and is the fastest and most accurate solder paste inspection system available on the market. Our automated optical inspection (AOI) inspection system products (Flex Ultra HR and QX500 products) face competition from a large number of AOI companies, the most significant being MirTec, Ltd. (Korea), Viscom (Germany), Saki Corporation (Japan) and Omron, Ltd. (Japan). We believe that the technology used in the Flex Ultra and QX500 is differentiated from the competition and that these products 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.

The electronics manufacturing market has become increasingly competitive and concentrated in large Asian based original design manufacturers and global electronic manufacturing service contract manufacturers, resulting in the ability on their part to drive more competition into the market and command more favorable terms when purchasing from suppliers, including capital equipment suppliers like CyberOptics. Due to the increased level of competition, we have been required to decrease the price of our solder paste and automated optical inspection (AOI) systems in some markets. These same pricing pressures also impact our OEM customers for our alignment sensors, who in turn ask us to design newer products at a lower price point to allow them to remain competitive in the marketplace. We respond to these pricing pressures through continuous investment in research and development of cost reduced products with new features and enhancements that command better pricing in the market.

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.

Employees

As of December 31, 2009, we had 156 full-time employees worldwide, including 41 in sales, marketing and customer support, 46 in manufacturing, purchasing and production engineering, 51 in research and development and 18 in finance, administration and information services. Of these employees, 85 are located at our corporate headquarters in Minneapolis and 71 are located in other offices (7 in the UK, 12 in Oregon, 45 in Singapore, 6 in China and 1 in Japan). All of our employees located in Oregon work in our Semiconductor business. 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 93 patents (63 U.S. and 30 foreign) on a number of technologies, including those used in LaserAlign, our embedded inspection technology, our stand alone inspection systems and other products. Some of the patents relate to equipment such as pick-and-place machines, into which our products are integrated. In addition, we have 89 pending patents (37 U.S. and 52 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 17 trademarks, 13 of which are registered trademarks, and 3 of which are foreign. We currently have 4 trademarks pending registration. We also

have 10 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.

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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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ITEM 1A. RISK FACTORS

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 and performance, changes in markets, customers and customer order rates, expenditures in research and development, growth in revenue and improvement in profits, taxation levels, the effects of pricing, and competition, 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 worldwide recession, and the current uncertainty in the outlook for the global economy makes it more likely that our actual results will differ materially from expectations. In 2009, the world economy experienced the worst economic recession since the great depression of the 1930 s. The severe economic conditions were brought about by extreme disruptions in global credit and financial markets including severely diminished liquidity and credit availability, declines in consumer confidence, declines in economic growth, increases in unemployment rates, and uncertainty about economic stability. Although the world economy is starting to show signs of a tentative recovery, there can be no assurance as to the length and strength of the recovery, that it will continue or that the economy will not slide back into another period of recession. 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. Any 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, smart 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.

Sales to our two largest customers have historically constituted a significant portion of our revenue and loss of either of these customers, or a decline in the customer s business, would have a materially adverse impact on our results of operation. Sales to our two largest customers constituted 24% of our total revenue in 2009 and 36% of our total revenue in 2008. Although we believe our relationship with these customers are good and we continue to pursue joint development projects with them, like most suppliers to the electronics manufacturing markets, their businesses have been impacted by the global economic downturn. One of these customers had tentatively determined to develop its own sensor technology, but has since reconsidered. If the order rates of these customers do not return to their historical levels 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.

The move of stand alone systems product development and manufacturing operations to Singapore 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 we are unable to retain our Singapore based employees, or if it costs more than expected to retain these employees or 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 downturns in electronics production markets from 2001 through 2003, and the current downturn from 2008 through 2009, have severely affected our operations and generated several years of unprofitable operations. Although we are starting to see signs of recovery in our markets, we often have difficulty determining the duration or severity of any downturn in our markets, the strength of subsequent recovery 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 2009, approximately 30% of our total revenue was generated by sales of stand alone SE 300 Ultra and SE500 SMT solder paste inspection systems. Sales of these products have been subject to increasing competition in world markets, particularly in Asia, 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.

We generate more than three quarters of our revenue (approximately 78% in 2009) 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. Virtually 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.

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.

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We compete in the electronics assembly alignment sensor market with larger companies. Our electronic assembly alignment 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 stand alone system and alignment 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 stand alone system products carry lower margins. We use a different distribution network to sell our stand alone end-user systems products, and generate lower margins from these products, than the distribution system and margins from our electronic assembly alignment sensors and semiconductor products. Our profit margins may be negatively affected to the extent our stand alone end-user systems products constitute a larger portion of our business.

We are exposed to credit risk through sales to our OEM customers and distributors of our stand alone system products. We sell our products through three key OEM customers, and usually have significant credit exposure with respect to two of these customers. In addition, we sell our stand alone inspection systems products through a network of international distributors. These distributors tend to be smaller in size with limited financial resources and access to capital. Although these distributors do not hold our products in inventory for re-sale, we are exposed to credit risk and would incur losses if they are unable to pay for the products they have purchased from us.

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 stand alone 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 stand alone 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.

We have experienced significant management turnover in the past twelve months and our results of operation could be materially adversely impacted by the loss of other management personnel. Both our Vice President of Operations and our Vice President and General Manager of Systems Operations resigned effective in May 2009 and our Chairman and Chief Technology Officer died in a plane crash in June 2009. Although we believe that our current management personnel have compensated well, the loss of additional management personnel and the loss of continuity in experience with our operations that would result could be very disruptive to our operations.

Much of our growth is dependent upon the commercial success of products we have recently, or will shortly, introduce. We plan to commence commercial sale of several new products during 2010 on which we have completed development or are currently nearing completion of development, including the QX500 automated optical inspection (AOI) systems, additional stand alone solder paste and AOI systems, our Embedded Process Verification (EPV®) system for Juki, our new solution for DEK offering 100% 2D solder paste inspection, and a new solar wafer alignment camera. We have not generated revenue from these products, and the first sale of these and other new products could be delayed by economic conditions affecting our customers, enhancements required by our OEM or end user customers, or technology issues encountered during final testing. Further, we have no assurances that these new products will generate substantial commercial sales.

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Our growth has been dependent on technical innovation, some of which was generated by our founder, and our growth could be impacted if we are unable to innovate in the future. Although our results are cyclical, our longer-term growth has been in the past, and we anticipate will be in the future, dependent upon our ability to introduce new and innovative products. Many of our product innovations were generated by our founder, Dr. Steven K. Case, who died this past summer. Although we have devoted and continue to devote significant resources to research and development to support this innovation and believe we have talented scientists who have and will continue significant new inventions, if we fail to create significant new product innovations, our market position would be negatively impacted.

The absence of significant market liquidity in our common stock could impact the ability of our shareholders to purchase and sell larger blocks, the attractiveness of our stock to institutional shareholders, and the market value of our common stock. There were 6,845,391 shares of our common stock outstanding as of February 28, 2010. Although our common stock is traded in the NASDAQ Global Market, in part because of the number of shares we have outstanding and available for trading, the daily trading volume in our stock is low, averaging only approximately 9,000 shares per day during the first two months of 2010. Shareholders wishing to purchase or sell larger blocks of stock may not be able to do so quickly, and disposal by any shareholder of a significant block of stock could adversely affect the sale price in the marketplace. Further, institutional investors often have policies against investment in stock that is illiquid, and many institutional investors may elect not to purchase or hold our stock because of the inability to dispose of it. The reduced institutional interest, as well as the lack of current evaluations by securities analysts, has had and can be expected to continue to have a further adverse impact on the market price and liquidity of our common stock.

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, including the sensors used in our stand alone systems products and our semiconductor products. The lease for this space will expire in June 2011. We lease a 20,000 square foot mixed office and warehouse facility in Singapore that serves as a sales, development and manufacturing facility for our stand alone systems products. The lease for our facility in Singapore expires in May 2011. As of December 31, 2009, we also have operating leases in Oregon (for our semiconductor products), the United Kingdom, and Shanghai, China, which expire in December 2012, 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. RESERVED

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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.

	2009		2008	
Quarter	**High**	**Low**	**High**	**Low**
First	$ 6.00	$ 4.00	$ 12.41	$ 9.69
Second	$ 5.90	$ 4.23	$ 11.70	$ 7.88
Third	$ 7.06	$ 4.98	$ 10.74	$ 8.51
Fourth	$ 7.45	$ 4.95	$ 9.60	$ 4.26

As of February 28, 2010, 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 therefore. Our board has no current intention of paying dividends.

ITEM 6. SELECTED FINANCIAL DATA

Five-Year Financial Summary
CyberOptics Corporation
(In thousands, except per share information)

Year Ended December 31	**2009(1)**	**2008(2)**	**2007**	**2006**	**2005(3)**
Revenues	$ 27,066	$ 45,452	$ 58,776	$ 57,089	$ 42,179
Income (loss) from operations	$ (11,235)	$ (10,463)	$ 5,540	$ 7,121	$ 3,104
Net income (loss)	$ (6,816)	$ (6,671)	$ 5,028	$ 6,390	$ 7,150
Net income (loss) per share:					
Basic	$ (1.00)	$ (0.87)	$ 0.57	$ 0.71	$ 0.80
Diluted	$ (1.00)	$ (0.87)	$ 0.56	$ 0.70	$ 0.79
Cash and cash equivalents	$ 4,177	$ 4,516	$ 18,864	$ 30,056	$ 19,592
Marketable securities	17,702	25,267	33,754	18,951	21,548
Working capital	34,348	30,461	47,939	55,662	48,515
Total assets	51,137	58,949	87,039	82,010	73,027
Stockholders equity	44,402	50,880	78,116	73,020	66,190

(1) 2009 results include a $363,000 pre-tax charge for severance costs related to our move to Singapore and November 2008 and February 2009 workforce reductions.

(2) 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 restructuring and severance costs related to our move to Singapore and November 2008 workforce reduction.

(3) 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, 2009:

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, smart 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 through the first quarter of 2009, 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 sharply late in the fourth quarter of 2008 as the global economy fell into a severe recession, and our results for 2009 were adversely affected by the ongoing weakness in the global electronics market. Revenues were $27.1 million in 2009, down 40% from $45.5 million in the same period last year. We lost $11.2 million from operations in 2009, down from a $10.5 million loss from operations in 2008. Our loss from operations in 2008 included a $3.9 million non-cash pre-tax charge for goodwill impairment.

Even before the recession, we worked to improve the efficiencies of our operations. In February 2008, we commenced plans to move a significant portion of our systems-related product development and manufacturing to Singapore. The transition of these functions to Singapore was substantially complete by the end of the first quarter of 2009 and has resulted in lower costs and a more focused R&D effort. Further, in direct response to the recession, we implemented workforce reductions in November 2008 and February 2009, including consolidation of manufacturing operations for our semiconductor products into our Minneapolis, Minnesota headquarters facility. From the start of the fourth quarter of 2008 through the end of the second quarter of 2009, we 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. Implementation of these cost reduction actions has not impacted any of our strategic growth programs.

We also continued to work on our next generation inspection technology and various other growth programs during the recession. We invested heavily during 2008 and 2009 in our next-generation SE500 solder paste inspection system and introduced this new system, which we believe is the fastest and most accurate solder paste inspection system available, in the second quarter of 2009. In November 2009, we introduced our QX500 AOI system, which uses a cost reduced design that was created using sensor technology that we believe we can replicate and apply to generate a family of products with price points and functionality that meets the needs of a larger group of customers. We have also signed three new OEM development contracts during 2009, two with manufacturers of electronic assembly equipment for embedded inspection functionality, and a third in a new market for us: the photovoltaic solar market. One of these new products provides 100% 2D solder paste inspection with no cycle time penalty, another represents the first commercial application of our embedded process verification technology, and the third represents our entry into a new market solar cell manufacture.

In addition to these contracts for product initiatives, we revived our long-term relationship with one of our major customers. Although we had previously been advised that Assembleon intended to start transitioning away from our alignment products, in late summer 2009, Assembleon determined that it would continue to use our sensors on its next-generation system.

We are starting to see signs of strengthening in the global electronics market. Manufacturers of SMT assembly equipment, who did not place sensor orders in the first half of 2009, have resumed ordering. In addition, demand for stand alone SE500 solder paste inspection and AOI systems is improving. We believe that these improving market conditions, the efficiencies in operations we have implemented, and the new products we have introduced and anticipate introducing in 2010, will lead to improved operating results over the coming year. For the quarter ending March 31, 2010, we are forecasting near break-even results on revenue of $11.0-$12.0 million, up from revenue of $9.0 million in the quarter ending December 31, 2009. We are presently forecasting a return to full year profitability in 2010.

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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:

	Year Ended December 31,		
(In thousands)	**2009**	**2008**	**2007**
Revenue:			
Electronic assembly	$ 23,736	$ 40,193	$ 53,203
Semiconductor	3,330	5,259	5,573
Total	$ 27,066	$ 45,452	$ 58,776
Gross margin:			
Electronic assembly	$ 7,061	$ 15,867	$ 26,631
Semiconductor	2,144	3,198	3,616
Total	$ 9,205	$ 19,065	$ 30,247
Operating expense:			
Electronic assembly	$ 17,772	$ 26,206	$ 21,223
Semiconductor	2,668	3,322	3,484
Total	$ 20,440	$ 29,528	$ 24,707
Income (loss) from operations:			
Electronic assembly	$ (10,711)	$ (10,339)	$ 5,408
Semiconductor	(524)	(124)	132
Total income (loss) from operations	$ (11,235)	$ (10,463)	$ 5,540
Interest income and other	539	1,193	2,214
Income (loss) before income taxes	$ (10,696)	$ (9,270)	$ 7,754

Revenues

Our revenues decreased by 40% to $27.1 million in 2009 from $45.5 million in 2008 and decreased by 23% in 2008 from $58.8 million in 2007. The following table sets forth, for the years indicated, revenues by product line (in thousands):

	2009	**2008**	**2007**
Electronic Assembly			
OEM Sensors	$ 8,428	$ 20,250	$ 31,774
SMT Systems	15,308	19,943	21,429
Total Electronic Assembly	23,736	40,193	53,203
Semiconductor	3,330	5,259	5,573
Total	$ 27,066	$ 45,452	$ 58,776

Electronic Assembly

The global recession caused severe weakness and disruption in our electronics markets starting late in 2008 and throughout all of 2009, causing significant declines in revenue from both our OEM alignment sensors and stand alone SMT inspection systems products in both 2008 and 2009 when compared to the same period of the prior year. Revenue from sales of our OEM alignment sensors decreased by $11.8 million or 58% in 2009 to $8.4 million, down from $20.2 million in 2008 and decreased by $11.5 million or 36% in 2008, down from $31.8 million in 2007. Revenue from sales of our stand alone SMT inspection systems products decreased by $4.6 million or 23% to $15.3 million in 2009, down from $19.9 million in 2008 and decreased $1.5 million or 7% in 2008, down from $21.4 million in 2007.

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The decrease in sales of OEM alignment sensors, which are primarily dependent on two significant customers, resulted from significantly reduced orders in late 2008 through most of 2009, as these customers worked to sell their own inventories of assembly machines in a market where virtually no capital purchases were occurring. These customers began to increase their orders in late 2009, and have projected further increases in 2010.

Sales of our system products were impacted to a large extent by the same capital purchase issues. Sales of our SE 300 Ultra and SE500 solder paste inspection systems decreased by $3.0 million or 27% in 2009 to $8.1 million and by $1.5 million or 10% in 2008 to $11.1 million, after increasing $2.0 million or 16% in 2007. Sales of our Flex AOI systems decreased by $1.2 million or 17% in 2009 to $5.7 million and remained virtually unchanged in 2008 at $6.9 million when compared to 2007. We believe the introduction of our SE500 solder paste inspection system in the second quarter of 2009, combined with the planned introduction of our new AOI system, the QX500 and a new lower tier solder paste inspection system will strengthen our competitive position in the inspection market. Unlike revenue from our OEM alignment sensors, which is closely tied to the need for added production capacity for printed circuit boards, a portion of our stand alone 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 and will increase demand in the future as the recession eases and our markets strengthen. However, our electronic assembly revenue has been, and will continue to be impacted by increasing competition and price pressure, particularly for stand alone SMT inspection systems products sold in Asia.

Export revenue from OEM alignment sensors and stand alone SMT inspection systems totaled $20.2 million in 2009, $36.7 million in 2008 and $49.4 million in 2007, comprising 85% of our electronic assembly revenue in 2009, 91% of electronic assembly revenue in 2008 and 93% of electronic assembly revenue in 2007. Sales to international customers continue to be significant, as manufacturing of electronic components has migrated offshore, particularly to China and other areas of Asia.

Semiconductor

Revenues from semiconductor products decreased by $1.9 million or 37% to $3.3 million in 2009 down from $5.3 million in 2008 and decreased by $314,000 or 6% in 2008 from $5.6 million in 2007. The decrease in revenue was due to the recession, difficult conditions in the market for semiconductor fabrication equipment and declining revenue from our older wafer mapper and frame grabber products. Total WaferSense revenue decreased to $1.6 million in 2009 after increasing 55% to $1.7 million in 2008 from $1.1 million in 2007.

Our wafer mapper 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, 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, vibration and particle sensors.

Export revenue from semiconductor products totaled $1.0 million or 30% of total semiconductor revenue in 2009, $2.4 million or 46% of total semiconductor revenue in 2008 and $1.8 million or 32% of total semiconductor revenue in 2007. The percentage of sales coming from international markets decreased in 2009 due to a large proportional decrease in sales of frame grabber products, which tend to generate significant international sales.

The percentage of semiconductor 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.

Cost of Revenue and Gross Margin

Electronic Assembly

Gross margin as a percentage of electronic assembly sales were 30% in 2009, 39% in 2008 and 50% in 2007. The reduction in gross margin percentage during 2009 and 2008 was due to significantly lower sales of higher margin OEM alignment sensors, substantially lower

production volumes over which to spread fixed manufacturing overhead costs, continued competitive pricing pressure for our products, particularly older generation versions that are being replaced, and the overall impact of the global recession.

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Other factors having a negative impact on our gross margins in 2009 and 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 inspection systems products. In addition, our gross margin in 2008 was negatively impacted by a $650,000 write-down of excess and obsolete inventory resulting from our anticipated loss of Assembleon as a significant customer for our OEM alignment sensors, combined with a sharp drop-off in demand at the end of 2008 resulting from the recession. In 2009, we sold most of the previously written-down inventory to Assembleon at a reduced price. Assembleon has since elected to continue to use our OEM alignment sensors for its current and future pick-and-place platforms.

In response to significant weakness in our markets resulting from the global recession, and transition of manufacturing for our SMT inspection systems products to Singapore, we reduced our manufacturing workforce by over 30 employees or 45% by the end of the second quarter of 2009. In addition, by the end of the second quarter of 2009, we completed consolidating our Portland-based semiconductor manufacturing into our Minneapolis facility, a move that has further streamlined our cost structure. These actions have reduced our overall manufacturing costs and have better leveraged our manufacturing operations, thereby favorably impacting our gross margins not only in the second half of 2009, but also in future periods.

We compensate for pricing pressure by introducing new products with more features and improved performance and through manufacturing cost reduction programs. For example, we believe our next-generation SE500 solder paste inspection system and QX500 AOI system combines a reduction in cost with enhanced performance. Other recently introduced products including our solar wafer alignment camera, embedded process verification (EPV) technology and the embedded solder paste inspection solution we developed for DEK, have more favorable margins than our existing products. .

Semiconductor

Gross margin as a percentage of semiconductor sales was 64% in 2009, compared to 61% in 2008 and 65% in 2007. Gross margin as a percentage of semiconductor sales increased in 2009 due to the cost benefit from consolidation of manufacturing for our semiconductor products into our Minneapolis, Minnesota headquarters. Gross margins decreased as a percentage of revenue in 2008 compared to 2007 due to a change in revenue mix, with our highest margin wafer mapping sensors representing a smaller percentage of total semiconductor revenue.

We expect gross margins as a percentage of revenue from our semiconductor products to continue to improve in 2010. Gross margins in 2009 only reflect a partial year benefit from consolidation of manufacturing for our semiconductor products into our Minneapolis, Minnesota headquarters facility. Gross margins in 2010 will benefit from the consolidation for the entire year.

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 the recession and 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 to Singapore a significant portion of our systems-related product development and manufacturing. The transition of systems-related product development to Singapore was substantially complete by the end of the fourth quarter of 2008 and the transition of manufacturing for our system products was substantially complete by the end of the first quarter of 2009. The realignment of our systems-related product development and manufacturing to Singapore has resulted in lower costs and a more focused development effort.

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 reduced our workforce by 50 employees or 25% (over 30 in manufacturing and approximately 20 in development, selling, general and administrative) from the start of the fourth quarter of 2008 through the end of the second quarter of 2009. Other cost saving measures implemented in 2009 include salary reductions and reduced spending for non-labor costs such as travel, supplies and the like. These cost saving measures, combined with savings from our transition to Singapore, have provided significant annual expense savings. Implementation of the cost reduction actions discussed above had no impact on any of our strategic growth programs; work on our common hardware platforms for inspection, next generation inspection technologies, or pursuit of new OEM contracts.

As a result of signs of an improving economy, we elected to restore salary levels for our employees to pre-reduction levels in 2010. In addition, we anticipate that our costs will increase as business activity picks up and revenue returns to pre-recession levels. However, many of

the cost savings measures that were put in place during 2008 and 2009 will continue to provide meaningful savings for the foreseeable future.

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Electronic Assembly

Research and development expenses for our electronic assembly segment were $6.0 million or 25% of revenue in 2009, $8.8 million or 22% of revenue in 2008 and $8.1 million or 15% of revenue in 2007. The 31% decrease in research and development expenses in 2009 compared to 2008 resulted from a more focused and efficient research and development effort due to transition of systems related research and development to Singapore, as well as transition costs incurred in 2008. Singapore transition costs classified as research and development expense in 2008 were $879,000. No transition costs were incurred in 2009. In addition, the cost reduction actions implemented in November 2008 and February 2009 contributed to the lower level of spending in 2009.

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.

Selling, general and administrative expenses for our electronic assembly segment were $11.4 million or 48% of revenue in 2009, $12.7 million or 32% of revenue in 2008 and $13.0 million or 24% of revenue in 2007. Selling, general and administrative expenses for 2009 include an $800,000 provision for doubtful accounts related to a key distributor of our SMT inspection systems products. The distributor remains in business, and is committed to paying us the amount owed. The increase in the provision for doubtful accounts was more than offset by reductions in expense from our cost savings measures, reductions in travel costs, lower commissions for third party sales representatives resulting from the lower level of SMT inspection systems sales and lower foreign sales office expenses resulting from favorable foreign exchange rates.

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 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.

Semiconductor

Research and development expenses for our semiconductor segment were $1.1 million or 33% of revenue in 2009, $1.7 million or 31% of revenue in 2008 and $1.7 million or 31% of revenue in 2007. The decline in research and development expenses in 2009 resulted from the cost reduction actions that were implemented in November 2008 and February 2009, offset in part by a small increase in expense for abandoned patents. Research and development for our semiconductor products remain focused on our WaferSense family of precision measurement tools, including new automated leveling, gapping, teaching, vibration and particle sensors to assist with process optimization and yield improvement in the semiconductor fabrication process.

Selling, general and administrative expenses for our semiconductor segment were $1.4 million or 41% of revenue in 2009, $1.5 million or 29% of revenue in 2008 and $1.7 million or 30% of revenue in 2007. The decrease in selling, general and administrative expense in 2009 compared to 2008 was due to lower salary and consulting costs, and lower sales commissions resulting from the reduced level of revenue. The decrease in selling, general and administrative expense in 2008 compared to 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 and recruitment 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 systems-related product development was substantially complete by the end of the fourth quarter of 2008, and the transition of systems-related manufacturing was substantially complete by the end of the first quarter of 2009. Severance costs incurred in 2008 in connection with the February 2008 decision to move our systems related development and manufacturing to Singapore totaled $302,000.

We also incurred expenses totaling $234,000 in 2008 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 2008 statement of operations as research and development expense. Other start-up costs totaling $112,000 have been classified in our 2008 statement of operations as selling, general and administrative expense. Costs in 2009 related to the move and transition to Singapore were not 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 weak global economic conditions.

In February 2009, we further reduced our workforce by 24 positions in response to further weakening in the global economy, our transition to Singapore and our decision to consolidate manufacturing for our semiconductor products in our Minneapolis facility. Severance costs in 2009 related to the November 2008 and February 2009 workforce reductions totaled $363,000. All of the severance costs related to the February 2008 transition to Singapore, and the November 2008 and February 2009 workforce reductions have been classified as severance and recruitment in our statement of operations.

A summary of our severance accruals follows:

	Electronic Assembly					Semiconductor			
(In thousands)	February 2008 Singapore	Recruit-ment	November 2008 workforce reduction	February 2009 workforce reduction	Total	November 2008 workforce reduction	February 2009 workforce reduction	Total	Total
Balance, January 1, 2008	$	$	$	$	$	$	$	$	$
Cost incurred	302	234	155		691	79		79	770
Payments made	(95)	(234)	(51)		(380)	(75)		(75)	(455)
Balance, December 31, 2008	$ 207	$	$ 104	$	$ 311	$ 4	$	$ 4	$ 315
Cost incurred	48			201	249		114	114	363
Payments made	(255)		(104)	(201)	(560)	(4)	(114)	(118)	(678)
Balance, December 31, 2009	$	$	$	$	$	$	$	$	$

Goodwill Impairment and Amortization of Intangibles

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. 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.

We performed our annual goodwill impairment test in the fourth quarter of 2009 and concluded that the goodwill related to our semiconductor segment in the amount of $569,000 was not impaired. 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. Upon completion of our analysis, we concluded that the goodwill related to our electronic assembly segment was fully impaired, resulting in a pre-tax goodwill impairment charge in 2008 of $3.9 million.

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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 currency transactions and in 2008, an unrealized loss on an available for sale equity security.

Interest income and other decreased in 2009 and 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. In 2008, we recognized a $166,000 unrealized loss on an available for sale equity security. 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 foreign currency transaction losses, net of underlying currency hedges, of $92,000 in 2009 and $176,000 in 2008.

Income Taxes

We recorded an income tax benefit of $3.9 million in 2009, reflecting an effective income tax rate of 36%. In 2008, we recorded an income tax benefit of $2.6 million, reflecting an effective income tax rate of 28.0%. In 2007, we recorded an income tax provision of $2.7 million, reflecting an effective income tax rate of 35.2%.

Our effective tax rate for 2009 was favorably impacted by 5.2% or $551,000 from settlement of Internal Revenue Service audits of our 2006 and 2007 federal income tax returns, including both the impact of settlement payments and reversal of a portion of our reserve for income taxes. Other items impacting our effective rate in 2009 include a small benefit from the research and experimentation (R&D) tax credit, offset by higher tax expense in foreign tax jurisdictions with tax rates differing from the U.S federal statutory rate. 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.

We file income tax returns in the U.S. federal jurisdiction, and various state and foreign jurisdictions. During 2009, the Internal Revenue Service completed audits of our 2006 and 2007 federal income tax returns. Our settlement with the Internal Revenue Service did not have a material impact on our financial condition. We are no longer subject to state and local income tax examinations by tax authorities for years before 2006.

Due to the anticipated carry back of our 2009 federal taxable loss to 2004 and 2005, the Internal Revenue Service could potentially examine our federal income tax returns for those years. The statute of limitations for examination of these returns had previously expired. We expect to receive a federal income tax refund in 2010 of approximately $2.5 million from carry back of our 2009 federal taxable loss.

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 the guidance provided in current financial accounting standards.

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.

In analyzing the need for valuation allowances, we first considered our history of cumulative losses for U.S. income tax purposes over the past three years and also gave significant consideration to our results for U.S. income tax purposes over the past five years, as the economic cycles in our industry have tended to average five years in length (from peak to trough). We also considered our forecasts of future profitability, the duration of statutory carry forward periods and tax planning alternatives. Finally, we considered the length and severity of the recent global economic crisis, the impact that it had our operating results and our expectation for rebound given recent signs of recovery in the global economy and more specifically in our markets. After considering all of these factors, and after considering other significant positive evidence, we concluded that a valuation allowance with respect to substantially all of our U.S. based deferred tax assets was not required at December 31, 2009.

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Our results in both 2008 and 2009 were negatively impacted by the recent global economic slowdown, and we incurred a loss in the United States in both 2008 and 2009, 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. We are seeing signs of strengthening in the global electronics market. Manufacturers of SMT assembly equipment, who did not place sensor orders in the first half of 2009, have resumed ordering. In addition, demand for SE500 solder paste inspection and AOI systems is improving. For the quarter ending March 31, 2010, we are forecasting near break-even results on revenue of $11.0-$12.0 million, up from revenue of $9.0 million in the quarter ending December 31, 2009, and we are forecasting a return to full year profitability in 2010. If future results from our operations are less than projected, a valuation allowance may be required 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, 2009, include 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.

Liquidity and Capital Resources

Our cash and cash equivalents decreased by $339,000 during 2009 due to our use of $6.5 million of cash to fund our net loss and other operating activities, purchases of capital assets of $1.0 million, mostly offset by $7.0 million of proceeds from maturities and sales of marketable securities, net of purchases. 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 $7.9 million to $21.9 million as of December 31, 2009 from $29.8 million as of December 31, 2008.

We used $6.5 million of cash for operating activities in 2009. Cash used for operations included our net loss of $6.8 million, which included non-cash expenses totaling $3.0 million for depreciation and amortization, provision for 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 using cash included increases in accounts receivable of $2.3 million and income tax refunds receivable of $901,000 and decreases in accrued expenses of $2.2 million. Changes in operating assets and liabilities providing cash included decreases in inventories of $1.7 million and increases in accounts payable of $857,000. The increase in accounts receivable was due to higher sales levels in the fourth quarter of 2009, compared to the fourth quarter of 2008. Income tax refunds receivable were higher due to anticipated income tax refunds resulting from our carry-back of our 2009 taxable loss to earlier periods. The decrease in accrued expenses resulted from lower levels of income tax reserves resulting from settlement of Internal Revenue Service audits of our 2006 and 2007 federal income tax returns, lower warranty accruals resulting from the lower level of sales in 2009 and payment of accrued severance. Inventories were lower due to reduced material purchases in response to sharply lower sales levels early in 2009 and the increase in sales in the later half of the year. Accounts payable were higher due to the timing of inventory purchases and a conscious effort on our part to extend the timing of vendor payments.

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 $2.1 million for depreciation and amortization, provision for 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, a decrease in inventories of $127,000 and a decrease in current assets of $179,000. Cash generated from the reduction in accounts receivable was mostly offset by an increase in income tax refunds receivable of $1.5 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 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. Income tax refunds receivable 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 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.

We generated $6.0 million of cash from investing activities in 2009 compared to generating $6.4 million of cash from investing activities in 2008. Changes in the level of investment in marketable securities, resulting from the purchases, sales and maturities of those securities generated $7.0 million of cash in 2009 and $8.6 million of cash in 2008. We used $1.0 million of cash in 2009 and $2.2 million of cash in 2008 for the purchase of fixed asset and capitalized patent costs.

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Financing activities provided $167,000 of cash in 2009 from the exercise of employee stock options and issuance of common stock under our Employee Stock Purchase Plan. We used $20.7 million of cash for financing activities in 2008, mainly for the repurchase of 2.1 million shares of our common stock at a cost of $20.9 million. Stock option exercises and issuance of common stock under our Employee Stock Purchase Plan generated $241,000 of cash in 2008.

At December 31, 2009, 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, 2009. Purchase commitments for inventory can vary based on the volume of revenue and resulting inventory requirements. While there were no material commitments, we evaluate investment opportunities that come to our attention and could make a significant commitment in the future.

The following summarizes our contractual obligations at December 31, 2009, and the effect such obligations are expected to have on our liquidity and cash flow in future periods.

December 31, 2009 (in 000 s)	Total	Less Than 1 Year	1 4 Years	After 4 Years
Contractual Obligations:				
Non-cancelable operating lease obligations	$ 2,201	$ 1,468	$ 733	$
Purchase obligations	7,222	7,222		
Reserve for income taxes	546		546	
Total contractual cash obligations	$ 9,969	$ 8,690	$ 1,279	$

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. We lease a 20,000 square foot mixed office and warehouse facility in Singapore. The lease for this facility is set to expire in May 2011.

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.

Our cash, cash equivalents and marketable securities totaled $21.9 million at December 31, 2009. 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 above.

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Fair Value Measurements

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, 2009 according to the three-level fair value hierarchy:

		Fair Value Measurements at December 31, 2009 Using		
(In thousands)	Balance December 31, 2009	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Cash equivalents	$ 2,320	$	$ 2,320	$
U.S. government and agency obligations	$ 14,161	$	$ 14,161	$
Corporate debt securities	$ 3,301	$	$ 3,301	$
Asset backed securities	$ 210	$	$ 210	$
Equity securities	$ 30	$ 30	$	$

Our foreign currency swap agreements are structured to mature on the last day of each quarter. The fair value associated with these agreements is inconsequential and represents a level 2 measurement.

Related Party Transactions

We did not engage in any related party transactions during the three year period ended December 31, 2009.

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. Virtually 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.

We enter into foreign currency swap agreements to hedge short term inter-company financing transactions with our subsidiaries in the United Kingdom and Singapore. 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, 2009, we had two open swap agreement that were purchased on that day. As a result, any unrealized gains or losses as of December 31, 2009 were inconsequential. During the year ended December 31, 2009, losses from the settlement of foreign currency swap agreements totaling $229,000 were partially offset by non-cash transaction gains on the underlying inter-company balances of $137,000.

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 June 2009, the FASB issued ASC No. 105, *Generally Accepted Accounting Principles (GAAP)*, previously referred to as Statement of Financial Accounting Standard (SFAS) No. 168, *The FASB Accounting Standards Codification and the Hierarchy of Generally Accepted Accounting Principles - a replacement of FASB Statement No 162*. The effective date for use of the FASB Codification is for interim and annual periods ending after September 15, 2009. Our adoption of the FASB Codification had no impact on our consolidated financial statements.

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In March 2008, the FASB issued guidance codified in ASC Topic 815, Derivatives and Hedging (ASC 815), *Disclosures about Derivative Instruments and Hedging Activities.* The new guidance is intended to improve financial reporting about derivative instruments and hedging activities by requiring enhanced disclosures to enable investors to better understand their effects on an entity s financial condition, financial performance, and cash flows. We adopted guidance included in ASC 815 on January 1, 2009 and included the appropriate disclosures in our financial statements. The adoption of this guidance did not have a material impact on our consolidated financial condition, results of operations or cash flows.

In April 2009, the FASB issued ASC No. 820-10-35, *Fair Value Measurements and Disclosures Subsequent Measurement*, which discusses the provisions related to the determination of fair value when the volume and level of activity for the asset or liability have significantly decreased. Based on the guidance in ASC No. 820-10-35, if an entity determines that the level of activity for an asset or liability has significantly decreased and that a transaction is not orderly, further analysis of transactions or quoted prices is needed, and a significant adjustment to the transaction or quoted prices may be necessary to estimate fair value. The guidance in ASC No. 820-10-35 is to be applied prospectively and is effective for interim and annual periods ending after June 15, 2009 with early adoption permitted for periods ending after March 15, 2009. Our adoption of this guidance had no impact on our consolidated financial statements.

In April 2009, the FASB issued ASC No. 320-10-65, *Transition Related to Recognition and Presentation of Other-Than-Temporary Impairments*, which applies to investments in debt securities for which other-than-temporary impairments may be recorded. If an entity s management asserts that it does not have the intent to sell a debt security and it is more likely than not that it will not have to sell the security before recovery of its cost basis, then an entity may separate other-than-temporary impairments into two components: 1) the amount related to credit losses (recorded in earnings), and 2) all other amounts (recorded in other comprehensive income). ASC No. 320-10-65 is effective for interim and annual reporting periods ending after June 15, 2009. Our adoption of this guidance had no material impact on our consolidated financial statements.

In April 2009, the FASB issued ASC No. 825-10-65, *Interim Disclosures about Fair Value of Financial Instruments*, which amends previous interim disclosure requirements and requires an entity to provide disclosures about the fair value of financial instruments in interim financial information. The guidance in ASC No. 825-10-65 is to be applied prospectively and is effective for interim and annual periods ending after June 15, 2009, with early adoption permitted for periods ending after March 15, 2009. Our adoption of this guidance had no material impact on our consolidated financial statements.

In May 2009, the FASB issued ASC No. 855, *Subsequent Events*, which requires an entity to disclose the date through which it has evaluated subsequent events and the basis for that date, whether that date represents the date the financial statements were issued or were available to be issued. We adopted this guidance on June 30, 2009 with no material impact on our consolidated financial statements (see Note 1). This guidance was subsequent amended by ASU 2010-09, which eliminates the Company s need to reference the date through which subsequent events were evaluated.

In October 2009, the FASB issued Accounting Standard Update No. 2009-13 on Topic 605, *Revenue Recognition Multiple Deliverable Revenue Arrangements a consensus of the FASB Emerging Issues Task Force.* The objective of Accounting Standard Update No. 2009-13 is to address the accounting for multiple-deliverable arrangements to enable vendors to account for products or services (deliverables) separately rather than as a combined unit. Vendors often provide multiple products or services to their customers. Those deliverables often are provided at different points in time or over different time periods. This Update provides amendments to the criteria in Subtopic 605-25 for separating consideration in multiple-deliverable arrangements. The amendments in this Update establish a selling price hierarchy for determining the selling price of a deliverable. The selling price used for each deliverable will be based on vendor specific objective evidence if available, third-party evidence if vendor-specific objective evidence is not available, or estimated selling price if neither vendor specific objective evidence nor third-party evidence is available. The amendments in this Update also will replace the term fair value in the revenue allocation guidance with selling price to clarify that the allocation of revenue is based on entity-specific assumptions rather than assumptions of a marketplace participant.

In October 2009, the FASB issued Accounting Standard Update No. 2009-14 on Topic 985, *Certain Revenue Arrangements That Include Software Elements.* The objective of Accounting Standard Update No. 2009-14 is to exclude tangible products containing software components and non-software components that function together to deliver the tangible product s essential functionality from the scope of Topic 985. Instead, arrangements containing software components and non-software components that function together to deliver the tangible products essential functionality will fall within the scope of available revenue accounting guidance for non-software products.

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Accounting Standard Updates No. 2009-13 and 2009-14 can be applied on a prospective basis or in certain circumstances on a retrospective basis. If prospective adoption is elected, it is to be applied to arrangements entered into or materially modified in fiscal years beginning on or after June 15, 2010. Earlier adoption is permitted. If an entity elects early adoption on a prospective basis, and the period of adoption is not the beginning of the reporting entity s fiscal year, the requirements are applied retrospectively to the beginning of the fiscal year. We anticipate adopting the provisions of Accounting Standard Updates No. 2009-13 and No. 2009-14 in the first quarter of 2010. Our adoption of these updates is not expected to have a material impact on our consolidated financial statements.

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, and include shipping and handling costs. Estimated returns and warranty costs are recorded at the time of sale. Sales of some surface mount technology (SMT) systems 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 guidance codified in Accounting Standards Codification (ASC) Topic 605-25 *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.

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 $1,049,000 as of December 31, 2009.

Allowance for Warranty Expenses.

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 $488,000 at December 31, 2009.

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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, 2009, we had a reserve for obsolete and excess inventory of $580,000.

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 2009, we performed our annual goodwill impairment test and concluded that our remaining goodwill was not impaired.

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.

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 1of 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 2008 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, an increase or decrease of one percent in the discount rate would have had no impact on the amount of impairment recorded in 2008.

For purposes of our 2008 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 were 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 amount of impairment recorded in 2008 for our electronic assembly reporting unit.

Our remaining goodwill at December 31, 2009 and 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 codified in ASC Topic 740 *Accounting for Income Taxes*, 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 the guidance provided in current financial accounting standards.

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.

In analyzing the need for valuation allowances, we first considered our history of cumulative losses for U.S. income tax purposes over the past three years and also gave significant consideration to our cumulative results for U.S. income tax purposes over the past five years, as the economic cycles in our industry have tended to average five years in length (from peak to trough). We also considered our forecasts of future profitability, the duration of statutory carry forward periods and tax planning alternatives. Finally, we considered the length and severity of the recent global economic crisis, the impact that it had our operating results and our expectation for rebound given recent signs of recovery in the global economy and more specifically in our markets. After considering all of these factors, and after considering other significant positive evidence, we concluded that a valuation allowance with respect to substantially all of our U.S. based deferred tax assets was not required at December 31, 2009.

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Our results in both 2008 and 2009 were negatively impacted by the recent global economic slowdown, and we incurred a loss in the United States in both 2008 and 2009, 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. We are seeing signs of strengthening in the global electronics market. Manufacturers of SMT assembly equipment, who did not place sensor orders in the first half of 2009, have resumed ordering. In addition, demand for SE500 solder paste inspection and AOI systems is improving. For the quarter ending March 31, 2010, we are forecasting near break-even results on revenue of $11.0-$12.0 million, up from revenue of $9.0 million in the quarter ending December 31, 2009, and we are forecasting a return to full year profitability in 2010. If future results from our operations are less than projected, a valuation allowance may be required 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 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

CONSOLIDATED BALANCE SHEETS
CYBEROPTICS CORPORATION

(In thousands, except share information)	As of December 31, 2009	2008
ASSETS		
Cash and cash equivalents	$ 4,177	$ 4,516
Marketable securities	14,557	10,433
Accounts receivable, less allowance for doubtful accounts of $1,049 at December 31, 2009 and $250 at December 31, 2008	8,389	6,951
Inventories	7,745	9,869
Income tax refunds receivable	2,499	1,505
Other current assets	1,130	1,074
Deferred tax assets, net	2,040	2,604
Total current assets	40,537	36,952
Marketable securities, long term	3,145	14,834
Equipment and leasehold improvements, net	1,921	2,615
Intangible and other assets, net	642	956
Goodwill	569	569
Other assets	163	189
Deferred tax assets, net	4,160	2,834
Total assets	$ 51,137	$ 58,949
LIABILITIES AND STOCKHOLDERS EQUITY		
Accounts payable	$ 3,652	$ 2,753
Advance customer payments	657	684
Accrued expenses	1,880	3,054
Total current liabilities	6,189	6,491
Reserve for income taxes	546	1,578
Total liabilities	6,735	8,069
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, 6,828,616 shares issued and outstanding at December 31, 2009 and 6,769,295 shares issued and outstanding at December 31, 2008	29,732	29,156
Accumulated other comprehensive loss	(768)	(530)
Retained earnings	15,438	22,254
Total stockholders equity	44,402	50,880
Total liabilities and stockholders equity	$ 51,137	$ 58,949

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, 2009	2008	2007
Revenues	$ 27,066	$ 45,452	$ 58,776
Cost of revenues	17,861	26,387	28,529
Gross margin	9,205	19,065	30,247
Research and development expenses	7,130	10,406	9,824
Selling, general and administrative expenses	12,766	14,229	14,701
Amortization of intangibles	181	182	182
Severance and recruitment	363	770	
Goodwill impairment		3,941	
Income (loss) from operations	(11,235)	(10,463)	5,540
Interest income and other	539	1,193	2,214
Income (loss) before income taxes	(10,696)	(9,270)	7,754
Income tax provision (benefit)	(3,880)	(2,599)	2,726
Net income (loss)	$ (6,816)	$ (6,671)	$ 5,028
Net income (loss) per share Basic	$ (1.00)	$ (0.87)	$ 0.57
Net income (loss) per share Diluted	$ (1.00)	$ (0.87)	$ 0.56
Weighted average shares outstanding Basic	6,793	7,703	8,897
Weighted average and common equivalent shares outstanding Diluted	6,793	7,703	8,975

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, 2009	2008	2007
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net income (loss)	$ (6,816)	$ (6,671)	$ 5,028
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	2,544	2,246	1,907
Provision for doubtful accounts	827	(34)	98
Deferred income tax provision (benefit)	(684)	(1,349)	604
Foreign currency transaction (gains) losses	(137)	485	(22)
Excess tax benefits from equity compensation plans	(11)	(2)	(33)
Stock compensation expense	449	580	693
Unrealized loss on available for sale equity security		166	
Realized gains on available for sale debt securities	(27)	(40)	
Goodwill impairment		3,941	
Changes in operating assets and liabilities:			
Accounts receivable	(2,265)	2,864	592
Inventories	1,700	127	(2,862)
Income tax refunds receivable	(901)	(1,505)	
Other assets	173	179	(484)
Accounts payable	857	(441)	(571)
Advance customer payments	(27)	(110)	718
Accrued expenses and other liabilities	(2,191)	(342)	(111)
Net cash provided (used) by operating activities	(6,509)	94	5,557
CASH FLOWS FROM INVESTING ACTIVITIES:			
Proceeds from maturities of available for sale marketable securities	12,683	15,199	17,591
Proceeds from sales of available for sale marketable securities	3,363	6,860	
Purchases of available for sale marketable securities	(9,095)	(13,502)	(32,064)
Additions to equipment and leasehold improvements	(729)	(1,834)	(1,017)
Additions to patents	(272)	(343)	(279)
Net cash provided (used) by investing activities	5,950	6,380	(15,769)
CASH FLOWS FROM FINANCING ACTIVITIES:			
Proceeds from exercise of stock options	38	12	632
Excess tax benefits from equity compensation plans	11	2	33
Proceeds from issuance of common stock under Employee Stock Purchase Plan	118	227	306
Repurchase of common stock		(20,949)	(1,901)
Net cash provided (used) by financing activities	167	(20,708)	(930)
Effects of exchange rate changes on cash and cash equivalents	53	(114)	(50)
Net increase (decrease) in cash and cash equivalents	(339)	(14,348)	(11,192)
Cash and cash equivalents beginning of year	4,516	18,864	30,056
Cash and cash equivalents end of year	$ 4,177	$ 4,516	$ 18,864

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

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CONSOLIDATED STATEMENTS OF STOCKHOLDERS EQUITY AND COMPREHENSIVE INCOME
CYBEROPTICS CORPORATION

(In thousands)	Common Stock Shares	Common Stock Amount	Accumulated Other Comprehensive Income (Loss)	Retained Earnings	Total Stockholders Equity
BALANCE, DECEMBER 31, 2006	8,862	$ 49,544	$ (453)	$ 23,929	$ 73,020
Adoption of FIN 48 (ASC Topic 740-10-25)				(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 as payment	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 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)
BALANCE, DECEMBER 31, 2008	6,769	$ 29,156	$ (530)	$ 22,254	$ 50,880
Excess tax benefit from exercise of stock options, net of deferred tax shortfall related to stock options and restricted stock units		(29)			(29)
Exercise of stock options, vesting of restricted stock units, net of shares exchanged as payment	25	38			38
Share issuances for compensation purposes	14	64			64
Stock compensation		385			385
Issuance of common stock under Employee Stock Purchase Plan	21	118			118
Comprehensive income:					
Market value adjustments of marketable securities, net of reclassification adjustment			(257)		(257)
Cumulative translation adjustment			19		19
Net loss				(6,816)	(6,816)
Total comprehensive loss					(7,054)

BALANCE, DECEMBER 31, 2009	6,829	$ 29,732	$ (768)	$ 15,438	$ 44,402

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.

Subsequent Events
We evaluated subsequent events through the issuance date of our consolidated financial statements for the period ended December 31, 2009.

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. Some cash and cash equivalent balances may exceed federally insured limits.

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 equipment, 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
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 assets subject to amortization 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
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 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, and include shipping and handling costs. Estimated returns and warranty costs are recorded at the time of sale. Sales of some surface mount technology (SMT) systems 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 guidance codified in Accounting Standards Codification (ASC) Topic 605-25 *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. R&D 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
In July 2006, the Financial Accounting Standards Board (FASB) issued guidance codified in Accounting Standards Codification (ASC) Topic 740-10-25 *Accounting for Uncertainty in Income Taxes* . ASC Topic 740-10-25 supersedes guidance codified in ASC Topic 450, *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 ASC Topic 740-10-25, 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 ASC Topic 740-10-25 on January 1, 2007, at which time differences between the amounts recognized in the financial statements prior to the adoption of ASC Topic 740-10-25 and the amounts recognized at the time of adoption were accounted for as a cumulative effect adjustment recorded to the beginning balance of retained earnings. Under ASC Topic 740-10-25, 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 guidelines codified in ASC Topic 740 *Accounting for Income Taxes.*

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 (loss) per diluted share is computed by dividing net income (loss) 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.

All common equivalent shares were excluded from our calculation of net loss per diluted share for the years ended December 31, 2009 and 2008 due to their anti-dilutive effect. The calculation of net income per diluted share for the year ended December 31, 2007 includes 78,000 dilutive common equivalent shares. The calculation of net income (loss) per diluted share excludes potentially dilutive shares of 674,000 for the year ended December 31, 2009, 813,000 for the year ended December 31, 2008 and 304,000 for the year ended December 31, 2007, because their effect would be anti-dilutive.

Fair Value of Financial Instruments
The carrying amounts of financial instruments such as cash equivalents, accounts receivable, income tax refunds receivable, other assets, accounts payable, accrued expenses and other current liabilities approximate the related fair values due to the short term maturities of these instruments.

Stock-Based Compensation
All equity-based payments to employees, including grants of employee stock options, are required to be recognized as an expense in our 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 value of stock options, granted before and after adoption has been determined using the Black-Scholes model. The compensation expense recognized for all equity based awards is net of estimated forfeitures, which is based on historical data. 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 to determine our pool of windfall tax benefits at January 1, 2006.

See Note 3 to the Consolidated Financial Statements for additional information on stock-based compensation.

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Recent Accounting Developments

In June 2009, the FASB issued ASC No. 105, *Generally Accepted Accounting Principles (GAAP)*, previously referred to as Statement of Financial Accounting Standard (SFAS) No. 168, *The FASB Accounting Standards Codification and the Hierarchy of Generally Accepted Accounting Principles - a replacement of FASB Statement No 162*. The effective date for use of the FASB Codification is for interim and annual periods ending after September 15, 2009. Our adoption of the FASB Codification had no impact on our consolidated financial statements.

In March 2008, the FASB issued guidance codified in ASC Topic 815, Derivatives and Hedging (ASC 815), *Disclosures about Derivative Instruments and Hedging Activities.* The new guidance is intended to improve financial reporting about derivative instruments and hedging activities by requiring enhanced disclosures to enable investors to better understand their effects on an entity s financial condition, financial performance, and cash flows. We adopted guidance included in ASC 815 on January 1, 2009 and included the appropriate disclosures in our financial statements. The adoption of this guidance did not have a material impact on our consolidated financial condition, results of operations or cash flows.

In April 2009, the FASB issued ASC No. 820-10-35, *Fair Value Measurements and Disclosures Subsequent Measurement*, which discusses the provisions related to the determination of fair value when the volume and level of activity for the asset or liability have significantly decreased. Based on the guidance in ASC No. 820-10-35, if an entity determines that the level of activity for an asset or liability has significantly decreased and that a transaction is not orderly, further analysis of transactions or quoted prices is needed, and a significant adjustment to the transaction or quoted prices may be necessary to estimate fair value. The guidance in ASC No. 820-10-35 is to be applied prospectively and is effective for interim and annual periods ending after June 15, 2009 with early adoption permitted for periods ending after March 15, 2009. Our adoption of this guidance had no impact on our consolidated financial statements.

In April 2009, the FASB issued ASC No. 320-10-65, *Transition Related to Recognition and Presentation of Other-Than-Temporary Impairments*, which applies to investments in debt securities for which other-than-temporary impairments may be recorded. If an entity s management asserts that it does not have the intent to sell a debt security and it is more likely than not that it will not have to sell the security before recovery of its cost basis, then an entity may separate other-than-temporary impairments into two components: 1) the amount related to credit losses (recorded in earnings), and 2) all other amounts (recorded in other comprehensive income). ASC No. 320-10-65 is effective for interim and annual reporting periods ending after June 15, 2009. Our adoption of this guidance had no material impact on our consolidated financial statements.

In April 2009, the FASB issued ASC No. 825-10-65, *Interim Disclosures about Fair Value of Financial Instruments*, which amends previous interim disclosure requirements and requires an entity to provide disclosures about the fair value of financial instruments in interim financial information. The guidance in ASC No. 825-10-65 is to be applied prospectively and is effective for interim and annual periods ending after June 15, 2009, with early adoption permitted for periods ending after March 15, 2009. Our adoption of this guidance had no material impact on our consolidated financial statements.

In May 2009, the FASB issued ASC No. 855, *Subsequent Events*, which requires an entity to disclose the date through which it has evaluated subsequent events and the basis for that date, whether that date represents the date the financial statements were issued or were available to be issued. We adopted this guidance on June 30, 2009 with no material impact on our consolidated financial statements (see Note 1). This guidance was subsequent amended by ASU 2010-09, which eliminates the Company s need to reference the date through which subsequent events were evaluated.

In October 2009, the FASB issued Accounting Standard Update No. 2009-13 on Topic 605, *Revenue Recognition Multiple Deliverable Revenue Arrangements a consensus of the FASB Emerging Issues Task Force.* The objective of Accounting Standard Update No. 2009-13 is to address the accounting for multiple-deliverable arrangements to enable vendors to account for products or services (deliverables) separately rather than as a combined unit. Vendors often provide multiple products or services to their customers. Those deliverables often are provided at different points in time or over different time periods. This Update provides amendments to the criteria in Subtopic 605-25 for separating consideration in multiple-deliverable arrangements. The amendments in this Update establish a selling price hierarchy for determining the selling price of a deliverable. The selling price used for each deliverable will be based on vendor specific objective evidence if available, third-party evidence if vendor-specific objective evidence is not available, or estimated selling price if neither vendor specific objective evidence nor third-party evidence is available. The amendments in this Update also will replace the term fair value in the revenue allocation guidance with selling price to clarify that the allocation of revenue is based on entity-specific assumptions rather than assumptions of a marketplace participant.

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In October 2009, the FASB issued Accounting Standard Update No. 2009-14 on Topic 985, *Certain Revenue Arrangements That Include Software Elements.* The objective of Accounting Standard Update No. 2009-14 is to exclude tangible products containing software components and non-software components that function together to deliver the tangible product s essential functionality from the scope of Topic 985. Instead, arrangements containing software components and non-software components that function together to deliver the tangible products essential functionality will fall within the scope of available revenue accounting guidance for non-software products.

Accounting Standard Updates No. 2009-13 and 2009-14 can be applied on a prospective basis or in certain circumstances on a retrospective basis. If prospective adoption is elected, it is to be applied to arrangements entered into or materially modified in fiscal years beginning on or after June 15, 2010. Earlier adoption is permitted. If an entity elects early adoption on a prospective basis, and the period of adoption is not the beginning of the reporting entity s fiscal year, the requirements are applied retrospectively to the beginning of the fiscal year. We anticipate adopting the provisions of Accounting Standard Updates No. 2009-13 and No. 2009-14 in the first quarter of 2010. Our adoption of these updates is not expected to have a material impact on our consolidated financial statements.

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, 2009 and 2008, 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, 2006	$ (441)	$ (12)	$ (453)
Unrealized gains on investments, net of tax of $147		268	268
Translation adjustments	73		73
Other comprehensive income (loss)	73	268	341
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 income (loss)	(538)	120	(418)
Balance December 31, 2008	$ (906)	$ 376	$ (530)
Unrealized losses on investments, net of tax of $132		(240)	(240)
Reclassification adjustment for realized gains on sales of investments, net of tax of $10		(17)	(17)
Translation adjustments	19		19
Other comprehensive income (loss)	19	(257)	(238)
Balance December 31, 2009	$ (887)	$ 119	$ (768)

Net unrealized gains on securities include deferred tax liabilities of $63,000 at December 31, 2009 and $205,000 at December 31, 2008.

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NOTE 2 MARKETABLE SECURITIES

Investments in marketable securities classified as available for sale with a carrying amount of $17,702,000 at December 31, 2009 and $25,267,000 at December 31, 2008 consist of the following:

	December 31, 2009			
(In thousands)	**Cost**	**Unrealized Gains**	**Unrealized Losses**	**Recorded Basis**
U.S. government and agency obligations	$ 11,199	$ 158	$	$ 11,357
Corporate debt securities and certificates of deposit	3,180	20		3,200
Marketable securities short term	$ 14,379	$ 178	$	$ 14,557
U.S. government and agency obligations	$ 2,757	$ 47	$	$ 2,804
Corporate debt securities	101			101
Asset backed securities	200	10		210
Equity securities	84		(54)	30
Marketable securities long term	$ 3,142	$ 57	$ (54)	$ 3,145

	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

Our investment in equity securities was in a $54,000 unrealized loss position at December 31, 2009 and 2008 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 2009 or 2008.

Our investments in long term marketable debt securities all have maturities of less than five years. At December 31, 2009, marketable debt securities valued at $16,463,000 were in an unrealized gain position totaling $235,000. Marketable debt securities valued at $1,209,000 were in an insignificant unrealized loss position totaling several hundred dollars (all had been in an unrealized loss position for less than twelve months). At December 31, 2008, marketable debt securities valued at $23,645,000 were in an unrealized gain position totaling $647,000. All remaining marketable debt securities at December 31, 2008, 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).

Net pre-tax unrealized gains for marketable securities of $182,000 at December 31, 2009 and $581,000 at December 31, 2008 were recorded as a component of accumulated other comprehensive income (loss) in stockholders equity. In 2009, we recognized a gain of $27,000 from the sale of marketable debt securities and received sale proceeds totaling $3,363,000. In 2008, we recognized a gain of $40,000 from the sale of marketable debt securities and received sale proceeds totaling $6,860,000. There were no sales of marketable securities in 2007.

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NOTE 3 ACCOUNTING FOR STOCK BASED COMPENSATION

Share Based Compensation Information

The following is a summary of pre-tax equity based compensation expense for the three year period ended December 31, 2009:

(In thousands)	2009	2008	2007
Pre-tax equity compensation expense	$ 449	$ 580	$ 693
Income tax benefits related to equity based compensation	$ 142	$ 144	$ 132

Pre-tax equity compensation expense for 2009 includes $323,000 for stock options and restricted stock units, $62,000 for our employee stock purchase plan and $64,000 for 13,775 shares issued to board members and officers for compensation purposes (weighted average grant date fair value of $4.67).

We use historical data to estimate pre-vesting forfeitures. At December 31, 2009, the total unrecognized compensation cost related to non vested equity based compensation arrangements was $526,000 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 $274,000 in 2009, $393,000 in 2008 and $758,000 in 2007.

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 2009 and 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, 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 2009 or 2008. Instead, each of our 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.

For stock options granted during the three year period ended December 31, 2009, 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:

	2009	2008	2007
Risk-free interest rates	2.09%-2.29%	1.67%	3.51%-4.73%
Expected life in years	4.75	4.75	4.75 - 6.86
Expected volatility	49%-53%	44%	43% - 52%
Expected dividends	None	None	None
Weighted average fair value on grant date	$2.29	$1.95	$5.99

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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 909,709 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. As of December 31, 2009, there are 363,795 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, 2009:

	Year ended December 31		
Shares	**2009**	**2008**	**2007**
Outstanding, beginning of year	715,646	607,346	763,721
Granted	45,000	133,900	48,800
Exercised	(16,250)	(2,250)	(57,625)
Expired	(143,576)	(20,150)	(145,300)
Forfeited	(51,725)	(3,200)	(2,250)
Outstanding, end of year	549,095	715,646	607,346
Exercisable	412,328	515,134	491,543

Weighted average exercise price per share	**2009**	**2008**	**2007**
Outstanding, beginning of year	$ 10.44	$ 11.71	$ 12.11
Granted	$ 5.13	$ 4.99	$ 12.54
Exercised	$ 4.30	$ 5.20	$ 11.11
Expired	$ 12.11	$ 12.57	$ 14.32
Forfeited	$ 7.34	$ 14.06	$ 11.88
Outstanding, end of year	$ 10.04	$ 10.44	$ 11.71
Exercisable	$ 11.36	$ 11.56	$ 11.45

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, 2009, the weighted average remaining contractual term was 3.54 years and the aggregate intrinsic value was $287,000. For options exercisable at December 31, 2009, the weighted average remaining contractual term was 2.75 years and the aggregate intrinsic value was $91,000. The aggregate intrinsic value of stock options exercised was $32,000 in 2009, $12,000 in 2008 and $132,000 in 2007. We received proceeds of $46,000 and realized an income tax benefit of $11,000 from the exercise of stock options in 2009. New shares are issued for all option exercises, upon vesting of restricted stock units, for share issuances to board members and others or for share issuances under our Employee Stock Purchase Plan.

The following is a summary of outstanding options as of December 31, 2009:

Exercise Price	**Options Outstanding**	**Weighted Average Remaining Life (in years)**	**Weighted Average Exercise Price**	**Options Exercisable**	**Weighted Average Remaining Life (in years)**	**Weighted Average Exercise Price**

Less than $4.99	132,600	6.05	$	4.94	24,400	5.93	$	4.99
$5.00 to $9.99	84,000	1.26	$	6.11	74,000	.53	$	6.09
$10.00 to $14.99	299,395	3.17	$	12.05	280,828	3.08	$	12.01
$15.00 to $19.99	1,400	1.21	$	17.59	1,400	1.21	$	17.59
Over $20.00	31,700	2.65	$	22.55	31,700	2.65	$	22.55
Total	549,095	3.54	$	10.04	412,328	2.75	$	11.36

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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, generally 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 $4.69 in 2009, $4.99 in 2008 and $12.34 in 2007. The aggregate fair value of outstanding restricted stock units based on the closing share price of our common stock as of December 31, 2009 was $153,000. 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 $80,000 for the year ended December 31, 2009, $25,000 for the year ended December 31, 2008 and $36,000 for the year ended December 31, 2007.

A summary of activity in non vested restricted stock units for the year ended December 31, 2009 follows:

Non vested restricted stock units	Shares	Weighted Average Grant Date Fair Value
Non vested at December 31, 2008	42,701	$ 7.05
Granted	4,000	$ 4.69
Vested	(13,670)	$ 7.08
Forfeited	(10,212)	$ 6.64
Non vested at December 31, 2009	22,819	$ 6.79

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 20,810 for the year ended December 31, 2009, 28,505 for the year ended December 31, 2008 and 28,859 for the year ended December 31, 2007. As of December 31, 2009, 92,002 shares remain available for issuance under this plan.

Stock Grant Plan for Non-Employee Directors

In 2008, our shareholders approved a stock grant plan for our non-employee 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 2009 to non-employee directors, and 24,000 shares remain available at December 31, 2009 for future issuance. The shares issued in 2009 had a fair market value on the date of grant equal to $14,000.

NOTE 4 OTHER FINANCIAL STATEMENT DATA

Inventories consist of the following:

(In thousands)	December 31, 2009	2008
Raw materials and purchased parts	$ 3,312	$ 3,442
Work in process	637	724
Finished goods	3,796	5,703
	$ 7,745	$ 9,869

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Equipment and Leasehold Improvements consist of the following:

(In thousands)	December 31, 2009	2008
Equipment	$ 10,881	$ 10,657
Leasehold improvements	1,347	1,487
	12,228	12,144
Accumulated depreciation and amortization	(10,307)	(9,529)
	$ 1,921	$ 2,615

Total depreciation expense related to equipment and leasehold improvements was $1,283,000 for the year ended December 31, 2009, $1,147,000 for the year ended December 31, 2008 and $901,000 for the year ended December 31, 2007.

Intangible and Other Assets consist of the following:

	December 31, 2009			December 31, 2008		
(In thousands)	Gross Carrying Amount	Accumulated Amortization	Net	Gross Carrying Amount	Accumulated Amortization	Net
Developed technology	$ 7,775	$ (7,485)	$ 290	$ 7,775	$ (7,304)	$ 471
Patents and trademarks	2,681	(2,329)	352	2,730	(2,245)	485
	$ 10,456	$ (9,814)	$ 642	$ 10,505	$ (9,549)	$ 956

Amortization expense for the three years ended December 31, 2009, 2008 and 2007 is as follows:

(In thousands)	Year ended December 31 2009	2008	2007
Developed technology	$ 181	$ 182	$ 182
Patents and trademarks	293	274	243
	$ 474	$ 456	$ 425

As of December 31, 2009, the weighted average remaining life of our intangible assets was approximately 1.5 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: $371,000 in 2010, $226,000 in 2011 and $45,000 in 2012.

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. We projected our future undiscounted cash flows associated with these assets and have concluded that there is no impairment.

Accrued Expenses consist of the following:

(In thousands)	December 31 2009	2008
Wages and benefits	$ 894	$ 1,429
Warranty liability	488	823

Severance		315
Income taxes payable	98	45
Other	400	442
	$ 1,880	$ 3,054

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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. 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 2009	2008
Balance at the beginning of period	$ 823	$ 819
Accruals for warranties	473	1,084
Settlements made during the period	(808)	(1,080)
Balance at the end of period	$ 488	$ 823

Extended warranty:

Our extended warranty liability is included as a component of advance customer payments. A reconciliation of the changes in our extended warranty liability is as follows:

(In thousands)	Year ended December 31 2009	2008
Balance at the beginning of period	$ 605	$ 425
Revenue deferrals	441	449
Amortization of deferred revenue	(410)	(269)
Balance at the end of period	$ 636	$ 605

NOTE 5 GOODWILL

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.

In evaluating whether goodwill was impaired, we compared the fair value of our 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. 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.

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2009 Goodwill Impairment Analysis

The goodwill remaining on our books at December 31, 2009 in the amount of $569,000, relates entirely to our semiconductor reporting unit. The significant assumptions incorporated in the cash flow forecasts used for our 2009 goodwill impairment test include our expectations regarding revenue during the next 3 year period for our semiconductor reporting unit, a 7 percent terminal growth rate and a 20% discount rate. Our recent analyses indicate that this goodwill is not impaired.

2008 Goodwill Impairment Analysis

The significant assumptions incorporated in the cash flow forecasts used for our 2008 goodwill impairment tests include our expectations regarding revenue during the next 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 were 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 at December 31, 2008 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 analyses indicate that this goodwill is not impaired.

Goodwill at December 31, 2009 in the amount of $569,000 relates entirely to our semiconductor segment. There was no change in our goodwill during 2009. Changes to our goodwill balance during the year ended December 31 2008 include the following:

(In thousands)	Electronic Assembly Segment	Semiconductor Segment	Total
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)	Year ended December 31, 2009	2008	2007
Sources of income (loss) before income taxes:			
United States	$ (11,999)	$ (6,881)	$ 6,403
Foreign	1,303	(2,389)	1,351
Total income (loss) before income taxes	$ (10,696)	$ (9,270)	$ 7,754

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

(In thousands)	Year ended December 31, 2009	2008	2007
Current:			
Federal	$ (3,141)	$ (1,196)	$ 2,025
State	(154)	(78)	69
Foreign	99	24	28
Total current	$ (3,196)	$ (1,250)	$ 2,122
Deferred:			
Federal	$ (958)	$ (1,431)	$ 311
State	203	(80)	(2)
Foreign	71	162	295
Total deferred	$ (684)	$ (1,349)	$ 604
Total provision (benefit) for income taxes	$ (3,880)	$ (2,599)	$ 2,726

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

	Year ended December 31, 2009	2008	2007
Federal statutory rate	(34.0)%	(34.0)%	34.0%
State income taxes, net of federal benefit	(1.4)	(2.0)	(0.1)
Non-deductible goodwill impairment charge		10.5	
ETI and manufacturing tax incentives	1.0		(1.5)
U.S. Subpart F income	0.3	0.4	2.1
Stock based compensation	0.3	0.7	1.4
Research and experimentation credit	(0.5)	(3.1)	(3.9)
Foreign rate difference	(2.3)	(1.2)	0.1
Reserve for income taxes	3.2	(1.1)	2.3
Settlement of internal revenue service audits	(5.2)		
Valuation allowance	1.8	1.5	0.7
Other, net	0.5	0.3	0.1
Effective tax rate	(36.3)%	(28.0)%	35.2%

Our effective tax rate for 2009 was favorably impacted by 5.2% or $551,000 from settlement of Internal Revenue Service audits of our 2006 and 2007 federal income tax returns, including both the impact of settlement payments and reversal of a portion of our reserve for income taxes. 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.

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In July 2006, the FASB issued guidance codified in ASC Topic 740-10-25 *Accounting for Uncertainty in Income Taxes* . ASC Topic 740-10-25 supersedes guidance codified in ASC Topic 450, *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 ASC Topic 740-10-25, 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. Differences between the amounts recognized in the financial statements prior to the adoption of ASC Topic 740-10-25 and the amounts recognized after adoption are accounted for as a cumulative effect adjustment recorded to the beginning balance of retained earnings. Under ASC Topic 740-10-25, 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, 2009 and 2008.

We adopted the provisions of ASC Topic 740-10-25 on January 1, 2007. As a result of our implementation of ASC Topic 740-10-25, 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:

(In thousands)	**2009**	**2008**	**2007**
Gross UTB balance at beginning of year	$ 1,564	$ 1,648	$ 1,498
Additions based on tax positions related to the current year	510	132	150
Additions for tax positions of prior years			
Reductions for tax positions of prior years			
Settlements	(628)		
Reductions due to lapse of applicable statute of limitations		(216)	
Gross UTB balance at end of year	$ 1,446	$ 1,564	$ 1,648
Net UTB impacting the effective tax rate at end of year	$ 546	$ 1,578	$ 1,583

The total amount of UTB that, if recognized, would affect the effective tax rate was $546,000 as of December 31, 2009, $1,578,000 as of December 31, 2008 and $1,583,000 as of December 31, 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 $140,000 as of December 31, 2009, $167,000 as of December 31, 2008, and $192,000 as of December 31, 2007.

During the year ended December 31, 2009, we recorded a $312,000 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 $39,000. 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. During 2009, the Internal Revenue Service completed audits of our 2006 and 2007 federal income tax returns. Our settlement with the Internal Revenue Service did not have a material impact on our financial condition. We are no longer subject to state and local income tax examinations by tax authorities for years before 2006. Due to the anticipated carry back of our 2009 federal taxable loss to 2004 and 2005, the Internal Revenue Service could potentially examine our federal income tax returns for those years. The statute of limitations for examination of these returns had previously expired. We expect to receive a federal income tax refund in 2010 of approximately $2.5 million from carry back of our 2009 federal taxable loss.

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Deferred tax assets consist of the following:

(In thousands)	December 31, 2009	2008
Fixed asset and intangible amortization, net	$ 1,215	$ 1,422
Inventory allowances	806	986
Accrued liabilities	192	244
Warranty accrual	171	290
Deferred revenue	467	525
Accounts receivable allowance	367	88
Federal and state tax credits	2,678	1,491
Foreign net operating loss carry forwards	574	587
Stock based compensation	333	295
Other, net	114	150
Sub-total	6,917	6,078
Valuation allowance	(717)	(640)
Total net deferred tax assets	$ 6,200	$ 5,438

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 the guidance provided in current financial accounting standards.

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.

In analyzing the need for valuation allowances, we first considered our history of cumulative losses for U.S. income tax purposes over the past three years and also gave significant consideration to our cumulative results for U.S. income tax purposes over the past five years, as the economic cycles in our industry have tended to average five years in length (from peak to trough). We also, considered our forecasts of future profitability, the duration of statutory carry forward periods and tax planning alternatives. Finally, we considered the length and severity of the recent global economic crisis, the impact that it had our operating results and our expectation for rebound given recent signs of recovery in the global economy and more specifically in our markets. After considering all of these factors, and after considering other significant positive evidence, we concluded that a valuation allowance with respect to substantially all of our U.S. based deferred tax assets was not required at December 31, 2009.

Our results in both 2008 and 2009 were negatively impacted by the recent global economic slowdown, and we incurred a loss in the United States in both 2008 and 2009, 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 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, 2009, include $574,000 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, 2009 also include $2,368,000 of federal R&D tax credits that will begin to expire in 2019 if unused.

The valuation allowances at December 31, 2009 and 2008 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 2009 for additional state tax credit and net operating loss carry forwards that failed to satisfy the more likely than not criteria for recovery.

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Income tax refunds received, net of cash payments for income taxes, were $1,739,000 for the year ended December 31, 2009. Cash payments for income taxes, net of refunds received, were $100,000 for the year ended December 31, 2008, and $1,979,000 for the year ended December 31, 2007.

We have been granted a tax holiday with respect to a wholly owned foreign subsidiary allowing us to pay a reduced rate of tax for a period of five years through 2013. The tax holiday increased our recorded income tax benefit in 2009 by $56,000.

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, 2009. 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, are 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, 2009 are $1,027,000 and due from one to three years are $470,000. 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 20,000 square foot 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 at various times through December 2012.

Total rent expense was $1,510,000 for the year ended December 31, 2009, $1,423,000 for the year ended December 31, 2008 and $1,141,000 for the year ended December 31, 2007. At December 31, 2009, the future minimum lease payments required under non-cancelable operating lease agreements, are as follows:

Year ending December 31,	**(In thousands)**
2010	$ 1,468
2011	673
2012	60
Total	$ 2,201

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NOTE 8 DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES

We enter into foreign currency swap agreements to hedge short term inter-company financing transactions with our subsidiaries in the United Kingdom and Singapore. 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, 2009, the Company had two open swap agreements that were purchased on that day. As a result, any unrealized gain or losses as of December 31, 2009 were inconsequential. We recognized net gains (losses) from settlement of foreign currency swap agreements of ($229,000) for the year ended December 31, 2009, $277,000 for the year ended December 31, 2008, and ($61,000) for the year ended December 31, 2007, that offset foreign currency transaction gains (losses) on the underlying inter-company balances of $137,000 for the year ended December 31, 2009, ($453,000) for the year ended December 31, 2008 and $22,000 for the year ended December 31, 2007. 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.

NOTE 9 COMMON STOCK REPURCHASES

We did not repurchase any shares of our common stock in 2009. 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 offer 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.

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 $229,000 in 2009, $301,000 in 2008 and $297,000 in 2007.

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NOTE 11 BUSINESS SEGMENTS AND SIGNIFICANT CUSTOMERS

The guidance codified in ASC Topic 280-10, *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.

Information regarding our segments is as follows:

	Year Ended December 31,		
(In thousands)	**2009**	**2008**	**2007**
Revenue:			
Electronic assembly			
OEM Sensors	$ 8,428	$ 20,250	$ 31,774
SMT Systems	15,308	19,943	21,429