

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2010

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____

Commission file number 000-24838

MATTSON TECHNOLOGY, INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware

(State or Other Jurisdiction of Incorporation or Organization)

77-0208119

(I.R.S. Employer Identification Number)

47131 Bayside Parkway, Fremont, California 94538

(Address of Principal Executive Offices, Zip Code)

(510) 657-5900

(Registrant's Telephone Number, Including Area Code)

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

<u>Title of each class</u>	<u>Name of each exchange on which registered</u>
Common Stock, \$.001 Par Value	The NASDAQ Stock Market LLC
Preferred Share Purchase Rights	(The NASDAQ Global Select Market)

Securities registered pursuant to Section 12(g) of the 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 No

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

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

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 No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer Accelerated filer Non-accelerated filer Smaller reporting company

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

The aggregate market value of the registrant's common stock held by non-affiliates of the registrant as of June 27, 2010 was approximately \$209.0 million based on the closing price for the registrant's common stock reported by The NASDAQ Global Select Market® on that date. For purposes of this disclosure, shares of common stock held by officers and directors of the registrant and persons that may be deemed to be affiliates under the Act have been excluded. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

Number of shares of registrant's common stock outstanding as of March 2, 2011: 50,303,708.

Documents incorporated by reference: Portions of the Proxy Statement for registrant's Annual Meeting of Stockholders to be held in 2011, which will be filed on or before April 15, 2011, are incorporated herein by reference into Part III.

MATTSON TECHNOLOGY, INC.
FORM 10-K
FOR THE YEAR ENDED DECEMBER 31, 2010
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FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K contains forward-looking statements made pursuant to the provisions of Section 21E of the Securities Exchange Act of 1934. These forward-looking statements are based on management's current expectations and beliefs, including estimates and projections about our industry. Forward-looking statements may be identified by use of terms such as "anticipates," "expects," "intends," "plans," "seeks," "estimates," "believes" and similar expressions, although some forward-looking statements are expressed differently. Forward-looking statements include, but are not limited to, statements concerning our financial position, business strategy and plans, objectives for future operations, the impact of macroeconomic and industry specific conditions on our business, customer demand and future sales levels, cost control measures such as outsourcing, customer adoption of new products and technologies, inventory levels, international operations, research and development initiatives, other product investment initiatives, working capital requirements or future cash flows. These statements are not guarantees of future performance and are subject to certain risks, uncertainties and assumptions that are difficult to predict and may cause actual results to differ materially from the forward-looking statements and from management's current expectations. Such risks and uncertainties include those set forth in Item 1A. "Risk Factors" in this Annual Report on Form 10-K. The forward-looking statements in this report speak only as of the time they are made and do not necessarily reflect our outlook at any other point in time. We undertake no obligation to update publicly any forward-looking statements, whether as a result of new information, future events or for any other reason. However, readers should carefully review the risk factors set forth in other reports or documents we file from time to time with the Securities and Exchange Commission.

As used herein, "Mattson Technology," the "Company," "we," "our," and similar terms include Mattson Technology, Inc. and its subsidiaries, unless the context indicates otherwise.

PART I

Item 1. Business

Company Overview

Mattson Technology designs, manufactures, markets, and globally supports semiconductor wafer processing equipment used in the fabrication of integrated circuits (ICs or chips). Mattson Technology is a leading supplier of dry strip, rapid thermal processing (RTP) and etch equipment to the global semiconductor industry. Our dry strip, RTP and etch equipment utilize innovative technology to deliver advanced processing performance and productivity gains to semiconductor manufacturers worldwide for the fabrication of current and next-generation devices. Mattson Technology has recently introduced new products into the etch market targeting high-volume dielectric etch applications, and into the millisecond annealing market, a sub-sector of the RTP market.

Since 2008, Mattson Technology began investing in organic expansion into the etch market, a market sector of the semiconductor equipment industry that is almost three times the size of the combined core markets of dry strip and RTP. Due to this strategic investment, Mattson Technology now participates in a significantly larger portion of the semiconductor wafer fabrication equipment (WFE) market compared to the served available market before our investment in etch. Over the last two years, Mattson Technology focused on establishing new customer accounts in the etch market. These investments began to deliver initial returns in 2010, as a number of the etch tools placed at customer accounts transitioned to volume production, contributing approximately 30 percent to the Company's 2010 system revenues. Mattson Technology's strategy is to continue to expand our position in etch to enable us to outpace the industry's growth rate.

According to the market research firm iSuppli, the global semiconductor market revenue for 2010 is expected to be approximately \$304 billion, up from \$230 billion in 2009, and is expected to further grow to \$319 billion in 2011. The expansion in semiconductor revenue is based on demand for electronic equipment, such as computers, televisions, cell phones and tablet devices. The growth in semiconductors fuels the WFE market, which grew 130 percent in 2010 to approximately \$30 billion.

Our customer base is diversified geographically and includes foundries, memory and logic device manufacturers. We have a global sales and support organization focused on developing strong, long-term customer relationships to build customer loyalty. We have design and manufacturing centers in the United States, Canada,

Germany and South Korea. Our customer sales and support teams are located in China, Europe, Japan, South Korea, Singapore, Taiwan and the United States.

Mattson Technology, Inc. was incorporated in California in 1988 and reincorporated in Delaware in 1997. Our principal executive office is located at 47131 Bayside Parkway, Fremont, CA 94538. Our telephone number is (510) 657-5900. Additional information about Mattson Technology is available on our website at <http://www.mattson.com>. The information on our website is not incorporated herein by reference.

Industry Background

The manufacture of ICs is a highly complex process with numerous individual processing steps, many of which are performed multiple times before manufacturing is complete and the IC is fully functional. To build an IC, transistors are first created on the surface of the silicon wafer, and then the transistors are microscopically wired together by means of the interconnect metal layers. The steps require the wafer to be subjected to a tightly controlled series of chemical, thermal and photolithographic processes, resulting in the formation of millions, and in some cases billions, of transistors per IC and thousands of ICs on a single wafer.

Over the last four decades, the semiconductor industry has been able to uphold Moore's Law, which postulates that the number of transistors on a chip doubles approximately every 18 to 24 months. The process of reducing feature sizes will continue as the demand for smaller and faster electronic devices increases. Producing smaller features cost-effectively, while avoiding functional restrictions, requires the introduction and use of new materials and technologies. Larger wafer diameters are designed to enable more efficient production and higher yield, with the industry currently manufacturing its latest devices on 300 millimeter (mm) wafers, which the industry transitioned to during the last decade.

These developments increase manufacturing complexity and create the need for manufacturing equipment with more precise process control capability, increased reliability, low defect rates and high productivity. The increased difficulty of achieving transistor performance at advanced nodes has made high yields important in selecting process equipment. Semiconductor manufacturers demand systems that can achieve consistent, reliable and repeatable process results within critical tolerance limits while still achieving desired throughput rates.

Consumer Electronics Driving Industry Growth

Semiconductor chips are central components in nearly all of today's consumer electronics products such as desktops, laptops, MP3 players, smartphones, e-readers, cameras and new products such as the iPad and other tablets. According to market research, in 2010, worldwide electronic system sales increased by 11 percent, spurred by strong growth in the automotive, personal computer (PC) and cell phone electronics markets. In 2011, worldwide electronic system sales are forecast to increase by another 9 percent.

People are incorporating more electronics into their daily lives. In 2010, the number of worldwide cell phone subscriptions surpassed five billion. In addition, demand for advanced technology production capacity continues to increase, as computing, communications and consumer devices add new features and products that require more advanced semiconductors.

Over the last 40 years, we have been through four technology cycles, each lasting approximately ten years, and each expanding the size of the technology market significantly. From mainframe computers to mini computers, to the desktop PC and the Internet, the same pattern has repeated itself. We are at the beginning of the fifth major technology cycle of the past half century, the Mobile Internet Era, a new market cycle for technology that is forecasted to eclipse the PC-based Internet and provide a new paradigm for computing. The shift to mobile web access has been accelerating since 2007 with the rise of larger form factor multi-touch smartphones, and since 2010 with the emergence of multi-touch tablet computers. Both platforms are more conducive to Internet access and better browser- or application-based user web experiences than have been afforded by previous generations of mobile devices.

Mobile Internet usage is also ramping up faster than desktop Internet usage with the adoption of Apple Inc. devices leading this trend with over 10 billion iPhone applications downloaded by consumers. Helping to drive this increase is 3G technology, which according to Morgan Stanley recently hit an "inflection point" by becoming

available to more than 20 percent of the world's mobile users.

This trend toward increased mobile Internet usage places demands on cloud computing or “virtual” networks that deliver convenient, on-demand common business applications and hosted services over the Internet to meet consumers’ computing needs. Cloud computing services provided by companies like Google, Facebook, Twitter and others have shown significant growth, with innovations making business and consumer applications even more mobile and collaborative. According to Trendforce, applications in smartphones and tablet PCs are expected to double mobile DRAM demand in 2011.

The Mobile Internet Era shifts the fundamental IC demand from the PC era. In the PC era, the logic processor demand was driven by the complex instruction set computer (CISC) microprocessor while the mobility products are served better with the reduced instruction set computer (RISC) microprocessor which allows for the lower power and streamlined operating system required to deliver the long battery life and fast application switching on today's mobile products. At the memory level, the mobility era requires NAND for long-term file storage, compared with the DRAM-based short-term memory required on a PC. Combining the computing power with wireless capability and touchscreen interfaces adds additional chipsets that are more reliant on semiconductor foundry manufacturing. The industry still expects that PC Internet connectivity will continue to grow from today's levels and that the mobility era chip requirements will incrementally increase demand, place more emphasis on the foundry manufacturers and require a further NAND capacity expansion.

Over the past three years, Mattson Technology has been preparing for this shift, with concerted efforts to build upon its existing dry strip positions in NAND flash and foundry by expanding its etch and RTP products into these NAND flash and foundry customer accounts. During 2010, Mattson Technology has established new product positions at several NAND flash and foundry customers. The successful transition of these product positions to high-volume production is expected to help drive incremental revenue gains for Mattson Technology as the Mobile Internet Era unfolds.

Mattson Technology Strategy

Our business objective is to grow Mattson Technology while delivering strong financial performance. We are committed to continuing this successful trend and growing Mattson Technology by:

- driving share gains in each of our existing market sectors; and
- leveraging our current technology capabilities to expand into new market sectors

Mattson Technology's core competency is the ability to deliver strong technical wafer processing at leading productivity levels to provide our customers with the most cost effective manufacturing. Our tools are selected at the leading technology areas and in full production in the most cost conscious area of advanced semiconductor manufacturing, the DRAM segment.

Semiconductor manufacturers demand processes that deliver results with an unprecedented level of precision. We work closely with our customers, supply chain vendors and technology partners to deliver on these demands. An important element of Mattson Technology's growth strategy is our commitment to technology leadership in the markets we serve, and the production-proven performance of our strip and RTP systems has earned us leading positions in both of these markets. Similarly, our etch technology has shown clearly differentiating capabilities in solving customers' difficult challenges. We plan to extend our market and technology leadership by developing robust processing solutions that provide semiconductor manufacturers with superior technology, productivity and total cost of ownership advantages. Investments in research and development have enabled us to make process improvements and product innovations that are ready to deliver two technology nodes ahead of current device requirements, resulting in powerful and expanding product and patent portfolios. We believe that our focus on delivering advanced technologies and increasing customer value will enable us to increase our competitive advantage, expand our share in existing markets and penetrate new segments, further reinforcing our leadership.

Markets, Applications and Products

Dry Strip

The manufacturing of an IC consists of building approximately 30 layers of alternating conducting and insulating films on a silicon substrate wafer. Each layer is patterned according to the chip design. Photoresist stripping, or simply “resist stripping”, is the removal of the photoresist masking layers from the wafer once the patterning process has been completed at each of the 30 layers. The objective is to eliminate the photoresist material from the wafer as quickly as possible, without allowing any surface materials to become etched. The need for dry strip across the entire wafer process requires a supplier to deliver very high-throughput, low-cost systems while delivering a strong technical solution. The 2010 dry strip market size was approximately \$190 million according to Gartner, a market research firm.

Mattson Technology is a leader in the dry strip market. Our Suprema strip system utilizes an innovative wafer handling architecture to deliver productivity and reliability with exceptionally low cost of ownership for manufacturing at the 65 nanometer (nm) node and below. The Suprema features our patented inductively coupled plasma (ICP) technology that offers superior resist strip capability to leading edge memory, logic and foundry customers. The Suprema has been installed and is operational at eight of the top ten global semiconductor companies for production and process development at advanced nodes.

Rapid Thermal Processing

Rapid thermal processing, or RTP, refers to a semiconductor manufacturing process that heats silicon wafers to high temperatures (up to 1200°C or greater) using high intensity lamps on a timescale of several seconds or less to set the electrical properties of the semiconductor and anneal any material defects. RTP consists of heating a single wafer at a time in order to affect its electrical properties. The single-wafer approach allows for faster wafer processing (shorter annealing times from one second to three minutes) and more precise control of the annealing profile and process parameters on the wafer. The RTP market that Mattson Technology serves was \$457 million in 2010 according to Gartner.

As feature sizes become smaller and wafer uniformity demands become more stringent, there is an increased demand from rapid thermal equipment manufacturers to improve control, uniformity and repeatability of processes on wafers. Mattson Technology’s RTP products feature dual-sided, lamp-based heating technology that provides enhanced process uniformity and repeatability with precise process control for chip manufacturing. Our products include the Helios and Helios XP systems for conventional annealing applications and the Millios system for millisecond anneal applications (MSA).

Our Helios and Helios XP systems are in volume production at major memory customer sites. In 2010, we made significant progress in our strategy to expand beyond the DRAM segment with the Helios XP. Our Helios XP system extends our capability in DRAM, but also is designed for the logic, foundry and NAND flash markets by taking advantage of its differentiated capabilities, including its low-temperature capability for advanced nickel silicide (NiSi) formation and pattern independent processing. During 2010, we generated revenue from two of the top three NAND flash customers and shipped the Helios XP into the logic and foundry lines of three leading Asian semiconductor manufacturers. This marks the first Mattson Technology RTP tool placement in the foundry segment. In addition, the Helios XP achieved acceptance at the research and development facilities of the leading DRAM and NAND flash providers.

Millios, which features a patented arc lamp technology capable of greatly reducing thermal cycle time, is designed to enable our customers to meet advanced gate anneal and activation process requirements through the 32 nm technology node and beyond. This type of annealing, MSA, is needed in a few key processes in most advanced technology nodes where the high temperature exposure requires less than one of a half second. In 2010, the Millios achieved process tool of record status for advanced logic and DRAM applications at one of the world’s largest semiconductor manufacturers. The Millios is also established as the primary development tool at two key foundry customers for 2X nm and below applications.

Etch

Etching is the process of removing any deposited materials or layers from the wafer's surface to create the desired pattern on the wafer's surface. Plasma etching is one type of dry etching, using plasma to produce chemically reactive species from inert gases. The reactive gases are then made to react with the material to be etched. Mattson Technology's etch products feature our Faraday-shielded ICP combined with selectable etch bias control to provide excellent process on-wafer performance to our customers. Our etch products, the paradigmE and Alpine, are built on our high-throughput platform to provide leading low cost-of-ownership. In 2010, Mattson Technology served over one quarter of the \$4 billion etch market, for a served available market of \$1.2 billion.

In 2010, we expanded etch into the NAND flash and foundry segments from our initial position in the DRAM market. We entered the year with the paradigmE solidly established in the DRAM market and successfully expanded its presence into NAND flash and logic/foundry fabs for multiple advanced etch applications. We shipped our paradigmE to major DRAM and NAND flash fabs, where this system is currently in volume production. In addition, our Alpine etcher was established for volume production for advanced packaging applications.

In the fourth quarter of 2010, we shipped etchers for production into a new etch application set that further increases our etch served available market by approximately \$500 million and, more importantly, doubles our etch application portfolio. This move is part of our long-term vision to aggressively expand into the etch market. In 2010, we expanded into the NAND flash, foundry and packaging markets. The expansion into these markets contributed to our etch products' ability to generate over 30 percent of our systems revenue in 2010. In 2011, we expect etch to continue to broaden our application base, thereby continuing our growth trajectory.

Research, Development and Engineering

The semiconductor equipment industry is characterized by rapid technological change and product innovation. Our success requires that we develop process and process integration solutions for our customers. The products that we develop and market allow our customers to address their advanced requirements. Only by continuously striving to develop new intellectual property (IP) for processes and hardware can we maintain and advance our competitive position in the markets we serve. Accordingly, we devote a significant portion of our resources to research, development and engineering programs. We seek to maintain close relationships with our global customers and to remain responsive to their product and processing needs.

Our research, development and engineering activities in 2010 were concentrated in the following areas:

- Introduction of the paradigmE system targeted to meet the stringent requirements of advanced dielectric etch applications
- Enhancements to the Helios XP, a RTP system designed to meet demands of high-volume production at 4X nm and development at 2X and below
- Release of our Millios MSA system into volume production at customer fabs
- Continued improvement of our Suprema strip system

In etch, we introduced the paradigmE 300 mm reactive ion etch (RIE) for advanced dielectric etch applications. During the year, we worked to extend the features and capabilities of our etch offering and expand the system's etch applications portfolio to include a new set of processes. The tool is now established at leading foundry and logic customers and is in volume production at major DRAM and NAND flash fabs. Our Alpine etch system continued to penetrate the packaging market, where the capabilities of the system showed excellent on-wafer performance to meet the stringent requirements of this growing segment.

We continued to extend the capability of our latest-generation RTP tools for 3X and 2X nm technology requirements and improved our tool reliability and productivity to help reduce our customers' cost of ownership. For Helios XP, we successfully engineered capabilities for more precise temperature measurement, low temperature processing as well as pattern independent processing. These improvements enable the formation of silicides and ultra-shallow junction (USJ) for the most advanced devices. In 2010, the Helios XP was placed at advanced research and development facilities of our memory and foundry customers.

In 2010, we continued to work closely with a leading device manufacturer in Asia to demonstrate Millios' process and manufacturing advantages. Based on the system's proven high throughput, stability and reliability, this customer is now qualifying the Millios for its volume production facilities. In addition, a major foundry is now using the Millios system for its 20 nm logic process development. We are working with several other key customers to enable advanced process solutions, such as high-k metal gate (HKMG) transistors and precise NiSi formation, while we continue to grow our market share in the emerging MSA market.

Our Suprema strip system incorporates our ICP photoresist process module and an innovative, high-productivity platform that we expect will set new standards for cost of ownership in the industry. In response to the industry's continued demand for higher productivity, we continued to improve the throughput of our Suprema during the year.

In 2011, we intend to continue to make investments in strategic development and engineering programs to meet our customers' technical and production requirements. Over the next year, we intend to focus our research, development and engineering efforts on improving existing system capabilities, developing new advanced strip, RTP and etch processes for smaller feature sizes, as well as continued development and commercialization of new products in etch and millisecond anneal.

We maintain applications development and engineering laboratories in Fremont, California; Vancouver, Canada and Dornstadt, Germany to address new tool and process development activities and customer specific requirements. Our research, development and engineering expenses were \$27.8 million in 2010, \$25.3 million in 2009 and \$37.3 million in 2008, representing as a percentage of net sales 20.1 percent, 59.3 percent and 28.0 percent, respectively.

Intellectual Property

We rely on a combination of patent, copyright, trademark and trade secret laws, non-disclosure agreements and other IP protection methods to protect our proprietary technology. We hold a number of U.S. patents and corresponding foreign patents, and have a number of patent applications pending covering various aspects of our products and processes. We also have licensed a small number of patents and where appropriate, we intend to file additional patent applications on inventions resulting from our ongoing research, development and engineering activities to grow and strengthen all of our individual product IP portfolios.

As is customary in our industry, from time to time we receive or make inquiries regarding possible infringement of patents or other IP rights. Although there are no pending claims against us regarding infringement of any existing patents or other IP rights or any unresolved notices that we are infringing IP rights of others, such infringement claims could be asserted against us or our suppliers by third parties in the future. Any claims, with or without merit, could be time-consuming, result in costly litigation, result in loss or cancellation of customer orders, cause product shipment delays, subject us to significant liabilities to third parties, require us to enter into royalty or licensing agreements or prevent us from manufacturing and selling our products. If our products were found to infringe a third party's proprietary rights, we could be required to enter into royalty or licensing agreements in order to continue to sell our products. Royalty or licensing agreements, if required, may not be available on terms acceptable to us, if at all, which could seriously harm our business. Our involvement in any patent or other IP dispute or action to protect trade secrets and know-how could have a material adverse effect on our business.

Competition

The global semiconductor equipment industry is intensely competitive and is characterized by rapid technological change and demanding customer service requirements. Our ability to compete depends upon our ability to continually improve products, processes and services, and our ability to develop new products that meet constantly evolving customer requirements.

Substantial capital investments are required by semiconductor manufacturers to install and integrate new processing equipment into a semiconductor production line. As a result, once a semiconductor manufacturer has selected a particular supplier's products, the manufacturer often relies upon that equipment for the specific production line application, and frequently will attempt to consolidate its other capital equipment requirements with the same supplier. Accordingly, it is difficult for a competitor to sell to a customer for a significant period of time in

the event a customer has selected our product. It may also be difficult to replace an existing relationship that a potential customer has with a competitor.

Each of our product lines competes in markets defined by the particular IC fabrication process it performs. In each of these markets, we have multiple competitors. At present, however, no single competitor competes with us in all of the process areas in which we serve. Competitors in a given technology tend to have different degrees of market presence in the various regional geographic markets. Competition is based on many factors; primarily technological innovation; productivity; total cost of ownership of the systems, including yield, price, product performance and throughput capability; quality; contamination control; reliability and customer support. We believe that our competitive position in each of our markets is based on the ability of our products and services to address customer requirements related to these competitive factors.

Our principal competitors in the dry strip market include Axcelis Technologies, Novellus Systems and PSK. Principal competitors for our thermal annealing systems are Applied Materials, Dainippon Screen Manufacturing and Ultratech. Principal competitors for our etch systems include Applied Materials, Lam Research and Tokyo Electron.

Customers

Our customer base is diversified, both geographically and by chip segments. In 2010, customers for our products included approximately 50 percent of the world's top semiconductor manufacturers. The composition of our largest customers has varied from year to year. The following table shows our net sales from customers representing more than ten percent of total sales in each of the last three years and net sales from our top ten customers as a group for each of those years:

	Year Ended December 31,		
	2010	2009	2008
Samsung	40%	30%	10%
Hynix	12%	15%	<10%
Global Foundries	<10%	10%	<10%
Canon ⁽¹⁾	<10%	<10%	19%
Top ten customers as a group	83%	80%	72%

⁽¹⁾ Canon is a distributor for our products in Japan.

Sales and Marketing

Our sales and marketing efforts are focused on building long-term relationships with our customers. We sell our systems primarily through our direct sales force and distribution agreements in certain regions and countries. Our sales and marketing personnel work closely with our customers to develop solutions to meet their processing needs. In addition to the direct sales force resident in our Fremont, California headquarters, we have sales and support offices in China, France, Germany, Japan, Singapore, South Korea, Taiwan and the United States.

In 2010, we maintained a few representatives where it was advantageous economically or geographically. We maintained our relationship with Canon Marketing, Japan for the distribution and support of our products in Japan.

International sales accounted for 95 percent of our net sales in 2010, 92 percent of our net sales in 2009 and 91 percent of our net sales in 2008. We anticipate that international sales will continue to account for a significant portion of our future net sales. Asia has been a particularly important region for our business. Our sales to customers located in China, Japan, South Korea, Taiwan and other Asian countries accounted for 90 percent of our net sales in 2010, 82 percent of our net sales in 2009 and 81 percent of our net sales in 2008. Our foreign sales are subject to certain governmental restrictions, including the Export Administration Act and the regulations promulgated under this Act.

Customer Support

One of Mattson Technology's primary goals is to build strong and productive partnerships with our customers. We recognize that their success is our success. Our customer support organization provides programs designed to build and strengthen these long-term relationships. Our customer support organization is headquartered in Fremont, California, with additional resources located in China, France, Germany, Singapore, South Korea, Taiwan and the United States. We also maintained our relationship with Canon Marketing, Japan for the distribution and support of our products in Japan. Our global support infrastructure is composed of an extensive network of product and process technologists, along with experienced field service teams with diverse technical backgrounds in mechanical and electronics engineering. After-sales support is an essential part of our customer service program, and our international customer support teams provide the following services: system installation, on-site repair, telephone support, used tool refurbishment, relocation services, process development applications and upgrades for extending the useful life and value of our products.

We offer competitive, comprehensive warranties on all of our products. We maintain spare parts depots, consignment locations at customer sites and local support in most regions. As part of our global support services, we also offer a broad selection of technical training courses, from maintenance and service training to basic and advanced applications and operation. We are committed to the continuous improvement of our customer support services. As such, we have invested significantly in the continued training of our support resources. We are also actively engaged in joint development programs at many major customer sites to collaborate on product and process development and increase the level of customer support.

Backlog

We schedule production of our systems based on both backlog and regular sales forecasts. For several of our key customers, we typically receive orders only several weeks prior to shipment. We include in backlog only those systems for which we have accepted purchase orders and assigned shipment dates within the next 12 months. Orders may be subject to cancellation or delay by the customer with limited or no penalty. Our backlog was \$22.2 million as of December 31, 2010, \$4.3 million as of December 31, 2009 and \$7.8 million as of December 31, 2008. Because of possible future changes in delivery schedules and cancellations of orders, our backlog at any particular date is not necessarily representative of actual sales to be expected for any succeeding period. During periods of industry downturn, we have experienced cancellations, delays and push-outs of orders that were previously included in backlog.

Manufacturing

We have direct manufacturing operations in the United States, Germany, Canada and South Korea. Our direct manufacturing operations consist of procurement, assembly, test, quality assurance and manufacturing engineering. We also utilize an outsourcing strategy for the manufacture of components, major subassemblies/modules and complete systems. Our direct manufacturing teams are an integral part of our new product development process, working closely with our engineering teams to ensure that new products meet design-for-manufacturability, cost and quality targets. These teams also participate in information transfer to our contract manufacturing partners and qualification of partner production lines, to ensure achievement of uniform quality standards, regardless of production location. Our outsourcing partners have manufacturing facilities in the United States, Germany and in various Asian countries. We have established sales and operations planning processes and systems to flexibly manage our production capacity and inventory levels, to quickly respond to fluctuating market demands.

Employees

As of December 31, 2010, we had 379 employees. The success of our future operations will depend in large part on our ability to recruit and retain qualified employees, particularly those highly-skilled design, process and test engineers involved in the manufacture of existing systems and the development of new systems and processes. None of our employees outside of Germany is represented by a labor union, and we have never experienced a work stoppage, slowdown or strike. In Germany, our employees are represented by workers' councils.

Environmental Matters

We are subject to international, federal, state and local environmental laws, rules and regulations. These laws, rules and regulations govern the transport, receipt, storage, use, treatment, discharge and disposal of hazardous and non-hazardous chemicals and wastes during manufacturing, research and development and sales demonstrations. Neither compliance with international, federal, state and local provisions regulating discharge of materials into the environment, nor remedial agreements or other actions relating to the environment have had, or is expected to have, a material effect on our capital expenditures, financial condition, results of operations or competitive position. However, if we fail to comply with applicable regulations, we could be subject to substantial liability for clean up efforts, personal injuries, fines or suspension or cessation of our operations.

Available Information

We make available free of charge, through our website, <http://www.mattson.com>, our Annual Report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and all amendments to those reports as soon as reasonably practicable after such material is electronically filed with the Securities and Exchange Commission (SEC). Our publicly filed information is also available on the SEC's website, <http://www.sec.gov>. The information on our website is not incorporated herein by reference.

Item 1A. Risk Factors

Because of the following factors, as well as other variables affecting our operating results, cash flows and financial condition, past financial performance may not be a reliable indicator of future performance, and historical trends should not be used to anticipate results or trends in the future periods. Other events that we do not currently anticipate or that we currently deem immaterial also may affect our results of operations, cash flows and financial condition. See also "Forward-Looking Statements" elsewhere in this report.

RISK FACTORS THAT MAY AFFECT FUTURE RESULTS AND MARKET PRICE OF STOCK

We are dependent on our revenue and the success of our cost reduction measures to ensure adequate liquidity and capital resources during the next twelve months.

At December 31, 2010, we had an accumulated deficit of \$554.6 million. We have incurred operating losses and generated negative cash flows for each of the last three years. As of December 31, 2010, we had cash, cash equivalents, short-term investments and restricted cash of \$23.0 million and working capital of \$51.1 million. Our operations require careful management of our cash and working capital balances. Our liquidity is affected by many factors including, among others, fluctuations in our revenue, gross profits and operating expenses, as well as changes in our operating assets and liabilities. The cyclical nature of the semiconductor industry makes it difficult for us to predict our future liquidity needs with certainty. Any upturn in the semiconductor industry would result in short-term uses of our cash to fund inventory purchases and accounts receivable. Alternatively, any renewed softening in the demand for our products or ineffectiveness of our cost reduction efforts may cause us to incur additional losses in the future and lower our cash balances.

We may need additional funds to support our working capital requirements, operating expenses or for other requirements. Historically, we have relied on a combination of fundraising from the sale and issuance of equity securities and cash generated from product, service and royalty revenues to provide funding for our operations. We will continue to review our expected cash requirements, make all efforts to collect any aged receivables, and take appropriate cost reduction measures to ensure that we have sufficient liquidity. In the event additional needs for cash arise, we may seek to raise these funds externally through public or private debt or equity financing, or through the sale of assets. The availability of additional financing will depend on a variety of factors, including among others, market conditions, the general availability of credit to the financial services industry and our credit ratings. As a consequence, these financing options may not be available to us on a timely basis, or on terms acceptable to us, and could be dilutive to our shareholders. Our current liquidity position may result in risks and uncertainties affecting our operations and financial position, including the following:

- we may be required to reduce planned expenditures or investments;

- we may be unable to compete in our newer or developing markets;
- we may not be able to obtain and maintain normal terms with suppliers;
- suppliers may require standby letters of credit before delivering goods and services, which will result in additional demands on our cash;
- customers may delay or discontinue entering into contracts with us; and
- our ability to retain management and other key individuals may be negatively affected.

Failure to generate sufficient cash flows from operations, raise additional capital or reduce spending could have a material adverse effect on our ability to achieve our intended long-term business objectives.

We are dependent on a highly concentrated customer base, and any cancellation, reduction or delay of purchases by these customers could harm our business. Additionally, we may not achieve anticipated revenue levels if we are not selected as “vendor of choice” for new or expanded customer fabrication facilities.

Currently, we derive most of our revenues from the sale of systems to a relatively small number of customers, which makes our relationship with each customer critical to our business. For example, in the years ended December 31, 2010, 2009 and 2008, our three largest customers accounted for 59 percent, 55 percent and 39 percent of our revenues, respectively. We currently depend on one customer for a significant portion of our revenues, and the loss of, or a significant reduction in, orders from this customer would significantly reduce our revenue and adversely impact our operating results. Because semiconductor manufacturers must make a substantial investment to install and integrate capital equipment into a semiconductor fabrication facility, these manufacturers will tend to choose semiconductor equipment manufacturers based on established relationships, product compatibility and proven performance. Customer order cancellations could result in the loss of anticipated sales without allowing us sufficient time to reduce our inventory and operating expenses. In addition, changes in forecasts or the timing of orders from customers could expose us to the risks of inventory shortages or excess inventory. This in turn could cause our operating results to fluctuate. If customer relationships are disrupted for inability to deliver sufficient products or for any other reason, it could have a significant negative impact on our business.

A large percentage of our sales are concentrated among customers in the memory market, representing 60 percent and 54 percent of systems sales in the years ended December 31, 2010 and 2009, respectively. As a result, a downturn or an upturn in memory spending could impact us more than it would impact competitors who are more diversified with logic and foundry customers.

Once a semiconductor manufacturer selects a particular vendor’s capital equipment, the manufacturer generally relies upon equipment from this “vendor of choice” (“VOC”) for the specific production line application. In addition, the semiconductor manufacturer frequently will attempt to consolidate other capital equipment requirements with the same vendors. Accordingly, we may face narrow windows of opportunity to be selected as the VOC by significant new customers. It may be difficult for us to sell to a particular customer for a significant period of time once that customer selects a competitor’s product. If we are unable to achieve broader market acceptance of our systems and technology, we may be unable to maintain and grow our business and our operating results and financial condition will be adversely affected.

Although we maintain a backlog of customer orders with expected shipment dates within the next 12 months, customers may request cancellations or delivery delays. Customers in some regions place orders a few weeks before the shipment. As a result, our backlog may not be a reliable indication of future revenues. If shipments of orders in backlog are cancelled or delayed, revenues could fall below our expectations and the expectations of market analysts and investors.

We may not be able to continue to successfully compete in the highly competitive semiconductor equipment industry.

The semiconductor equipment industry is both highly competitive and subject to rapid technological change. Significant competitive factors include the following:

- system performance;

- cost of ownership;
- size of the installed base;
- breadth of product line;
- delivery speed; and
- customer support.

Competitive pressure has been increasing in several areas. In addition to increased price competition, customers are waiting to make purchase commitments based on their end-user demand, which are then placed with requests for rapid delivery dates and increased product support. Some of our major competitors are larger than we are, have greater capital resources and may have a competitive advantage over us by virtue of having:

- broader product lines;
- longer operating history;
- greater experience with high-volume manufacturing;
- substantially larger customer bases;
- the ability to reduce price through product bundling; and
- substantially greater customer support, financial, technical and marketing resources.

Growth in the semiconductor equipment industry is increasingly concentrated in the largest companies, resulting in increasing industry consolidation. Semiconductor companies are consolidating their vendor base and prefer to purchase from vendors with a strong, worldwide support infrastructure.

In addition, to expand our sales we must often displace the systems of our competitors or sell new systems to customers of our competitors. Our competitors may develop new or enhanced competitive products that offer price or performance features that are superior to our systems. Our competitors may also be able to respond more quickly to new or emerging technologies and changes in customer requirements or to devote greater resources to the development, promotion, sale and on-site customer support of their product lines. We may not be able to maintain or expand our sales if competition increases and we are unable to respond effectively.

The cyclical nature of the semiconductor industry has caused us to experience losses and reduced liquidity, and it may continue to negatively impact our financial performance.

The semiconductor equipment industry is highly cyclical and periodically has severe and prolonged downturns, which causes our operating results to fluctuate significantly. We are exposed to the risks associated with industry overcapacity, including decreased demand for our products and increased price competition.

The semiconductor industry has historically experienced periodic downturns due to general economic changes or due to capacity growth temporarily exceeding growth in demand for semiconductor devices. Our business depends, in significant part, upon capital expenditures by manufacturers of semiconductor devices, including manufacturers that open new or expand existing facilities. Periods of overcapacity and reductions in capital expenditures by our customers cause decreases in demand for our products. This could result in significant under utilization in our factories. If existing customer fabrication facilities are not expanded and new facilities are not built, we may be unable to generate significant new orders and sales for our systems. During periods of declining demand for semiconductor manufacturing equipment, our customers typically reduce purchases, delay delivery of ordered products and/or cancel orders, resulting in reduced revenues and backlog, delays in revenue recognition and excess inventory for us. In our most recent quarter ended December 31, 2010, we experienced order delays among our DRAM customers, which we cannot be certain are all short term in nature. Increased price competition may also result as we compete for the smaller demand in the market, causing pressure on our gross margin and net income.

The weakness in the global economy during 2008 and 2009 and the relatively modest recovery exhibited during 2010 may continue to negatively impact our financial performance.

The recessionary conditions of 2008 and 2009 in the global economy and the slowdown in the semiconductor

industry impacted customer demand for our products and correspondingly, negatively impacted our financial performance. While the global economy has seen a modest recovery during 2010, there remains high unemployment in developed countries, concerns regarding the availability of credit and uncertainty about a sustained economic recovery. We cannot ensure that any of the economic improvements during 2010 will be sustainable or sufficient to extend to our specific operations or markets.

Demand for semiconductor equipment depends on consumer spending. Continued economic uncertainty may lead to a decrease in consumer spending and may cause certain of our customers to cancel or delay orders. In addition, if our customers have difficulties in obtaining capital or financing, this could result in lower sales. Customers with liquidity issues could lead to charges to our bad debt expense if we are unable to collect accounts receivables. These conditions could also affect our key suppliers, which could affect their ability to supply parts to us, and result in delays of the completion of our systems and the shipment of these systems to our customers.

Because of the economic downturn and the uncertainty of a full recovery, we may have to take further actions to reduce costs, which could reduce our ability to invest in research and development at levels we believe are desirable. If we are unable to effectively align our cost structure with prevailing market conditions, we will experience additional losses and additional reductions in our cash and cash equivalents. If we are not able to suitably adapt to these economic conditions in a timely manner or at all, our performance, cash flows, results of operations and ability to access capital could be materially and adversely impacted.

We must continually anticipate technology trends, improve our existing products and develop new products in order to be competitive. The development of new or enhanced products involves significant risks, additional costs and delays in revenue recognition. Technical and manufacturing difficulties experienced in the introduction of new products could be costly and could adversely affect our customer relationships.

The markets in which our customers and we compete are characterized by rapidly changing technology, evolving industry standards and continuous improvements in products and services. Consequently, our success depends upon our ability to anticipate future technology trends and customer needs, to develop new systems and processes that meet industry standards and customer requirements and that compete effectively on the basis of price and performance.

Our development of new products involves significant risk, since the products are very complex and the development cycle is long and expensive. The success of any new system we develop and introduce is dependent on a number of factors, including our ability to correctly predict customer requirements for new processes, to assess and select the potential technologies for research and development and to timely complete new system designs that are acceptable to the market. We may make substantial investments in new technologies before we can know whether they are technically or commercially feasible or advantageous, and without any assurance that revenue from future products or product enhancements will be sufficient to recover the associated development costs. Not all development activities result in commercially viable products. We may not be able to improve our existing systems or develop new technologies or systems in a timely manner. We may exceed the budgeted cost of reaching our research, development and engineering objectives, and planned product development schedules may require extension. Any delays or additional development costs could have a material adverse effect on our business and results of operations.

Our products are complex, and we may experience technical or manufacturing inefficiencies, delays or difficulties in the prototype introduction of new systems and enhancements, or in achieving volume production of new systems or enhancements that meet customer requirements. Our inability, or the inability of our outsourced partners, to overcome such difficulties, to meet the technical specifications of any new systems or enhancements or to manufacture and ship these systems or enhancements in volume and in a timely manner would materially adversely affect our business and results of operations, as well as our customer relationships.

Our revenue recognition policies require that during the initial evaluation phase of a new product, customer acceptance needs to be obtained before we can recognize revenue on the product. Customer acceptances may not be completed in a timely manner for a variety of reasons, whether or not related to the quality and performance of our products. Any delays in customer acceptance may result in revenue recognition delays and have an adverse impact on our results of operations.

We may from time to time incur unanticipated costs to ensure the functionality and reliability of our products early in their life cycles, and such costs can be substantial. If we encounter reliability or quality problems with our new

products or enhancements, we could face a number of difficulties, including reduced orders, higher manufacturing costs, delays in collection of accounts receivable and additional service and warranty expenses, all of which could materially adversely affect our business and results of operations. The costs associated with our warranties may be significant, and in the event our projections and estimates of these costs are inaccurate, our financial performance could be seriously harmed. In addition, if we experience product failures at an unexpectedly high level, our reputation in the marketplace could be damaged, and our business would suffer.

Significant fluctuations in our operating results are difficult to predict due to our lengthy sales cycle, and our results may fall short of anticipated levels, which could cause our stock price to decline.

Sales of our systems depend upon the decision of a prospective customer to increase or replace manufacturing capacity, typically involving a significant capital commitment. Accordingly, the decision to purchase our systems requires time-consuming internal procedures associated with the evaluation, testing, implementation and introduction of new technologies into our customers' manufacturing facilities. Even after the customer determines that our systems meet their qualification criteria, we may experience delays finalizing system sales while the customer obtains approval for the purchase, constructs new facilities or expands its existing facilities. Consequently, the time between our first contact with a customer regarding a specific potential purchase and the customer's placing its first order may last from nine to twelve months or longer. We may incur significant sales and marketing expenses during this evaluation period. In addition, the length of this period makes it difficult to accurately forecast future sales. Also, any unexpected delays in our orders, could impact our revenue and operating results. If sales forecasted from a specific customer are not realized, we may experience an unplanned shortfall in revenues, and our quarterly and annual revenue and operating results may fluctuate significantly from period to period.

Our quarterly and annual revenue and operating results have varied significantly in the past and are likely to vary significantly in the future, which makes it difficult for us to predict our future operating results. We incurred significant net losses between 2001 and 2003, yet were profitable for each of the years 2004 to 2007. Again, we incurred net losses for the years ended December 31, 2008, 2009 and 2010, of \$92.2 million, \$67.0 million and \$33.4 million, respectively, due to declining demand as a result of the weakness in the semiconductor equipment market and the global economic crisis. We may not achieve profitability in future years. We will need to generate significant sales to achieve profitability, and we may not be able to do so. A substantial percentage of our operating expenses are fixed in the short term and we may continue to be unable to adjust spending to compensate for shortfalls in revenues. As a result, we may continue to incur losses, which could cause the price of our common stock to decline further or remain at a low level for an extended period of time.

We are highly dependent on international sales, and face significant international business risks.

International sales accounted for 95 percent, 92 percent and 91 percent of our net sales in the years ended December 31, 2010, 2009 and 2008, respectively. We anticipate international sales will continue to account for the vast majority of our future net sales. Asia has been a particularly important region for our business, and we anticipate that it will continue to be important going forward. Our sales to customers located in China, Japan, South Korea, Taiwan and other Asian countries accounted for 90 percent, 82 percent, and 81 percent of our net sales in the years ended December 31, 2010, 2009 and 2008, respectively. Because of our continuing dependence upon international sales, we are subject to a number of risks associated with international business activities, including:

- burdensome governmental controls, tariffs, taxes, restrictions, embargoes or export license requirements;
- unexpected changes in law or regulations prompted by economic stress, such as protectionism, and other attempts to rectify real or perceived international trade imbalances;
- exchange rate volatility;
- the need to comply with a wide variety of foreign and U.S. customs and export laws;
- political and economic instability;
- government-sponsored competition;
- differing labor regulations;
- reduced protection for, and increased misappropriation of, intellectual property;

- difficulties in accounts receivable collections;
- increased costs for product shipments and potential difficulties from shipment delays;
- difficulties in managing distributors or representatives; and
- difficulties in staffing and managing foreign subsidiary operations.

Many of the challenges noted above are applicable in China, which is a developing market for the semiconductor equipment industry and therefore an area of potential significant growth for our business. As the business volume between China and the rest of the world grows, there is inherent risk, based on the complex relationships between China, Taiwan, Japan, South Korea and the United States, that political and diplomatic influences might lead to trade disruptions which would adversely affect our business with China and/or Taiwan and perhaps the entire Asian region. A significant trade disruption in these areas could have a material adverse impact on our future revenue and profits.

In addition, we are subject to a number of risks specific to doing business and selling our products in South Korea, including among other things, substantial competition from local sources, our ability to obtain or retain the requisite legal permits to continue to sell or continue operations in the country and political instability due to tension and any conflict among North Korea, South Korea and the United States. In the event that we become subject to any of these risks, our business and results of operations could be materially adversely affected.

In the U.S. and Asia, our sales to date have been denominated primarily in U.S. dollars; however future sales to Asian customers may be denominated in the customer's local currency. Our sales to date in Europe have been denominated in various currencies, primarily U.S. dollars and the Euro. Our sales in foreign currencies are subject to risks of currency fluctuation. For U.S. dollar sales in foreign countries, our products may become less price competitive when the local currency is declining in value compared to the dollar. This could cause us to lose sales or force us to lower our prices, which would reduce our gross margins.

Because of competition for qualified personnel, we may not be able to recruit or retain necessary personnel, which could impede development or sales of our products.

Our growth will depend on our ability to attract and retain qualified, experienced employees. Our ability to attract employees may be harmed by our recent financial losses, which has impacted our available cash and our ability to provide performance-based annual cash incentives. Also, part of our total compensation program includes share-based compensation. Share-based compensation is an important tool in attracting and retaining employees in our industry. If the market price of our common shares declines or remains low, it may adversely affect our ability to attract or retain employees.

During periods of growth in the semiconductor industry, there is substantial competition for experienced engineering, technical, financial, sales and marketing personnel in our industry. In particular, we must attract and retain highly skilled design and process engineers. If we are unable to retain existing key personnel, or attract and retain additional qualified personnel, we may from time to time experience inadequate levels of staffing to develop and market our products and perform services for our customers. As a result, our growth could be limited, we could fail to meet our delivery commitments or we could experience deterioration in service levels or decreases in customer satisfaction.

The price of our common stock has fluctuated in the past and may continue to fluctuate significantly in the future, which may lead to losses by investors, securities litigation, or hostile or otherwise unfavorable takeover offers.

The market price of our common stock has been highly volatile in the past, and our stock price may decline in the future. For example, for the year ended December 31, 2010, the price range for our common stock was \$2.01 to \$5.52 per share.

The relatively low stock price makes us attractive to hedge funds and other short-term investors. This could result in substantial volatility of the stock price and cause fluctuations in trading volumes for our stock. In addition, in recent years the stock market in general, and the market for shares of high technology stocks in particular, have experienced extreme price fluctuations. These fluctuations have frequently been unrelated to the operating performance of the

affected companies. In the past, securities class action litigation has often been instituted against a company following periods of volatility in its stock price. This type of litigation, if filed against us, could result in substantial costs and divert our management's attention and resources.

Our stock price has been below the five-year peak of \$13.50 for several years, and if revenue does not return to the peak 2007 levels or we do not return to profitability in the near term, we could be an attractive target for acquisition or be impacted by mergers or acquisition by another company or consolidation in the industry. An acquisition or merger could be hostile or on terms unfavorable to us, and may result in substantial costs and potential disruption to our business.

We are subject to significant risks related to our manufacturing operations.

We are increasingly outsourcing manufacturing and logistics activities to third-party service providers, which decrease our control over the performance of these functions and quality of our products.

We have outsourced core product manufacturing and spare parts logistics functions to third-party service providers, and may outsource more of those functions in the future. While we expect to achieve operational flexibility and cost savings as a result of this, outsourcing has a number of risks and reduces our control over the performance of the outsourced functions. We may continue to outsource more of our products, and there could be a risk of additional production delays during the transition period as we move such production to our service providers, which could result in delayed revenue recognition. Significant performance problems by these third-party service providers could result in cost overruns, delayed deliveries, shortages, quality issues or other problems that could result in significant customer dissatisfaction and could materially and adversely affect our business, financial condition and results of operations.

If for any reason one or more of these third-party service providers becomes unable or unwilling to continue to provide services of acceptable quality, at acceptable costs and in a timely manner, our ability to deliver our products or spare parts to our customers could be severely impaired. Where we have not qualified a second vendor to manufacture a certain product, we would quickly need to identify and qualify substitute service providers or increase our internal capacity, which could be expensive and time-consuming, and could result in unforeseen operational problems and late deliveries to our customers. Substitute service providers might not be available, or, if available, might be unwilling or unable to offer services on acceptable terms.

Under certain of our agreements with third-party outsourced providers, we are required to purchase minimum levels of production from such providers and may be liable to purchase inventory of assemblies and modules that exceed customer demand for such products. Conversely, if customer demand for our products increases, we may be unable to secure sufficient additional capacity from our current service providers on commercially reasonable terms, if at all. Our requirements are expected to represent a small portion of the total capacities of our third-party service providers, and they may preferentially allocate capacity to other customers, or face part shortages even during periods of high demand for our products. In addition, such manufacturers could suffer financial difficulties or disruptions in their operations due to causes beyond our control.

We depend upon a limited number of suppliers for some components and subassemblies, and supply shortages or the loss of these suppliers could result in increased cost or delays in the manufacture and sale of our products.

We rely, to a substantial extent, on outside vendors to provide many of the components and subassemblies of our systems. We obtain some of these components and subassemblies from a sole source or a limited group of suppliers. We generally acquire these components on a purchase order basis and not under long-term supply contracts. Because of our anticipated reliance on outside vendors generally, and on a sole or a limited group of suppliers in particular, we may be unable to obtain an adequate supply of required components. When demand for semiconductor equipment is strong, our suppliers may have difficulty providing components on a timely basis.

In addition, during periods of shortages of components, we may have reduced control over pricing and timely delivery of components. We often quote prices to our customers and accept customer orders for our products prior to purchasing components and subassemblies from our suppliers. If our suppliers increase the cost of components or subassemblies, we may not have alternative sources of supply and may no longer be able to increase the cost of the

system being evaluated by our customers to cover all or part of the increased cost of components.

The manufacture of some of these components is an extremely complex process and requires long lead times. If we are unable to obtain adequate and timely deliveries of our required components, we may have to seek alternative sources of supply or manufacture such components internally. This could delay our ability to manufacture or ship our systems in a timely manner, causing us to lose sales, incur additional costs, delay new product introductions and harm our reputation. Historically, we have not experienced any significant delays in manufacturing due to an inability to obtain components, and we are not currently aware of any specific problems regarding the availability of components that might significantly delay the manufacturing of our systems in the future. However, any inability to obtain adequate deliveries, or any other circumstance that would require us to seek alternative sources of supply or to manufacture such components internally, could delay our ability to ship our systems and could have a material adverse effect on us.

Our gross margins may be impacted if we do not effectively manage our inventory and associated inventory reserves.

We need to manage our inventory of component parts, work-in-process and finished goods effectively to meet customer delivery demands at an acceptable risk and cost. For both the inventories that support manufacture of our products and our spare parts inventories, if the anticipated customer demand does not materialize in a timely manner, we will incur increased carrying costs and some inventory could become excess or obsolete, resulting in write-offs, which would adversely affect our cash position and results of operations. In the past, we have recorded inventory valuation charges for excess and obsolete inventory of \$0.8 million in 2010, \$14.2 million in 2009, and \$7.1 million in 2008. We currently maintain inventory reserves at 40 percent of the gross inventory balances. The sale of this inventory during periods of increasing revenue could cause a release of these inventory reserves, which could temporarily impact our gross margin favorably and result in future unpredictability in our gross margin estimates.

Our gross margins for sales of products that we manufacture in Germany and/or South Korea may fluctuate due to changes in the value of the Euro and South Korean won.

We develop and manufacture a significant portion of our products in Germany where our costs for labor and materials are primarily denominated in Euros, and anticipate increased manufacturing activities in South Korea in 2011 where our costs for labor are primarily denominated in won. Future increases in the strength of the Euro or won, if any, could increase our development costs, our costs to manufacture systems, and our costs to purchase spare parts for products from our suppliers, which would make it more difficult for us to compete and could adversely affect our results of operations.

We manufacture many of our products at two primary manufacturing facilities and are thus subject to risk of disruption.

Although we outsource the manufacturing for certain of our products to third parties, we continue to produce our latest generation products at our two principal manufacturing plants in Fremont, California and Dornstadt, Germany. We have limited ability to interchangeably produce our products at either facility, and in the event of a disruption of operations at one facility, our other facility would not be able to make up the capacity loss. Our operations are subject to disruption for a variety of reasons, including, but not limited to, natural disasters, including earthquakes in California, work stoppages, operational facility constraints and terrorism. Such disruption could cause delays in shipments of products to our customers, result in cancellation of orders or loss of customers and seriously harm our business.

We self-insure certain risks including earthquake risk. If one or more of the uninsured events occurs, we could suffer major financial losses.

We purchase insurance to help mitigate the economic impact of certain insurable risks; however, certain other risks are uninsurable or are insurable only at significant cost or cannot be mitigated with insurance. An earthquake could significantly disrupt our principal manufacturing operations in Fremont, California, an area highly susceptible to earthquakes. It could also significantly delay our research and development efforts on new products, a significant portion of which is conducted in California. We take steps to minimize the damage that would be caused by an earthquake, but there is no certainty that our efforts will prove successful in the event of an earthquake. We self-insure earthquake risks because we believe this is a prudent financial decision based on the high cost and limited coverage available in the earthquake insurance market. If a major earthquake occurs, we could suffer a major

financial loss and face significant disruption in our business.

We are exposed to various risks relating to compliance with the regulatory environment in the countries in which we operate. We are subject to export control laws and noncompliance could result in fines, adverse publicity and restrictions on our ability to export our products. We are exposed to several material contracts, non-performance of which could result in liquidated damages.

We are subject to various risks related to (1) disagreements and disputes between national and regional regulatory agencies related to international trade; (2) new, inconsistent and conflicting rules by regulatory agencies in the countries in which we operate; and (3) interpretation and application of different laws and regulations. If we are found by a court or regulatory agency to not be in compliance with the laws and regulations, our business, financial condition and results of operations could be adversely affected.

As an exporter, we must comply with various laws and regulations relating to the export of products and technology from the U.S. and other countries having jurisdiction over our operations. In the U.S. these laws include the International Traffic in Arms Regulations (“ITAR”), the Export Administration Regulations (“EAR”) administered by the Bureau of Industry and Security (“BIS”), and trade sanctions against embargoed countries and destinations administered by the U.S. Department of Treasury, Office of Foreign Assets Control (“OFAC”). These laws govern products, parts, technology and software which present military or weapons proliferation concerns, so-called “dual use” items. Prior to shipping certain items, we must obtain an export license or verify that license exemptions are available. In addition, we must comply with certain requirements related to documentation, record keeping, plant visits and hiring of foreign nationals. For example, in 2008 we self-disclosed to BIS certain inadvertent EAR violations. Any failures to comply with these laws and regulations could result in fines, adverse publicity and restrictions on our ability to export our products, and repeat failures could carry more significant penalties.

We are a party to several governmental and private-party contracts that provide for liquidated damages in the event that we fail to comply with the covenants or requirements under any of these contracts. These liquidated damage payments could be significant and we could incur significant legal fees if we were to renegotiate these contracts. Any such damage amounts or legal expenses may adversely impact our financial condition or results of operations.

If we are unable to protect our intellectual property, we may lose valuable assets and experience reduced market share. Efforts to protect our intellectual property may be costly to resolve, require additional costly litigation and could divert management attention. Our obligation to indemnify customers increases during a downturn.

We rely on a combination of patents, copyrights, trademark and trade secret laws, non-disclosure agreements, and other intellectual property protection methods to protect our proprietary technology. Despite our efforts to protect our intellectual property, we may from time to time be subject to claims of infringement of other parties’ patents or other proprietary rights. If this occurs, we may not be able to prevent the use of such technology. Our means of protecting our proprietary rights may not be adequate and our patents may not be sufficiently broad to protect our technology. Any patents owned by us could be challenged, invalidated or circumvented and any rights granted under any patent may not provide adequate protection to us.

Furthermore, we may not have sufficient resources to protect our rights. As we outsource more of our activities, we are less able to protect our intellectual property ourselves, and rely more on our service providers to do so. Our service providers may not always be able to assure that their employees or former employees do not use our intellectual property for their own account to compete with us. Our competitors may independently develop similar technology, or design around patents that may be issued to us. In addition, the laws of some foreign countries may not protect our proprietary rights to as great an extent as do the laws of the United States and it may be more difficult to monitor the use of our products in such foreign countries. As a result of these threats to our proprietary technology, we may have to resort to costly litigation to enforce our intellectual property rights.

On occasion we receive notification from customers who believe that we are required to indemnify them or we have other financial obligations to them because of claims of intellectual property infringement made against them by third parties. Our involvement in any patent dispute or other intellectual property dispute or action to protect trade secrets, even if the claims are without merit, could be very expensive to defend and could divert the attention of our management. Adverse determinations in any litigation could subject us to significant liabilities to third parties, require

us to seek costly licenses from third parties and prevent us from manufacturing and selling our products. Royalty or license agreements, if required, may not be available on terms acceptable to us, or at all. Any of these situations could have a material adverse effect on our business and operating results in one or more countries.

Our commercial relationships with customers become more risky when market conditions give each customer greater leverage in negotiating with us. In the normal course of business, we indemnify customers with respect to certain matters, for example if our tool infringes the intellectual property rights of any third party or if we breach any promise in our contract with the customer. During downturns in general or industry specific economic conditions, our customers may require that the extent and scope of our obligation to indemnify them be expanded. In the future, we may be compelled to enter into or accrue for settlements under such indemnification provisions. We may be compelled in the future to enter into or accrue for settlements of alleged indemnification obligations. Our financial performance could be materially adversely affected if we expend significant amounts in defending or settling any purported claims.

Our failure to comply with environmental or safety regulations could result in substantial liability.

We are subject to a variety of federal, state, local and foreign laws, rules, and regulations relating to environmental protection and workplace safety. These laws, rules and regulations govern the use, storage, discharge and disposal of hazardous chemicals during manufacturing, research and development and sales demonstrations, as well as governmental standards for workplace safety. If we fail to comply with present or future regulations, especially in our manufacturing facilities in the United States, Germany, Canada and South Korea, we could be subject to substantial liability for cleanup efforts, personal injury, fines or suspension or cessation of our operations. We may be subject to liability if our acquired companies have past violations. Restrictions on our ability to expand or continue to operate our present locations could be imposed upon us, we could be required to acquire costly remediation equipment or incur other significant expenses.

Any future business acquisitions or divestitures may disrupt our business, diminish stockholder value or distract management attention.

As part of our ongoing business strategy, we may consider acquisitions of, or significant investments in, businesses that offer products, services and technologies complementary to our own. Such acquisitions could materially adversely affect our operating results and/or the price of our common stock. Acquisitions also entail numerous risks, including:

- difficulty of assimilating the operations, products and personnel of the acquired businesses and possible impairments caused by this;
- potential disruption of our ongoing business;
- unanticipated costs associated with the acquisition;
- inability of management to manage the financial and strategic position of acquired or developed products, services and technologies;
- inability to maintain uniform standards, controls, policies and procedures; and
- impairment of relationships with employees and customers that may occur as a result of integration of the acquired business.

To the extent that shares of our stock or other rights to purchase stock are issued in connection with any future acquisitions, dilution to our existing stockholders will result, and our earnings per share may suffer. Any future acquisitions may not generate additional revenue or provide any benefit to our business, and we may not achieve a satisfactory return on our investment in any acquired businesses.

We may also seek to divest of certain assets or businesses from time to time, especially if we need additional liquidity or capital resources. When we make a decision to sell assets or a business, we may encounter difficulty completing the transaction as a result of a range of possible factors such as new or changed demands from the buyer. These circumstances may cause us to incur additional time or expense or to accept less favorable terms, which may adversely affect the overall benefits of the transaction.

Acquisitions, divestitures, and other transactions are inherently risky, and we cannot provide any assurance that

our previous or future transactions will be successful. The inability to effectively manage the risks associated with these transactions could materially and adversely affect our business, financial condition or results of operations.

Changes in tax rates or tax liabilities could affect results.

We are subject to taxation in the United States and various other countries. Significant judgment is required to determine and estimate worldwide tax liabilities. Our future annual and quarterly tax rates could be affected by numerous factors, including changes in the applicable tax laws, composition of earnings in countries with differing tax rates or our valuation and utilization of deferred tax assets and liabilities. In addition, we are subject to regular examination of our income tax returns by the Internal Revenue Service and other tax authorities. We regularly assess the likelihood of favorable or unfavorable outcomes resulting from these examinations to determine the adequacy of our provision for income taxes. Although we believe our tax estimates are reasonable, there can be no assurance that any final determination will not be materially different from the treatment reflected in our historical income tax provisions and accruals, which could materially and adversely affect our results of operations.

We may be required to record additional impairment charges that will adversely impact our results of operations.

We review our goodwill and intangible assets for impairment whenever events or changes in circumstances indicate that the carrying amounts of these assets may not be recoverable, and also review goodwill balances annually. For example, during the year ended December 31, 2008, we recorded impairment charges of \$18.1 million and \$6.6 million related to the write-off of goodwill and certain intangible assets, respectively. The write-offs were triggered by the significant decline in our revenue and cash flows. The resulting assessment indicated a material decline in our market valuation and projected revenues, causing a decrease in the anticipated future cash flows attributable to these assets relative to the cash flow expectations when the assets were acquired. In the event that we determine in a future period that impairment of our intangible assets exists for any reason, we would record additional impairment charges in the period such determination is made, which would adversely impact our financial position and results of operations.

Our restated certificate of incorporation and restated bylaws, our stockholder rights plan and Delaware law contain provisions that could discourage transactions resulting in a change in control, which may negatively affect the market price of our common stock.

Our restated certificate of incorporation, our restated bylaws, our stockholder rights plan and Delaware law contain provisions that might enable our management to discourage, delay or prevent a change in control. In addition, these provisions could limit the price that investors would be willing to pay in the future for shares of our common stock. Pursuant to such provisions:

- our board of directors is authorized, without prior stockholder approval, to create and issue preferred stock, commonly referred to as “blank check” preferred stock, with rights senior to those of common stock;
- our board of directors is staggered into three classes, only one of which is elected at each annual meeting;
- stockholder action by written consent is prohibited;
- nominations for election to our board of directors and the submission of matters to be acted upon by stockholders at a meeting are subject to advance notice requirements;
- certain provisions in our bylaws and certificate of incorporation such as notice to stockholders, the ability to call a stockholder meeting, advance notice requirements and action of stockholders by written consent may only be amended with the approval of stockholders holding 66 2/3 percent of our outstanding voting stock;
- the ability of our stockholders to call special meetings of stockholders is prohibited; and
- subject to certain exceptions requiring stockholder approval, our board of directors is expressly authorized to make, alter or repeal our bylaws.

In addition, the provisions in our stockholder rights plan could make it more difficult for a potential acquiror to consummate an acquisition of our company. We are also subject to Section 203 of the Delaware General Corporation Law, which provides, subject to enumerated exceptions, that if a person acquires 15 percent or more of our outstanding voting stock, the person is an “interested stockholder” and may not engage in any “business combination” with us for a period of three years from the time the person acquired 15 percent or more of our outstanding voting stock.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our principal properties as of December 31, 2010 are set forth below:

Location	Type	Principal Use	Square Footage	Ownership
Fremont, CA	Office, plant and warehouse	Headquarters, marketing, manufacturing, distribution, research and engineering	101,000	Leased
Exton, PA	Office	Subleased	80,000 ⁽¹⁾	Leased
Dornstadt, Germany	Office, plant and warehouse	Manufacturing, research and engineering	102,000	Leased

⁽¹⁾ Leased property in Exton, PA is not needed for our operations. As of December 31, 2010, approximately half of this property was subleased to another party.

In addition to the above properties, we lease an aggregate of approximately 60,000 square feet of office space for sales and customer support offices, worldwide. In Canada, we also lease approximately 20,000 square feet of office, plant and warehouse space for office, manufacturing and research facilities.

In total, we lease office space for headquarters, manufacturing, operations, research and engineering, distribution, marketing, sales and customer support in approximately twenty locations throughout the world: two in the United States, four in China, five in Korea, five in Taiwan, two in Germany and one in each of Canada, Japan, and Singapore. During 2010, we reviewed the utilization of our facilities and made appropriate amendments to our lease agreements as necessary. We consider these current facilities suitable and adequate to meet our requirements.

Item 3. Legal Proceedings

In the ordinary course of business, we are subject to claims and litigation, including claims that we infringe third party patents, trademarks and other intellectual property rights. Although we believe it is unlikely that any current claims or actions will have a material adverse impact on our operating results or our financial position, given the uncertainty of litigation, we cannot be certain of this. Moreover, the defense of claims or actions against us, even if not meritorious, could result in the expenditure of significant financial and managerial resources.

Our involvement in any patent dispute, other intellectual property dispute or action to protect trade secrets and know-how could result in a material adverse effect on our business. Adverse determinations in current litigation or any other litigation in which we may become involved could subject us to significant liabilities to third parties, require us to grant licenses to or seek licenses from third parties and prevent us from manufacturing and selling our products. Any of these situations could have a material adverse effect on our business.

Item 4. “Removed and Reserved”

PART II

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

Market for Registrant's Common Equity

Our common stock has been traded on The NASDAQ Global Select Market® since our initial public offering on September 28, 1994. Our stock is quoted under the symbol "MTSN". The following table sets forth the low and high closing prices as reported by The NASDAQ Global Select Market for the periods indicated:

	<u>Low</u>	<u>High</u>
2010		
First	\$ 2.88	\$ 4.78
Second	\$ 3.44	\$ 5.52
Third	\$ 2.01	\$ 4.22
Fourth	\$ 2.40	\$ 3.32
2009		
First	\$ 0.42	\$ 1.42
Second	\$ 0.86	\$ 1.56
Third	\$ 1.11	\$ 2.82
Fourth	\$ 1.94	\$ 3.60

On March 2, 2011, our common stock on The NASDAQ Global Select Market was \$2.47 per share; and according to the records of our transfer agent, we had 195 stockholders of record of our common stock on that date. Because brokers and other institutions hold many of our shares on behalf of stockholders, we are unable to estimate the total number of stockholders represented by these record holders.

Dividends

We have never paid cash dividends on our common stock and have no present plans to pay cash dividends. We intend to retain all future earnings for use in our business.

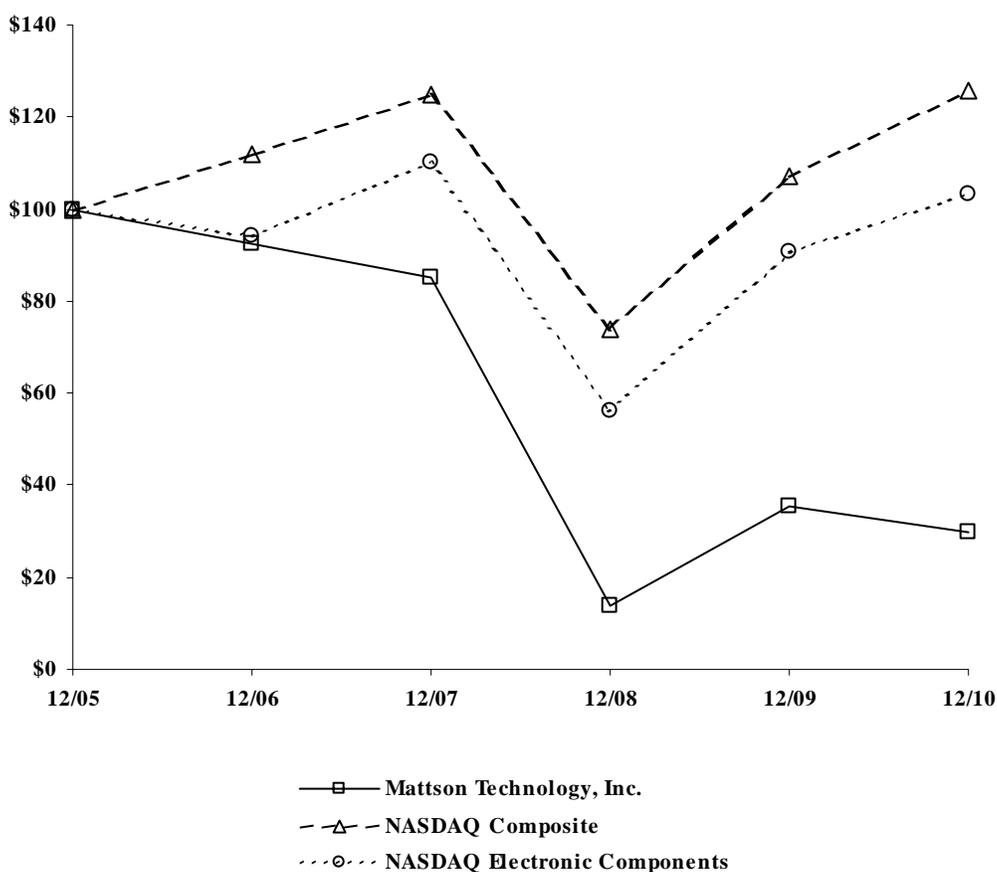
Equity Compensation Plan Information

Information regarding our securities authorized for issuance under equity compensation plans will be included in Item 12, "Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters," of this Annual Report on Form 10-K and is incorporated herein by reference from our definitive proxy statement relating to our Annual Meeting of Stockholders to be held in 2011.

Comparison of Stockholder Return

The following graph compares the cumulative five-year total return on Mattson Technology, Inc.'s common stock relative to the cumulative total returns of The NASDAQ Composite index and the NASDAQ Electronic Components index:

**Comparison of Five-Year Cumulative Total Return
From December 31, 2005 through December 31, 2010 ⁽¹⁾
Among Mattson Technology, Inc., the NASDAQ Composite Index
and the NASDAQ Electronic Components Index**



	December 31,					
	2005	2006	2007	2008	2009	2010
Mattson Technology, Inc.	\$100.00	\$ 92.64	\$ 85.09	\$ 14.02	\$ 35.49	\$ 29.82
NASDAQ Composite	\$100.00	\$111.74	\$124.67	\$ 73.77	\$107.12	\$125.93
NASDAQ Electronic Components	\$100.00	\$ 94.09	\$110.35	\$ 56.37	\$ 90.71	\$103.28

⁽¹⁾ Assumes that \$100.00 was invested in Mattson Technology common stock and in each index at market closing prices on December 31, 2005, and that all dividends were reinvested. No cash dividends have been declared on our common stock. Stockholder returns over the indicated period should not be considered indicative of future stockholder returns.

Issuer Repurchases of Equity Securities

In March 2007, our Board of Directors approved a common stock repurchase plan (“Repurchase Plan”) that authorized the repurchase of up to \$20.0 million of outstanding shares of our common stock through open-market purchases or private transactions pursuant to a plan in conformity with Rule 10(b)-5-1 of the Exchange Act. In October 2007, our Board of Directors expanded our Repurchase Plan, authorizing the repurchase of up to an additional \$30 million of shares of our common stock through open-market purchases or private transactions. By December 31, 2008, a total of 3.8 million shares had been repurchased against the original and expanded Repurchase Plan, at a weighted-average purchase price of \$9.20 for a total purchase price of approximately \$35 million. We did not repurchase any common stock in 2009 and 2010. As of December 31, 2010, we have authorization to repurchase up to an additional \$15 million of shares of our common stock under the Repurchase Plan, but have no future plans to do so.

We report common stock repurchased as treasury stock in the accompanying Consolidated Balance Sheets. Including previous common stock repurchase plans from 1997 and 1998, under which we repurchased 0.4 million shares for approximately \$3.0 million, treasury stock as of December 31, 2010 was 4.2 million shares at a total purchase price of \$38.0 million.

Item 6. Selected Financial Data

The following historical financial data should be read in conjunction with our consolidated financial statements and notes thereto. We derived the selected Consolidated Statement of Operations data for the years ended December 31, 2010, 2009, and 2008 and the selected Consolidated Balance Sheet data as of December 31, 2010 and 2009 from our audited consolidated financial statements appearing in Item 8. of this report. We derived the selected Consolidated Statement of Operations data for the years ended December 31, 2007 and 2006, and the selected Consolidated Balance Sheet data as of December 31, 2008, 2007 and 2006 from our audited consolidated financial statements as published in our 10-K for the year ended December 31, 2008 and December 31, 2007.

Consolidated Statement of Operations Data:

	Year Ended December 31,				
	2010	2009 ⁽¹⁾	2008 ⁽²⁾	2007 ⁽³⁾	2006
	(thousands, except per share amounts)				
Net sales	\$ 138,336	\$ 42,748	\$ 133,551	\$ 267,286	\$ 281,781
Cost of sales	\$ 93,797	\$ 44,843	\$ 86,005	\$ 144,075	\$ 172,720
Gross profit (loss)	\$ 44,539	\$ (2,095)	\$ 47,546	\$ 123,211	\$ 109,061
Income (loss) from operations	\$ (33,195)	\$ (77,011)	\$ (91,825)	\$ 24,241	\$ 15,490
Net income (loss)	\$ (33,403)	\$ (67,042)	\$ (92,163)	\$ 27,553	\$ 17,114
Net income (loss) per share:					
Basic	\$ (0.67)	\$ (1.35)	\$ (1.86)	\$ 0.53	\$ 0.33
Diluted	\$ (0.67)	\$ (1.35)	\$ (1.86)	\$ 0.52	\$ 0.32
Shares used in computing net income (loss) per share:					
Basic	50,073	49,832	49,471	51,771	52,357
Diluted	50,073	49,832	49,471	52,716	53,368

⁽¹⁾ Income (loss) from operations reflects \$2.6 million of restructuring costs, offset by \$2.4 million release of bad debt reserves based on cash collections of aged receivables. Net loss reflects a tax benefit of \$8.1 million resulting primarily from the reversal of certain foreign deferred tax liabilities related to the completion of a tax audit.

⁽²⁾ Income (loss) from operations reflects restructuring charges of \$6.0 million, goodwill impairment charge of \$18.1 million and intangibles and long-lived assets impairment charges of \$9.4 million.

⁽³⁾ Income (loss) from operations was reduced by \$1.6 million due to the release of amounts previously accrued as we completed all remaining obligations under a foreign government-funded capital development project. Net loss reflects an incremental \$3.8 million in income tax expense related to an unfavorable ruling on the applicability of tax law in one of our foreign location.

Consolidated Balance Sheet Data:

	December 31,				
	2010	2009	2008	2007	2006
	(thousands)				
Cash, cash equivalents and restricted cash	\$ 20,889	\$ 47,346	\$ 77,107	\$ 125,533	\$ 91,416
Short-term investments	\$ 2,151	\$ 13,089	\$ 26,280	\$ 26,280	\$ 47,469
Working capital ⁽¹⁾	\$ 51,126	\$ 75,455	\$ 140,491	\$ 201,019	\$ 185,078
Total assets	\$ 111,624	\$ 133,073	\$ 208,211	\$ 317,770	\$ 316,752
Total stockholders' equity	\$ 62,655	\$ 94,706	\$ 156,836	\$ 245,283	\$ 238,930

⁽¹⁾ Working capital is calculated as current assets less current liabilities.

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

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with Item 6. "Selected Financial Data," our consolidated financial statements and related notes included elsewhere in this document. In addition to historical information, the discussion below contains certain forward-looking statements that involve risks and uncertainties. These forward-looking statements include, but are not limited to, those matters discussed under the heading "Forward-looking Statements," above. Our actual results could differ materially from those anticipated by these forward-looking statements due to various factors, including, but not limited to, those set forth under Item 1A. "Risk Factors" in this Annual Report on Form 10-K and elsewhere in this document.

Overview

We are a supplier of semiconductor wafer processing equipment used in the fabrication of integrated circuits (ICs). Our manufacturing equipment is used for semiconductor manufacturing and back-end packaging. Our manufacturing equipment utilizes innovative technology to deliver advanced processing capabilities and high productivity for the fabrication of current and next-generation ICs. We were incorporated in California in 1988 and reincorporated in Delaware in 1997.

Our business depends upon capital expenditures by manufacturers of semiconductor devices. The level of capital expenditures by these manufacturers depends upon the current and anticipated market demand for such devices. Because the demand for semiconductor devices is highly cyclical, the demand for wafer processing equipment is also highly cyclical. The semiconductor equipment industry is typically characterized by wide swings in operating results as the industry moves through its cycle. From late 2007 through 2009, the industry experienced a sustained downturn. In 2010, our customers responded to an increasing demand for advanced products, expanding production by shrinking the chip size thus increasing the number of chips that could be produced on the wafer. This technology-driven phase of the cycle lasted roughly through the first half of 2010. As demand for chips continued through 2010, the technology phase of the expansion was replaced by a capacity-driven phase, in which our customers added to the number of wafers being produced in their existing factories. The second half of 2010 was generally characterized by this capacity expansion phase as customers purchased equipment and in some cases filled their existing facilities to capacity. This was especially the case in the foundry and DRAM memory sectors of chip making. As these facilities were nearing completion, many of our larger customers started building new facilities or "greenfield" sites in preparation for their expected next round of expansion. We anticipate that this greenfield expansion will occur in the 2011-2012 timeframe, and be characterized by continued foundry purchases and a new round of memory expansion primarily driven by NAND flash technology in support of the new tablet products, smartphones and the solid state drives for computing.

Our real growth began in the second half of 2010 with the increase in capacity purchases by our customers. The capacity purchases for our core products coupled with the introduction of significant revenue from our new etch products resulted in a 224 percent increase in revenue from 2009 to 2010, which we believe outpaced the overall industry growth.

Last year we continued to strategically re-position ourselves, investing in new product development and expanding our existing product portfolio across new product sectors and new applications within our core product sectors. While we entered the downturn with products in two capacity driven sectors, we have emerged with products that address three diverse markets, with technology driven products that are aimed at a served available market almost triple the size of our previous market. Our dry strip products continue to ship to both foundry and memory customers and provide technical leadership in bulk stripping, high-dose implant strip (HDIS) and high-k metal gate (HKMG). In 2010, we expanded the market for our RTP products beyond DRAM, into logic and foundry fabs. We shipped our next generation RTP system, the Helios XP, to three leading semiconductor manufacturers and generated revenue from two of the top three NAND flash customers. We continue to make progress with our millisecond anneal technology, the Millios, achieving process tool of record status for advanced logic and DRAM applications at one of the world's largest semiconductor manufacturers. Most importantly, in 2010 we began to see traction of our strategic investment in our new etch product line. We shipped our etch products to multiple customer accounts across foundry and memory lines, growing our etch revenues such that they represent over 30 percent of our system revenues. Our etch products, the paradigmE and Alpine, are targeted to meet the stringent requirements of advanced dielectric etch as well as packaging applications. In 2010, we shipped

paradigmE to major DRAM and NAND flash fabs and we also established the Alpine product for volume production for advanced packaging. The etch market represents a new market for us, and we believe it is significantly larger than our other market sectors. In addition, the introduction of our etch product line will allow us to take better advantage of future cycle ramps for technology-driven purchases in the semiconductor industry.

For 2011, our new positions in etch and RTP, added to our broad strip base, expand our available market, especially in the new greenfield fabs, and transition us from productivity-driven markets into more technology-driven markets. We believe that we are positioned at leading customers with strong balance sheets and the requisite resources to fully leverage these positions for improvements in our results with the continued strengthening of the global economy.

In 2010, our revenue increased by \$95.6 million to \$138.3 million from \$42.7 million in 2009, due to our product traction and successes, and the overall recovery in the global economy. Gross profit in 2010 was \$44.5 million compared to a negative \$2.1 million in 2009. The increase in gross profit was primarily due to operating leverage from higher net sales across all product lines, improved factory utilization and continued traction with our cost-reduction measures. Our operating expenses in 2010 increased by 4 percent, to \$77.7 million, but is significantly reduced from the levels prior to the downturn. The slight increase in operating expenses was largely due to costs associated with the increased volume of sales and increased investment in our etch product line. The impact of having better operating leverage from higher net sales and the cost-reduction measures contributed to a lower net loss in 2010 of \$33.4 million compared to \$67.0 million in 2009.

At December 31, 2010, we had an accumulated deficit of \$554.6 million. We have incurred operating losses and generated negative cash flows for each of the last three years. As of December 31, 2010, we had cash, cash equivalents, short-term investments and restricted cash of \$23.0 million and working capital of \$51.1 million. We believe that these balances will be sufficient to fund our working and other capital requirements over the course of the next twelve months. Our operations require careful management of our cash and working capital balances. Our liquidity is affected by many factors including, among others, fluctuations in our revenue, gross profits and operating expenses, as well as changes in our operating assets and liabilities. The cyclicity of the semiconductor industry makes it difficult for us to predict our future liquidity needs with certainty. We will continue to review our expected cash requirements, make all efforts to collect any aged receivables, and take appropriate cost reduction measures to ensure that we have sufficient liquidity. In the event additional needs for cash arise, we may seek to raise additional funds from a combination of sources including issuance of debt or equity securities. Additional financing may not be available on terms favorable to us, or at all. Any additional financing activity could be dilutive to our current stockholders. If adequate funds are not available or are not available on acceptable terms, our ability to take advantage of unanticipated opportunities or respond to competitive pressures could be limited. Failure to generate sufficient cash flows from operations, raise additional capital or reduce spending could have a material adverse effect on our ability to achieve our intended long-term business objectives.

The success of our business will be dependent on numerous factors, including, but not limited to, the market demand for semiconductors and semiconductor wafer processing equipment. Such factors will also include our ability to (a) significantly grow the Company, either organically or through acquisitions, in order to enhance our competitiveness and profitability; (b) develop and bring to market new products that address our customers' needs; (c) grow customer loyalty through collaboration with and support of our customers; (d) maintain a cost structure that will enable us to operate effectively and profitably throughout changing industry cycles and (e) generate the gross profits necessary to enable us to make the necessary investments in our business.

Results of Operations

Years Ended December 31, 2010 and 2009

The following table sets forth our consolidated results of operations for the years ended December 31, 2010 and 2009, and the year-over-year increase (decrease) in our results, expressed both in dollar amounts (in thousands) and as a percentage of net sales, except where indicated:

	Year Ended December 31,					
	2010		2009		Increase (Decrease)	
	(thousands)	%	(thousands)	%	(thousands)	%
Net sales	\$ 138,336	100.0	\$ 42,748	100.0	\$ 95,588	223.6
Cost of sales	93,797	67.8	44,843	104.9	48,954	109.2
Gross profit (loss)	<u>44,539</u>	<u>32.2</u>	<u>(2,095)</u>	<u>(4.9)</u>	<u>46,634</u>	<u>n/m</u> ⁽¹⁾
Operating expenses:						
Research, development and engineering	27,791	20.1	25,340	59.3	2,451	9.7
Selling, general and administrative	50,057	36.2	46,980	109.9	3,077	6.5
Restructuring charges	(114)	(0.1)	2,596	6.1	(2,710)	n/m
Total operating expenses	<u>77,734</u>	<u>56.2</u>	<u>74,916</u>	<u>175.3</u>	<u>2,818</u>	<u>3.8</u>
Loss from operations	<u>(33,195)</u>	<u>(24.0)</u>	<u>(77,011)</u>	<u>(180.2)</u>	<u>43,816</u>	<u>(56.9)</u>
Interest income	144	0.1	646	1.5	(502)	(77.7)
Interest expense	(139)	(0.1)	(114)	(0.2)	(25)	21.9
Other income (expense), net	108	0.1	1,371	3.2	(1,263)	(92.1)
Loss before income taxes	<u>(33,082)</u>	<u>(23.9)</u>	<u>(75,108)</u>	<u>(175.7)</u>	<u>42,026</u>	<u>(56.0)</u>
Provision for (benefit from) income taxes	321	0.2	(8,066)	(18.9)	8,387	n/m
Net income (loss)	<u>\$ (33,403)</u>	<u>(24.1)</u>	<u>\$ (67,042)</u>	<u>(156.8)</u>	<u>\$ 33,639</u>	<u>(50.2)</u>

⁽¹⁾ Not meaningful

Net Sales. Net sales were \$138.3 million in 2010, an increase of \$95.6 million or 224 percent, compared to \$42.7 million in 2009. The increase in net sales was primarily due to the improvement in the global economy and the semiconductor equipment sector. The low level of net sales in 2009 reflected the trough of the downturn in the semiconductor equipment industry. Since sales bottomed out in the first quarter of 2009, we have experienced seven consecutive quarters of growth, as the upturn has moved from a period of principally technology purchases to the current capacity building phase of the cycle. Accordingly, the year-over-year increase in sales was broad-based across all of our products. In addition, our penetration of the etch market during 2010 contributed over 30 percent to our system sales compared with approximately 14 percent in 2009.

In 2010, international sales to customers in Europe and Asia, including China, Japan, Singapore, South Korea and Taiwan, continued to account for a significant portion of our total net sales, comprising approximately 95 percent of net sales in 2010, compared to 92 percent in 2009. We anticipate that international sales will continue to account for a significant portion of our net sales.

Cost of Sales. Our cost of sales consists of the costs associated with manufacturing our products, and includes the purchase of raw materials and related overhead, labor, warranty costs, charges for excess and obsolete inventory and costs incurred by our contract manufacturers in the production of our components, major subassemblies/modules and complete systems.

Cost of sales was \$93.8 million in 2010, an increase of \$49.0 million or 109 percent, compared to \$44.8 million in 2009. The increase in cost of sales was primarily related to costs associated with increased product sales resulting from improved market conditions in 2010 and realizing the benefits of previous cost reduction efforts described more fully in Note 6. Restructuring Charges.

Gross Profit (Loss). Gross profit (loss) is calculated as net sales less cost of sales. Gross margin rate is gross profit (loss) reflected as a percentage of net sales.

Gross margin rate improved to 32 percent in 2010, compared to a negative 5 percent in 2009. The increase in gross margin in 2010 was primarily due to operating leverage from higher net sales volumes, sales of previously written down inventories and an increase in absorption levels, partially offset by an increase in warranty provisions related to the higher net sales.

Our gross margin rate has varied over the years and will continue to be affected by many factors, including competitive pressures, product mix, inventory reserves, economies of scale, material and other costs, overhead absorption levels and the timing of revenue recognition.

Research, Development and Engineering. Research, development and engineering expenses consist primarily of salaries and related costs of employees engaged in research, development and engineering activities, costs of product development and depreciation on equipment used in the course of research, development and engineering activities.

Research, development and engineering expenses were \$27.8 million in 2010, an increase of \$2.5 million or 10 percent, compared to \$25.3 million in 2009. The increase in research, development and engineering expenses was primarily due to a \$1.6 million increase in materials used in new product development projects and a \$1.2 million increase in salaries and related costs resulting from increased headcount and a reduction in the number of work furloughs throughout 2010, partially offset by a decrease of \$0.6 million in depreciation and amortization related to equipment that was fully depreciated in 2009.

Selling, General and Administrative. Selling, general and administrative expenses consist primarily of personnel-related expenses, as well as legal and professional fees, facilities expenses (excluding research and development focused sites), insurance expenses, amortization of evaluation systems and certain information technology costs.

Selling, general and administrative expenses were \$50.1 million in 2010, an increase of \$3.1 million or 7 percent, compared to \$47.0 million in 2009. The increase in selling, general and administrative expenses was primarily due to the higher level of revenues and related business activities in 2010, including increases in costs related to freight and duty, legal fees, sales commissions and amortization of evaluation systems, partially offset by a \$1.3 million reduction year over year in the collection of certain accounts receivable previously provided for in the allowance for doubtful accounts.

Restructuring Charges. In response to declining revenues, we implemented several restructuring programs to dramatically reduce our cost structure in 2008 and 2009, which combined to reduce our workforce by approximately 40 percent over those two years. Restructuring charges recorded under these programs were primarily for estimated employee severance costs and lease termination costs, which have since been adjusted to reflect revised estimates and actual amounts paid. In 2010, based on revised estimates, we reversed a net \$0.1 million in restructuring reserves, which is included in the accompanying Consolidated Statement of Operations. In 2009, restructuring expenses were \$2.6 million, representing \$2.4 million in severance costs and \$0.2 million in lease termination costs.

As of December 31, 2010, we had a total restructuring reserves balance of \$0.4 million, comprised of severance costs of \$0.1 million and lease termination costs of \$0.3 million. We anticipate that remaining severance payments against the reserves will be substantially completed in the first half of 2011. With respect to the lease termination, we are currently engaged in an ongoing negotiation with the landlord, and the payment of the lease termination expense is dependent on the timing of a final agreement with the landlord.

Interest and Other Income (Expense), Net. Interest income was \$0.1 million in 2010, a decrease of \$0.5 million when compared to \$0.6 million in 2009. The decrease in interest income was primarily due to lower cash investment balances during fiscal 2010.

Other income (expense), net was \$0.1 million of income in 2010, a decrease of \$1.3 million when compared to

\$1.4 million of income in 2010. The decrease in foreign currency gain was due to the significant fluctuation of the U.S. dollar against the foreign currencies in which certain of our accounts receivable and/or accounts payable balances were denominated during 2010.

Provision for (Benefit from) Income Taxes. Provision for (benefit from) income taxes was a \$0.3 million net provision in 2010, which consisted of a \$0.4 million provision for foreign taxes partially offset by a \$0.1 million benefit for federal and state income taxes. Provision for (benefit from) income taxes in 2009 was a \$8.1 million net benefit, which consisted of a \$9.8 million benefit from the settlement of a German tax audit for tax years 2001 to 2004, partially offset by provisions for foreign taxes and for federal and state income taxes of \$1.6 million and \$0.2 million, respectively.

Currently, we have provided a full valuation allowance on the deferred tax assets for all jurisdictions except Germany as we have determined that, due to uncertainties and other negative evidence in our current operations and our expectations of future operations, it is more likely than not that our deferred tax assets generated from net operating loss carryforwards and other deferred tax assets will not be realized. Our provision for income taxes could be favorably impacted going forward if our results of operations and forecasts for future profitability improve sufficiently to indicate that the related deferred tax assets will be realized. Conversely, our provision for income taxes could be unfavorably impacted in the future if the results of operations and future profitability of our German business decline sufficiently to indicate the related deferred tax asset will not be realized. Such a change in management's expectations could result in a material change to our valuation allowance assessment and the resulting income tax provision.

Years Ended December 31, 2009 and 2008

The following table sets forth our consolidated results of operations for the years ended December 31, 2009 and 2008, and the year-over-year increase (decrease) in our results, expressed both in dollar amounts (in thousands) and as a percentage of net sales, except where indicated:

	Year Ended December 31,				Increase (Decrease)	
	2009		2008		(thousands)	%
	(thousands)	%	(thousands)	%	(thousands)	%
Net sales	\$ 42,748	100.0	\$ 133,551	100.0	\$ (90,803)	(68.0)
Cost of sales	44,843	104.9	86,005	64.4	(41,162)	(47.9)
Gross profit (loss)	(2,095)	(4.9)	47,546	35.6	(49,641)	n/m ⁽¹⁾
Operating expenses:						
Research, development and engineering	25,340	59.3	37,345	28.0	(12,005)	(32.1)
Selling, general and administrative	46,980	109.9	68,530	51.3	(21,550)	(31.4)
Restructuring charges	2,596	6.1	5,989	4.5	(3,393)	(56.7)
Impairment of goodwill	-	-	18,076	13.5	(18,076)	n/m ⁽¹⁾
Impairment of intangibles and long-lived assets	-	-	9,431	7.1	(9,431)	n/m ⁽¹⁾
Total operating expenses	74,916	175.3	139,371	104.4	(64,455)	(46.2)
Loss from operations	(77,011)	(180.2)	(91,825)	(68.8)	14,814	(16.1)
Interest income	646	1.5	3,292	2.5	(2,646)	(80.4)
Interest expense	(114)	(0.2)	(144)	(0.1)	30	(20.8)
Other income (expense), net	1,371	3.2	(1,175)	(0.9)	2,546	n/m ⁽¹⁾
Loss before income taxes	(75,108)	(175.7)	(89,852)	(67.3)	14,744	(16.4)
Provision for (benefit from) income taxes	(8,066)	(18.9)	2,311	1.7	(10,377)	n/m ⁽¹⁾
Net income (loss)	\$ (67,042)	(156.8)	\$ (92,163)	(69.0)	\$ 25,121	(27.3)

⁽¹⁾ Not meaningful

Net sales. Net sales were \$42.7 million in 2009, a decrease of \$90.8 million or 68 percent, compared to \$133.6 million in 2008. The decline in net sales was comprised of a 71 percent decrease in product revenue, and a 51 percent decrease in spares parts and services revenues. In 2008, we received our final royalty payment of \$6.4

million from the settlement of a patent infringement lawsuit against Dainippon Screen Manufacturing Co., Ltd (“DNS”). The decline in our net sales was primarily due to the severity of the continued downturn in the overall wafer fabrication equipment market, the industry's reduced capital spending, and excess supplies at our customers' fabs.

In 2009, international sales to customers in Europe and Asia, including China, Japan, Singapore, South Korea and Taiwan continued to account for a significant portion of our total net sales, comprising approximately 92 percent of net sales in 2009, compared to 91 percent in 2008.

Cost of Sales. Cost of sales was \$44.8 million in 2009, a decrease of \$41.2 million or 48 percent, compared to \$86.0 million in 2008. The decrease in cost of sales was primarily related to the sharp decline in our net sales related to the global economic slowdown, which resulted in under-absorption of fixed manufacturing overhead costs and significant charges for excess and obsolete inventory.

Gross Profit (Loss). Gross margin rate decreased to a negative 5 percent in 2010, compared to 36 percent in 2008. The decrease is primarily due to under-absorption of fixed manufacturing costs caused by lower production levels as well as additional inventory reserves. Royalty revenue, with no offsetting costs, of \$6.4 million from DNS favorably impacted gross profit in 2008.

Research, Development and Engineering. Research, development and engineering expenses were \$25.3 million in 2009, a decrease of \$12.0 million or 32 percent, compared to \$37.3 million in 2008. The decrease in research, development and engineering expenses was primarily comprised of a \$5.7 million reduction in salaries and other employee costs, a \$3.2 million reduction in project material expenditures and a \$1.9 million reduction in travel and outside service expenses. These decreases were the result of ongoing cost-reduction activities implemented since fiscal 2008, consisting of work furloughs, workforce reductions and spending reductions in certain research, development and engineering projects. Additionally, having determined intangible assets had been impaired and written off in the fourth quarter of 2008, as discussed below, there was no intangible amortization expense in 2009 compared to \$0.5 million in 2008.

Selling, General and Administrative. Selling, general and administrative expenses were \$47.0 million in 2009, a decrease of \$21.6 million or 31 percent, compared to \$68.5 million in 2008. The decrease in selling, general and administrative expenses was primarily comprised of a \$7.6 million net decrease in salaries and other employee costs, a \$3.0 million decrease in outside service expenses, a \$2.4 million decrease in travel expenses and a \$2.4 million reduction in freight costs. These decreases in selling, general and administrative expenses were primarily due to reductions in certain costs attributable to the decrease in revenues and cost-reduction activities implemented since fiscal 2008. In 2009, we also benefited from collecting \$2.4 million of accounts receivable previously provided for in the allowance for doubtful accounts during the recent industry downturn.

Restructuring Charges. Beginning in the second quarter of 2008 through the third quarter of 2009, we implemented several restructuring plans in response to declining revenues. The restructuring initiatives in 2008 and 2009 resulted in a combined reduction of approximately 40 percent of our workforce over those two years. In connection with the restructuring activities in 2009, we recognized restructuring charges of \$2.6 million, comprised of \$2.4 million in severance costs and \$0.2 million in lease termination costs; and in 2008, we recognized restructuring charges of \$6.0 million, comprised of \$5.6 million in severance costs and \$0.4 million in lease termination costs.

Our cost-cutting initiatives in both 2009 and 2008 also included activities that did not result in restructuring charges, such as (i) better utilization of assets, including focused reduction of existing inventories; (ii) reduced variable headcount expenses through shutdowns and unpaid time-off; and (iii) cash conservation and spending cuts in travel, outside service, project material and other research, development and engineering and selling, general and administrative related costs.

Impairment of Goodwill. In 2009, we had no goodwill impairment charges. In 2008, we recorded an impairment charge of \$18.1 million to write off the remaining carrying amount of goodwill, as the value of goodwill deteriorated to zero due to the significant declines in our revenues and market capitalization.

Impairment of Intangibles and Long-Lived Assets. In 2009, we had no impairment charges related to intangibles or long-lived assets. In 2008, we recorded impairment charges to write off intangible assets of \$6.6 million, the remaining carrying amount of purchased technology acquired in connection with our acquisition of Vortek in 2004, and certain lab assets of \$2.8 million to adjust for the deteriorating value of these assets resulting from the decline in expected cash flows attributable to the assets.

Interest and Other Income (Expense), Net. Interest income was \$0.6 million in 2009, a decrease of \$2.7 million when compared to \$3.3 million in 2008. The decrease in interest income was primarily due to lower cash investment balances and lower average interest rate yields during fiscal 2009. Our average interest yield was 0.7 percentage points in 2009 compared to 2.6 percentage points in fiscal 2008.

Other income, net was \$1.4 million in 2009, an increase of \$2.6 million compared to an expense of \$1.2 million in 2008. The increase in other income, net is primarily due to a net foreign currency exchange gain of \$0.9 million and other income of \$0.5 million in 2009, compared to a foreign currency exchange loss of \$0.7 million and other expense of \$0.5 million in 2008. The increase in foreign currency gain was due to the significant fluctuation of the U.S. dollar against the foreign currencies in which certain of our accounts receivable and/or accounts payable balances were denominated during 2009.

Provision for (Benefit from) Income Taxes. The provision for income taxes in 2009 primarily consisted of a \$9.8 million benefit from the settlement of a German tax audit for the tax years from 2001 to 2004, offset by a provision for foreign taxes of \$1.6 million and a provision for federal and state income taxes of \$0.2 million resulting in an overall tax benefit of \$8.1 million. The provision for income taxes in 2008 primarily consisted of a \$2.3 million provision for foreign taxes. As of December 31, 2009, we had provided a full valuation allowance for all jurisdictions except Germany as we have determined that, due to uncertainties and other negative evidence in our current operations and our expectations of future operations, it was more likely than not that our deferred tax assets generated from net operating loss carryforwards and other deferred tax assets would not be realized.

Other

Stock-Based Compensation. Stock-based compensation totaled \$2.7 million in 2010, \$2.9 million in 2009 and \$4.4 million in 2008. The decrease in stock-based compensation in 2009 compared to 2008 was primarily due to cancellation of stock options in connection with headcount reductions in the second half of 2008 and in 2009.

As of December 31, 2010, unrecognized stock-based compensation costs and the weighted average periods over which the costs are expected to be recognized were as follows:

	Weighted- Unrecognized Share-Based Compensation Cost	Weighted Average Period
	(millions)	(years)
Stock options	\$ 2.8	2.3
Restricted stock units	\$ 0.1	1.0

Liquidity and Capital Resources

Our cash, cash equivalents, restricted cash and short-term investments were \$23.0 million as of December 31, 2010, a decrease of \$37.4 million from \$60.4 million as of December 31, 2009. Stockholders' equity as of December 31, 2010 was \$62.7 million compared to \$94.7 million as of December 31, 2009. Working capital as of December 31, 2010 was \$51.1 million compared to \$75.5 million as of December 31, 2009.

Liquidity and Capital Resources Outlook

At December 31, 2010, we had an accumulated deficit of \$554.6 million. We have incurred operating losses and generated negative cash flows for each of the last three years. As of December 31, 2010, we had cash, cash

equivalents, short-term investments and restricted cash of \$23.0 million and working capital of \$51.1 million. Our operations require careful management of our cash and working capital balances. Our liquidity is affected by many factors including, among others, fluctuations in our revenue, gross profits and operating expenses, as well as changes in our operating assets and liabilities. The cyclical nature of the semiconductor industry makes it difficult for us to predict our future liquidity needs with certainty. Any upturn in the semiconductor industry would result in short-term uses of our cash to fund inventory purchases and accounts receivable. Alternatively, any renewed softening in the demand for our products or ineffectiveness of our cost reduction efforts may cause us to incur additional losses in the future and lower our cash balances.

We may need additional funds to support our working capital requirements, operating expenses or for other requirements. Historically, we have relied on a combination of fundraising from the sale and issuance of equity securities and cash generated from product, service and royalty revenues to provide funding for our operations. We will continue to review our expected cash requirements, make all efforts to collect any aged receivables, and take appropriate cost reduction measures to ensure that we have sufficient liquidity. In the event additional needs for cash arise, we may seek to raise these funds externally through public or private debt or equity financing, or through the sale of assets. The availability of additional financing will depend on a variety of factors, including among others, market conditions, the general availability of credit to the financial services industry and our credit ratings. As a consequence, these financing options may not be available to us on a timely basis, or on terms acceptable to us, and could be dilutive to our shareholders. Our current liquidity position may result in risks and uncertainties affecting our operations and financial position, including the following: we may be required to reduce planned expenditures or investments; we may be unable to compete in our newer or developing markets; we may not be able to obtain and maintain normal terms with suppliers; suppliers may require standby letters of credit before delivering goods and services, which will result in additional demands on our cash; customers may delay or discontinue entering into contracts with us; and our ability to retain management and other key individuals may be negatively affected. Failure to generate sufficient cash flows from operations, raise additional capital or reduce spending could have a material adverse effect on our ability to achieve our intended long-term business objectives.

Credit Arrangements

In June 2009, our \$10.0 million revolving line of credit expired, and has not been renewed or replaced. The line of credit was collateralized by a blanket lien on all of our domestic assets, excluding intellectual property assets. We used this credit line principally to secure standby letters of credit provided to certain landlords and vendors, and we did not borrow or have outstanding borrowings under this line of credit at any time during its term. As a replacement for the security that was provided by the expired line of credit, these standby letters of credit are now secured by certificates of deposit, which are classified as restricted cash on our Consolidated Balance Sheets.

Contractual Obligations

Under U.S. generally accepted accounting principles, certain obligations and commitments are not required to be included in our consolidated balance sheet. These obligations and commitments, while entered into in the normal course of business, may have a material impact on our liquidity.

Our contractual commitments as of December 31, 2010 are summarized in the following table:

	Operating Lease Payments	Vendor Commitments			Total	Total Commitments
		Sub- Contractor	Inventory	Other ⁽¹⁾		
				(thousands)		
2011	\$ 4,881	\$ 8,915	\$ 22,531	\$ 4,215	\$ 35,661	\$ 40,542
2012	4,257	-	-	3,125	3,125	7,382
2013	4,033	-	-	7	7	4,040
2014	4,027	-	-	-	-	4,027
2015	3,954	-	-	-	-	3,954
Thereafter	7,121	-	-	-	-	7,121
	<u>\$ 28,273</u>	<u>\$ 8,915</u>	<u>\$ 22,531</u>	<u>\$ 7,347</u>	<u>\$ 38,793</u>	<u>\$ 67,066</u>

⁽¹⁾ Other vendor commitments primarily include service-related contracts and agreements for information technology support, commitments for non-inventory purchases of assets, and other service-related commitments.

We continue to lease a building that previously housed the administrative functions of our wet surface preparation products in Exton, Pennsylvania under a noncancellable lease, expiring in March 2019. In January 2008, we entered into a sublease agreement for the facility, which was subsequently terminated and replaced in June 2010 by a new agreement to sublease approximately 50 percent of the Exton facility until December 2015, cancellable anytime after December 31, 2012. Under the existing sublease agreement, we have approximately \$3.1 million of expected future sublease income as of December 31, 2010. In determining facilities lease loss liability, various assumptions were made, including the time period over which the buildings will be vacant, expected sublease terms and expected sublease rates. At December 31, 2010, we had an accrued liability balance of \$0.9 million related to this facility. Adjustments to this accrual will be made in future periods, if evidence of any adjustment can be reasonably estimated as future events and circumstances become known.

Our deferred income taxes have been excluded from the table above because the related future cash outflows are uncertain. As of December 31, 2010, we had approximately \$3.0 million of net unrecognized tax benefits that may be subject to examination by applicable tax authorities.

In connection with the acquisition of Vortek Industries, Ltd (Vortek) in 2004, we became party to an agreement between Vortek and the Canadian Minister of Industry (the Minister) pertaining to an investment in Vortek by Technology Partnerships Canada. Under the agreement, as amended, Mattson Technology, Inc. or Vortek (renamed Mattson Technology, Canada, Inc. or MTC) agreed to various covenants, including (i) payment by us of a royalty to the Minister of 1.4 percent of revenues from Flash RTP products, up to a total of CAD 14.3 million (approximately \$14.3 million based on the applicable exchange rate at December 31, 2010), (ii) MTC maintaining a specified average workforce of employees in Canada through October 27, 2009, (iii) investment of a certain amount by October 27, 2009 and certain other covenants concerning protection of intellectual property rights and manufacturing obligations. Also, under the provisions of this agreement, if we, or MTC, did not materially satisfy our obligations pursuant to the covenants, the Minister could have demanded payment of liquidated damages in the amount of CAD 14.3 million less any royalties paid by MTC or us to the Minister. As of December 31, 2009, we are no longer subject to covenants (ii) and (iii) of this agreement, as discussed above; but we are still subject to covenant (i), relating to payment of royalty to the Minister until 2020. However, if MTC is dissolved, files for bankruptcy or does not materially comply with certain terms and conditions of the contract prior to its expiration on December 31, 2020, we would be subject to liquidated damages in the amount of CAD 14.3 million less any royalties paid by MTC or by us to the Minister.

Off-Balance Sheet Arrangements

As of December 31, 2010, we did not have any significant “off-balance sheet” arrangements as defined in Item 303 (a)(4)(ii) of Regulation S-K.

Legal Settlement

In March 2002, a jury in San Jose, California rendered a verdict in favor of our then subsidiary, Mattson Wet Products, Inc. (formally CFM Technologies, Inc.), in a patent infringement suit against Dainippon Screen Manufacturing Co., Ltd. (DNS), a Japanese manufacturer of semiconductor wafer processing equipment. In June 2002, we entered into a settlement agreement and a license agreement with DNS, under which DNS agreed to make payments to us totaling between \$75 million (minimum) and \$105 million (maximum) for past damages, partial reimbursement of attorney fees and costs and license fees. DNS paid its last royalty payment to us in May 2008, and as of that date had paid us a total of \$95.1 million, which satisfied all of its obligations to us pursuant to the settlement and license agreements. We recognized royalty revenue of \$6.4 million in 2008, the final year for such royalties, which are reflected as a component of net sales in the accompanying Consolidated Statement of Operations for that year.

Cash Flows from Operating Activities

In 2010, net cash used in operations was \$35.9 million, comprised primarily of a net loss of \$33.4 million and \$12.7 million of cash decreases reflected in the net change in assets and liabilities, partially offset by non-cash charges of \$10.2 million. Cash flow decreases resulting from the net change in assets and liabilities primarily consisted of a \$15.1 million increase in accounts receivable and advance billings, an \$8.8 million increase in inventories and a \$5.8 decrease in accrued liabilities and non-current liabilities; partially offset by a \$13.3 million increase in accounts payable, a \$2.7 million increase in deferred revenue and a \$1.0 million combined decrease in prepaid expenses, other current assets and other assets. The increases in accounts receivable, inventories and accounts payable reflect the sharp increase in sales and business activities in 2010. Non-cash charges consisted primarily of \$7.0 million of depreciation and amortization, \$2.7 million of stock-based compensation, \$0.8 million of inventory valuation adjustments, \$0.7 million for deferred taxes and \$0.1 million of other non-cash charges; partially offset by \$1.2 million from the collection of accounts receivable previously provided for in the allowance for doubtful accounts during the recent industry downturn.

In 2009, net cash used in operations was \$42.3 million, comprised primarily of a net loss of \$67.0 million, offset by non-cash charges of \$14.9 million and \$9.8 million of cash increases reflected in the net change in assets and liabilities. Non-cash charges consisted primarily of \$14.2 million in charges related to additional reserves for excess inventory resulting from the decrease in sales and existing vendor commitments, \$8.4 million in depreciation and amortization charges, \$2.9 million in stock-based compensation and \$0.3 million in charges for other non-cash items; partially offset by, a \$8.5 million net tax benefit, primarily consisting of a \$8.3 million reversal of certain foreign deferred tax liabilities, and \$2.4 million from the collection of accounts receivable previously provided for in the allowance for doubtful accounts during the recent industry downturn. Cash flow decreases resulting from the net change in assets and liabilities primarily consisted of a \$9.8 million decrease in inventories and inventories-delivered systems, a \$5.7 million decrease in accounts receivable and advanced billings, a \$0.6 million combined increase in accounts payable, income taxes payable, non-current and other liabilities and a \$0.1 million decrease in prepaid expenses and other current assets; partially offset by a \$3.6 million decrease in accrued liabilities, a \$2.5 million reduction in deferred revenue and a \$0.3 increase in other assets. The decrease in accounts receivable and deferred revenue were largely reflective of the 68 percent decrease in net sales in 2009. The decreases in inventories and inventories-delivered systems were the result of our efforts to maximize utilization of available inventory, thereby minimizing cash outlays on new inventories. The net decrease in accounts payable and accrued liabilities primarily resulted from decreasing revenue volumes, lower inventory requirements and purchases, and lower spending resulting from our cost-reduction measures.

In 2008, net cash used in operations was \$42.8 million, comprised primarily of a net loss of \$92.2 million and \$2.1 million of cash decreases reflected in the net change in assets and liabilities, partially offset by non-cash charges of \$51.5 million. Cash flow decreases resulting from the net change in assets and liabilities primarily consisted of a \$11.1 million decrease in accounts payable, a \$9.0 million increase in inventories and inventories-delivered systems, a \$5.3 million reduction in accrued liabilities, a \$3.5 million decrease in deferred revenue and a \$1.2 million reduction in income taxes payable, non-current and other liabilities; partially offset by a \$20.7 million reduction in accounts receivable and advance billings, a \$5.1 million decrease in prepaid expenses and other current assets and a \$2.2 million reduction in other assets. Non-cash charges consisted primarily of \$27.5 million to write-off goodwill, intangibles and certain lab assets deemed impaired during the industry recession, \$9.1 million in depreciation and amortization charges, \$7.0 million of inventory valuation charges for excess inventory, \$4.4 million in stock-based compensation, \$3.4 million from the collection of accounts receivable previously provided for in the allowance for doubtful accounts and

\$0.1 million of other non-cash charges.

Cash provided by operations may fluctuate in future periods as a result of a number of factors, including fluctuations in our net sales and operating results, amount of revenue deferred, inventory purchases, collection of accounts receivable and timing of payments.

Cash Flows from Investing Activities

In 2010, net cash provided by investing activities was \$7.2 million, comprised primarily of \$10.8 million of maturities of available-for-sale investments in excess of purchases, partially offset by \$2.0 million of property and equipment purchases and a \$1.6 million increase in restricted cash. Our property and equipment purchases were primarily for tools and equipment used in our manufacturing activities. The increase in restricted cash represents purchases of certificates of deposit used to secure standby letters of credit we provided to certain landlords and vendors during the year.

In 2009, net cash provided by investing activities was \$9.3 million, comprised primarily of \$12.7 million of maturities of available-for-sale investments in excess of purchases, partially offset by a \$2.0 million increase in restricted cash and \$1.4 million of property and equipment purchases. The increase in restricted cash represents purchases of certificates of deposit used to secure standby letters of credit we provided to certain landlords and vendors during the year. Our property and equipment purchases were primarily for tools and equipment used in our manufacturing activities.

In 2008, net cash used in investing activities was \$6.9 million, comprised primarily of \$8.8 million of purchases of property and equipment, partially offset by \$1.0 million proceeds from the sale of property and equipment and \$0.9 million of maturities of available-for-sale investments in excess of purchases. Our property and equipment purchases were primarily laboratory tools and equipment used in our research, development and engineering activities.

Cash Flows from Financing Activities

In 2010, net cash provided by financing activities was \$0.4 million, consisting of net proceeds from employee stock plan transactions.

In 2009, net cash provided by financing activities was \$0.2 million consisting of net proceeds from employee stock plan transactions.

In 2008, net cash used in financing activities was \$1.9 million, which primarily consisted of \$2.6 million of treasury stock acquired under the common stock purchase plan authorized in 2007, partially offset by \$0.7 million of net proceeds from employee stock plan transactions.

Critical Accounting Policies and Use of Estimates

Management's Discussion and Analysis of Financial Condition and Results of Operations discusses our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of these financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting periods. On an on-going basis, management evaluates its estimates and judgments, including those related to reserves for excess and obsolete inventory, warranty obligations, bad debts, goodwill, intangible assets, income taxes, restructuring costs, contingencies and litigation. Management bases its estimates and judgments on historical experience and on various other factors that are believed to be reasonable under the circumstances. These form the basis for making judgment about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

We consider certain accounting policies related to revenue recognition, allowance for doubtful accounts, warranty obligations, inventories, goodwill and other intangible assets, impairment of long-lived assets, restructuring, income taxes and stock-based compensation as critical to our business operations and an understanding of our results of

operations. See Note 2 of the accompanying consolidated financial statements for a summary of our significant accounting policies.

Revenue Recognition. We derive revenues from these primary sources — equipment (tool) sales, spare part sales and service and maintenance contracts. In accordance with the authoritative guidance on revenue recognition, we recognize revenue on equipment sales as follows: (i) for equipment sales of existing products with new specifications and for sales of new products, revenue is recognized upon customer acceptance; (ii) for equipment sales to existing customers who have purchased the same equipment with the same specifications and previously demonstrated acceptance, or equipment sales to new customers purchasing existing products with established reliability, we recognize revenue on a multiple element approach in which we bifurcate such sale transactions into two separate elements based on objective evidence of fair value. The two elements are the tool and installation. Under this approach, generally 90 percent of the total invoice amount, is recognized as revenue upon shipment and transfer of title; 100 percent of the associated tool costs is also recognized upon shipment; and the remaining portion, generally 10 percent of the total invoice amount, is recognized once installation services are completed and final customer acceptance of the tool is received. From time to time, we allow customers to evaluate systems, while maintaining the right to return the systems at their discretion with limited or no penalty. For this type of arrangement, we do not recognize revenue on the evaluation systems until customer acceptance is received. For spare parts, we recognize revenue upon shipment. For service and maintenance contracts, we recognize revenue on a straight-line basis over the service period of the related contract. In all cases, revenue is only recognized when persuasive evidence of an arrangement exists, delivery has occurred, the price is fixed or determinable and collectability is reasonably assured. Accounts receivable for which revenue has not been recognized are classified as advance billings.

Allowance for Doubtful Accounts. We perform ongoing credit evaluations of our customers and record specific allowances for bad debts when a customer is unable to meet its financial obligations, as in the case of bankruptcy filings or deteriorated financial position. We estimate the allowances for bad debts for all other customers based on factors such as current trends, the length of time the receivables are past due and historical collection experience. We write off a receivable when all rights, remedies and recourses against the account and its principals are exhausted and record a benefit when previously reserved accounts are collected.

Warranty. The warranty we offer on system sales is generally 12 months, except where previous customer agreements state otherwise. A provision for the estimated cost of warranty, based on historical costs, is recorded as a cost of sale when the revenue is recognized for the sale of the equipment or parts. Our warranty obligations require us to repair or replace defective products or parts during the warranty period at no cost to the customer. The actual system performance and/or field expense profiles may differ from historical experience, and in those cases we adjust our warranty accruals accordingly. Actual warranty reserves and settlements against reserves are highly dependent on our system volumes. While our warranty costs have historically been within our expectations and the provisions we have established, we cannot be certain that we will continue to experience the same warranty costs that we have had in the past.

Inventories. Our inventories are stated at the lower of cost or market, with cost determined on a first-in, first-out basis, and include material, labor and manufacturing overhead costs. Finished goods are reported as inventories until the point of title transfer to the customer. Under our general terms of sale, title transfers when we complete physical transfer of the products to the freight carrier unless other customer practices prevail. All intercompany profits related to the sales and purchases of inventory between our legal entities are eliminated from the consolidated financial statements.

Inventory Valuation. Our policy is to assess the valuation of all inventories, including manufacturing raw materials, work-in-process, finished goods and spare parts, in each reporting period. Although we attempt to accurately forecast future inventory demand, given the competitive pressures and cyclicity of the semiconductor industry, there may be significant unanticipated changes in demand or technological developments that could have a significant impact on the value of our inventories and reported operating results. The carrying value of our inventory is reduced for estimated excess and obsolescence by the difference between its cost and the estimated market value based upon assumptions about future demand. We evaluate the inventory carrying value for potential excess and obsolete inventory exposures by analyzing historical and anticipated demand. In addition, inventories are evaluated for potential obsolescence due to the effect of known and anticipated engineering change orders and new products. If actual demand were to be substantially lower than estimated, additional inventory adjustments for excess or obsolete

inventory might be required, which could have a material adverse effect on our business, financial condition and results of operations.

Fair Value Measurements of Assets and Liabilities. We measure certain of our assets at fair value, using observable market data. The authoritative guidance on fair value measurement defines fair value as an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants, and establishes valuation hierarchy based on the level of independent objective evidence available regarding the value of assets or liabilities. The authoritative guidance also establishes three classes of assets or liabilities: Level 1 consists of assets and liabilities for which there are quoted prices in active markets; Level 2 consists of assets and liabilities for which observable inputs other than Level 1 inputs are used such as prices for similar assets or liabilities in active markets or for identical assets or liabilities in less active markets and model-derived valuations for which the variables are derived from or corroborated by observable market data; and Level 3 consists of assets and liabilities for which there are unobservable inputs to the valuation methodology that are significant to the measurement of the fair value. Our cash equivalents and investment instruments are classified within Level 1 or Level 2 of the fair value hierarchy, as these instruments are valued using quoted market prices, broker or dealer quotations, or alternative pricing sources with reasonable levels of price transparency and transaction value. We had no assets or liabilities classified within Level 3 as of December 31, 2010.

Goodwill. We perform a goodwill impairment test annually during the fourth quarter of our fiscal year and more frequently if an event or circumstance indicates that an impairment may have occurred. Such events or circumstances may include significant adverse changes in the general business climate, among other things. The impairment test is performed by determining our fair value based on estimated discounted future cash flows and considering the market price of our common stock. If our carrying value, as a one reporting unit entity, is less than our fair value, then the fair value is allocated to all of our assets and liabilities (including any unrecognized intangible assets) as if our fair value was the purchase price to acquire us. The excess of our fair value over the amounts assigned to our assets and liabilities is the implied fair value of the goodwill. If the carrying amount of goodwill exceeds the implied fair value of that goodwill, an impairment loss is recognized in an amount equal to that excess. Based on the deteriorating macroeconomic conditions, the weakness in the semiconductor market and significant erosion of our market capitalization during fiscal 2008, we recorded a goodwill impairment charge of \$18.1 million, representing the remaining carrying amount of goodwill as of the date of the impairment test in the fourth quarter of fiscal 2008. As of December 31, 2009 and 2010, there was no goodwill on our books.

Impairment of Long-Lived Assets. We review our long-lived assets, including property and equipment, intangibles and other long-lived assets, for impairment whenever events or changes in circumstances indicate that the carrying amount of these assets may not be recoverable. Recoverability is measured by a comparison of the assets' carrying amount to their expected future undiscounted net cash flows. If such assets are considered to be impaired, the impairment is measured based on the amount by which the carrying amount of the asset exceeds its fair value. In 2008, we recorded impairment charges to write off intangible assets of \$6.6 million and certain lab assets of \$2.8 million to adjust for the deteriorating value of these assets resulting from the decline in expected cash flows attributable to the assets. There were no such impairment charges in 2009 and 2010.

Restructuring. We recognize expenses related to employee termination benefits when the benefit arrangement is communicated to the employee and no significant future services are required. If an employee is required to render service until a specific termination date in order to receive the termination benefits, the fair value of the associated liability would be recognized ratably over the future service period. The costs of severance are determined by local statutory requirements and our policies. For some entities, where salaries are paid during the notice period, a portion of the severance reserves would be based on estimates of the ability to find employment during the notice period, and we would determine the reserves in accordance with these estimates.

We recognize the present value of facility lease termination obligations, net of estimated sublease income and other exit costs, when we have future lease payments with no future economic benefit. In future periods, we will record accretion expense to increase the liability to an amount equal to the estimated future cash payments necessary to exit the lease. This requires a significant amount of judgment and management estimation in order to determine the expected time frame it will take to secure a subtenant, the amount of sublease income to be received and the appropriate discount

rate to calculate the present value of the future cash flows. If actual lease exit costs differ from estimates, we would adjust the restructuring charge, which would impact net income in the period any adjustment was recorded.

Income Taxes. We recognize the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by taxing authorities, based on the technical merits of the position. The tax benefits recognized in the financial statements from such a position are measured based on the largest benefit that has a greater than fifty percent likelihood of being realized upon ultimate resolution

For all tax jurisdictions with the exception of our German operations, we recorded a 100 percent valuation allowance against our net deferred tax asset as we expect it is more likely than not that we will not realize our net deferred tax asset as of December 31, 2010. In assessing the need for a valuation allowance, we consider historical levels of income and losses, expectations and risks associated with estimates of future taxable income and ongoing prudent and feasible tax planning strategies. In the event we determine that we would be able to realize additional deferred tax assets in the future in excess of the net recorded amount, or if we subsequently determine that realization of an amount previously recorded is unlikely, we would record an adjustment to the deferred tax asset valuation allowance, which would change income in the period of the adjustment.

Stock-based Compensation. We measure the fair value of all stock-based awards, including stock options, restricted stock units, and purchase rights under our employee stock purchase plan, on the date of grant, and we recognize the related stock-based compensation expense on a straight-line basis over the requisite service period, which is generally the vesting period.

We use the Black-Scholes option-pricing model to determine the fair value of certain of our stock-based awards. The determination of fair value using the Black-Scholes model is affected by our stock price as well as assumptions regarding a number of complex and subjective variables, which includes expected stock price volatility over the term of the awards, actual and projected employee exercise and cancellation behaviors, risk-free interest rates, and expected dividends.

We estimate the expected life of options based on an analysis of our historical experience of employee exercise and post-vesting termination behavior considered in relation to the contractual life of the option; expected volatility is based on the historical volatility of our common stock; and the risk-free interest rate is equal to the U.S. Treasury rates, with maturity approximating the expected life of the option. We do not currently pay cash dividends on our common stock and do not anticipate doing so in the foreseeable future; accordingly, the expected dividend yield is zero.

We estimate forfeiture rates on stock-based awards at the time of grant and revise those estimates in subsequent periods if actual forfeitures differ from those estimates. Such forfeiture estimates are based on historical experience. If the assumptions for estimating stock-based compensation expense change in future periods, the amount of future stock-based compensation may differ significantly from the amounts we recorded in the current and prior periods.

Stock-based compensation expenses in 2010, 2009 and 2008 were \$2.7 million, \$2.9 million and \$4.4 million, respectively.

New Accounting Pronouncements

In January 2010, the Financial Accounting Standards Board (FASB) issued additional guidance on fair value disclosures. The new guidance clarifies two existing disclosure requirements and requires two new disclosures as follows: (1) a “gross” presentation of activities (purchases, sales, and settlements) within the Level 3 rollforward reconciliation, which will replace the “net” presentation format; and (2) detailed disclosures about the transfers in and out of Level 1 and 2 measurements. This guidance is effective for the first interim or annual reporting period beginning after December 15, 2009, except for the gross presentation of the Level 3 rollforward information, which is required for annual reporting periods beginning after December 15, 2010, and for interim reporting periods thereafter. We adopted the amended fair value disclosures guidance on January 1, 2010. In 2010, we did not have any assets or liabilities subject to Level 3 measurement, but will present under the “gross” presentation of activities format should we have any in the future. Accordingly, as of December 31, 2010, we had fully adopted this new guidance.

In October 2009, the FASB amended the criteria in ASC Topic 605, *Revenue Recognition*, relating to separating consideration in multiple-deliverable arrangements. As a result of the amendment, multiple-deliverable arrangements will be separated in more circumstances than under existing revenue recognition standards. The amendment establishes a selling price hierarchy for determining the selling price of a deliverable. Such selling price 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 amendment also replaces 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. This amendment is effective for revenue arrangements that begin or are changed in fiscal years starting after June 15, 2010 and early adoption is permitted. We are currently evaluating the impact of this amendment on our revenue recognition policies as well as the impact on our financial statements.

In October 2009, the FASB amended ASC Topic 985 *Certain Revenue Arrangements That Include Software* to address the accounting model for revenue arrangements that include both tangible products and software elements. Under the amendment, tangible products containing software components and non-software components that function together to deliver the tangible product's essential functionality are no longer within the scope of the software revenue guidance in ASC Subtopic 985-605 (formerly SOP 97-2, *Software Revenue Recognition*). In addition, the amendment requires that hardware components of a tangible product containing software components must always be excluded from the software revenue guidance. If software contained in a tangible product is essential to the tangible product's functionality, the software is excluded from the scope of the software revenue guidance. This exclusion includes essential software that is sold with or embedded within the product and undelivered software elements that relate to that tangible product's essential software. This amendment also provides guidance on how a vendor should allocate arrangement consideration to deliverables in an arrangement that includes both tangible products and software. This amendment is effective for revenue arrangements that begin or are changed in fiscal years starting after June 15, 2010. We are currently evaluating the impact of this amendment on our revenue recognition policies as well as the impact on our financial statements.

In August 2009, the FASB amended ASC Topic 820, *Fair Value Measurements*, to clarify that in circumstances in which a quoted price in an active market for the identical liability is not available, an entity is required to use the quoted price of the identical liability when traded as an asset, quoted prices for similar liabilities, or quoted prices for similar liabilities when traded as assets. If these quoted prices are not available an entity is required to use another valuation technique, such as an income approach or a market approach. Our adoption of the amended guidance, effective in the first quarter of fiscal year 2010, will not have a material impact on our consolidated financial statements.

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

We are exposed to various market risks related to fluctuations in foreign currency exchange rates and interest rates. We may use derivative financial instruments to mitigate certain risks related foreign exchange rates. We do not use derivatives or other financial instruments for trading or speculative purposes.

Interest Rate Risk

As of December 31, 2010, our investment portfolio consisted of \$20.9 million in cash, cash equivalents and restricted cash and \$2.1 million in short-term investments. Our exposure to interest rate risk relates primarily to our short-term investment portfolio and the potential losses arising from changes in interest rates. Our investment objective is to achieve the maximum return compatible with capital preservation and our liquidity requirements. Our strategy is to invest our cash in a manner that preserves capital, maintains sufficient liquidity to meet our cash requirements, and maximizes yields consistent with approved credit risk. We place our investments with high credit quality issuers and, by policy, limit the amount of our credit exposure to any one issuer. Our portfolio includes only marketable securities with active secondary or resale markets to ensure portfolio liquidity. We classify our cash equivalents and short-term investments in accordance with authoritative guidance on accounting for investments in debt and equity securities; consider investments in instruments purchased with an original maturity of 90 days or less to be cash equivalents; and classify our short-term investments as available-for-sale.

Our cash equivalents and short-term investment portfolios consist primarily of money market funds, commercial paper and U.S. government and government-sponsored debt securities. Our short-term investments are

reported at fair value with unrealized gains and losses, net of tax, included in accumulated other comprehensive income within stockholders' equity in the accompanying Consolidated Balance Sheets. The amortization of premiums and discounts on the investments, realized gains and losses, and declines in value judged to be other-than-temporary on available-for-sale securities are included in other income (expense), net in the accompanying Consolidated Statements of Operations.

Based on the size of the investment portfolio as of December 31, 2010, an immediate increase or decrease in interest rates of 100 basis points would not have a material adverse effect on the fair value of our investment portfolio.

Foreign Currency Risk

The functional currency of our foreign subsidiaries is their local currencies. Accordingly, all assets and liabilities of these foreign operations are translated using exchange rates in effect at the end of the period, and revenues and costs are translated using average exchange rates for the period. Gains or losses from translation of foreign operations where the local currencies are the functional currency, are included as a component of accumulated other comprehensive income in the accompanying Consolidated Balance Sheets. Foreign currency transaction gains and losses are recognized in the accompanying Consolidated Statements of Operations as they are incurred. Because much of our revenues and capital spending are transacted in U.S. dollars, we are subject to fluctuations in foreign currency exchange rates that could have a material adverse effect on our overall financial position, results of operations or cash flows, depending on the strength of the U.S. dollar relative to the currencies of other countries in which we operate. Exchange rate fluctuations of greater than ten percent, primarily for the U.S. dollar relative to the Euro, Canadian dollar or South Korean won, could have a material impact on our financial statements. Additionally, foreign currency transaction gains and losses fluctuate depending upon the mix of foreign currency denominated assets and liabilities and whether the local currency of an entity strengthens or weakens during a period.

In 2010, 2009 and 2008, we recorded foreign currency exchange gains and losses of zero, \$0.9 million and a negative \$0.7 million, respectively, in other income (expense), net in the accompanying Consolidated Statements of Operations.

Foreign currency translation adjustments included in comprehensive income for 2010 were a negative \$1.8 million, primarily due to the weakening of the U.S. dollar against the Euro, which unfavorably impacted the net assets used in our foreign operations and held in local currencies. The cumulative translation adjustment as of December 31, 2010 was \$20.3 million, compared to \$22.1 million as of December 31, 2009.

Item 8. *Financial Statements and Supplementary Data*

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MATTSON TECHNOLOGY, INC.

CONSOLIDATED STATEMENTS OF OPERATIONS

(in thousands, except per share amounts)

	Year Ended December 31,		
	2010	2009	2008
Net sales	\$ 138,336	\$ 42,748	\$ 133,551
Cost of sales	93,797	44,843	86,005
Gross profit (loss)	<u>44,539</u>	<u>(2,095)</u>	<u>47,546</u>
Operating expenses:			
Research, development and engineering	27,791	25,340	37,345
Selling, general and administrative	50,057	46,980	68,530
Restructuring charges	(114)	2,596	5,989
Impairment of goodwill	-	-	18,076
Impairment of intangibles and long-lived assets	-	-	9,431
Total operating expenses	<u>77,734</u>	<u>74,916</u>	<u>139,371</u>
Loss from operations	(33,195)	(77,011)	(91,825)
Interest income	144	646	3,292
Interest expense	(139)	(114)	(144)
Other income (expense), net	108	1,371	(1,175)
Loss before income taxes	<u>(33,082)</u>	<u>(75,108)</u>	<u>(89,852)</u>
Provision for (benefit from) income taxes	321	(8,066)	2,311
Net loss	<u>\$ (33,403)</u>	<u>\$ (67,042)</u>	<u>\$ (92,163)</u>
Net loss per share:			
Basic and diluted	\$ (0.67)	\$ (1.35)	\$ (1.86)
Shares used in computing net loss per share:			
Basic and diluted	50,073	49,832	49,471

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

MATTSON TECHNOLOGY, INC.

CONSOLIDATED BALANCE SHEETS

(in thousands, except par value)

ASSETS	December 31,	
	2010	2009
Current assets:		
Cash and cash equivalents	\$ 16,863	\$ 45,346
Short-term investments	2,151	13,089
Restricted cash	4,026	2,000
Accounts receivable, net of allowance for doubtful accounts of \$681 in 2010 and \$2,167 in 2009	24,127	10,420
Advance billings	3,177	905
Inventories	34,673	25,804
Prepaid expenses and other current assets	5,770	5,848
Total current assets	90,787	103,412
Property and equipment, net	15,011	21,643
Intangibles, net	1,000	1,250
Other assets	4,826	6,768
Total assets	\$ 111,624	\$ 133,073

LIABILITIES AND STOCKHOLDERS' EQUITY

Current liabilities:		
Accounts payable	\$ 20,860	\$ 7,514
Accrued liabilities	13,452	18,293
Deferred revenue	5,349	2,150
Total current liabilities	39,661	27,957
Income taxes payable, non-current	4,287	4,458
Other liabilities	5,021	5,952
Total liabilities	48,969	38,367

Commitments and contingencies (Note 7)

Stockholders' equity:

Preferred stock, 2,000 shares authorized; none issued and outstanding	-	-
Common stock, par value \$0.001, 120,000 shares authorized; 54,440 shares issued and 50,259 shares outstanding in 2010; 54,140 shares issued and 49,960 shares outstanding in 2009	54	54
Additional paid-in capital	634,944	631,785
Accumulated other comprehensive income	20,207	22,014
Treasury stock, 4,181 shares in 2010 and 4,181 shares in 2009, at cost	(37,986)	(37,986)
Accumulated deficit	(554,564)	(521,161)
Total stockholders' equity	62,655	94,706
Total liabilities and stockholders' equity	\$ 111,624	\$ 133,073

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

MATTSON TECHNOLOGY, INC.

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
AND COMPREHENSIVE INCOME (LOSS)
(in thousands)

	Shares of Common Stock	Common Stock and Additional Paid-In Capital	Accumulated Other Comprehensive Income	Treasury Stock		Accumulated Deficit	Total Stockholders' Equity
				Shares	Amount		
Balance at December 31, 2007	53,517	\$ 623,581	\$ 19,032	(3,852)	\$ (35,374)	\$ (361,956)	\$ 245,283
Components of comprehensive loss:							
Net loss	-	-	-	-	-	(92,163)	(92,163)
Cumulative translation adjustments	-	-	1,633	-	-	-	1,633
Unrealized gain on investments	-	-	(410)	-	-	-	(410)
Comprehensive loss							(90,940)
Shares issued under employee stock plans	108	37	-	-	-	-	37
Shares issued under employee stock purchase plan	249	702	-	-	-	-	702
Stock-based compensation expense	-	4,366	-	-	-	-	4,366
Repurchase of common stock	-	-	-	(329)	(2,612)	-	(2,612)
Balance at December 31, 2008	53,874	628,686	20,255	(4,181)	(37,986)	(454,119)	156,836
Components of comprehensive loss:							
Net loss	-	-	-	-	-	(67,042)	(67,042)
Cumulative translation adjustments	-	-	1,665	-	-	-	1,665
Unrealized gain on investments	-	-	94	-	-	-	94
Comprehensive loss							(65,283)
Shares issued under employee stock plans	83	8	-	-	-	-	8
Shares issued under employee stock purchase plan	183	201	-	-	-	-	201
Stock-based compensation expense	-	2,944	-	-	-	-	2,944
Balance at December 31, 2009	54,140	631,839	22,014	(4,181)	(37,986)	(521,161)	94,706
Components of comprehensive loss:							
Net loss	-	-	-	-	-	(33,403)	(33,403)
Cumulative translation adjustments	-	-	(1,815)	-	-	-	(1,815)
Unrealized gain on investments	-	-	8	-	-	-	8
Comprehensive loss							(35,210)
Shares issued under employee stock plans	196	84	-	-	-	-	84
Shares issued under employee stock purchase plan	104	331	-	-	-	-	331
Stock-based compensation expense	-	2,744	-	-	-	-	2,744
Balance at December 31, 2010	54,440	\$ 634,998	\$ 20,207	(4,181)	\$ (37,986)	\$ (554,564)	\$ 62,655

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

MATTSON TECHNOLOGY, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS

(in thousands)

	Year Ended December 31,		
	2010	2009	2008
Cash flows from operating activities:			
Net loss	\$ (33,403)	\$ (67,042)	\$ (92,163)
Adjustments to reconcile net loss to net cash used in operating activities:			
Allowance for doubtful accounts	(1,154)	(2,440)	3,355
Depreciation and amortization	6,985	8,360	9,097
Deferred income taxes	691	(8,504)	-
Impairment of goodwill	-	-	18,076
Impairment of intangibles and long-lived assets	-	-	9,431
Inventory valuation charge	799	14,186	7,053
Stock-based compensation	2,744	2,944	4,366
Other non-cash items	130	348	95
Changes in assets and liabilities:			
Accounts receivable	(12,742)	6,479	18,268
Advance billings	(2,311)	(765)	2,436
Inventories	(8,778)	8,856	(8,014)
Inventories - delivered systems	-	956	(956)
Prepaid expenses and other current assets	69	78	5,081
Other assets	867	(291)	2,176
Accounts payable	13,305	202	(11,095)
Accrued liabilities	(4,807)	(3,568)	(5,306)
Deferred revenue	2,699	(2,548)	(3,509)
Income taxes payable, non-current and other liabilities	(953)	435	(1,164)
Net cash used in operating activities	(35,859)	(42,314)	(42,773)
Cash flows from investing activities:			
Purchases of available-for-sale investments	(11,327)	(28,771)	(30,633)
Maturities of available-for-sale investments	22,125	41,500	31,450
Increase in restricted cash	(2,026)	(2,000)	-
Purchases of property and equipment	(1,526)	(1,409)	(8,764)
Sales of property and equipment	-	-	976
Net cash provided by (used in) investing activities	7,246	9,320	(6,971)
Cash flows from financing activities:			
Proceeds from stock plans, net	415	208	739
Purchases of treasury stock	-	-	(2,612)
Net cash provided by (used in) financing activities	415	208	(1,873)
Effect of exchange rate changes on cash and cash equivalents	(285)	1,025	3,191
Net decrease in cash and cash equivalents	(28,483)	(31,761)	(48,426)
Cash and cash equivalents, beginning of year	45,346	77,107	125,533
Cash and cash equivalents, end of year	\$ 16,863	\$ 45,346	\$ 77,107
Supplemental disclosures:			
Cash paid for income taxes	\$ 1,336	\$ 266	\$ 29

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

MATTSON TECHNOLOGY, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2010

1. Organization and Basis of Presentation

Organization

Mattson Technology, Inc. (Company or Mattson Technology) was incorporated in California on November 18, 1988. In September 1997, the Company was reincorporated in the State of Delaware.

The Company designs, manufactures and markets semiconductor wafer processing equipment used in “front-end-of-line” and “back-end-of-line” fabrication of integrated circuits to the semiconductor manufacturing industry worldwide.

Basis of Presentation

The consolidated financial statements include the accounts of the Company and its subsidiaries. All significant intercompany accounts and transactions have been eliminated in consolidation. The Company’s fiscal year ends on December 31. The Company’s interim fiscal quarters are based upon the first quarter ending on the Sunday closest to March 31, with the second and third fiscal quarters each being exactly 13 weeks long.

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

Liquidity and Management Plans

At December 31, 2010, the Company had an accumulated deficit of \$554.6 million. The Company has incurred operating losses and generated negative cash flows for each of the last three years. As of December 31, 2010, the Company had cash, cash equivalents, short-term investments and restricted cash of \$23.0 million and working capital of \$51.1 million. The Company believes that these balances will be sufficient to fund its working and other capital requirements over the course of the next twelve months. The Company’s operations require careful management of its cash and working capital balances. The Company’s liquidity is affected by many factors including, among others, fluctuations in its revenue, gross profits and operating expenses, as well as changes in its operating assets and liabilities. The cyclical nature of the semiconductor industry makes it difficult for the Company to predict future liquidity needs with certainty. Any upturn in the semiconductor industry would result in short-term uses of cash to fund inventory purchases and accounts receivable. Alternatively, any renewed softening in the demand for the Company’s products or ineffectiveness in its cost reduction efforts may cause the Company to incur additional losses in the future and lower its cash balances.

The Company may need additional funds to support its working capital requirements, operating expenses or for other requirements. Historically, the Company has relied on a combination of fundraising from the sale and issuance of equity securities and cash generated from product, service and royalty revenues to provide funding for its operations. The Company will continue to review its expected cash requirements, make all efforts to collect any aged receivables, and take appropriate cost reduction measures to ensure that it has sufficient liquidity. In the event additional needs for cash arise, the Company may seek to raise these funds externally through public or private debt or equity financing, or through the sale of assets. The availability of additional financing will depend on a variety of factors, including among others, market conditions, the general availability of credit to the financial services industry and the Company’s credit ratings. As a consequence, these financing options may not be available to the Company on a timely basis, or on terms acceptable to the Company, and could be dilutive to the Company’s shareholders. The current liquidity position may result in risks and uncertainties affecting the Company’s operations and financial position, including the following: the Company may be required to reduce planned expenditures or investments; the Company may be unable to compete in newer or developing markets; the Company may not be able to obtain and maintain normal terms with suppliers; suppliers may require standby letters of credit before delivering goods and services, which will result in additional demands on cash; customers may delay or discontinue

entering into contracts with the Company; and the ability to retain management and other key individuals may be negatively affected. Failure to generate sufficient cash flows from operations, raise additional capital or reduce spending could have a material adverse effect on the Company's ability to achieve its intended long-term business objectives.

2. Summary of Significant Accounting Policies

Cash and Cash Equivalents

The Company considers all highly liquid investments purchased with an original maturity of three months or less to be cash equivalents. The Company's cash and cash equivalents are carried at fair market value, and consist primarily of cash balances, high-grade money market funds and commercial paper.

Investments

The Company carries short-term investments, primarily consisting of United States agencies securities and United States corporate bonds, at fair market value. These short-term investments are classified as available-for-sale investments, with unrealized gains and losses, net of tax, recorded as a component of stockholders' equity in the accompanying Consolidated Balance Sheets; and realized gains and losses as well as declines in fair value that are other than temporary are recorded in the accompanying Consolidated Statements of Operations. As of December 31, 2010, the Company had \$2.2 million in short-term investments, with maturities of one year or less.

Concentration of Credit Risk

The Company maintains its cash and cash equivalents with several financial institutions. Deposits held with banks may exceed the amount of insurance provided on such deposits. Generally these deposits may be redeemed upon demand and are maintained with financial institutions with reputable credit.

The Company invests in a variety of financial instruments, such as United States agency securities, commercial paper, money market funds and corporate bonds. The Company limits the amount of credit exposure to any one financial institution or commercial issuer. Historically, the Company has not experienced significant losses on these investments.

The Company's trade accounts receivable are concentrated with companies in the semiconductor industry and are derived from sales in the United States, Japan, South Korea, Taiwan, other Asian countries and Europe. As of December 31, 2010, four customers accounted for 19 percent, 13 percent, 11 percent and 11 percent of the Company's accounts receivable. As of December 31, 2009, three customers accounted for 27 percent, 19 percent, and 14 percent of the Company's accounts receivable.

Allowance for Doubtful Accounts

The Company performs ongoing credit evaluations of its customers and records specific allowances for bad debts when a customer is unable to meet its financial obligations, as in the case of bankruptcy filings or deteriorated financial position. The Company estimates the allowances for bad debts for all other customers based on factors such as current trends, the length of time the receivables are past due and historical collection experience. The Company writes off a receivable when all rights, remedies and recourses against the account and its principals are exhausted and records a benefit when previously reserved accounts are collected.

Fair Value Measurements of Assets and Liabilities

The Company measures certain of its assets at fair value, using observable market data. The authoritative guidance on fair value measurement defines fair value as an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants, and establishes a valuation hierarchy based on the level of independent objective evidence available regarding the value of assets or liabilities. The authoritative guidance also establishes three classes of assets or liabilities: Level 1 consists of assets and liabilities for which there are quoted prices in active markets; Level 2 consists of assets and liabilities for which observable inputs other than Level 1 inputs are used such as prices for similar assets or

liabilities in active markets or for identical assets or liabilities in less active markets and model-derived valuations for which the variables are derived from or corroborated by observable market data; and Level 3 consists of assets or liabilities for which there are unobservable inputs to the valuation methodology that are significant to the measurement of the fair value.

Inventories

Inventories are stated at the lower of cost or market, with cost determined on a first-in, first-out basis, and include material, labor and manufacturing overhead costs. Finished goods are reported as inventories until the point of title transfers to the customer. Under the Company's terms of sale, title generally transfers when the Company completes physical transfer of the products to the freight carrier, unless other customer practices or terms and conditions prevail. All intercompany profits pertaining to the sales and purchases of inventory among the Company and its subsidiaries are eliminated from the consolidated financial statements.

The Company assesses the valuation of all inventories, including manufacturing raw materials, work-in-process, finished goods and spare parts, in each reporting period. Although the Company attempts to forecast future inventory demand, given the competitive pressures and cyclical nature of the semiconductor industry, there may be significant unanticipated changes in demand or technological developments that could have a significant impact on the value of the Company's inventories and reported operating results in future periods. The carrying value of the Company's inventory is reduced for estimated excess and obsolescence by the difference between its cost and the estimated market value based upon assumptions about future demand. The Company evaluates the inventory carrying value for potential excess and obsolete inventory exposures by analyzing historical and anticipated demand. In addition, inventories are evaluated for potential obsolescence due to the effect of known and anticipated engineering change orders and new products. If actual demand were to be substantially lower than estimated, additional inventory adjustments for excess or obsolete inventory might be required, which could have a material adverse effect on the Company's business, financial condition and results of operations.

Inventory includes evaluation tools placed at customer sites as part of the Company's marketing efforts. The Company amortizes the costs of the evaluations tools over an estimated two to three years, taking into consideration the estimated cost to refurbish the tools and the estimated net realizable value of the tools. The amortization charges are reported as selling, general and administrative expenses.

Property and Equipment

Property and equipment are stated at cost. Depreciation is computed using the straight-line method based upon the estimated useful lives of the assets, which range from three to seven years. Leasehold improvements are amortized using the straight-line method over the useful lives or the term of the related lease, whichever is shorter.

Depreciation expense was \$6.7 million, \$8.4 million and \$8.6 million for the years ended December 31, 2010, 2009 and 2008, respectively. When assets are retired or otherwise disposed of, the assets and the associated accumulated depreciation are removed from the accounts. Gains or losses resulting from sales of asset are included in other income (expense), net in the accompanying Consolidated Statements of Operations. Repair and maintenance costs are expensed as incurred.

Goodwill

As applicable, the Company performs a goodwill impairment test annually during the fourth quarter of its fiscal year and more frequently if an event or circumstance indicates that an impairment may have occurred. Such events or circumstances may include significant adverse changes in the general business climate, among other things. The impairment test is performed by determining the fair value of the Company based on estimated discounted future cash flows and considering the market price of its common stock. If the carrying value of the Company, as a one reporting unit entity, is less than its fair value, then the fair value is allocated to all the assets and liabilities of the Company (including any unrecognized intangible assets) as if the Company's fair value was the purchase price to acquire the Company. The excess of the fair value of the Company over the amounts assigned to its assets and liabilities is the implied fair value of goodwill. If the carrying amount of the Company's goodwill exceeds the implied fair value of that goodwill, an impairment loss is recognized in an amount equal to that excess. Based on the deteriorating macroeconomic conditions, the weakness in the semiconductor market and significant erosion of

the Company's market capitalization during 2008, the Company recorded a goodwill impairment charge of \$18.1 million, representing the remaining carrying amount of goodwill as of the date of the impairment test in the fourth quarter of 2008. As of December 31, 2010 and 2009, the Company had no goodwill on its books.

Impairment of Long-Lived Assets

The Company reviews its long-lived assets, including property and equipment and intangibles, for impairment whenever events or changes in circumstances indicate that the carrying amounts of these assets may not be recoverable. Recoverability is measured by a comparison of the assets' carrying amount to their expected future undiscounted net cash flows. If such assets are considered to be impaired, the impairment to be recognized and is measured based on the amount by which the carrying amount of the asset exceeds its fair value. In 2008, the Company recorded impairment charges to write off intangible assets of \$6.6 million and certain lab assets of \$2.8 million to adjust for the deteriorating value of these assets resulting from the decline in expected cash flows attributable to the assets. There were no such impairment charges in 2009 or 2010.

Warranty

The warranty offered by the Company on its system sales is generally 12 months, except where previous customer agreements state otherwise, and excludes certain consumable maintenance items. A provision for the estimated cost of warranty, based on historical costs, is recorded as cost of sales when the revenue is recognized. The Company's warranty obligations require it to repair or replace defective products or parts during the warranty period at no cost to the customer. The actual system performance and/or field warranty expense profiles may differ from historical experience, and in those cases, the Company adjusts its warranty accruals accordingly. Actual warranty reserves and settlements against reserves are highly dependent on the Company's system volumes. While the Company's warranty costs have historically been within its expectations and the provisions it has established, the Company cannot be certain that it will continue to experience the same warranty costs that it has had in the past. See Note 7.

Revenue Recognition

The Company derives revenues from these primary sources — equipment (tool) sales, spare part sales and service and maintenance contracts. In accordance with the authoritative guidance on revenue recognition, the Company recognizes revenue on equipment sales as follows: 1) for equipment sales of existing products with new specifications and for sales of new products, revenue is recognized upon customer acceptance; 2) for equipment sales to existing customers who have purchased the same equipment with the same specifications and previously demonstrated acceptance, or equipment sales to new customers purchasing existing products with established reliability, the Company recognizes revenue on a multiple element approach in which the Company bifurcates such sale transactions into two separate elements based on objective evidence of fair value. The two elements are the tool and installation. Under this approach, generally 90 percent of the total invoice amount, is recognized as revenue upon shipment and transfer of title; 100 percent of the associated tool costs is also recognized upon shipment; and the remaining portion, generally 10 percent of the total invoice amount, is recognized once installation services are completed and final customer acceptance of the tool is received. From time to time, the Company allows customers to evaluate systems, with the customer maintaining the right to return the systems at its discretion with limited or no penalty. For this type of arrangement, the Company does not recognize revenue on the evaluation systems until customer acceptance is received. For spare parts, the Company recognizes revenue upon shipment. For service and maintenance contracts, the Company recognizes revenue on a straight-line basis over the service period of the related contract. In all cases, revenue is only recognized when persuasive evidence of an arrangement exists, delivery has occurred, the price is fixed or determinable and collectability is reasonably assured. Accounts receivable for which revenue has not been recognized are classified as advance billings.

Research, Development and Engineering Expenses

Research, development and engineering costs are expensed as incurred.

Restructuring

The Company recognizes expenses related to employee termination benefits when the benefit arrangement is communicated to the employee and no significant future services are required. If an employee is required to render service until a specific termination date in order to receive the termination benefits, the fair value of the associated liability would be recognized ratably over the future service period. Severance costs are determined in accordance with local statutory requirements and the Company's policies. For some entities, where salaries are paid during the notice period, a portion of the severance reserves would be based on estimates of the ability to find employment during the notice period, and the Company would determine the reserves in accordance with these estimates.

The Company recognizes the present value of facility lease termination obligations, net of estimated sublease income and other exit costs, when it has future lease payments with no future economic benefit. In future periods, the Company will record accretion expense to increase the liability to an amount equal to the estimated future cash payments necessary to exit the lease. This requires a significant amount of judgment and management estimation in order to determine the expected time frame it will take to secure a subtenant, the amount of sublease income to be received and the appropriate discount rate to calculate the present value of the future cash flows. If actual lease exit costs differ from estimates, the Company would adjust the restructuring charge, which would impact net income in the period any adjustment was recorded.

Stock-Based Compensation

The Company measures the fair value of all stock-based awards, including stock options, restricted stock units, and purchase rights under its employee stock purchase plan, on the date of grant and recognizes the related stock-based compensation expense on a straight-line basis over the requisite service period, which is generally the vesting period.

The Company uses the Black-Scholes option-pricing model to determine the fair value of certain of its stock-based awards. The determination of fair value using the Black-Scholes model is affected by the Company's stock price as well as assumptions regarding a number of complex and subjective variables, which includes expected stock price volatility over the term of the awards, actual and projected employee exercise and cancellation behaviors, risk-free interest rates, and expected dividends.

The Company estimates the expected life of options based on an analysis of its historical experience of employee exercise and post-vesting termination behavior considered in relation to the contractual life of the option; expected volatility is based on the historical volatility of the Company's common stock; and the risk-free interest rate is equal to the U.S. Treasury rates, with maturity approximating the expected life of the option. The Company does not currently pay cash dividends on its common stock and does not anticipate doing so in the foreseeable future; accordingly, the expected dividend yield is zero.

The Company estimates forfeiture rates on stock-based awards at the time of grant and revises those estimates in subsequent periods if actual forfeitures differ from those estimates. Such forfeitures estimates are based on historical experience. If the assumptions for estimating stock-based compensation expense change in future periods, the amount of future stock-based compensation may differ significantly from the amount that the Company recorded in the current and prior periods.

Stock-based compensation expenses for the years ended December 31, 2010, 2009 and 2008 were \$2.7 million, \$2.9 million and \$4.4 million, respectively.

Foreign Currency Translation

The functional currencies of the Company's foreign subsidiaries are their local currencies. All assets and liabilities of these foreign operations are translated into the U.S. dollar using exchange rates in effect at the end of the period, and revenues and costs are translated using average exchange rates for the period. Gains or losses from translation of foreign operations where the local currencies are the functional currency are included as a component of accumulated other comprehensive income in the accompanying Consolidated Balance Sheets. Foreign currency transaction gains and losses are recorded in other income (expense), net in the accompanying Consolidated Statements of Operations.

Income Taxes

The Company provides for income taxes in accordance with the authoritative guidance, which requires a liability-based approach in accounting for income taxes. Deferred income tax assets and liabilities are recorded based on the differences between the financial statement and tax bases of assets and liabilities using enacted tax rates. Valuation allowances are provided against deferred income tax assets, which are not likely to be realized.

The Company recognizes the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by taxing authorities, based on the technical merits of the position. The tax benefits recognized in the financial statements from such a position are measured based on the largest benefit that has a greater than fifty percent likelihood of being realized upon ultimate resolution.

New Accounting Pronouncements

In January 2010, the Financial Accounting Standards Board (FASB) issued additional guidance on fair value disclosures. The new guidance clarifies two existing disclosure requirements and requires two new disclosures as follows: (1) a “gross” presentation of activities (purchases, sales, and settlements) within the Level 3 rollforward reconciliation, which will replace the “net” presentation format; and (2) detailed disclosures about the transfers in and out of Level 1 and 2 measurements. This guidance is effective for the first interim or annual reporting period beginning after December 15, 2009, except for the gross presentation of the Level 3 rollforward information, which is required for annual reporting periods beginning after December 15, 2010, and for interim reporting periods thereafter. The Company adopted the amended fair value disclosures guidance on January 1, 2010. In 2010, the Company did not have any assets or liabilities subject to Level 3 measurement, but will present under the “gross” presentation of activities format should it have any in the future. Accordingly, as of December 31, 2010 the Company had fully adopted this new guidance.

In October 2009, the FASB amended the criteria in ASC Topic 605, *Revenue Recognition*, relating to separating consideration in multiple-deliverable arrangements. As a result of the amendment, multiple-deliverable arrangements will be separated in more circumstances than under existing revenue recognitions standards. The amendment establishes a selling price hierarchy for determining the selling price of a deliverable. Such selling price 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 amendment also replaces 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. This amendment is effective for revenue arrangements that begin or are changed in fiscal years starting after June 15, 2010 and early adoption is permitted. The Company is currently evaluating the impact of this amendment on its revenue recognition policies as well as the impact on its financial statements.

In October 2009, the FASB amended ASC Topic 985, *Certain Revenue Arrangements That Include Software* to address the accounting model for revenue arrangements that include both tangible products and software elements. Under the amendment, tangible products containing software components and non-software components that function together to deliver the tangible product's essential functionality are no longer within the scope of the software revenue guidance in ASC Subtopic 985-605 (formerly SOP 97-2, *Software Revenue Recognition*). In addition, the amendment requires that hardware components of a tangible product containing software components must always be excluded from the software revenue guidance. If software contained in a tangible product is essential to the tangible product's functionality, the software is excluded from the scope of the software revenue guidance. This exclusion includes essential software that is sold with or embedded within the product and undelivered software elements that relate to that tangible product's essential software. This amendment also provides guidance on how a vendor should allocate arrangement consideration to deliverables in an arrangement that includes both tangible products and software. This amendment is effective for revenue arrangements that begin or are changed in fiscal years starting after June 15, 2010. The Company is currently evaluating the impact of this amendment on its revenue recognition policies as well as the impact on its financial statements.

In August 2009, the FASB amended ASC Topic 820, *Fair Value Measurements*, to clarify that in circumstances in which a quoted price in an active market for the identical liability is not available, an entity is required to use the

quoted price of the identical liability when traded as an asset, quoted prices for similar liabilities, or quoted prices for similar liabilities when traded as assets. If these quoted prices are not available an entity is required to use another valuation technique, such as an income approach or a market approach. The Company's adoption of the amended guidance, effective in the first fiscal quarter of 2010, did not have a material impact on its consolidated financial statements.

3. Balance Sheet Details

The table below shows the composition of cash and cash equivalents, short-term investments and restricted cash by security type as of December 31, 2010 and 2009:

	December 31, 2010			December 31, 2009		
	Amortized Cost	Unrealized Gains/(Losses) (thousands)	Estimated Fair Value	Amortized Cost	Unrealized Gains/(Losses) (thousands)	Estimated Fair Value
Cash and cash equivalents:						
Cash in bank	\$ 13,978	\$ -	\$ 13,978	\$ 26,948	\$ -	\$ 26,948
Money market funds	2,885	-	2,885	15,398	-	15,398
Commercial paper	-	-	-	3,000	-	3,000
	<u>\$ 16,863</u>	<u>\$ -</u>	<u>\$ 16,863</u>	<u>\$ 45,346</u>	<u>\$ -</u>	<u>\$ 45,346</u>
Short-term investments:						
United States agency securities	\$ 2,151	\$ -	\$ 2,151	\$ 4,046	\$ 11	\$ 4,057
United States corporate bonds	-	-	-	2,035	-	2,035
Commercial paper	-	-	-	6,997	-	6,997
	<u>\$ 2,151</u>	<u>\$ -</u>	<u>\$ 2,151</u>	<u>\$ 13,078</u>	<u>\$ 11</u>	<u>\$ 13,089</u>
Restricted cash:						
Certificates of deposit	\$ 4,026	\$ -	\$ 4,026	\$ 2,000	\$ -	\$ 2,000

All short-term investments as of December 31, 2010 and 2009 are considered available-for-sale and were marked to market, with unrealized gains and losses recorded as a component of other comprehensive income (loss). For 2010, 2009 and 2008, gross realized gains and losses on sales of short-term investments were not significant. As of December 31, 2010 and 2009, all short-term investments had contractual maturities due within one year.

The Company's restricted cash primarily secures standby letters of credit provided to certain landlords and vendors. See Note 7.

The Company's inventories consisted of the following at the dates indicated:

	December 31, 2010	December 31, 2009
	(thousands)	
Inventories:		
Purchased parts and raw materials	\$ 14,266	\$ 11,539
Work-in-process	9,225	8,347
Finished goods	11,182	5,918
	<u>\$ 34,673</u>	<u>\$ 25,804</u>

Inventories are stated at the lower of cost or market, with cost determined on a first-in, first-out basis, and include material, labor and manufacturing overhead costs. Amounts in the table above are presented net of inventory valuation charges to reflect inventories considered excess and/or obsolete, which inherently involve judgments, using assumptions about expected future demand and the impact of market conditions on those assumptions. Inventory valuation charges recorded in the accompanying Consolidated Statements of Operations for the years ended December 31, 2010, 2009 and 2008 were \$0.8 million, \$14.2 million and \$7.1 million, respectively.

The Company's property and equipment consisted of the following at the dates indicated:

	December 31, 2010	December 31, 2009
	(thousands)	
Property and equipment, net:		
Machinery and equipment	\$ 52,608	\$ 56,818
Furniture and fixtures	10,741	11,888
Leasehold improvements	17,813	18,390
	<u>81,162</u>	<u>87,096</u>
Less: accumulated depreciation	(66,151)	(65,453)
	<u>\$ 15,011</u>	<u>\$ 21,643</u>

The Company's accrued liabilities consisted of the following at the dates indicated:

	December 31, 2010	December 31, 2009
	(thousands)	
Accrued liabilities:		
Compensation and benefits	\$ 5,941	\$ 5,852
Warranty	2,539	1,310
Value-added tax	748	2,942
Restructuring	436	609
Vendor purchase commitments	184	1,062
Other	3,604	6,518
	<u>\$ 13,452</u>	<u>\$ 18,293</u>

Vendor purchase commitments in the table above represent liabilities accrued for inventory not yet received in excess of the Company's production requirements as of December 31, 2010 and 2009. Other accrued liabilities in the table above primarily includes liabilities accrued for income taxes payable, lease liabilities, professional fees, retrofit reserves and other miscellaneous liabilities.

The Company's other liabilities consisted of the following at the dates indicated:

	December 31, 2010	December 31, 2009
	(thousands)	
Other liabilities:		
Deferred revenue, non-current	\$ 2,875	\$ 3,375
Other	2,146	2,577
	<u>\$ 5,021</u>	<u>\$ 5,952</u>

4. Fair Value

The Company measures assets and liabilities at fair value based on exit price, which is defined by the authoritative guidance on fair value measurements as the amount that would be received on the sale of an asset or paid to transfer a liability in an orderly transaction between market participants.

Fair Value Hierarchy

The authoritative guidance on fair value measurements establishes a three-tier value hierarchy, which prioritizes the inputs used in measuring fair value as follows:

Level 1. Quoted prices in active markets for identical assets or liabilities.

Level 2. Observable inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities, quoted prices in markets with insufficient volume or infrequent transactions (less active markets), or model-derived valuations in which all significant inputs are observable or can be derived principally from or corroborated with observable market data for substantially the full term of the assets or liabilities.

Level 3. Unobservable inputs to the valuation methodology that are significant to the measurement of the fair value of assets or liabilities.

The Company's cash equivalents and investment instruments are classified within Level 1 or Level 2 of the fair value hierarchy, as these instruments are valued using quoted market prices, broker or dealer quotations, or alternative pricing sources with reasonable levels of price transparency and transaction value. Specifically, the Company values its investments in U.S. government and agency securities, money market securities, certificates of deposit and plan assets under the Company's Deferred Compensation Plan based on quoted market prices in active markets; and values its investments in corporate bonds, commercial paper and state, municipal and provincial obligations based on other observable inputs. As of December 31, 2010 and 2009, and for the years then ended, the Company had no assets or liabilities classified within Level 3 and there were no transfers of instruments between Level 1 and Level 2 regarding fair value measurement.

Assets and Liabilities Measured at Fair Value on a Recurring Basis

Assets measured at fair value on a recurring basis consisted of the following types of instruments as of December 31, 2010 and 2009:

	December 31, 2010			December 31, 2009		
	Fair Value Measurements at Reporting Date Using			Fair Value Measurements at Reporting Date Using		
	(Level 1)	(Level 2)	Total	(Level 1)	(Level 2)	Total
	(thousands)			(thousands)		
Assets measured at fair value:						
Cash equivalents:						
Money market funds	\$ 2,885	\$ -	\$ 2,885	\$15,398	\$ -	\$15,398
Commercial paper	-	-	-	-	3,000	3,000
Short-term investments:						
United States agency securities	2,151	-	2,151	4,057	-	4,057
United States corporate bonds	-	-	-	-	2,035	2,035
Commercial paper	-	-	-	-	6,997	6,997
Other assets:						
Equity instruments	164	-	164	814	-	814
	\$ 5,200	\$ -	\$ 5,200	\$20,269	\$12,032	\$32,301
Liabilities measured at fair value:						
Other liabilities:						
Deferred compensation	\$ 164	\$ -	\$ 164	\$ 814	\$ -	\$ 814

In the table above, equity instruments represent plan assets under the Company's Deferred Compensation Plan, which effectively offset corresponding Deferred Compensation Plan liabilities as of the dates presented.

5. Goodwill and Intangible Assets

During the fourth fiscal quarter of 2008, the Company recorded impairment charges of \$18.1 million and \$6.6 million related to the write-off of goodwill and certain intangible assets, respectively. The write-offs were in connection with the Company's impairment review in the fourth quarter of 2008, in accordance with the authoritative guidance on goodwill and intangible assets and triggered by the significant decline in the Company's revenue and cash flows. As a result of the write-offs, the Company had carrying amounts of goodwill and intangible assets of zero as of December 31, 2008. In December 2009, the Company acquired intellectual property

assets related to its etch and strip plasma processes for \$1.3 million, which are included in intangibles, net in the accompanying Consolidated Balance Sheets. These assets are being amortized over a 5-year period in research, development and engineering in the accompanying Consolidated Statements of Operations. The Company had amortization charges of \$0.3 million and zero in 2010 and 2009, respectively.

The following table summarizes intangible asset activities for the years ended December 31, 2010 and 2009:

	Developed Technology		
	Cost	Accumulated Amortization	Net
		(thousands)	
Balance at December 31, 2008	\$ -	\$ -	\$ -
Addition	1,250	-	1,250
Balance at December 31, 2009	1,250	-	1,250
Amortization	-	(250)	(250)
Balance at December 31, 2010	<u>\$ 1,250</u>	<u>\$ (250)</u>	<u>\$ 1,000</u>

6. Restructuring Charges

The Company reduced its workforce by approximately 40 percent through restructuring programs implemented in 2009 and 2008. Restructuring charges recorded were primarily comprised of employee severance costs and contract termination costs related to future rent obligations associated with a vacated leased facility, net of sublease income. Reserve adjustments subsequently recorded reflected revised estimates and actual payments made. Restructuring charges of \$6.0 million were recorded in 2008, of which an estimated \$3.9 remained to be paid as December 31, 2008. In 2010, restructuring charges were comprised of net reserve reversals of \$0.1 million. In 2009, restructuring charges, net of reserve adjustments, were \$2.6 million.

The following table summarizes the Company's restructuring activities for the years ended December 31, 2010 and 2009:

	Employee Severance Benefits	Contract Termination Costs	Total
		(thousands)	
Balance at December 31, 2008	\$ 3,496	\$ 376	\$ 3,872
Restructuring charges	2,859	159	3,018
Payments	(5,859)	-	(5,859)
Reserve adjustments	(407)	(15)	(422)
Balance at December 31, 2009	89	520	609
Restructuring charges	-	-	-
Payments	(83)	-	(83)
Reserve adjustments	88	(178)	(90)
Balance at December 31, 2010	<u>\$ 94</u>	<u>\$ 342</u>	<u>\$ 436</u>

The Company anticipates that the remaining severance payments will be substantially completed in the first half of 2011. With respect to the lease termination, the Company is currently engaged in an ongoing negotiation with the landlord, and the payment of the lease termination expense is dependent on the timing of a final agreement with the landlord.

7. Commitments and Contingencies

Warranty

The warranty offered by the Company on its system sales is generally 12 months, except where previous

customer agreements state otherwise, and excludes certain consumable maintenance items. A provision for the estimated cost of warranty, based on historical costs, is recorded as cost of sales when the revenue is recognized. The Company's warranty obligations require it to repair or replace defective products or parts during the warranty period at no cost to the customer. The actual system performance and/or field warranty expense profiles may differ from historical experience, and in those cases, the Company adjusts its warranty accruals accordingly.

The following table summarizes changes in the product warranty accrual for the years ended December 31, 2010, 2009 and 2008:

	Year Ended December 31,		
	2010	2009	2008
	(thousands)		
Balance at the beginning of the year	\$ 1,310	\$ 4,381	\$ 9,174
Accrual for warranties issued during the year	3,599	1,273	2,993
Changes in liability related to pre-existing warranties	(166)	(1,834)	688
Settlements made during the year	(2,204)	(2,510)	(8,474)
Balance at the end of the year	\$ 2,539	\$ 1,310	\$ 4,381

Operating Leases

The Company holds various operating leases related to its facilities and equipment worldwide. The Company's minimum annual rental commitments with respect to its operating leases were as follows as of December 31, 2010:

Year	Operating Lease Payments (thousands)
2011	\$ 4,881
2012	4,257
2013	4,033
2014	4,027
2015	3,954
Thereafter	7,121
	\$ 28,273

Rent expense was \$4.6 million, \$4.2 million and \$5.4 million in 2010, 2009 and 2008, respectively. The Company recorded sublease income related to its Exton, Pennsylvania facility of \$1.1 million, \$1.5 million and \$1.5 million in 2010, 2009 and 2008, respectively.

In 2005, the Company entered into a new lease agreement for its existing corporate headquarters building in Fremont, California. The lease is for a period of 10 years, which commenced on May 31, 2007, and has an initial annual base rent cost of approximately \$1.4 million, with annual increases of approximately 3.5 percent. The Company is also responsible for an additional minimum lease payment at the end of the lease term of approximately \$1.5 million, subject to adjustment, under a restoration cost obligation provision, which is being recognized on a straight-line basis over the lease term. To secure this obligation, the Company provided the landlord a standby letter of credit of \$1.5 million, which is discussed further later in this note.

The Company continues to lease one building previously used to house the administrative functions related to wet surface preparation products in Exton, Pennsylvania. The lease for the administrative building will expire on March 31, 2019, with a current rental cost of approximately \$0.9 million annually. The Company expects to make rent payments under this lease over the remaining term of the lease. In January 2008, the Company entered into a sublease agreement for the facility, which was subsequently terminated and replaced in June 2010 by a new agreement to sublease approximately 50 percent of the Exton facility until December 2015, cancellable anytime after December 31, 2012. The expected sublease income under the current sublease agreement is \$3.1 million as of December 31, 2010. In determining facilities lease loss liability, various assumptions were made, including the time period over which the buildings will be vacant, expected sublease terms and expected sublease rates. At December 31, 2010 and 2009, the

Company had an accrued liability balance of \$0.9 million and \$0.7 million, respectively, related to this facility. Adjustments to this accrual will be made in future periods, if evidence of any adjustment can be reasonably estimated as future events and circumstances become known.

Guarantees

In the ordinary course of business, the Company's bank provides standby letters of credit or other guarantee instruments on behalf of the Company to certain parties as required. The standby letters of credit are secured by certificates of deposit, which are classified as restricted cash in the accompanying Consolidated Balance Sheets. The Company has never recorded any liability in connection with these guarantee arrangements beyond what is required to appropriately account for the underlying transaction being guaranteed. The Company does not believe, based on historical experience and information currently available, that it is probable that any amounts will be required to be paid under such guarantee arrangements. As of December 31, 2010, the maximum potential amount that the Company could be required to pay was \$3.6 million, the total amount of outstanding standby letters of credit, which were secured by \$4.0 million of certificates of deposit.

The Company is a party to a variety of agreements, pursuant to which it may be obligated to indemnify other parties with respect to certain matters. Typically, these obligations arise in the context of contracts under which the Company may agree to hold other parties harmless against losses arising from a breach of representations or with respect to certain intellectual property, operations or tax-related matters. The Company's obligations under these agreements may be limited in terms of time and/or amount, and in some instances, the Company may have defenses to asserted claims and/or recourse against third parties for payments made by the Company. It is not possible to predict the maximum potential amount of future payments under these or similar agreements due to the conditional nature of the Company's obligations and the unique facts and circumstances involved in each particular agreement. Historically, payments made by the Company under these agreements have not had a material effect on the Company's financial position, results of operations or cash flows. The Company believes if it were to incur a loss in any of these matters, such loss would not have a material effect on its financial position, results of operations or cash flows.

In connection with its acquisition of Vortek Industries, Ltd (Vortek) in 2004, the Company became party to an agreement between Vortek and the Canadian Minister of Industry (the Minister) relating to an investment in Vortek by Technology Partnerships Canada. Under the agreement, as amended, the Company or Vortek (renamed Mattson Technology, Canada, Inc. or "MTC") agreed to various covenants, including (i) payment by the Company of a royalty to the Minister of 1.4 percent of revenues from Flash RTP products, up to a total of CAD 14,269,290 (approximately \$14.3 million based on the applicable exchange rate as of December 31, 2010), (ii) MTC maintaining a specified average workforce of employees in Canada through October 27, 2009, (iii) investment of a certain amount by October 27, 2009 and certain other covenants concerning protection of intellectual property rights and manufacturing obligations. Under the provisions of this agreement, if the Company, or MTC, did not materially satisfy its obligations pursuant to the covenants, the Minister could have demanded payment of liquidated damages in the amount of CAD 14,269,290 (approximately \$14.3 million as of December 31, 2010) less any royalties paid by MTC or the Company to the Minister. As of December 31, 2010, the Company is no longer subject to covenants (ii) and (iii), as discussed above; but is still subject to covenant (i), relating to the payment of royalty on revenues from the Flash RTP product until 2020. However, if MTC is dissolved, files for bankruptcy or does not materially comply with certain terms and conditions of the contract prior to its expiration on December 31, 2020, the Company would be subject to liquidated damages in the amount of CAD 14,269,290 less any royalties paid by MTC or the Company to the Minister.

The Company indemnifies its directors and certain employees as permitted by law, and has entered into indemnification agreements with its directors and certain senior officers. The Company has not recorded a liability associated with these indemnification arrangements as the Company historically has not incurred any material costs associated with such indemnification arrangements. Costs associated with such indemnification arrangements may be mitigated, in whole or only in part, by insurance coverage that the Company maintains.

Government Agencies

During the second quarter of 2010, the Company was informed that it was under review by a local South Korean customs office in relation to the Company's designated repair center in South Korea. The Company fully cooperated with the customs office and upon completion of the review paid an additional \$0.4 million of customs

duties, which is included in selling, general and administrative expenses in the accompanying Consolidated Statement of Operations for the year. As of December 31, 2010, the Company has been advised that this matter has been closed.

Litigation

In the ordinary course of business, the Company is subject to claims and litigation, including claims that it infringes third party patents, trademarks and other intellectual property rights. Although the Company believes that it is unlikely that any current claims or actions will have a material adverse impact on its operating results or its financial position, given the uncertainty of litigation, the Company cannot be certain of this. The defense of claims or actions against the Company, even if not meritorious, could result in the expenditure of significant financial and managerial resources.

From time to time, the Company is party to legal proceedings and claims, either asserted or unasserted, which arise in the ordinary course of business. While the outcome of these matters is not presently determinable and cannot be predicted with certainty, management does not believe that the outcome of any of these matters or any of the above mentioned legal claims will have a material adverse effect on the Company's financial position, results of operations or cash flows.

8. Stockholders' Equity

Common Stock Repurchase Program

In March 2007, the Company's Board of Directors approved a common stock repurchase plan ("Repurchase Plan") that authorized the repurchase of up to \$20.0 million of outstanding shares of the Company's common stock through open-market purchases or private transactions. In October 2007, the Company's Board of Directors expanded the Repurchase Plan, authorizing the repurchase of up to an additional \$30 million of shares of the Company's common stock through open-market purchases or private transactions. By December 31, 2008, a total of 3.8 million shares had been repurchased against the original and expanded Repurchase Plan, at a weighted-average purchase price of \$9.20 for a total purchase price of approximately \$35 million. The Company did not repurchase any common stock in 2009 and 2010. As of December 31, 2010, the Company had authorization to repurchase up to an additional \$15 million of shares of the Company's common stock under the Repurchase Plan, but have no future plans to do so.

The Company reports common stock repurchased as treasury stock in the accompanying Consolidated Balance Sheets. Including previous common stock repurchase plans from 1997 and 1998, under which the Company repurchased 0.4 million shares for approximately \$3.0 million, treasury stock as of December 31, 2010 was 4.2 million shares at a total purchase price of \$38.0 million.

Accumulated Other Comprehensive Income

The components of accumulated other comprehensive income, net of related tax, at December 31, 2010 and 2009 are as follows:

	December 31,	
	2010	2009
	(thousands)	
Accumulated other comprehensive income:		
Cumulative translation adjustments	\$ 20,308	\$ 22,123
Unrealized investment gain (loss), net of tax	(101)	(109)
	\$ 20,207	\$ 22,014

Stockholder Rights Plan

On July 28, 2005, the Company adopted a Stockholder Rights Plan (Rights Plan), under which stockholders of record at the close of business on August 15, 2005 received one share purchase right (Right) for each share of the Company's common stock held on that date.

The Rights, which currently trade with the Company's common stock and represent the right to purchase one one-thousandth of a share of preferred stock at \$55.00 per share, become exercisable when a person or group acquires 15 percent or more of the Company's common stock (acquiror) without prior approval of the Company's Board of Directors. In that event, the Rights would permit the Company's stockholders, other than the acquiror, to purchase shares of the Company's common stock having a market value of twice the exercise price of the Rights, in lieu of the preferred stock. Also, under the Right Plan, (i) prior to a person or group acquiring 15 percent of the Company's common stock, the Company can redeem the Rights for \$0.001 each; (ii) the Company can issue one Right for each share of common stock that becomes outstanding after the record date and before the acquisition of 15 percent of its common stock by an acquiror; (iii) when the Rights become exercisable, the Company's Board of Directors may authorize the issuance of one share of the Company's common stock in exchange for each Right that is then exercisable; and (iv) in the event of certain business combinations, the Rights permit the purchase of the common stock of an acquiror at a 50 percent discount.

The Rights expire on July 27, 2015. As of December 31, 2010, the Company had approximately 50.0 million share purchase rights outstanding.

Registration Statement on Form S-3

The Company filed a universal shelf registration statement on Form S-3 with the SEC on July 21, 2010 that became effective on September 30, 2010. The shelf registration statement is intended to provide the Company with financial flexibility to raise capital from the offering of up to \$75 million of common stock, preferred stock, warrants, depository shares, units and/or debt securities, conducted in one or multiple offerings while the shelf registration statement is effective. The Company intends to use the proceeds from any sale of securities under the shelf registration statement for general corporate purposes.

9. Employee Stock Plans

In May 2005, the Company amended and restated its 1989 Stock Option Plan (the 1989 Plan) as the 2005 Equity Incentive Plan (the 2005 Plan), under which a total of approximately 12 million shares of common stock were reserved for issuance. In June 2007, the Company's shareholders approved an amendment to the 2005 Plan by reserving an additional 2.5 million shares of common stock for issuance under the 2005 Plan, bringing the total shares reserved to approximately 14.5 million shares of common stock. As of December 31, 2010, the Company had approximately 2.3 million shares available for future grants under the 2005 Plan.

The following table summarizes the combined activity under all of the Company's equity incentive plans for the three years ended December 31, 2010:

	<u>Awards Available For Grant</u> (thousands)	<u>Stock Options Outstanding</u> (thousands)	<u>Weighted-Average Exercise Price</u>	<u>Restricted Stock Units Outstanding</u> (thousands)	<u>Weighted-Average Grant Date Fair Value</u>
Balances at December 31, 2007	3,288	6,118	\$ 9.39	172	\$ 10.69
Stock options:					
Granted	(1,041)	1,041	\$ 5.42	-	-
Exercised	-	(65)	\$ 2.80	-	-
Cancelled or forfeited	1,322	(1,322)	\$ 8.94	-	-
Restricted stock units:					
Granted	(1,600)	-	-	915	\$ 3.83
Released	45	-	-	(69)	\$ 4.46
Cancelled or forfeited	438	-	-	(250)	\$ 4.37
Balances at December 31, 2008	2,452	5,772	\$ 8.85	768	\$ 5.12
Stock options:					
Granted	(1,583)	1,583	\$ 0.91	-	-
Exercised	-	(5)	\$ 1.69	-	-
Cancelled or forfeited	2,317	(2,317)	\$ 8.28	-	-
Restricted stock units:					
Granted	-	-	-	-	-
Released	3	-	-	(120)	\$ 6.87
Cancelled or forfeited	462	-	-	(264)	\$ 4.01
Balances at December 31, 2009	3,651	5,033	\$ 6.62	384	\$ 4.21
Stock options:					
Granted	(2,057)	2,057	\$ 3.19	-	-
Exercised	-	(170)	\$ 0.81	-	-
Cancelled or forfeited	642	(642)	\$ 8.09	-	-
Restricted stock units:					
Granted	(5)	-	-	3	\$ 3.96
Released	23	-	-	(39)	\$ 7.92
Cancelled or forfeited	9	-	-	(5)	\$ 6.91
Balances at December 31, 2010	<u>2,263</u>	<u>6,278</u>	\$ 5.51	<u>343</u>	\$ 3.67

Stock Options

Stock option grants under the 2005 Plan generally vest 25 percent on the first anniversary of the date of grant, and 1/36 per month thereafter. The Company granted 2.1 million, 1.6 million and 1.0 million stock options during 2010, 2009 and 2008, respectively, with an estimated total grant-date fair value of \$4.0 million, \$0.8 million and \$2.5 million, respectively. The Company settles employee stock option exercises with newly issued common shares.

The following table summarizes information about stock options outstanding as of December 31, 2010:

<u>Range of Exercise Prices</u>	<u>Outstanding Options</u>			<u>Exercisable Options</u>	
	<u>Number of Shares</u> (thousands)	<u>Weighted Average Remaining Contractual Life</u> (years)	<u>Weighted Average Exercise Price</u>	<u>Number of Shares</u> (thousands)	<u>Weighted Average Exercise Price</u>
\$0.76-\$3.00	1,430	4.6	\$ 1.25	962	\$ 1.26
\$3.01-\$10.00	3,756	4.5	\$ 5.41	1,775	\$ 7.59
\$10.01-\$16.32	1,092	2.1	\$ 11.41	1,075	\$ 11.43
Total	6,278	4.1	\$ 5.51	3,812	\$ 7.07

The table below contains additional information with respect to the Company's stock options outstanding at December 31, 2010:

	<u>Shares</u> (thousands)	<u>Weighted Average Exercise Price</u>	<u>Weighted Average Remaining Contractual Life</u> (years)	<u>Aggregate Intrinsic Value</u> (thousands)
Vested and exercisable options	3,812	\$ 7.07	3.0	\$ 1,675
Unvested options expected to vest	2,466	\$ 3.09	5.9	\$ 826
Total outstanding options	6,278	\$ 5.51	4.1	\$ 2,501

The aggregate intrinsic value shown in the table above represents the total pre-tax intrinsic value, based on the closing price of our common stock of \$3.00 on December 31, 2010, which would have been received by the option holders had all in-the-money option holders exercised their options as of that date. There were approximately 1.0 million shares of common stock subject to in-the-money options that were exercisable as of December 31, 2010.

Restricted Stock Units (RSUs)

The Company's equity incentive plan under the 2005 Plan provides for grants of timed-based and performance-based RSUs.

Time-Based Restricted Stock Units

Time-based RSUs generally vest at ¼ per year. On occasion and for varying purposes, the Company grants time-based RSUs with different vesting criteria and duration. During 2010, 2009 and 2008, the Company granted 3 thousand, zero and 0.2 million, respectively, with fair value of \$12 thousand, zero and \$1.3 million, respectively.

RSUs under the 2005 Plan are counted against the total number of shares of common stock issuable at 1.75 shares for every share subject thereto.

Performance-Based Restricted Stock Units

The vesting of performance-based RSUs is contingent on the Company's achievement of certain predetermined financial goals and in some cases, the achievement of certain market performance targets. The amount of stock-based compensation expense recognized in any one period can vary based on the achievement or anticipated achievement of specific performance goals. If a performance goal is not met or is not expected to be met, no compensation cost would be recognized on the underlying RSUs, and any previously recognized compensation expense on those RSUs would be reversed.

In 2008, the Company's Board of Directors approved the grant of 683,000 performance-based RSUs to certain of its executives, officers and senior-level management, with vesting in four equal tranches upon the achievement of four sequentially increasing revenue performance targets and contingent on the achievement of certain operating profit margin and stock price thresholds. The fair value of these RSUs was determined using the Monte Carlo

valuation methodology. At December 31, 2008, the Company determined that due to the deteriorating market conditions during the fourth quarter of 2008, it was not probable that any of the four revenue targets and the operating profit targets would be met by the specified dates. As a result, the stock-based compensation related to these RSUs was deemed unrecognizable. Since the fourth quarter of 2008, the Company has cancelled a total of 0.4 million of these performance-based RSUs based on employee terminations, leaving 0.3 million units outstanding as of December 31, 2010. If and when the Company determines that the related targets are probable of being achieved, the Company will begin recognizing expenses in the period that such determination is made. The Company did not record any compensation expense related to these RSUs in 2010, 2009 and 2008.

The following table provides information pertaining to the Company's stock options and restricted stock units with time-based vesting for the years ended December 31, 2010, 2009 and 2008:

	Year Ended December 31,		
	2010	2009	2008
	(thousands, except weighted-average fair values)		
Stock options:			
Weighted-average fair value of options granted	\$ 1.96	\$ 0.52	\$ 2.70
Intrinsic value of options exercised	\$ 441	\$ 4	\$ 165
Cash received from options exercised	\$ 138	\$ 9	\$ 181
Restricted stock units with time-based vesting:			
Weighted-average fair value of RSUs granted	\$ 3.96	-	\$ 5.52

Employee Stock Purchase Plan

The Company has a noncompensatory employee stock purchase plan (ESPP) which allows each eligible employee to withhold up to 15 percent of gross compensation over semiannual six-month ESPP periods to purchase shares of the Company's common stock, limited to 2,000 shares per ESPP period. Under the ESPP, employees purchase stock at a price equal to 90 percent of the closing price of the Company's common stock as of the last day of the ESPP period.

The Company has reserved 6.2 million shares of common stock for issuance under the ESPP, of which 2.9 million shares were available for issuance as of December 31, 2010. During 2010, 2009 and 2008, the Company issued shares under the ESPP totaling 104,000, 183,000 and 249,000, respectively, with average purchase prices of \$3.19, \$1.50 and \$2.82, respectively.

10. Stock-Based Compensation

The Company accounts for stock-based compensation in accordance with the applicable authoritative guidance, which requires the measurement of stock-based compensation on the date of grant based on the fair value of the award, and the recognition of the expense over the requisite service period for the employee. Compensation related to restricted stock units is the intrinsic value on the date of grant, which is the closing price of the Company's common stock less employee exercise price, if any. Compensation related to stock options is determined using a stock option valuation model.

Valuation Assumptions

The Company uses the Black-Scholes valuation model to determine the fair value of stock options. The Black-Scholes model requires the input of highly subjective assumptions, which are summarized in the table below for 2010, 2009 and 2008:

	Year Ended December 31,		
	2010	2009	2008
Expected dividend yield	—	—	—
Expected stock price volatility	74%	67%	55%
Risk-free interest rate	2.1%	1.9%	2.9%
Expected life of options in years	5	5	5

The Company estimates the expected life of options based on an analysis of its historical experience of employee exercise and post-vesting termination behavior considered in relation to the contractual life of the option; expected volatility is based on the historical volatility of the Company's common stock; and the risk-free interest rate is equal to the U.S. Treasury rates, with maturity approximating the expected life of the option. The Company does not currently pay cash dividends on its common stock and does not anticipate doing so in the foreseeable future; accordingly, the expected dividend yield is zero.

The Company's stock-based compensation in 2010, 2009 and 2008 were as follows:

	Year Ended December 31,		
	2010	2009	2008
		(thousands)	
Stock-based compensation by type of award:			
Stock options	\$ 2,442	\$ 2,280	\$ 3,527
Restricted stock units	263	626	766
Employee stock purchase plan	39	38	73
	<u>\$ 2,744</u>	<u>\$ 2,944</u>	<u>\$ 4,366</u>
Stock-based compensation by category of expense:			
Cost of sales	\$ 96	\$ 105	\$ 135
Research, development and engineering	451	426	521
Selling, general and administrative	2,197	2,413	3,710
	<u>\$ 2,744</u>	<u>\$ 2,944</u>	<u>\$ 4,366</u>

The Company did not capitalize any stock-based compensation as inventory in 2010, 2009 and 2008, as such amounts were not material. Stock-based compensation in 2008 included an additional \$0.4 million related to a stock option modification that occurred in 2006, which was recorded as an increase in selling, general and administrative.

As of December 31, 2010, the Company had \$2.8 million in unrecognized stock-based compensation expense related to stock options, net of estimated forfeitures, which will be recognized over a weighted-average period of 2.3 years. As of December 31, 2010, the Company had \$0.1 million in unrecognized stock-based compensation expense related to 43,000 of unvested time-based RSUs outstanding, net of estimated forfeitures, which will be recognized over a weighted-average period of 1.0 years.

11. Employee Savings Plans

Employee Savings Plan

The Company has a retirement/savings plan (the ESP Plan), which qualifies under section 401(k) of the Internal Revenue Code. All full-time employees of eligible age (over twenty-one years old) can participate in the ESP Plan and can contribute up to an amount allowed by the applicable Internal Revenue Service guidelines. At its discretion, the

Company can make matching contributions to the ESP Plan equal to a percentage of the participants' contributions. In March 2009, the Company suspended matching contributions under the ESP Plan as a cost-cutting measure. The Company made matching contributions of zero, \$0.1 million and \$0.7 million during 2010, 2009 and 2008, respectively.

Deferred Compensation Plan

In 2006, the Company adopted a Deferred Compensation Plan (the DC Plan), under which the Company allows eligible employees and non-employee members of its Board of Directors to defer a specified percentage of their base salary or retainer fees, as appropriate. The Company is obligated to deliver on a future date the contributions to the DC Plan plus income earned on such contributions. These liabilities represent an unsecured general obligation of the Company and rank in parity with other unsecured and unsubordinated indebtedness of the Company and are non-transferable and non-tradable.

As of December 31, 2010 and 2009, the Company had approximately \$0.2 million and \$0.8 million, respectively, in net assets under the DC Plan, which were invested primarily in equity investment funds. These assets are reflected as a component of other assets and the corresponding liabilities are reflected as a component of other liabilities in the accompanying Consolidated Balance Sheets.

12. Reportable Segments

The Company has one operating segment, the design, manufacturing and marketing of advanced fabrication equipment to the semiconductor manufacturing industry. The authoritative guidance on segment reporting and disclosure defines operating segment as a component of an enterprise for which separate financial information is available that is evaluated regularly by the chief operating decision maker in deciding how to allocate resources and in assessing performance. As the Company's business is completely focused on one industry segment, the design, manufacturing and marketing of advanced fabrication equipment to the semiconductor manufacturing industry, management believes that the Company has one reportable segment. The Company's revenues and profits are generated from the sales of systems and services in this one segment. For the purposes of evaluating the Company's reportable segments, the Company's Chief Executive Officer is its chief operating decision maker, as defined in the applicable authoritative guidance.

The following table summarizes net sales by geographic areas based on the installation locations of the systems and the location of services rendered:

	Year Ended December 31,					
	2010		2009		2008⁽¹⁾	
	(thousands)	%	(thousands)	%	(thousands)	%
Net sales:						
United States	\$ 7,211	5	\$ 3,601	8	\$ 12,704	10
Korea	67,973	49	14,619	34	19,881	15
Taiwan	18,878	14	7,233	17	32,810	25
China	16,210	12	5,143	12	6,162	4
Japan	7,005	5	1,272	3	32,738	25
Other Asia	13,641	10	6,842	17	16,885	12
Europe and others	7,418	5	4,038	9	12,371	9
	<u>\$ 138,336</u>	<u>100</u>	<u>\$ 42,748</u>	<u>100</u>	<u>\$ 133,551</u>	<u>100</u>

⁽¹⁾ Royalty revenues from DNS (see Note 13) of \$6.4 million in 2008 were included in net sales to Japan. No such royalty revenue was recognized in 2010 and 2009.

In 2010, two customers accounted for 40 percent and 12 percent of total revenues, respectively. In 2009, three customers accounted for 30 percent, 15 percent and 10 percent of total revenues, respectively. In 2008, two customers accounted for 19 percent and 10 percent of total revenues, respectively.

At December 31, 2010, four customers accounted for 19 percent, 13 percent, 11 percent and 11 percent of the Company's accounts receivable, respectively. At December 31, 2009, three customers accounted for 27 percent, 19 percent and 14 percent of the Company's accounts receivable, respectively.

Geographical information relating to the Company's property and equipment as of December 31, 2010 and 2009 is as follows:

	December 31,	
	2010	2009
	(thousands)	
Property and equipment, net:		
United States	\$ 9,880	\$ 15,516
Germany	2,236	3,937
Canada	2,507	1,981
Others	388	209
	<u>\$ 15,011</u>	<u>\$ 21,643</u>

13. DNS Patent Infringement Suit Settlement

In March 2002, a jury in San Jose, California rendered a verdict in favor of the Company's then subsidiary, Mattson Wet Products, Inc. (formally CFM Technologies, Inc.), in a patent infringement suit against Dainippon Screen Manufacturing Co., Ltd. (DNS), a Japanese manufacturer of semiconductor wafer processing equipment. In June 2002, the Company entered into a settlement agreement and a license agreement with DNS, under which DNS agreed to make payments to the Company totaling between \$75.0 million (minimum) and \$105.0 million (maximum) for past damages, partial reimbursement of attorney fees and costs and license fees. Through December 31, 2008, DNS had paid the Company a total of \$95.1 million under the terms of the settlement and license agreements. The Company recognized \$6.4 million of royalty revenue from DNS in 2008, which is reflected as a component of net sales in the accompanying Consolidated Statements of Operations. DNS paid its last royalty payment to the Company in May 2008, and as of that date, DNS had satisfied its obligations to the Company pursuant to the settlement and license agreements.

14. Income Taxes

The components of loss before income taxes are as follows:

	Year Ended December 31,		
	2010	2009	2008
	(thousands)		
Domestic loss	\$ (32,620)	\$ (71,241)	\$ (84,117)
Foreign loss	(462)	(3,867)	(5,735)
Loss before income taxes	<u>\$ (33,082)</u>	<u>\$ (75,108)</u>	<u>\$ (89,852)</u>

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

	Year Ended December 31,		
	2010	2009	2008
	(thousands)		
Current:			
Federal	\$ (85)	\$ 158	\$ (35)
State	4	(1)	35
Foreign	(289)	(8,879)	44
Total current	(370)	(8,722)	44
Deferred:			
Federal	-	-	-
State	-	-	-
Foreign	691	656	2,267
Total deferred	691	656	2,267
Provision for (benefit from) income taxes	\$ 321	\$ (8,066)	\$ 2,311

The provision for (benefit from) income taxes reconciles to the amount computed by multiplying loss before income taxes by the United States (U.S.) statutory rate of 35 percent as follows:

	Year Ended December 31,		
	2010	2009	2008
	(thousands)		
Provision (benefit) at statutory rate	\$ (11,579)	\$ (26,286)	\$ (31,448)
Deferred tax asset valuation allowance	9,840	24,747	10,324
Foreign earnings taxed at different foreign rates	1,096	3,126	4,926
State taxes, net of federal benefit	2	(1)	23
Nondeductible stock option expense	573	512	771
Foreign earnings taxed at U.S. rate	1,165	366	288
Uncertain tax position reserve release	(697)	(9,319)	-
Tax credit	-	-	6,397
Impairment expense	-	-	7,315
True up of deferred tax asset	(141)	(687)	4,394
Foreign tax credit	(139)	(150)	(332)
Other	201	(374)	(347)
Provision for (benefit from) income taxes	\$ 321	\$ (8,066)	\$ 2,311

Deferred tax assets are comprised of the following:

	December 31,	
	2010	2009
	(thousands)	
Net operating loss carryforwards	\$ 149,246	\$ 136,077
Capital loss carryforward	-	12,668
Reserves not currently deductible	11,328	12,705
Tax credit carryforwards	1,242	2,281
Depreciation	4,604	4,197
Deferred revenue	513	1,178
Research and development capitalization	151	166
Other	1,119	504
Total deferred tax asset	168,203	169,776
Valuation allowance	(164,400)	(164,931)
Net deferred tax asset	\$ 3,803	\$ 4,845

Net changes in the deferred tax asset valuation allowance are as follows:

	December 31,	
	2010	2009
	(thousands)	
Balance at the beginning of the year	\$ 164,931	\$ 141,888
Utilization and other reductions, net	(531)	23,043
Balance at the end of the year	\$ 164,400	\$ 164,931

The valuation allowance at December 31, 2010 and 2009 is attributable to federal and state deferred tax assets, as well as certain foreign deferred tax assets. The Company's valuation allowance was determined in accordance with the applicable authoritative guidance, which requires an assessment of both positive and negative evidence when determining whether it is more likely than not that deferred assets are recoverable, with such assessment being required on a jurisdiction-by-jurisdiction basis. Management believes that sufficient uncertainty exists with regard to the realizability of these tax assets such that a valuation allowance is necessary. Factors considered in providing a valuation allowance include the lack of a significant history of consistent profits, the cyclical nature of the overall semiconductor market thereby negatively impacting the Company's ability to sustain or grow revenues and earnings and the lack of carry-back capacity to realize these assets. Based on the absence of sufficient positive objective evidence, management is unable to assert that it is more likely than not that the Company will generate sufficient taxable income to realize these remaining net deferred assets. The amount of the deferred tax asset valuation allowance, however, could be reduced in future periods to the extent that future taxable income is realized.

As of December 31, 2010, the Company had federal and state net operating loss carryforwards of \$411.0 million and \$99.1 million, respectively, which will begin expiring in 2018 for federal and 2011 for state. The Company also has foreign net operating loss carryforwards in Canada, Japan and Germany of \$24.7 million, \$1.5 million and \$9.9 million, respectively. Canada and Japan net operating loss carryforwards will begin expiring in 2011. The German net operating loss carryforward has an indefinite carryover life.

The Company acquired \$48.0 million of deferred tax assets as a result of its acquisitions of Vortek, STEAG Semiconductor Division, CFM and Concept Systems Design, Inc. The federal and state net operating losses acquired from the STEAG Semiconductor Division, CFM and Concept are also subject to change in control limitations as defined in Section 382 of the Internal Revenue Code. In addition, the Company had a change in control in April 2002, which limited its net operating losses generated prior to the date the ownership change occurred. If certain substantial changes in the Company's ownership occur, there would be an additional annual limitation on the amount of the net operating loss carryforwards that can be utilized.

As of December 31, 2010, the Company had research credit carryforwards of approximately \$3.4 million and \$4.0 million for federal and state income tax purposes, respectively. If not utilized, the federal carryforward will expire in various amounts beginning in 2026. The state tax credit can be carried forward indefinitely.

The Company provides U.S. income taxes on the earnings of foreign subsidiaries unless subsidiary earnings are considered indefinitely reinvested outside the U.S. As of December 31, 2010, U.S. income taxes were not provided for on a cumulative total of \$3.4 million of undistributed earnings for certain foreign subsidiaries. If these earnings were repatriated, the Company would be subject to additional U.S. income taxes (subject to an adjustment for foreign tax credits). It is not practical to determine the income tax liability that might be incurred if these earnings were to be repatriated. The Company intends to permanently reinvest all foreign unremitted earnings of foreign subsidiaries outside of the U.S., except for Germany. The Company's permanently reinvested non-U.S. earnings have been deployed in active business operations, and it is unlikely that the Company will repatriate any portion of its permanently reinvested non-U.S. earnings in the future.

As of December 31, 2010, the Company's total unrecognized tax benefits were \$27.1 million exclusive of interest and penalties described below. Included in the \$27.1 million is \$3.0 million of unrecognized tax benefits (net of federal benefit), that if recognized, would favorably affect the effective tax rate in a future period before consideration of changes in the valuation allowance. The Company does not anticipate that there will be a significant change of its unrecognized tax benefit within the next twelve months.

The Company's practice is to recognize interest and/or penalties related to unrecognized tax benefits in income tax expense. Income tax expense included an estimated interest of \$0.3 million for 2010, \$0.3 million for 2009 and \$0.3 million for 2008. As of December 31, 2010 and 2009, the Company had \$1.2 million and \$1.1 million, respectively, accrued for estimated interest. As of December 31, 2010 and 2009, the Company had \$0.1 million and \$0.1 million, respectively, accrued for estimated penalties.

The Company and its subsidiaries are subject to U.S. federal income tax as well as to income taxes in Germany and various other foreign and state jurisdictions. The Company's federal and state income tax returns are generally not subject to examination by tax authorities for years before 2007 and 2006, respectively. In 2009, the Company closed its German audit for years 2001 through 2004, which resulted in a decrease of the unrecognized tax benefit of \$9.3 million and accrued interest of \$0.6 million, respectively.

A reconciliation of unrecognized tax benefits is as follows:

	Year Ended December 31,		
	2010	2009	2008
	(millions)		
Balance at the beginning of the year	\$ 27.6	\$ 36.3	\$ 29.6
Increases for tax positions	(0.4)	0.5	7.6
Effect of exchange rates on tax positions	0.4	0.2	(0.7)
Settlements	-	(9.3)	-
Expiration of statutes of limitations	(0.5)	(0.1)	(0.2)
Balance at the end of the year	\$ 27.1	\$ 27.6	\$ 36.3

15. Net Income (Loss) Per Share

The Company presents both basic and diluted net income (loss) per share on the face of its Consolidated Statements of Operations in accordance with the authoritative guidance on earnings per share. Basic net income (loss) per share is computed by dividing net income (loss) by the weighted-average number of shares of common stock outstanding for the period. Diluted net income (loss) per share is computed using the weighted-average number of shares of common stock outstanding plus the effect of all dilutive securities representing potential shares of common stock outstanding during the period. For purposes of computing diluted net income per share, weighted average common stock equivalents do not include stock options with an exercise price that exceeded the average market price of the Company's common stock for the period.

The following table summarizes the incremental shares of common stock from potentially dilutive securities, calculated using the treasury stock method:

	Year Ended December 31,		
	2010	2009	2008
	(thousands)		
Weighted average common shares outstanding - basic	50,073	49,832	49,471
Effect of dilutive potential common shares from stock options and restricted stock units	-	-	-
Weighted average common shares - diluted	50,073	49,832	49,471

All outstanding stock options and restricted stock units are potentially dilutive securities, and as of December 31, 2010, 2009 and 2008, the combined total of stock options and restricted stock units outstanding were 6.6 million, 5.4 million and 6.5 million, respectively. Since the Company had net losses in 2010, 2009 and 2008, none were included in the computation of diluted shares for those years as inclusion of such shares would have been antidilutive.

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of Mattson Technology, Inc.

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of operations, stockholders' equity and comprehensive income (loss), and cash flows present fairly, in all material respects, the financial position of Mattson Technology, Inc. and its subsidiaries at December 31, 2010 and 2009 and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2010 in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedule listed in the index appearing under Item 15(a)(2) presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2010, based on criteria established in *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these financial statements and financial statement schedule, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the Management's Report on Internal Control over Financial Reporting under Item 9(a). Our responsibility is to express opinions on these financial statements and on the Company's internal control over financial reporting based on our integrated audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

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

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ PricewaterhouseCoopers LLP

San Jose, California
March 11, 2011

Supplementary Financial Information

Selected Quarterly Consolidated Financial Data (Unaudited)

The following tables set forth our unaudited condensed Consolidated Statements of Operations data for each of the eight quarterly periods ended December 31, 2010. We have prepared this unaudited information on a basis consistent with our audited consolidated financial statements, reflecting all normal recurring adjustments that we consider necessary for a fair presentation of our financial position and operating results for the fiscal quarters presented. Basic and diluted earnings per share are computed independently for each of the quarters presented. Therefore, the sum of quarterly basic and diluted per share information may not equal annual basic and diluted earnings per share.

	Three Months Ended			
	March 28, 2010	June 27, 2010	September 26, 2010	December 31, 2010
	(thousands, except per share amounts)			
Net sales	\$ 25,195	\$ 32,120	\$ 39,762	\$ 41,259
Gross profit (loss)	\$ 7,762	\$ 9,926	\$ 14,514	\$ 12,337
Loss from operations	\$ (11,033)	\$ (9,598)	\$ (4,984)	\$ (7,580)
Net loss	\$ (10,756)	\$ (8,380)	\$ (6,366)	\$ (7,901)
Net loss per share:				
Basic and diluted	\$ (0.22)	\$ (0.17)	\$ (0.13)	\$ (0.16)
Shares used in computing net loss per share:				
Basic and diluted	49,984	50,052	50,094	50,153

	Three Months Ended			
	March 29, 2009	June 28, 2009	September 27, 2009⁽²⁾	December 31, 2009⁽¹⁾
	(thousands, except per share amounts)			
Net sales	\$ 5,572	\$ 8,068	\$ 11,187	\$ 17,921
Gross profit (loss)	\$ (7,915)	\$ (1,609)	\$ 2,465	\$ 4,964
Loss from operations	\$ (28,337)	\$ (19,824)	\$ (16,702)	\$ (12,148)
Net loss	\$ (27,227)	\$ (19,896)	\$ (8,557)	\$ (11,361)
Net loss per share:				
Basic and diluted	\$ (0.55)	\$ (0.40)	\$ (0.17)	\$ (0.23)
Shares used in computing net loss per share:				
Basic and diluted	49,703	49,772	49,884	49,938

⁽¹⁾ Operating expenses for the fourth quarter of 2009 included a \$1.6 million decrease in bad debt reserves due to collections of past due receivables by certain customers.

⁽²⁾ Operating expenses for the third quarter of 2009 included \$1.7 million of restructuring costs. Net loss reflected a net tax benefit of \$8.1 million resulting primarily from reversal of certain foreign deferred tax liabilities.

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

None.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, conducted an evaluation of our disclosure controls and procedures, as such term is defined in Rule 13a-15(e) promulgated under the Securities Exchange Act of 1934, as amended, as of December 31, 2010. Our disclosure controls and procedures are intended to ensure that the information we are required to disclose in the reports that we file or submit under the Securities Exchange Act of 1934 is (i) recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms and (ii) accumulated and communicated to our management, including the Chief Executive Officer and Chief Financial Officer, as the principal executive and financial officers, respectively, to allow timely decisions regarding required disclosures. Based on that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of the end of the period covered by this report.

It should be noted that any system of controls, however well designed and operated, can provide only reasonable, and not absolute, assurance that the objectives of the system will be met. In addition, the design of any control system is based in part upon certain assumptions about the likelihood of future events.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting; as such term is defined in Rule 13a-15(f) under the Securities Exchange Act of 1934, as amended. A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and disposition of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we conducted an assessment of the effectiveness of the Company's internal control over financial reporting as of December 31, 2010. In making this assessment, management used the criteria set forth in the framework established by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) entitled *Internal Control—Integrated Framework*. Based on our evaluation under the framework in *Internal Control—Integrated Framework*, our management concluded that our internal control over financial reporting was effective as of December 31, 2010.

The effectiveness of the Company's internal control over financial reporting as of December 31, 2010 has been audited by PricewaterhouseCoopers, LLP, an independent registered public accounting firm, as stated in their report, which appears in Item 8 of this report.

Changes in Internal Control over Financial Reporting

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, also conducted an evaluation of our internal control over financial reporting to determine whether any change occurred during the year ended December 31, 2010 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting. Based on that evaluation, our management concluded that there was no such

change during the fourth quarter.

Item 9B. Other Information

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

The information required by this item will be included under the captions “Executive Compensation,” “Election of Directors,” “Report of the Audit Committee” and “Section 16(a) Beneficial Ownership Reporting Compliance” for the 2011 Annual Meeting in our Proxy Statement with the SEC within 120 days of the year-end December 31, 2010 (2011 Proxy Statement) and is incorporated herein by reference.

We have adopted a Code of Ethics and Business Conduct for all officers, directors and employees. We have posted the Code of Ethics and Business Conduct on our website located at <http://www.mattson.com>. We intend to satisfy the disclosure requirement under Item 5.05 of Form 8-K regarding an amendment to, or a waiver from, this Code of Ethics by posting such information on our website.

Item 11. Executive Compensation

The information required by this item will be set forth in our 2011 Proxy Statement under the captions “Executive Compensation” and “Report of the Compensation Committee on Executive Compensation” and is incorporated herein by reference.

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

Information related to the security ownership of certain beneficial owners and management will be set forth in our 2011 Proxy Statement under the caption “Security Ownership of Management and Principal Stockholders,” and is incorporated herein by reference.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information required by this item will be set forth in our 2011 Proxy Statement under the caption “Certain Relationships and Related Transactions, and Director Independence” and is incorporated herein by reference.

Item 14. Principal Accountant Fees and Services

The information required by this item will be set forth in our 2011 Proxy Statement under the captions “Audit and Related Fees” and “Policy on Audit Committee Pre-Approval of Audit and Permissible Non-Audit Services of Independent Auditors” and is incorporated herein by reference.

PART IV

Item 15. Exhibits and Financial Statement Schedules

(a)(1) Financial Statements

The financial statements filed as part of this report are listed on the Index to Consolidated Financial Statements in Item 8.

(a)(2) Financial Statement Schedules

Schedule II — Valuation and Qualifying Accounts for the three years ended December 31, 2010, 2009 and 2008, which is included in Schedule II of this Form 10-K.

(a)(3) Exhibits

Exhibit Number	Description	Notes
3.1	Amended and Restated Certificate of Incorporation of Mattson Technology, Inc.	(1)
3.2	Amended and Restated Bylaws of Mattson Technology, Inc.	(3)
4.5	Form of Rights Agreement between the Company and Mellon Investor Services, LLC as Rights Agent (including as <u>Exhibit A</u> the form of Certificate of Designation, Preferences and Rights of the Terms of the Series A Preferred Stock, as <u>Exhibit B</u> the form of Right Certificate, and as <u>Exhibit C</u> the Summary of Terms of Rights Agreement)	(4)
4.6	Amendment No. 1 to Rights Agreement between the Company and Mellon Investor Services, LLC as Rights Agent	(5)
4.7	Amendment No. 2 to Rights Agreement between the Company and Mellon Investor Services, LLC as Rights Agent	(14)
10.1	2005 Equity Incentive Plan	(6) (C)
10.2	Amendment #1 to 2005 Equity Incentive Plan	(7) (C)
10.3	Nonqualified Deferred Compensation Plan	(8) (C)
10.4	1989 Stock Option plan, as amended	(2) (C)
10.5	Amended and Restated 1994 Employee Stock Purchase Plan	*
10.6	Form of Indemnity Agreement	(9) (C)
10.7	Executive Change of Control Agreement between Mattson Technology, Inc. and David Dutton, dated as of March 4, 2002.	(2) (C)
10.10	Industrial Space Lease, dated August 1, 2005, between the Company and Renco Equities IV, a California partnership.	(10)
10.11	Sublease Agreement dated February 27, 2003, by and between Lam Research Corporation, a Delaware Corporation, and Mattson Technology, Inc., a Delaware Corporation, for lease of building.	(11)
10.12	Lease Agreement dated September 2, 2001, by and between Renco Equities IV, a California partnership, and Lam Research Corporation, a Delaware Corporation, for lease of building.	(11)
10.13	Form of Performance Based Restricted Stock Units Agreement between Mattson Technology and some employees.	(12)
10.15	Form of Severance and Executive Change of Control Agreement for David Dutton, Chief Executive Officer, and Executive Change of Control Agreement for Andy Moring, Chief	(13) (C)

	Financial Officer, and certain other executives.	
21.1	Subsidiaries of Registrant.	*
23.1	Consent of Independent Registered Public Accounting Firm	*
31.1	Certification of Chief Executive Officer Pursuant to Sarbanes-Oxley Act Section 302(a)	*
31.2	Certification of Chief Financial Officer Pursuant to Sarbanes-Oxley Act Section 302(a)	*
32.1	Certification of Chief Executive Officer Pursuant to 18 U.S.C. Section 1350	*
32.2	Certification of Chief Financial Officer Pursuant to 18 U.S.C. Section 1350	*

Notes:

* Filed herewith.

(C) Management contract or compensatory plan or arrangement.

- (1) Incorporated by reference to corresponding exhibit to Mattson Technology, Inc. current report on Form 8-K/A filed on January 30, 2001.
- (2) Incorporated by reference to corresponding exhibit to Mattson Technology, Inc. quarterly report on Form 10-Q filed on August 14, 2002.
- (3) Incorporated by reference to corresponding exhibit to Mattson Technology, Inc. current report on Form 8-K filed on December 22, 2010.
- (4) Incorporated by reference to corresponding exhibit to Mattson Technology, Inc. current report on Form 8-A12G filed on August 22, 2005.
- (5) Incorporated by reference to corresponding exhibit to Mattson Technology, Inc. annual report on Form 10-K filed on March 2, 2007.
- (6) Incorporated by reference to Appendix A to Mattson Technology, Inc. proxy statement filed on April 20, 2005.
- (7) Incorporated by reference to Appendix 1 to Mattson Technology, Inc. proxy statement filed on April 26, 2007.
- (8) Incorporated by reference to corresponding exhibit to Mattson Technology, Inc. on Form S-8 filed on December 16, 2005.
- (9) Incorporated by reference to corresponding exhibit to Mattson Technology, Inc. current report on Form 8-K filed on June 10, 2010.
- (10) Incorporated by reference to corresponding exhibit to Mattson Technology, Inc. quarterly report on Form 10-Q filed on November 4, 2005.
- (11) Incorporated by reference to corresponding exhibit to Mattson Technology, Inc. quarterly report on Form 10-Q filed on May 14, 2003.
- (12) Incorporated by reference to corresponding exhibit to Mattson Technology, Inc. quarterly report on Form 10-Q filed on May 9, 2008.
- (13) Incorporated by reference to the corresponding exhibit to Mattson Technology, Inc current report on Form 8-K filed on September 17, 2008.
- (14) Incorporated by reference to the corresponding exhibit to Mattson Technology, Inc current report on Form 8-K filed on July 14, 2008.

SCHEDULE II
VALUATION AND QUALIFYING ACCOUNTS
Allowance for Doubtful Accounts

<u>Year Ended December 31,</u>	<u>Balance at Beginning of Year</u>	<u>Charged (Credited) to Income</u>	<u>Deductions and Other</u>	<u>Balance at End of Year</u>
			(thousands)	
2010	\$ 2,167	\$ (1,154)	\$ (332)	\$ 681
2009	\$ 4,606	\$ (2,440)	\$ 1	\$ 2,167
2008	\$ 1,463	\$ 3,355	\$ (212)	\$ 4,606

Schedules other than those listed above have been omitted since they are either not required, not applicable, or because the information required is included in the consolidated financial statements or the notes thereto.