
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, 2009

☐ 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 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 30, 2009 was approximately \$58.7 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 February 25, 2010: 49,990,593.

Documents incorporated by reference: Portions of the Proxy Statement for registrant's Annual Meeting of Stockholders to be held in 2010, which will be filed on or before April 30, 2010 are incorporated herein by reference into Part III.

MATTSON TECHNOLOGY, INC.
FORM 10-K
FOR THE YEAR ENDED DECEMBER 31, 2009
TABLE OF CONTENTS

| | <u>Page</u> |
|----------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| PART I | |
| Item 1. <u>Business</u> | 2 |
| Item 1A. <u>Risk Factors</u> | 10 |
| Item 1B. <u>Unresolved Staff Comments</u> | 21 |
| Item 2. <u>Properties</u> | 21 |
| Item 3. <u>Legal Proceedings</u> | 22 |
| Item 4. <u>“Reserved “</u> | 22 |
| PART II | |
| Item 5. <u>Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities</u> | 22 |
| Item 6. <u>Selected Financial Data</u> | 25 |
| Item 7. <u>Management’s Discussion and Analysis of Financial Condition and Results of Operations</u> | 26 |
| Item 7A. <u>Quantitative and Qualitative Disclosures about Market Risk</u> | 39 |
| Item 8. <u>Financial Statements and Supplementary Data</u> | 41 |
| Item 9. <u>Changes in and Disagreements with Accountants on Accounting and Financial Disclosure</u> | 73 |
| Item 9A. <u>Controls and Procedures</u> | 73 |
| Item 9B. <u>Other Information</u> | 74 |
| PART III | |
| Item 10. <u>Directors and Executive Officers of the Registrant</u> | 74 |
| Item 11. <u>Executive Compensation</u> | 74 |
| Item 12. <u>Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters</u> | 74 |
| Item 13. <u>Certain Relationships and Related Transactions, and Director Independence</u> | 74 |
| Item 14. <u>Principal Accountant Fees and Services</u> | 74 |
| PART IV | |
| Item 15. <u>Exhibits, Financial Statement Schedules</u> | 74 |
| <u>Signatures</u> | 77 |
| Schedule II. <u>Valuation and Qualifying Accounts</u> | 78 |

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.

PART I

Item 1. Business

Company Overview

Mattson Technology, Inc. (Mattson or the Company) designs, manufactures, and markets semiconductor wafer processing equipment used in the fabrication of integrated circuits (ICs or chips). Mattson is a leading supplier of dry strip and rapid thermal processing (RTP) equipment to the global semiconductor industry. Its dry strip and RTP equipment utilizes innovative technology to deliver advanced processing performance and productivity gains to semiconductor manufacturers worldwide for the fabrication of current and next generation devices. Recently, Mattson has been expanding into the adjacent etch market with innovative products targeting high volume dielectric etch applications, and has also been expanding into the millisecond annealing market, a sector of the RTP market.

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 Korea. Our customer support organization is headquartered in Fremont, California, with sales and support teams located in China, France, Germany, Japan, 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 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, known as front-end-of-line (FEOL) fabrication, and then the transistors are microscopically wired together by means of the interconnect metal layers, known as back-end-of-line (BEOL) processing. 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.

Several technological trends impact IC manufacturing. One important trend is increasing IC density. Moore's

Law, an observation made in 1965 that states that the number of transistors on a chip doubles approximately every 24 months, has served as a goal for the entire industry and fueled the worldwide technology revolution. To adhere to Moore's Law, semiconductor manufacturers face continuing competitive pressures to manufacture increasingly complex ICs, improve yields per wafer and reduce manufacturing costs.

Semiconductor manufacturers have historically sought to increase the number of transistors per wafer by "shrinking" device structures through reducing device geometries or nodes. Today's advanced devices are being produced at the 4X nanometer ("nm") technology node. Leading semiconductor manufacturers are ramping volume production at 3X nm and are beginning pilot line activities at nodes below 3X nm. Semiconductor manufacturers rely on the semiconductor equipment industry to innovate the manufacturing machines to achieve smaller scale geometries.

The trend toward increasing device complexity and shrinking geometries requires the use of new materials and ever more demanding processes. The industry is transitioning from using silicon/glass and aluminum as the building blocks of ICs to using newer materials, such as cobalt, copper, hafnium, nickel, tantalum, titanium, tungsten, and low capacitance (low-k) dielectrics. Use of these new materials requires increasingly stringent processes to increase chip densities and improve chip speed, while reducing power consumption. These new challenging process requirements will drive the need for increased research and development in the semiconductor equipment industry to provide more innovative solutions to enable the use of these new films and processes.

To produce more chips on a wafer and reduce overall manufacturing cost per chip, semiconductor manufacturers have migrated to larger wafers. Most advanced devices are produced on 300 mm wafers. The trend of increasing wafer sizes is expected to continue, but because switching to production on larger wafers generally requires significant infrastructure changes in equipment and factory automation systems, the transition will occur less frequently than in the past.

These developments increase manufacturing complexity and create the need for manufacturing equipment with ever more precise process control capability, 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

Over the last decade, consumer products have emerged as the primary force behind semiconductor industry growth, comprising a significant portion of all semiconductor sales. Semiconductors used in consumer electronic devices include microcontrollers, microprocessors, digital signal processors and analog devices. Consumer electronics, such as cell phones, personal computers (PCs), digital televisions and digital music players, continue to drive chip demand.

Advances in electronics and semiconductor technology have resulted in consumer products with high performance at an affordable price. For example, consumer focused netbook PCs offer rich web interaction experience and task specific applications at less than \$500. The demand for cell phones has accelerated as consumers seek smartphones with increased features and functionality. Consumers can now access e-mails, browse the web, find directions, and take photos and videos with a smartphone priced under \$200. The smartphone is the fastest growing mobile phone segment today with over 170 million units shipped in 2009, accounting for 15 percent of all mobile phone sales.

The recent growth in the memory market is being driven by consumers' demand for electronic devices that provide more functionality, with larger storage capacity and mobility on a digital device. The demand for digital cameras and portable flash media players has been a significant driver of sales of NAND flash memory devices, and that demand is expected to continue. In addition, solid-state drives using NAND devices are starting to emerge as the storage media to replace the traditional hard drives found in PCs. DRAM content in PCs is expected to continue to grow to support PCs with higher performance. Smartphones and 3G will drive the mobile phone market; while games, portable media players and digital televisions will also continue to drive chip demand. The increasing proliferation of semiconductors into an ever-broader range of consumer products is expected to drive the growth in the semiconductor equipment industry for the next several years.

Mattson Strategy

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

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

Strategies to achieve our long-term growth goals include:

Technology Leadership

Today's 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'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 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.

Customer Loyalty

Our success is based on providing technical and production worthy value to our customers and enabling them to succeed. We develop and deliver products that increase productivity and reduce manufacturing costs to help our customers get their next-generation chips to market faster, thereby maximizing their returns on investment. Our global sales and service organization works with our customers to align our business with their technology and production needs. We are a vendor of choice at leading semiconductor manufacturers around the world, a testament to our success in maintaining strong relationships and building customer loyalty and satisfaction.

Operational Excellence

Because the semiconductor industry is a global business, it is critical for semiconductor equipment suppliers to have operations in each region available 24 hours a day/7 days a week/52 weeks a year. We have developed a globally integrated operations organization that responds quickly to deliver solutions and products to customers anywhere in the world. Through the successful implementation of our cyclically flexible enterprise ("CFE") business model, we have built a leaner, more flexible organization designed to deliver profitability and efficiency throughout industry cycles. We have established partnerships with our supply chain, and the outsourcing of non-core functions allows us to concentrate resources on what is most critical for our customers: developing and delivering advanced products that meet their current IC technology demands and are extendible for future devices. We have also implemented measures and programs designed to increase manufacturing efficiencies and reduce material costs. In the coming year, we will continue to implement these measures and programs to increase enterprise-wide efficiencies and operational excellence.

Markets, Applications and Products

Dry Strip

A strip system removes photoresist or other residues from a wafer following each step of film patterning or ion implantation processing. Methods for stripping off these residues include wet and dry technologies. The more advanced dry strip systems, such as our Suprema strip tool, create gaseous chemistries, or plasmas, to which the wafer is exposed to remove mask films and residues.

As the complexity and number of thin-film layers required for each wafer increase, the demand for advanced strip equipment has grown. This has led to a need for semiconductor manufacturers to increase their strip capacity and to place greater emphasis on low-damage results and residue-free stripping. The fabrication of ICs with feature sizes below 32 nm, and the use of copper and low-k dielectric films create new challenges for advanced stripping equipment. The resist or residues must be removed without degrading the low-k materials, oxidizing exposed copper or damaging the surface of the wafer. In addition, adoption of high-k material for the FEOL process requires new process chemistries and advanced process conditions to eliminate oxidation and film loss.

Our Suprema system utilizes an innovative wafer handling architecture to deliver productivity and reliability with exceptionally low cost of ownership for manufacturing at the 65 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 system utilizes an enhanced radio frequency (RF) matching network and a higher-capacity heating source to provide reliable, high volume manufacturing strip processes with increased throughput. The Suprema has been installed and is operational at eight of the top ten global semiconductor companies for production and process development for advanced nodes.

Rapid Thermal Processing

In Rapid Thermal Processing (RTP), semiconductor wafers are rapidly heated under controlled ambient conditions to process temperatures of up to 1350°C, held at the desired temperature for a short, defined time and then rapidly cooled. Thermal processing can alter and lock in material properties at the wafer surface as well as in the bulk silicon.

Typical processes include:

- Rapid thermal annealing: to achieve defined electrical properties in the devices or in the bulk of the wafer;
- Rapid thermal silicidation: to optimize the electrical conductive structures on the wafer; and
- Rapid thermal oxidation (RTO): to grow an oxide layer on the wafer surface.

Historically, diffusion furnaces have been used to heat-treat large batches of wafers. As device features continue to shrink, temperature uniformity and exposure control have become more critical and require precision process capabilities beyond those that diffusion furnaces can provide. Single-wafer RTP inherently enables more precise thermal control, uniformity across the diameter of the wafer and repeatability of results from wafer to wafer.

Mattson's RTP products feature dual-sided, lamp-based heating technology that provides enhanced process uniformity and repeatability with precise process control for both 200 and 300 mm manufacturing. Our products include the 2900 for 200 mm processes, the Helios and Helios XP systems for 300 mm anneal applications, the flash-assisted RTP (fRTP) Millios system for millisecond anneal applications and the Atmos system for 300 mm advanced oxidation applications.

The Helios features a model-based temperature measurement and control system that provides the uniformity, repeatability and reliability required for achieving superior device performance for the most demanding applications, including source/drain anneal and spike anneal. The systems are in volume production at major memory customer sites. The Helios XP was introduced in 2009 as our third generation of 300mm RTP tools. Our strategy surrounding the Helios XP system has been to penetrate the logic and foundry markets while extending the winning system further into the NAND Flash market; taking advantage of its differentiated capabilities, specifically low temperature capability for advanced nickel silicide formation and pattern independent processing. In 2009, we shipped the Helios XP to a leading foundry customer for 22 nm logic development, and the system has been demonstrating acceptable performance to the customer's specification. This marks the first Mattson RTP tool placement in the foundry segment. In addition, the Helios XP achieved acceptance at the R&D facilities of the leading DRAM and NAND providers.

Millios, which features a patented arc lamp technology capable of reducing thermal cycle time by a factor of over a hundred, 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, typically called millisecond annealing, is needed for many processes in most advanced technology nodes where even the short times used in

conventional RTP are too long. Over the past year, we continued to work closely with a leading device manufacturer in Asia to demonstrate Millios' process and manufacturing advantages. The tool is in the final qualification stage with the customer and has already proven its high throughput, stability and reliability through extended marathon testing. We are working with several other key customers towards Millios tool placements to extend our market share as the millisecond anneal market emerges.

Etch

Etching processes, which are repeated numerous times during the IC manufacturing cycle, selectively remove patterned and blanket materials from the surface of a wafer to create the device structures. As IC feature sizes continue to shrink, dry (or plasma) etching has become one of the most frequently used processes in semiconductor manufacturing because of plasma etching's ability to create the fine line widths required for smaller geometries.

Plasma-based etching can be divided into two sub categories: isotropic and anisotropic etching. An isotropic, or multi-directional, etch system utilizes mostly neutral and low energy ions to perform a variety of etch processes on semiconductor wafers. Anisotropic etching, which occupies the majority of the total available plasma etch market, utilizes energetic ions to directionally etch the materials.

Our Aspen III LiteEtch system uses our patented ICP source technology for isotropic etching applications on 200 and 300 mm wafers. The LiteEtch system leverages the very high throughput of our transfer platform and the superior performance of the patented ICP with Faraday shield to provide an excellent on-wafer performance.

In 2009, we made significant progress with the Nexion anisotropic etch system, as multiple Nexion systems were successfully production qualified at a major memory manufacturer. This product draws on our expertise in anisotropic etching using our Faraday-shielded ICP source with a high throughput platform to provide low cost-of-ownership as well as excellent process on-wafer performance to our customers. We are continuing our efforts to add additional anisotropic etch applications while expanding our etch market position with leading customers.

Another anisotropic etch system, the Alpine, provides etch solutions for low-k dielectric and copper integration including the resist etchback and barrier layer removal applications. The Alpine features Mattson's proprietary Faraday-shielded ICP source and a bias capability that enables independent control of ion energy and ion density. The system builds on our latest production proven high throughput platform and is designed for reliable, high-productivity, and low cost-of-ownership manufacturing. The Alpine is in the final device qualification phase at a leading foundry customer where we have demonstrated lower cost-of-ownership against a leading competitor. The Alpine is also being extended into the packaging program where our cost-of-ownership and ion energy control provide key differentiation against other tools available in the market. In 2009, a leading logic customer selected the Alpine etch system for advanced wafer-level packaging applications.

With products in both isotropic and anisotropic etching, we are continuously growing our served available market while providing our customers with superior technology at lowest cost-of-ownership. We are working with several customers serving many different applications and processes on the production line, and we expect continued tool placement in 2010.

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 ("RD&E") programs. We seek to maintain close relationships with our global customers and to remain responsive to their product and processing needs.

Our RD&E activities in 2009 were concentrated in the following areas:

- Introduction of the Helios XP, a new generation RTP product for foundry and logic customers
- Continued development of the Etch products
- Commercialization of our Millios flash RTP (fRTP) system
- Continued improvement of our Suprema strip system

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 2009, the Helios XP was placed at advanced research and development (R&D) facilities of our memory and foundry customers.

In etch, we invested significant RD&E in our Nexion system as part of our continuous improvement efforts to better the performance of the tool in a high volume production environment. We also continued qualification of the Alpine system for the etchback application while introducing the product to the packaging market, where the capabilities of the Alpine system showed an excellent on-wafer performance to the expanding requirements of this growing segment. In dielectric etch, we developed our latest 300mm reactive ion etch system to extend the features and capabilities of our etch offering and extend coverage across additional etch applications. We continued the qualification of our 300mm reactive ion etch system at a leading memory customer and have made excellent progress with both the system reliability and the results shown on customer's devices.

In 2009, we continued to improve the performance of the Millios, including the expansion of the temperature control range and accuracy. These improvements enable additional process control and process flexibility to meet our customers' stringent requirements. The tool at the leading device manufacturer is in the final qualification stage and has proven its high throughput, stability and reliability. We continued to work closely with our key customers to provide enabling process solution utilizing the millisecond anneal capability of the Millios for advanced applications such as the formation of nickel silicide.

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, the latest continuous improvement program for Suprema successfully demonstrated an approximately eight percent improvement in throughput.

In 2010, 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 RD&E 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 \$25.3 million for the year ended December 31, 2009, \$36.8 million for the year ended December 31, 2008, and \$34.1 million for the year ended December 31, 2007, representing net sales percentages of 59.3%, 27.6%, and 12.7%, 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 United States patents and corresponding foreign patents, and have a number of patent applications pending covering various aspects of our products and processes. We have also licensed a small number of patents and where appropriate, we intend to file additional patent applications on inventions resulting from our ongoing RD&E 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 2009, customers for our products include approximately 15 of the world's top 20 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, | | |
|-------------------------------------|-------------------------|------------|------------|
| | 2009 | 2008 | 2007 |
| Canon ⁽¹⁾ | <10% | 19% | 10% |
| Samsung | 30% | 10% | 12% |
| Hynix | 15% | <10% | 15% |
| Nanya | <10% | <10% | 13% |
| Chartered | 10% | <10% | <10% |
| Top ten customers as a group | 80% | 72% | 74% |

⁽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, Germany, France, Japan, Korea, Singapore, Taiwan and the United States.

In 2009, we maintained a few select 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 92 percent of our net sales in 2009, 91 percent of our net sales in 2008 and 92 percent of our net sales in 2007. 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, Korea, Taiwan and other Asian countries accounted for 82 percent of our net sales in 2009, 81 percent of our net sales in 2008, and 79 percent of our net sales in 2007. 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'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 leads programs meant 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, Korea, Singapore, Taiwan and the United States. 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.

We work closely with Semiconductor Equipment Materials International (SEMI), a global member association for companies participating in the microelectronics and display industries, to ensure that our programs generally comply with its support directives.

Backlog

We schedule production of our systems based on both backlog and regular sales forecasts. 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 \$4.3 million as of December 31, 2009, \$7.8 million as of December 31, 2008 and \$27.0 million as of December 31, 2007.

Due to the weakness in the overall semiconductor market in the most recent cycle, our customers significantly decreased their requested delivery times, in order to allow them more time to evaluate market conditions before placing orders. In 2009, for several of our key customers, we received orders only one to two months prior to shipment compared to three to six months historically. 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 capability in Fremont, California and Dornstadt, Germany. 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 Germany and in various Asian countries. We have established Sales & Operations Planning (S&OP) processes and systems to flexibly manage our production capacity and inventory levels, in accordance with fluctuating market demands.

Employees

As of December 31, 2009, we had 356 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. At times during periods of economic growth, we have experienced difficulty in attracting new personnel, and if needed we may not be successful in retaining or recruiting sufficient key personnel in the future. 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. We consider our relationships with our employees to be good.

Environmental Matters

We are subject to Federal, state, local and international environmental laws and regulations. These laws, rules and regulations govern the use, storage, discharge and disposal of hazardous chemicals during manufacturing, research and development and sales demonstrations. Neither compliance with Federal, state and local provisions regulating discharge of materials into the environment, nor remedial agreements or other actions relating to the environment, has 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

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.

We require a significant amount of cash resources to operate our business. Our liquidity is affected by many factors including, among others, the fluctuations in revenue, gross profits, operating expenses, and changes in 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 working capital requirements for inventory purchases and accounts receivable. Alternatively, any further 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.

In the future, we may need additional funds to support our working capital requirements, operating expenses or for other requirements. We may seek to raise these funds through public or private debt or equity financing, or through the sale of assets. 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. If we are unsuccessful in our attempts to obtain additional financing, we may be required to reduce planned expenditures or investments, which may adversely affect our business, reduce revenues or increase our losses.

The ongoing recession and the relatively modest recovery exhibited in the general economy and in the semiconductor industry have caused us recent losses and reductions in available cash, and may continue to negatively impact our financial performance.

The ongoing recession in the global economy and the current downturn in the semiconductor industry have seriously impacted and could further impact customer demand for our products and our financial performance. The degree of this impact will depend on a number of factors, including the length of the time that it will take the US economy to recover from this recession. Demand for semiconductor equipment depends on consumer spending. Economic uncertainty may lead to a decrease in consumer spending and may cause certain customers to cancel or delay placing orders.

We may experience supplier or customer issues as a result of current adverse macroeconomic conditions. If our customers have difficulties in obtaining capital or financing, this could result in lower sales. Customers with liquidity issues could also result in an increase in bad debt expense if we are unable to collect accounts receivable from these customers. 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. These economic conditions make it difficult for us to accurately predict our business, and identify the risks that may affect our business, financial condition and results of operations.

Because of the negative effects of the current recession, we may have to take further actions to reduce costs, which could reduce our ability to significantly invest in research and development at levels we believe are necessary. 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.

Our investment portfolio is subject to credit, liquidity, market and interest rate risks in the recovering financial market environment which could negatively impact the value, returns and liquidity of our investment portfolio. As a result of the economic conditions or otherwise, if the need arises, we may not be able to obtain short-term, longer-term or capital financing in these weak global credit markets. If we are not able to suitably adapt to these economic conditions in a timely manner or at all, our results of operations could be materially and adversely impacted.

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 reduced capital expenditures, decreased demand for our products and increased price competition.

The semiconductor industry is highly cyclical and has historically experienced periodic downturns. Such downturns may result from general economic changes, such as the ongoing recession in the U.S. and global economies, or due to capacity growth temporarily exceeding growth in demand for semiconductor devices. The length and the severity of the current recession could result in continued overcapacity and cause a delay in receiving capacity orders from our customers. 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 fabrication facilities are not expanded and new facilities are not built, demand for our systems may not develop or increase, and 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. Increased price competition may also result as we and our competitors chase smaller demand in the market, causing pressure on our gross margin and net income.

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 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 phases of a new product, customer acceptance needs to be obtained before we can recognize revenue on the product. Customer evaluations 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.

We are dependent on a highly concentrated customer base, particularly with customers in the memory market, and any cancellation, reduction or delay of purchases by or failure to collect receivables from 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 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. 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 financial performance.

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, and we may not be successful in obtaining broader acceptance of our systems and technology. 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.

A large percentage of our sales are concentrated among customers in the memory market, representing 54 percent of systems sales in 2009. As a result, a downturn or an upturn in memory spending resulting from a sudden change in the economy could impact us more than it would impact competitors who are more diversified with logic and foundry customers. Excess capacity could result in a significant decrease in capital spending by our customers whereas a shortfall in capacity could result in a significant increase in capital spending by our customers.

Our list of major customers changes substantially from year to year, and we cannot predict whether a major customer in one year will make significant purchases from us in future years. Additionally, our customers' capital budget considerations and our lengthy sales cycle make the timing of customer orders uneven and difficult to predict. Accordingly, it is difficult for us to accurately forecast our revenues and operating results from year to year. Consequently, any order cancellations, delays in scheduled shipments, delays in customer acceptances or delays in collection of accounts receivable could materially adversely affect our operating results and cause our results to fall below our expectations and the expectations of market analysts or investors.

The current economic and industry downturn could and has already caused at least one of our customers to file for bankruptcy protection. Because bankruptcy courts have the power to cancel or change the terms of the contracts of companies seeking bankruptcy protection, bankruptcies among our customer base may potentially result in the receivables owed to us by such customers becoming uncollectable in the near-term and perhaps indefinitely, as well as the potential loss of revenue from one less customer.

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.

Our more limited product line also creates the risk that our customers may view us as less important to their business than our competitors that offer additional products. 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.

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. 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 net losses of approximately \$336.7 million for the year ended December 31, 2001, \$69.7 million for the year ended December 31, 2002 and \$35.5 million for the year ended December 31, 2003. Although we were profitable for each of the years 2004 to 2007, we incurred net losses of \$92.2 million for the year ended December 31, 2008, and \$67.0 million for the year ended December 31, 2009 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 the current or 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.

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, 2009, the price range for our common stock was \$0.42 to \$3.60 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. Such fluctuations could adversely affect the market price of our common stock. 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 plan to 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 certain 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. During the current economic recession, it is likely that some of our suppliers may experience financial difficulties and we may be required to find alternative sources of supply. 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 results of operations. We recorded inventory valuation charges for excess and obsolete inventory of \$14.2 million in 2009, \$7.1 million in 2008, and \$0.3 million in 2007, mainly as a result of declining demand for our products. We currently maintain inventory reserves at 47 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 our operating expenses in Germany may fluctuate due to changes in the value of the Euro.

We develop and manufacture a significant portion of our products in Germany, where our costs for labor and materials are primarily established in Euros. Future increases in the strength of the Euro, if any, could increase our development costs, our costs to manufacture systems in Germany 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 engineering efforts on new products, a significant portion of which are 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 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 highly dependent on international sales, and face significant international business risks.

International sales accounted for 92 percent of our net sales in 2009, 91 percent of our net sales in 2008, and 92 percent of our net sales in 2007. We anticipate 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, and we anticipate that it will continue to be important going forward. Our sales to customers located in China, Japan, Korea, Taiwan and other Asian countries accounted for 82 percent of our net sales in 2009, 81 percent of our net sales in 2008, and 79 percent of our net sales in 2007. 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 the current economic downturn, 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. export laws;
- political and economic instability;
- government sponsored competition;
- differing labor regulations;
- reduced protection for 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, 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 the U.S. and Asia, our sales to date have been denominated primarily in U.S. dollars. 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.

We are exposed to various risks regarding to the regulatory environment. 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. We have recently 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 damages amounts or legal expenses may adversely impact our financial condition or results of operations.

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. 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.

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 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.

In addition, we on occasion 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 Fremont, California, Dornstadt, Germany and Vancouver, Canada manufacturing facilities, we could be subject to substantial liability for clean up 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.

Our restated certificate of incorporation and 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 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% 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 acquirer 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% 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% or more of our outstanding voting stock.

Executive Officers of the Registrant

The following table and notes set forth information about our two executive officers:

| Name | Age | Title |
|-----------------|-----|-----------------------------------------------------------|
| David L. Dutton | 49 | Chief Executive Officer, President and Director |
| Andy Moring | 54 | Chief Financial Officer, Executive Vice President-Finance |

David L. Dutton — Chief Executive Officer, President and Director

David Dutton has served as Mattson's Chief Executive Officer and Director since December 2001. Mr. Dutton also served as Mattson's President from October 2001 to June 2005 and from November 2007 to the present. From 1998 to 2000, Mr. Dutton served as Executive Vice President and Chief Operating Officer of Mattson. Mr. Dutton previously served as President of the Plasma Products Division. Mr. Dutton joined Mattson in 1994 as General Manager of the Strip/Plasma Etch division. Mr. Dutton started his career in the semiconductor industry in 1984 and held engineering management positions for wafer processing and development at Intel Corporation and Maxim Integrated Products, Inc. Mr. Dutton serves on the Board of Directors for the Bay Area Council. Mr. Dutton holds a Bachelor of Science degree from San Jose State University.

Andy Moring — Chief Financial Officer, Executive Vice President-Finance

Andy Moring was promoted to Chief Financial Officer in June 2008. He served as Mattson's Senior Vice President and Corporate Controller since July 2006. Prior to July 2006, Mr. Moring served at Applied Materials, Inc., a manufacturer of semiconductor fabrication equipment, for 17 years in various progressively responsible financial positions culminating in his appointment as Vice President of Global Internal Audit. Mr. Moring holds a BS degree in Economics from the University of California, Riverside and an MBA from Santa Clara University.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our principal properties as of December 31, 2009 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, 2009, this property was subleased to another party.

In addition to the above properties, we lease an aggregate of approximately 50,000 square feet of office space for sales and customer support offices. 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, three in

Taiwan, two in Germany, and one in each of Canada, Japan, and Singapore. During 2009, 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. “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> |
|-------------|------------|-------------|
| 2009 | | |
| First | \$ 0.42 | \$ 1.42 |
| Second | 0.86 | 1.56 |
| Third | 1.11 | 2.82 |
| Fourth | 1.94 | 3.60 |
| 2008 | | |
| First | \$ 5.22 | \$ 8.39 |
| Second | 4.58 | 6.28 |
| Third | 4.22 | 5.72 |
| Fourth | 1.01 | 4.73 |

On February 25, 2010, our common stock on The Nasdaq Global Select Market was \$3.74 per share; and according to the records of our transfer agent, we had 196 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 recordholders.

Dividends

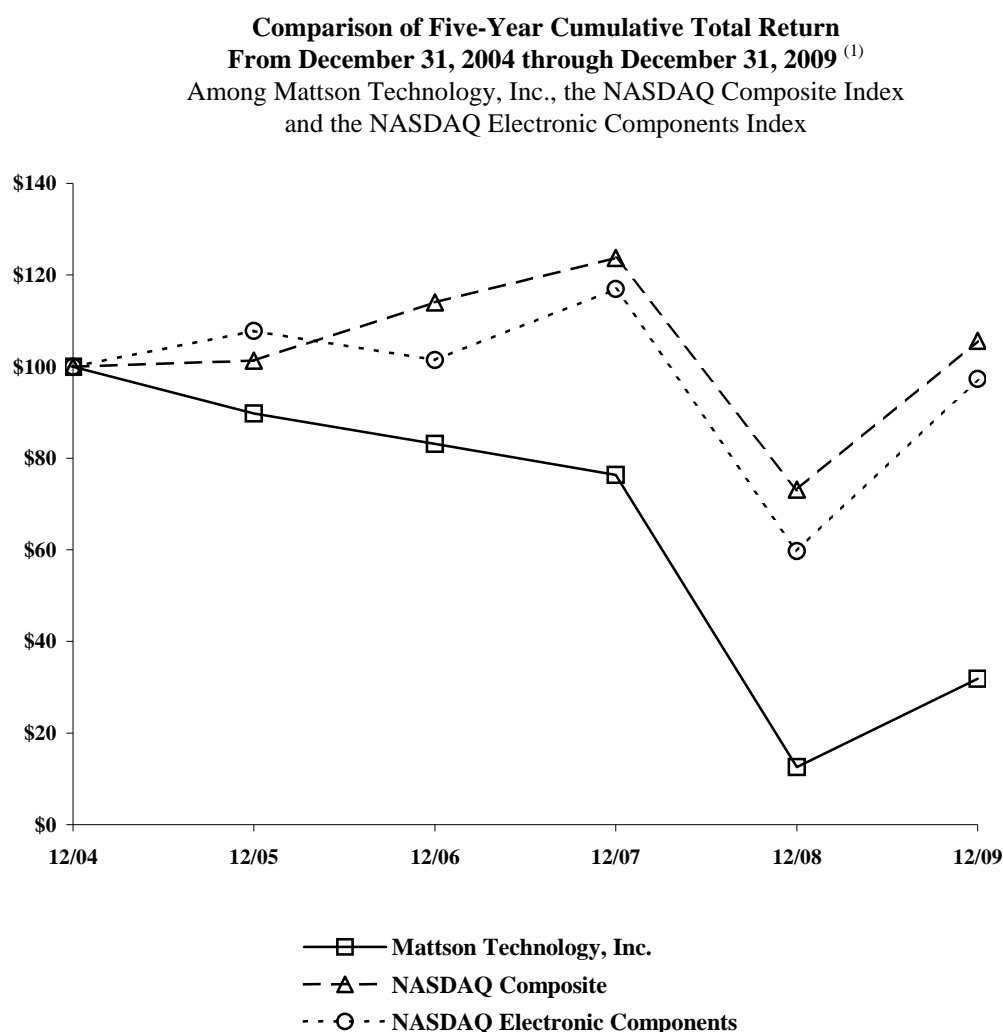
We have never paid cash dividends on our common stock and have no present plans to pay cash dividends. We intend to retain all future earnings for use in our business.

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 2010.

Comparison of Stockholder Return

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



| | December 31, | | | | | |
|------------------------------|--------------|-----------|-----------|-----------|----------|-----------|
| | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
| Mattson Technology, Inc. | \$ 100.00 | \$ 89.74 | \$ 83.14 | \$ 76.36 | \$ 12.58 | \$ 31.85 |
| NASDAQ Composite | \$ 100.00 | \$ 101.33 | \$ 114.01 | \$ 123.71 | \$ 73.11 | \$ 105.61 |
| NASDAQ Electronic Components | \$ 100.00 | \$ 107.81 | \$ 101.44 | \$ 116.92 | \$ 59.73 | \$ 97.30 |

⁽¹⁾ Assumes that \$100.00 was invested in Mattson common stock and in each index at market closing prices on December 31, 2004, 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 April 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. By December 31, 2007, we had completed all repurchases under this initial authorization, at a weighted-average cost of \$9.97 per share.

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. The size and timing of future repurchases will depend on the Company’s share price. 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. As of December 31, 2009, we have authorization to repurchase up to an additional \$15 million of shares of our common stock under the Repurchase Plan.

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 Statements of Operations data for the years ended December 31, 2009, 2008, and 2007 and the selected Consolidated Balance Sheet data as of December 31, 2009 and 2008 from our audited consolidated financial statements appearing in Item 7 of this report. We derived the selected Consolidated Statements of Operations data for the years ended December 31, 2006, and 2005 and the selected Consolidated Balance Sheet data as of December 31, 2007, 2006 and 2005 from our audited consolidated financial statements as published in our 10-K for the year ended December 31, 2007 and December 31, 2006.

| | Year Ended December 31, | | | | |
|--------------------------------------------------------------|---------------------------------------|---------------------|---------------------|------------------|------------------|
| | 2009 ⁽¹⁾ | 2008 ⁽²⁾ | 2007 ⁽³⁾ | 2006 | 2005 |
| | (thousands, except per share amounts) | | | | |
| Net sales | \$ 42,748 | \$ 133,551 | \$ 267,286 | \$ 281,781 | \$ 209,379 |
| Cost of sales | \$ 44,843 | \$ 86,005 | \$ 144,075 | \$ 172,720 | \$ 124,126 |
| Gross profit (loss) | \$ (2,095) | \$ 47,546 | \$ 123,211 | \$ 109,061 | \$ 85,253 |
| Income (loss) from operations | \$ (77,011) | \$ (91,825) | \$ 24,241 | \$ 15,490 | \$ 5,376 |
| Net income (loss) | \$ (67,042) | \$ (92,163) | \$ 27,553 | \$ 17,114 | \$ 11,299 |
| Net income (loss) per share: | | | | | |
| Basic | \$ (1.35) | \$ (1.86) | \$ 0.53 | \$ 0.33 | \$ 0.22 |
| Diluted | \$ (1.35) | \$ (1.86) | \$ 0.52 | \$ 0.32 | \$ 0.21 |
| Shares used in computing net income (loss) per share: | | | | | |
| Basic | 49,832 | 49,471 | 51,771 | 52,357 | 51,457 |
| Diluted | 49,832 | 49,471 | 52,716 | 53,368 | 52,684 |

Consolidated Balance Sheet Data:

| | December 31, | | | | |
|--------------------------------------------|--------------|------------|------------|------------|------------|
| | 2009 | 2008 | 2007 | 2006 | 2005 |
| | (thousands) | | | | |
| Cash, cash equivalents and restricted cash | \$ 47,346 | \$ 77,107 | \$ 125,533 | \$ 91,416 | \$ 116,593 |
| Short term investments | \$ 13,089 | \$ 26,280 | \$ 26,280 | \$ 47,469 | \$ 12,689 |
| Working capital | \$ 75,455 | \$ 140,491 | \$ 201,019 | \$ 185,078 | \$ 152,324 |
| Total assets | \$ 133,073 | \$ 208,211 | \$ 317,770 | \$ 316,752 | \$ 275,567 |
| Total stockholders' equity | \$ 94,706 | \$ 156,836 | \$ 245,283 | \$ 238,930 | \$ 210,189 |

⁽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.

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 transistor level, or front-end-of-line manufacturing, and also in specialized applications for processing the interconnect layer, or back-end-of-line processing. Our manufacturing equipment utilizes innovative technology to deliver advanced processing capabilities and high productivity for the fabrication of current and next-generation ICs.

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. The latest downturn in the industry, which began in the second half of fiscal 2007, has been unusually severe and extreme due to the global economic crisis. However, based on recent trends, we believe that the semiconductor equipment market is recovering at a faster rate than was anticipated and that a recovery in the industry is commencing.

2009 was a challenging year for the industry, with an unprecedented downturn in the cycle. However, building on a history of innovation, Mattson continued to fund our new product portfolio, the development of which allows us to target markets we did not previously serve, increasing our market opportunity. In 2009, we strengthened our restructuring and cost reduction efforts and increased our efforts to outsource the manufacturing of our products. Our goal with respect to these initiatives is to yield higher returns as we grow into a larger targeted available market, and we believe we have positioned Mattson to improve our results with any sustained recovery of the economy and the industry.

We believe that our strategic investment in the etch market is yielding results. We leveraged our plasma expertise into the etch market, an entirely new sector for the company. As a result, we enter 2010 positioned to serve customers in three diverse markets sectors, thereby increasing our addressable market. We have recently announced our latest etch system, the paradigmE, which is our newest advanced innovation targeted to meet the stringent requirements of advanced dielectric etch applications. We are increasing product traction with key customer wins with this product. The paradigmE and the Alpine comprise our etch portfolio, and together they have had key placements in the memory and foundry sectors for both front end of line and back end interconnect usages.

During 2009, etch became a revenue contributor, making up over 12 percent of our revenue. We recognized revenue on an Alpine system with a leading logic manufacturer for wafer-level packaging applications, which opened up a new addressable market. We extended RTP into the logic and foundry sectors. We released our next generation RTP system, the Helios XP, which is gaining significant traction with our customers. We shipped a system to a leading foundry customer for advanced anneal processing, and the Helios XP is now established at multiple leading customers in the memory and foundry sectors. Our Suprema product continued to extend our application positions into our key accounts. As we move further into 2010, we are beginning to see capacity buys in strip and we expect our core business to increase revenue levels as the wafer fabrication capital spending increases with the recovery.

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 strengthening of the global economy.

In 2009, our revenue declined by \$90.8 million to \$42.7 million from \$133.6 million in 2008, primarily due to significant weakness in the semiconductor equipment market, exacerbated by the global economic crisis. Gross profit in 2009 was a negative \$2.1 million compared to \$47.6 million in 2008. The decrease in gross margin was primarily due to lower revenues across all product lines, factory under-utilization charges and higher inventory write-downs. Our operating expenses in 2009 decreased by 46 percent to \$74.9 million. The decrease in operating expenses was largely due to stringent cost reduction-measures we implemented in 2008 and 2009. The impact of the cost-reduction measures, non-recurrence of certain impairment charges that were recognized in 2008, and realization of a tax benefit contributed to a lower net loss in 2009 of \$67.0 million compared to \$92.2 million in 2008.

As of December 31, 2009, we had \$60.4 million of cash, cash equivalents, restricted cash and short-term investments. We had no debt outstanding as of December 31, 2009. With our current cash position, we believe we have sufficient resources to meet our requirements for the next year, subject to the expected continuing improvement in the overall economy and the semiconductor equipment industry.

Going forward, 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, 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 | | | |
| 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) | (104.4) |
| Operating expenses: | | | | | | |
| Research, development and engineering | 25,340 | 59.3 | 36,833 | 27.6 | (11,493) | (31.2) |
| Selling, general and administrative | 46,980 | 109.9 | 68,530 | 51.3 | (21,550) | (31.4) |
| Amortization of intangibles | - | - | 512 | 0.4 | (512) | n/m ⁽¹⁾ |
| 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) | (0.3) | (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 loss | \$ (67,042) | (156.8) % | \$ (92,163) | (69.0) % | \$ 25,121 | 27.3 % |

⁽¹⁾ Not meaningful

Net sales. Net sales decreased by 68 percent to \$42.7 million for the year ended December 31, 2009 compared to \$133.6 million in 2008. The overall 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. However, in the fourth quarter of 2009, we experienced a 60 percent sequential revenue growth over the last quarter and we experienced more than 35 percent incremental revenue growth over the last three quarters, as we believe the semiconductor equipment market is in the beginning phases of a recovery.

In 2009, international sales to customers in Europe and Asia, including China, Japan, Korea, Singapore 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. We anticipate that international sales will continue to account for a significant portion of our net sales.

Gross Profit and Gross Profit Margin. Gross profit was a negative \$2.1 million for the year ended December 31, 2009, a decrease of \$49.6 million compared to \$47.5 million in 2008. The decrease in gross profit was primarily caused by the 68 percent decrease in net sales in 2009. In addition, the decrease in our production levels resulted in under-absorption of fixed manufacturing overhead costs of approximately \$7.1 million combined with \$13.1 million of excess inventory reserves due to lower forecasted revenue volumes and \$1.1 million for excess inventory reserves resulting from vendor commitments. Royalty revenue, with no offsetting costs, of \$6.4 million from DNS favorably impacted the gross margin in 2008.

Gross profit margin for the year ended December 31, 2009 decreased to a negative 4.9 percent from 35.6 percent in 2008, primarily due to under-absorption of fixed manufacturing costs caused by lower production levels as well as additional inventory reserves. Our gross profit margin 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 (“RD&E”). RD&E expenses were \$25.3 million for the year ended December 31, 2009, a decrease of \$11.5 million or 31.2 percent compared to \$36.8 million in 2008. The decrease in RD&E 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 combined \$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 planned shutdowns, furloughs, workforce reductions and spending reductions in certain RD&E projects.

Selling, General and Administrative (“SG&A”). SG&A expenses were \$47.0 million for the year ended December 31, 2009, a decrease of \$21.6 million or 31.4 percent compared to \$68.5 million in 2008. The decrease in SG&A 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 SG&A expenses were primarily due to reductions in certain costs attributable to the decrease in revenues and cost-reduction activities implemented since fiscal 2008. We also released \$2.4 million of bad debt reserves in 2009 upon receipt of payments from the customers, when compared to additional bad debt reserves of \$3.4 million in 2008.

Amortization of Intangibles. We recorded amortization expenses of zero and \$0.5 million for the years ended December 31, 2009 and 2008, respectively. In the fourth quarter of 2008, we recorded an impairment charge of \$6.6 million to write down the remaining carrying amount of purchased technology acquired in connection with our acquisition of Vortek in 2004.

Restructuring Expenses. 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 and a combined expected annualized cost-savings of approximately \$24.0 million. 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.

As of December 31, 2009, we had a total restructuring reserves balance of \$0.6 million, comprised of severance costs of \$0.1 million and lease termination costs of \$0.5 million. We anticipate that severance payments against the reserves will be substantially completed by the end of the first half of fiscal 2010. 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.

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 RD&E and SG&A related costs. In 2010, we will continue to review our operations and take further cost reduction measures as necessary, in order to minimize the cash used in operations, and retain sufficient cash reserves for the next twelve months.

Impairment of Goodwill. In fiscal 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 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 for the year ended December 31, 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 for the year ended December 31, 2009, an increase of \$2.6 million compared to an expense of \$1.2 million for the year ended December 31, 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 for the year ended December 31, 2009, compared to a foreign currency exchange loss of \$0.7 million and other expense of \$0.5 million for the year ended December 31, 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. Currently, we have 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 is more likely than not that our deferred tax assets generated from net operating loss carryforwards 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. 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, 2008 and 2007

The following table sets forth our consolidated results of operations for the years ended December 31, 2008 and 2007, 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) | |
|-------------------------------------------------|-------------------------|-----------------|------------------|---------------|---------------------|---------------------------|
| | 2008 | | 2007 | | | |
| Net sales | \$ 133,551 | 100.0 % | \$ 267,286 | 100.0 % | \$ (133,735) | (50.0) % |
| Cost of sales | 86,005 | 64.4 | 144,075 | 53.9 | (58,070) | (40.3) |
| Gross profit (loss) | 47,546 | 35.6 | 123,211 | 46.1 | (75,665) | (61.4) |
| Operating expenses: | | | | | | |
| Research, development and engineering | 36,833 | 27.6 | 34,116 | 12.7 | 2,717 | 8.0 |
| Selling, general and administrative | 68,530 | 51.3 | 64,343 | 24.1 | 4,187 | 6.5 |
| Amortization of intangibles | 512 | 0.4 | 511 | 0.2 | 1 | 0.2 |
| Restructuring charges | 5,989 | 4.5 | - | - | 5,989 | n/m ⁽¹⁾ |
| Impairment of intangibles | 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 | 139,371 | 104.4 | 98,970 | 37.0 | 40,401 | 40.8 |
| Income from operations | (91,825) | (68.8) | 24,241 | 9.1 | (116,066) | n/m ⁽¹⁾ |
| Interest income | 3,292 | 2.5 | 7,037 | 2.6 | (3,745) | (53.2) |
| Interest expense | (144) | (0.1) | (31) | (0.1) | 166 | n/m ⁽¹⁾ |
| Other income (expense), net | (1,175) | (0.9) | 1,207 | 0.5 | (2,382) | n/m ⁽¹⁾ |
| Income before income taxes | (89,852) | (67.3) | 32,454 | 12.1 | (122,306) | n/m ⁽¹⁾ |
| Provision for (benefit from) income taxes | 2,311 | 1.7 | 4,901 | 1.4 | (2,590) | (52.8) |
| Net income (loss) | \$ (92,163) | (69.0) % | \$ 27,553 | 10.3 % | \$ (119,716) | n/m ⁽¹⁾ |

⁽¹⁾ Not meaningful

Sales. Net Sales decreased by 50 percent to \$133.6 million for the year ended December 31, 2008 compared to \$267.3 million for the year ended December 31, 2007. The decrease in net sales was primarily due to significant weakness in the semiconductor equipment market, which resulted in a \$126.2 million decline in systems sales, a \$2.9 million decline in spares and service sales and a \$4.6 million decline in royalty revenue arising from the settlement of a patent infringement lawsuit against DNS.

International sales to customers based in Europe and Asia, including China, Japan, Korea, Singapore and Taiwan comprised approximately 91 percent of net sales in 2008, compared to 92 percent for the same period in 2007.

Gross Profit and Gross Profit Margin. Gross profit was \$47.5 million for the year ended December 31, 2008, a decrease of \$75.7 million or 61.4 percent compared to \$123.2 million for the year ended December 31, 2007. The decrease was due primarily to a 50 percent decline in net sales in 2008 when compared to 2007, manufacturing under absorption of \$7.4 million in 2008 compared to \$1.9 million in 2007, and a \$8.4 million increase in inventory reserves and manufacturing direct costs in 2008 compared to \$1.8 million in 2007. In the third and fourth quarters of 2008, we reduced manufacturing headcount by approximately 55 percent as a result of restructuring activities.

Gross profit margin for the year ended December 31, 2008 decreased to 35.6 percent from 46.1 percent in 2007, a decline of 10.5 percent. The decrease in gross profit margin was primarily due to under absorption of fixed manufacturing costs due to lower production levels and additional inventory reserves.

Research, Development and Engineering. RD&E expenses were \$36.8 million for the year ended December 31, 2008, an increase of \$2.7 million or 8 percent compared to \$34.1 million for the year ended December 31, 2007. The increase in RD&E was primarily due to an increase of \$1.9 million in higher depreciation on lab tools and \$0.8 million due to lower research and development credits from a research partner.

Selling, General and Administrative. SG&A expenses were \$68.5 million for the year ended December 31, 2008, an increase of \$4.2 million or 6.5 percent compared to \$64.3 million for the year ended December 31, 2007. The increase in SG&A expenses was primarily due to \$4.4 million higher receivables provisions, additional amortization of \$2.2 million for evaluation tools at customer sites, a \$1.6 million one-time material credit related to reserve releases in 2007 against a government funded project, \$1.3 million higher installation expenses related to the evaluation tools at customer sites and \$1.5 million higher expenses arising from market development and selling efforts. These increases were partially offset by \$3.5 million in reduced payroll expenses arising from restructuring activities, \$2.0 million savings from contract re-negotiations and reduced third-party services, and \$1.3 million in lower sales commissions and insurance costs.

Amortization of Intangibles. We recorded amortization expenses of \$0.5 million for each year ended December 31, 2008 and 2007 related to purchased technology acquired in connection with our acquisition of Vortek in 2004. In the fourth quarter of 2008, we recorded an impairment charge of \$6.6 million to write-down the remaining carrying amount of this asset as the projected cash flows attributable to the assets were adversely impacted by our declining revenues.

Restructuring Expenses. During fiscal 2008, we implemented several restructuring programs in response to our declining revenues, as follows:

In the fourth quarter of 2008, we implemented a reorganization of our structure to reduce costs of operations and streamline the organization going forward. We reduced approximately 20 percent of our then global workforce through reductions in force. We incurred related restructuring charges of \$2.5 million, comprised of severance costs.

In the third quarter of 2008, we implemented a cost alignment plan to reduce headcount and optimize our facilities worldwide. We reduced 11 percent of our then global workforce, which impacted approximately 50 percent of our manufacturing positions. We incurred related restructuring charges of \$2.5 million in severance costs and \$0.4 million in lease termination costs.

In the second quarter of 2008, we eliminated approximately 5 percent of our then global workforce, primarily in the office support organizations. We incurred related restructuring charges of \$0.7 million, comprised of severance costs.

In total, the 2008 restructuring activities reduced our headcount by approximately 35 percent and resulted in restructuring charges totaling \$6.0 million, primarily comprised of severance costs. The estimated annual savings from the 2008 restructuring activities were expected to be approximately \$19.0 million. We had no restructuring charges in fiscal 2007.

Impairment of Goodwill. In 2008, we recorded an impairment charge of \$18.1 million to write off the remaining carrying amount of goodwill, caused by significant declines in our revenues and market capitalization. We had no such impairment charge in fiscal 2007.

Impairment of Intangibles and Long-Lived Assets. In 2008, we recorded impairment charges of \$6.6 million to write off the net book value of intangible assets and \$2.8 million to write off certain lab assets. The intangible assets pertained to certain technology acquired from Vortek in October of 2004. We had no impairment charges in fiscal 2007.

Interest and Other Income (Expense), Net. In 2008, Interest income decreased by \$3.7 million due to lower cash investment balances in 2008 and lower average interest rate yields of 2.6 percent compared to 4.7 percent in 2007. The \$2.4 million increase in Other expense, net in 2008 was primarily due to \$1.2 million foreign exchange losses caused by a weakening U.S. dollar in the first half of 2008 and one-time payments of \$1.0 million received in connection with the termination of two commercial agreements in 2007.

Provision for Income Taxes. The provision for income taxes in 2008 consisted entirely of a \$2.3 million provision for foreign taxes. The provision for income taxes in 2007 consisted primarily of a \$0.2 million provision for Federal and state income taxes and a \$4.7 million provision for foreign taxes.

Other

Stock-Based Compensation. Stock-based compensation totaled \$2.9 million in 2009, \$4.4 million in 2008, and \$3.9 million in 2007. 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, 2009, 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 (In millions) | Weighted Average Period (In years) |
|------------------------|-----------------------------------------------------------------------------------------------|-------------------------------------------------------|
| Stock options | \$ 2.1 | 2.1 |
| Restricted stock units | \$ 0.4 | 2.0 |

Liquidity and Capital Resources

Our cash, cash equivalents, restricted cash and short-term investments were \$60.4 million as of December 31, 2009, a decrease of \$43.0 million from \$103.4 million as of December 31, 2008. Stockholders' equity as of December 31, 2009 was \$94.7 million compared to \$156.8 million as of December 31, 2008. Working capital as of December 31, 2009 was \$75.5 million compared to \$140.5 million as of December 31, 2008.

Credit Arrangements

In June 2009, our \$10.0 million revolving line of credit expired. 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 letters of credit, totaling approximately \$1.6 million, provided primarily to certain landlords, 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 letters of credit are now secured by cash of \$2.0 million, which is classified as restricted cash as of December 31, 2009.

Contractual Obligations

Under U.S. generally accepted accounting principles, certain obligations and commitments are not required to be included in our consolidated balance sheets. 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, 2009 are summarized in the following table:

| | Operating Lease Payments (thousands) | Vendor Commitments | | | | Total |
|------------|---------------------------------------------------------|----------------------------|------------------|-----------------------------|------------------|-------------------|
| | | Sub- Contractor | Inventory | Other ⁽¹⁾ | Total | Commitment |
| 2010 | \$ 5,150 | \$ 1,632 | \$ 10,559 | \$ 3,207 | \$ 15,398 | \$ 20,548 |
| 2011 | 4,030 | | | 1,475 | 1,475 | 5,505 |
| 2012 | 3,699 | | | 600 | 600 | 4,299 |
| 2013 | 3,726 | | | | | 3,726 |
| 2014 | 3,785 | | | | | 3,785 |
| Thereafter | 10,967 | | | | | 10,967 |
| | <u>\$ 31,357</u> | <u>\$ 1,632</u> | <u>\$ 10,559</u> | <u>\$ 5,282</u> | <u>\$ 17,473</u> | <u>\$ 48,830</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 noncancelable lease, expiring in December 2019. In January 2008, we entered into a sublease agreement for this facility, expiring in December 31, 2010. In October 2009, the lessee entered into an agreement with us to terminate the current sublease agreement as of June 30, 2010 and simultaneously entered into a new agreement to lease approximately 50 percent of the facility until December 2015, cancellable anytime after December 31, 2012. Under the existing sublease agreement, we have approximately \$2.7 million of expected future sublease income as of December 31, 2009.

Our deferred income taxes have been excluded from the table above because the related future cash outflows are uncertain. As of December 31, 2009, we had approximately \$3.3 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 14,269,290 (approximately \$13.5 million based on the applicable exchange rate at December 31, 2009), (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 14,269,290 (approximately \$13.5 million at December 31, 2009) 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 or until the royalty payments reach CAD 14,269,290 (approximately \$13.5 million as of December 31, 2009). 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 14,269,290 (approximately \$13.5 million as of December 31, 2009) less any royalties paid by MTC or by us to the Minister.

Off-Balance Sheet Arrangements

As of December 31, 2009, 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 \$75.0 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 paid us a total of \$95.1 million under the terms of the settlement and license agreements. For the years ended December 31, 2008, 2007 and 2006, we recognized royalty revenue of \$6.4 million, \$11.5 million and \$7.5 million, respectively, from DNS, which are reflected as a components of net sales in the Consolidated Statements of Operations for those years. DNS paid its last royalty payment to us in May 2008, and as of that date, DNS had satisfied all of its obligations to us pursuant to the settlement and license agreements.

Liquidity and Capital Resources Outlook

As of December 31, 2009, we had cash, cash equivalents, restricted cash and short-term investments of \$60.4 million. We believe that these balances will be sufficient to fund our working capital and other capital requirements over the course of the next twelve months. We will continue to review our expected cash requirements, and plan to take appropriate cost reduction measures to ensure that we have at least six to eight quarters of available cash. In the normal course of business, we evaluate the merits of acquiring technology or businesses, or establishing strategic relationships with or investing in such businesses. We may use available cash and cash equivalents and marketable security investments to fund such activities in the future. In the event additional needs for cash arise, we may raise additional funds from a combination of sources including the potential issuance of debt or equity securities. These financing options may not be available to us on a timely basis, if at all, or, if available, on terms acceptable to us or not dilutive to our shareholders. 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.

Cash Flows from Operating Activities

Net cash used in operations was \$42.3 million for the year ended December 31, 2009, comprised of net loss of \$67.0 million, offset by non-cash charges totaling \$14.9 million and an increase in cash from a net decrease in assets and liabilities of \$9.8 million. Non-cash charges of \$14.9 million consisted of (i) \$14.2 million in charges related to additional reserves for excess inventory resulting from the decrease in sales and existing vendor commitments; (ii) \$8.4 million in depreciation charges; (iii) \$2.9 million in stock-based compensation; (iv) \$0.3 million in charges for other non-cash items; offset by (v) \$8.5 million net tax benefit, primarily consisting of a \$8.3 million reversal of certain foreign deferred tax liabilities and (vi) \$2.4 million net decrease in allowance for doubtful accounts, resulting from the release of bad debt reserves upon receipt of past due payments from customers. The decrease in assets and liabilities of \$9.8 million was primarily due to a \$5.7 million net decrease in accounts receivable and advanced billings, a \$9.8 million decrease in inventories and inventories-delivered systems, offset by a \$3.4 million decrease in accounts payable and accrued liabilities, and a \$2.5 million decrease in deferred revenue. The decrease in accounts receivable and deferred revenue are largely reflective of the 68 percent decrease in net sales in 2009. The decreases in inventories and inventories-delivered systems are 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.

Net cash used in operations was \$42.8 million for the year ended December 31, 2008, primarily comprised of net loss of \$92.2 million and a decline in assets and liabilities of \$2.1 million offset by non-cash charges of \$51.5 million. The decline in net assets of \$2.1 million represented a \$16.4 million decrease in accounts payable and accrued liabilities, a \$9.0 million increase in inventories, a \$3.5 million decrease in deferred revenue, and a \$1.2 million decrease in other liabilities, partially offset by a \$20.7 million decrease in accounts receivable and advanced billings, a \$5.1 million decrease in prepaid expenses and other current assets, and a \$2.2 million decrease in other assets.

Net cash provided by operations of \$48.7 million for the year ended December 31, 2007, primarily comprised of net income of \$27.6 million, non-cash charges of \$9.9 million and a \$11.2 million increase in assets and liabilities. The increase in net assets of \$11.2 million primarily consisted of a \$28.9 million decrease in accounts receivable and advanced billings, a \$5.7 million increase in other liabilities and a \$1.9 million decrease in inventories – delivered systems, offset by a \$13.3 million decrease in accounts payable and accrued liabilities, a \$6.1 million increase in inventories, a \$5.2 million decrease in deferred revenue and a \$1.0 million reduction in allowance for doubtful accounts.

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

Net cash provided by investing activities for the year ended December 31, 2009 was \$9.3 million, primarily consisting of \$41.5 million proceeds from sales and maturities of available-for-sale investments, offset by \$28.8 million

used in the purchases of available-for-sale investments, purchases of \$2.0 million of certificates of deposit and capital expenditures of \$1.4 million. The \$2.0 million of certificates of deposit secures standby letters of credit provided to certain landlords and were classified as restricted cash as of December 31, 2009. Our capital expenditures were primarily for tools and equipment used in our manufacturing activities.

Net cash used in investing activities was \$7.0 million for the year ended December 31, 2008, primarily consisted of purchases of available-for-sale investments of \$30.6 million and capital expenditures of \$8.8 million, partially offset by proceeds from sales and maturities of available-for-sale investments of \$31.5 million and proceeds from sales of fixed assets of \$1.0 million. Capital expenditures in 2008 were primarily comprised of purchases of laboratory tools and equipment used in our RD&E activities.

Net cash provided by investing activities was \$11.3 million for the year ended December 31, 2007, primarily consisted of proceeds from sales and maturities of available-for-sale investments of \$61.6 million and proceeds from sales of property and equipment of \$0.5 million, partially offset by purchases of available-for-sale investments of \$40.4 million and capital spending of \$10.3 million. Our capital expenditures in 2007 were primarily comprised of purchases of technology used in our RD&E activities.

Cash Flows from Financing Activities

Net cash provided by financing activities for the year ended December 31, 2009 was \$0.2 million, consisted of net proceeds from stock plan transactions.

Net cash used in financing activities for the year ended December 31, 2008 was \$1.9 million, consisted of repurchases of our stock of \$2.6 million, partially offset by net proceeds from stock plans of \$0.7 million.

Net cash used in financing activities for the year ended December 31, 2007 was \$29.6 million, consisted of repurchases of our stock of \$32.4 million, partially offset by net proceeds of \$2.8 million from stock plans.

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, the portion of

the invoice price that is due upon shipment, generally 90 percent of the total invoice amount, is recognized as revenue upon shipment and transfer of title; 100 percent of the associated 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 maintain an allowance for estimated losses resulting from the inability of our customers to make required payments. This reserve is established based on historical trends, current economic conditions, delinquency status based on contractual terms and an analysis of specific exposures. If the financial condition of our customers were to deteriorate, including filing for bankruptcy, or if a customer was unable to make any payments, additional allowances may be required.

Warranty. The warranty we offer on system sales generally ranges from 12 months to 36 months, depending on the product. In 2007, we transitioned our warranty period to 12 months for most systems sales, except where previous customer agreements stated otherwise. In 2007, we also changed the coverage provided by the warranty to exclude certain consumable maintenance items.

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, and workforce availability and utilizations. 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. 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.

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.

Inventory Valuation. The carrying value of 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, 2009.

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, 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,

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 the 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, 2009. 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 for the years ended December 31, 2009, 2008 and 2007 were \$2.9 million, \$4.4 million and \$3.9 million, respectively.

New Accounting Pronouncements

In June 2009, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Codification as the single authoritative source for U.S. GAAP, which replaces all previous U.S. GAAP accounting standards, beginning in the interim and annual periods ending after September 15, 2009. The new codification standards are promulgated in the FASB Accounting Standards Codification ("ASC") Topic 105, *Generally Accepted Accounting Principles*, which we adopted in the third quarter of fiscal 2009. The adoption of this standard only impacted references of accounting standards disclosed in our financial statements. Such reference changes are reflected in the new accounting pronouncements discussed below as well as in the accompanying notes to the financial statements.

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. 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.

In May 2009, the FASB issued ASC Topic 855, *Subsequent Events*, which establishes general standards of accounting for and disclosure of events that occur after the balance sheet date but before financial statements are issued or are available to be issued. This statement sets forth the period after the balance sheet date during which management of a reporting entity should evaluate events or transactions that may occur for potential recognition or disclosure in the financial statements, the circumstances under which an entity should recognize events or transactions occurring after the balance sheet date in its financial statements and the disclosures that an entity should make about events or transactions that occurred after the balance sheet date. ASC 855 is effective for financial statements issued for interim or annual financial periods ending after June 15, 2009. The adoption of ASC 855 did not have a material impact on our financial statements.

In April 2009, the FASB amended ASC Topic 820, *Fair Value Measurements and Disclosure* and ASC Topic 320 *Investments – Debt and Equity Securities*. The amendment to ASC Topic 820 provides guidance on how to determine the fair value of assets and liabilities under the accounting standard for fair value measurements and disclosure in the current economic environment, reemphasizes that the objective of a fair value measurement remains an exit price, provides guidance on how to determine the fair value of assets and liabilities when the volume and level of activity for the asset/liability has significantly decreased, provides guidance on identifying circumstances that indicate a transaction is not orderly, and requires disclosure in interim and annual periods of the inputs and valuation techniques used to measure fair value and a discussion of changes in valuation techniques. The amendment to ASC Topic 320 modifies the requirements for recognizing other-than-temporarily impaired debt securities and revises the existing impairment model for such securities by modifying the current intent and ability indicator in determining whether a debt security is other-than-temporarily impaired. Both amendments became effective for interim and annual periods ending after June 15, 2009. The adoption of these amendments did not have any impact on our 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

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, corporate debt securities, 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 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 Consolidated Statements of Operations.

As of December 31, 2009, our investment portfolio consisted of \$47.3 million in cash, cash equivalents and restricted cash and \$13.1 million in short-term investments. Based on the size of investment portfolio as of December 31, 2009, an immediate increase in interest rates of 100 basis points would not have a material adverse effect on the fair value of our investment portfolio. Conversely, because of the short-term nature of our portfolio, an immediate decline of 100 basis points in interest rates could harm interest earnings of our investment portfolio in the future as securities mature. By policy, we limit our exposure to longer-term investments. As of December 31, 2009, 100 percent of our short-term investments mature in less than one year.

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. Foreign currency transaction gains and losses are recognized in the 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 or the Canadian dollar, could have a material impact on our financial statements. For the year ended December 31, 2009, realized and unrealized foreign currency exchange gains were \$0.9 million, compared to realized and unrealized foreign currency exchange losses of \$0.7 million in 2008. The increase in foreign currency gain was due to significant fluctuations of the U.S. dollar against certain of the foreign currencies in which we had outstanding accounts receivable and/or accounts payable balances as of December 31, 2009.

Cumulative translation adjustments included in comprehensive income for the year ended December 31, 2009 were \$22.1 million primarily due to the weakening of the U.S. dollar, which favorably impacted the net assets used in our foreign operations and held in local currencies, resulting in an increase in cumulative translation adjustments by \$1.7 million as of December 31, 2009 compared to \$20.5 million as of December 31, 2008.

We did not engage in hedging activities during the years ended December 31, 2009 and 2008. In fiscal 2007, we used foreign currency forward exchange contracts to hedge against foreign currency fluctuations associated with the sales of systems to customers in Japan and the revaluation gains (losses) of foreign denominated accounts receivable. In accordance with the authoritative guidance on accounting for derivative instruments and hedging transactions, these forward contracts did not qualify as designated hedges; as such, the forward contracts were marked to market with the resulting unrealized gains (losses) recorded in Other income (expense), net.

Item 8. *Financial Statements and Supplementary Data*

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

| | Page |
|--------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Consolidated Financial Statements: | |
| Consolidated Balance Sheets as of December 31, 2009 and 2008 | 42 |
| Consolidated Statements of Operations for the years ended December 31, 2009, 2008 and 2007 | 43 |
| Consolidated Statements of Stockholders' Equity and Comprehensive Income (Loss) for the years ended December 31, 2009, 2008 and 2007 | 44 |
| Consolidated Statements of Cash Flows for the years ended December 31, 2009, 2008 and 2007 | 45 |
| Notes to Consolidated Financial Statements | 46 |
| Report of Independent Registered Public Accounting Firm | 71 |
| Financial Statement Schedule: | |
| Schedule II | 78 |

**MATTSON TECHNOLOGY, INC.
CONSOLIDATED BALANCE SHEETS**

| | December 31, | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|------------|
| | 2009 | 2008 |
| | (thousands, except par value) | |
| ASSETS | | |
| Current assets: | | |
| Cash and cash equivalents | \$ 45,346 | \$ 77,107 |
| Short-term investments | 13,089 | 26,280 |
| Restricted cash | 2,000 | - |
| Accounts receivable, net of allowance for doubtful accounts of \$2,167 and \$4,606 in 2009 and 2008 | 10,420 | 14,477 |
| Advance billings | 905 | 140 |
| Inventories | 25,804 | 48,410 |
| Inventories - delivered systems | - | 956 |
| Prepaid expenses and other current assets | 5,848 | 5,765 |
| Total current assets | 103,412 | 173,135 |
| Property and equipment, net | 21,643 | 27,144 |
| Intangibles, net | 1,250 | - |
| Other assets | 6,768 | 7,932 |
| Total assets | \$ 133,073 | \$ 208,211 |
| LIABILITIES AND STOCKHOLDERS' EQUITY | | |
| Current liabilities: | | |
| Accounts payable | \$ 7,514 | \$ 7,205 |
| Accrued liabilities | 18,293 | 21,241 |
| Deferred revenue | 2,150 | 4,198 |
| Total current liabilities | 27,957 | 32,644 |
| Income taxes payable, non-current | 4,458 | 13,467 |
| Other liabilities | 5,952 | 5,264 |
| Total liabilities | 38,367 | 51,375 |
| Commitments and contingencies (Note 10) | | |
| Stockholders' equity: | | |
| Preferred stock, 2,000 shares authorized; none issued and outstanding | - | - |
| Common stock, par value \$0.001, 120,000 shares authorized; 54,140 shares issued and 49,960 shares outstanding in 2009; 53,874 shares issued and 49,693 shares outstanding in 2008 | 54 | 54 |
| Additional paid-in capital | 631,785 | 628,632 |
| Accumulated other comprehensive income | 22,014 | 20,255 |
| Treasury stock, 4,181 shares in 2009 and 4,181 shares in 2008, at cost | (37,986) | (37,986) |
| Accumulated deficit | (521,161) | (454,119) |
| Total stockholders' equity | 94,706 | 156,836 |
| Total liabilities and stockholders' equity | \$ 133,073 | \$ 208,211 |

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

MATTSON TECHNOLOGY, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS

| | Year Ended December 31, | | |
|--------------------------------------------------------------|---------------------------------------|--------------------|------------------|
| | 2009 | 2008 | 2007 |
| | (thousands, except per share amounts) | | |
| Net sales | \$ 42,748 | \$ 133,551 | \$ 267,286 |
| Cost of sales | 44,843 | 86,005 | 144,075 |
| Gross profit (loss) | (2,095) | 47,546 | 123,211 |
| Operating expenses: | | | |
| Research, development and engineering | 25,340 | 36,833 | 34,116 |
| Selling, general and administrative | 46,980 | 68,530 | 64,343 |
| Amortization of intangibles | - | 512 | 511 |
| Restructuring charges | 2,596 | 5,989 | - |
| Impairment of goodwill | - | 18,076 | - |
| Impairment of intangibles and long-lived assets | - | 9,431 | - |
| Total operating expenses | 74,916 | 139,371 | 98,970 |
| Income (loss) from operations | (77,011) | (91,825) | 24,241 |
| Interest income | 646 | 3,292 | 7,037 |
| Interest expense | (114) | (144) | (31) |
| Other income (expense), net | 1,371 | (1,175) | 1,207 |
| Income (loss) before income taxes | (75,108) | (89,852) | 32,454 |
| Provision for (benefit from) income taxes | (8,066) | 2,311 | 4,901 |
| Net income (loss) | \$ (67,042) | \$ (92,163) | \$ 27,553 |
| Net income (loss) per share: | | | |
| Basic | \$ (1.35) | \$ (1.86) | \$ 0.53 |
| Diluted | \$ (1.35) | \$ (1.86) | \$ 0.52 |
| Shares used in computing net income (loss) per share: | | | |
| Basic | 49,832 | 49,471 | 51,771 |
| Diluted | 49,832 | 49,471 | 52,716 |

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

MATTSON TECHNOLOGY, INC.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
AND COMPREHENSIVE INCOME (LOSS)

| | Shares of Common Stock | Common Stock and Additional Paid-In Capital | Accumulated Other Comprehensive Income | Treasury Stock | | Accumulated Deficit | Total Stockholders' Equity |
|---------------------------------------------------------------------|---------------------------------|---------------------------------------------------------|-------------------------------------------------|-------------------|-------------|------------------------|----------------------------------|
| | Shares | Amount | | Shares | Amount | | |
| Balance at December 31, 2006 | 52,930 | \$ 616,880 | \$ 13,525 | (375) | \$ (2,987) | \$ (388,488) | \$ 238,930 |
| Cumulative effect of adopting new accounting principles (Note 2) | - | - | - | - | - | (1,021) | (1,021) |
| Adjusted Balance, January 1, 2007 | 52,930 | 616,880 | 13,525 | (375) | (2,987) | (389,509) | 237,909 |
| Components of comprehensive income: | | | | | | | |
| Net income | - | - | - | - | - | 27,553 | 27,553 |
| Cumulative translation adjustments | - | - | 5,345 | - | - | - | 5,345 |
| Unrealized gain on investments | - | - | 162 | - | - | - | 162 |
| Comprehensive income | | | | | | | 33,060 |
| Shares issued under employee stock plans | 496 | 2,080 | - | - | - | - | 2,080 |
| Shares issued under employee stock purchase plan | 91 | 737 | - | - | - | - | 737 |
| Stock-based compensation expense | - | 3,884 | - | - | - | - | 3,884 |
| Repurchase of common stock | - | - | - | (3,477) | (32,387) | - | (32,387) |
| 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 |

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

MATTSON TECHNOLOGY, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS

| | Year Ended December 31, | | |
|-----------------------------------------------------------------------------------------------------------|--------------------------------|------------------|-------------------|
| | 2009 | 2008 | 2007 |
| | (thousands) | | |
| Cash flows from operating activities: | | | |
| Net income (loss) | \$ (67,042) | \$ (92,163) | \$ 27,553 |
| Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities: | | | |
| Allowance for doubtful accounts | (2,440) | 3,355 | (1,035) |
| Amortization of intangibles | - | 512 | 511 |
| Depreciation | 8,360 | 8,585 | 6,499 |
| Deferred income taxes | (8,504) | - | (261) |
| Impairment of goodwill | - | 18,076 | - |
| Impairment of intangibles and long-lived assets | - | 9,431 | - |
| Inventory valuation charge | 14,186 | 7,053 | 271 |
| Stock-based compensation | 2,944 | 4,366 | 3,884 |
| Other non-cash items | 348 | 95 | 87 |
| Changes in assets and liabilities: | | | |
| Accounts receivable | 6,479 | 18,268 | 21,038 |
| Advance billings | (765) | 2,436 | 7,887 |
| Inventories | 8,856 | (8,014) | (6,073) |
| Inventories - delivered systems | 956 | (956) | 1,879 |
| Prepaid expenses and other current assets | 78 | 5,081 | 344 |
| Other assets | (291) | 2,176 | (1,091) |
| Accounts payable | 202 | (11,095) | (1,906) |
| Accrued liabilities | (3,568) | (5,306) | (11,355) |
| Deferred revenue | (2,548) | (3,509) | (5,200) |
| Income taxes payable, non-current and other liabilities | 435 | (1,164) | 5,716 |
| Net cash provided by (used in) operating activities | (42,314) | (42,773) | 48,748 |
| Cash flows from investing activities: | | | |
| Purchases of available-for-sale investments | (28,771) | (30,633) | (40,422) |
| Purchases of certificates of deposit | (2,000) | - | - |
| Sales and maturities of available-for-sale investments | 41,500 | 31,450 | 61,578 |
| Purchases of property and equipment | (1,409) | (8,764) | (10,334) |
| Sales of property and equipment | - | 976 | 475 |
| Net cash provided by (used in) investing activities | 9,320 | (6,971) | 11,297 |
| Cash flows from financing activities: | | | |
| Proceeds from employee stock plans | 208 | 739 | 2,817 |
| Purchases of treasury stock | - | (2,612) | (32,387) |
| Net cash provided by (used in) financing activities | 208 | (1,873) | (29,570) |
| Effect of exchange rate changes on cash and cash equivalents | 1,025 | 3,191 | 3,642 |
| Net increase (decrease) in cash and cash equivalents | (31,761) | (48,426) | 34,117 |
| Cash and cash equivalents, beginning of year | 77,107 | 125,533 | 91,416 |
| Cash and cash equivalents, end of year | \$ 45,346 | \$ 77,107 | \$ 125,533 |
| Supplemental disclosures: | | | |
| Cash paid for interest | \$ - | \$ - | \$ - |
| Cash paid for income taxes | \$ 266 | \$ 29 | \$ 940 |

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

MATTSON TECHNOLOGY, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2009

1. Organization and Basis of Presentation

Organization

Mattson Technology, Inc. (the Company or Mattson) 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 year ends on December 31. The Company’s interim fiscal quarters end on the last Sunday in the calendar quarter.

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.

The Company evaluated events and transactions through March 5, 2010, the date the Company filed its Annual Report on Form 10-K for the year ended December 31, 2009. There were no events or transactions that occurred during this period that required recognition or disclosure in the financial statements.

Liquidity and Management Plans

Historically, the Company has relied on a combination of fundraising from the sale and issuance of equity securities and cash generated from product and service revenues to provide funding for its operations. As of December 31, 2009, the Company had cash, cash equivalents, restricted cash and short-term investments of \$60.4 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 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 at least six quarters of available cash at any time. In the event additional needs for cash arise, the Company 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 the Company, or at all. Any additional financing activity could be dilutive to the Company’s current stockholders. If adequate funds are not available or are not available on acceptable terms, the Company’s ability to take advantage of unanticipated opportunities or respond to competitive pressures could be limited.

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 Consolidated Balance Sheet; and realized gains and losses as well as declines in fair value that are other than temporary are recorded in the Consolidated Statements of Operations. As of December 31, 2009, the Company had \$13.1 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, Korea, Taiwan, other Asian countries and Europe. As of December 31, 2009, three customers accounted for 27 percent, 19 percent, and 14 percent of the Company's accounts receivable. As of December 31, 2008, four customers accounted for 27 percent, 14 percent, 13 percent and 10 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. The Company had no assets or liabilities classified within Level 3 as of December 31, 2009.

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.

Valuation adjustments to inventory inherently involve judgments as to assumptions about expected future demand and the impact of market conditions on those assumptions. 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.

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 SG&A 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 \$8.4 million, \$8.6 million and \$6.5 million for the years ended December 31, 2009, 2008 and 2007, 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 Consolidated Statements of Operations. Repair and maintenance costs are expensed as incurred.

Goodwill

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 fiscal 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 fiscal 2008. As of December 31, 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. See Note 6.

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. See Note 8 to the consolidated financial statements.

Sabbatical Leave Benefits

The Company accrues for employee sabbatical leave over the service period in which employees earn the right to sabbatical leave. The Company develops its estimates for sabbatical leave based on its employee benefit policy, employee retention rates and restructuring activities. In January 2007, the Company adopted the authoritative guidance on sabbatical leave benefits as a change in accounting principle and recorded an associated cumulative effect adjustment of approximately \$0.4 million as an increase in Accumulated deficit in the first quarter of 2007.

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, the portion of the invoice amount that is due upon shipment, generally 90 percent of the total invoice amount, is recognized as revenue upon shipment and transfer of title; 100 percent of the associated 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. The Company recognizes costs associated with facility lease termination obligations based on the present value of future lease payments, net of estimated sublease income.

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, 2009, 2008 and 2007 were \$2.9 million, \$4.4 million and \$3.9 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 Consolidated Balance Sheet. Foreign currency transaction gains and losses are recorded in Other income (expense), net in the Consolidated Statements of Operations.

Foreign Currency Forward Exchange Contracts

The Company enters into forward foreign exchange contracts with high-quality financial institutions primarily to minimize currency exchange risks associated with transactions denominated in foreign currencies. The Company does not utilize derivative instruments for trading or speculative purposes. These forward contracts do not qualify as designated hedges, as defined in the applicable authoritative guidance. As a result, such forward contracts were marked to market with the resulting unrealized gains (losses) recorded in Other income (expense), net in the Consolidated Statements of Operations.

The Company did not engage in any hedging transactions during the years ended December 31, 2009 and 2008. In fiscal 2007, the Company employed a hedging program, utilizing foreign currency forward exchange contracts, to hedge against foreign currency fluctuations associated with the sales of systems denominated in Japanese Yen and accounts receivable.

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.

In January 2007, the Company adopted Financial Accounting Standards Board (FASB) Interpretation No. (FIN) 48, *Accounting for Uncertainty in Income Taxes: An Interpretation of FASB Statement No. 109*, now codified in ASC Topic 740. Under this authoritative guidance 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. The Company's adoption of this authoritative guidance and the related reassessment of its tax positions resulted in a cumulative effect of \$0.7 million, which was recorded as an increase in Accumulated deficit in the first quarter of 2007.

New Accounting Pronouncements

In June 2009, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Codification as the single authoritative source for U.S. GAAP, which replaces all previous U.S. GAAP accounting standards, beginning in the interim and annual periods ending after September 15, 2009. The new codification standards are promulgated in the FASB Accounting Standards Codification ("ASC") Topic 105, *Generally Accepted Accounting Principles*, which the Company adopted in the third quarter of fiscal 2009. The adoption of this standard only impacted references of accounting standards disclosed in the Company's financial statements. Such reference changes are reflected in the new accounting pronouncements discussed below as well as in the accompanying notes to the financial statements.

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 quarter of fiscal year 2010, will not have a material impact on its consolidated financial statements.

In May 2009, the FASB issued ASC Topic 855, *Subsequent Events*, which establishes general standards of accounting for and disclosure of events that occur after the balance sheet date but before financial statements are issued or are available to be issued. This statement sets forth the period after the balance sheet date during which management of a reporting entity should evaluate events or transactions that may occur for potential recognition or disclosure in the financial statements, the circumstances under which an entity should recognize events or transactions occurring after the balance sheet date in its financial statements and the disclosures that an entity should make about events or transactions that occurred after the balance sheet date. ASC 855 is effective for financial statements issued for interim or annual financial periods ending after June 15, 2009. The Company's adoption of ASC 855 did not have a material impact on its financial statements.

In April 2009, the FASB amended ASC Topic 820, *Fair Value Measurements and Disclosure* and ASC Topic 320, *Investments – Debt and Equity Securities*. The amendment to ASC Topic 820 provides guidance on how to determine the fair value of assets and liabilities under the accounting standard for fair value measurements and disclosure in the current economic environment, reemphasizes that the objective of a fair value measurement remains an exit price, provides guidance on how to determine the fair value of assets and liabilities when the volume and level of activity for the asset/liability has significantly decreased, provides guidance on identifying circumstances that indicate a transaction is not orderly, and requires disclosure in interim and annual periods of the inputs and valuation techniques used to measure fair value and a discussion of changes in valuation techniques. The amendment to ASC Topic 320 modifies the requirements for recognizing other-than-temporarily impaired debt securities and revises the existing impairment model for such securities by modifying the current intent and ability indicator in determining whether a debt security is other-than-temporarily impaired. Both amendments became effective for interim and annual periods ending after June 15, 2009. The Company's adoption of these amendments did not have any impact on its financial statements. See Note 3 for information and disclosures regarding the Company's fair value measurements.

In June 2008, the FASB amended ASC Topic 260, *Earnings Per Share* to address whether instruments granted in share-based payment transactions are participating securities prior to vesting and, therefore, need to be included in the earnings allocation in computing earnings per share ("EPS") under the two-class method described in ASC Topic 260. This amendment is effective for financial statements issued for fiscal years beginning after December 15, 2008. The Company's adoption of this amendment did not have any impact on its calculation of EPS.

3. Financial Instruments

The Company's cash, cash equivalents, restricted cash and short-term investments are carried at fair market value. The table below shows the composition of cash, restricted cash and cash equivalents, by security type, as of December 31, 2009 and 2008:

| | <u>Amortized Cost</u> | <u>Unrealized Gains /(Losses)</u> (thousands) | <u>Estimated Fair Value</u> |
|---------------------------|---------------------------|------------------------------------------------------|---------------------------------|
| December 31, 2009: | | | |
| Cash in bank | \$ 26,948 | \$ - | \$ 26,948 |
| Certificates of deposit | 2,000 | - | 2,000 |
| Money market funds | 15,398 | - | 15,398 |
| Commercial paper | 3,000 | - | 3,000 |
| | <u>\$ 47,346</u> | <u>\$ -</u> | <u>\$ 47,346</u> |
| December 31, 2008: | | | |
| Cash in bank | \$ 22,889 | \$ - | \$ 22,889 |
| Money market funds | 42,222 | - | 42,222 |
| Commercial paper | 11,993 | 3 | 11,996 |
| | <u>\$ 77,104</u> | <u>\$ 3</u> | <u>\$ 77,107</u> |

The table below shows the composition of short-term investments, by security type, as of December 31, 2009 and 2008:

| | <u>Amortized Cost</u> | <u>Unrealized Gains</u> (thousands) | <u>Estimated Fair Value</u> |
|---------------------------------|---------------------------|--------------------------------------------|---------------------------------|
| December 31, 2009: | | | |
| United States agency securities | \$ 4,046 | \$ 11 | \$ 4,057 |
| United States corporate bonds | 9,032 | - | 9,032 |
| | <u>\$ 13,078</u> | <u>\$ 11</u> | <u>\$ 13,089</u> |
| December 31, 2008: | | | |
| United States agency securities | \$ 22,610 | \$ 83 | \$ 22,693 |
| United States corporate bonds | 3,532 | 55 | 3,587 |
| | <u>\$ 26,142</u> | <u>\$ 138</u> | <u>\$ 26,280</u> |

All short-term investments are marked to market, with unrealized gains and losses recorded as components of Accumulated other comprehensive income (loss). For 2009, 2008 and 2007, gross realized gains and losses on sales of short-term investments were not significant.

The maturities of short-term investments as of December 31, 2009 and December 31, 2008 are shown below:

| | <u>December 31,</u> | |
|-------------------------|---------------------|------------------|
| | <u>2009</u> | <u>2008</u> |
| | (thousands) | |
| Due within one year | \$ 13,089 | \$ 24,695 |
| Due in one to two years | - | 1,585 |
| | <u>\$ 13,089</u> | <u>\$ 26,280</u> |

As of December 31, 2009, the Company had certificates of deposit of \$2.0 million, which secures standby letters of credit provided to certain landlords and are classified as restricted cash in the accompanying Consolidated Balance Sheet. The Company had no such amount at December 31, 2008, as these obligations were collateralized by the Company's then available revolving line of credit.

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. The Company's cash and cash equivalents and short-term investments are carried at fair value, and its accounts receivable and accounts payable are valued at their carrying amounts which approximate fair value due to their short-term nature. The Company had no debt outstanding as of December 31, 2009.

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 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, mortgage-backed and asset-backed products, state, municipal and provincial obligations based on other observable inputs. The Company had no assets or liabilities classified within Level 3 as of December 31, 2009.

Assets 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, 2009 and December 31, 2008:

| | December 31, 2009 | | | December 31, 2008 | | |
|------------------------------------------------------------------|-----------------------------------|------------------|------------------|-----------------------------------|------------------|------------------|
| | Fair Value Measurements at | | | Fair Value Measurements at | | |
| | Reporting Date Using | | | Reporting Date Using | | |
| | (Level 1) | (Level 2) | Total | (Level 1) | (Level 2) | Total |
| | | (thousands) | | | (thousands) | |
| Cash and cash equivalents:⁽¹⁾ | | | | | | |
| Money market funds | \$ 15,398 | \$ - | \$ 15,398 | \$ 42,222 | \$ - | \$ 42,222 |
| Certificates of Deposit | 2,000 | | 2,000 | - | - | - |
| Commercial paper | | 3,000 | 3,000 | - | 11,996 | 11,996 |
| Short-term investments: | | | | | | |
| United States agency securities | 4,057 | | 4,057 | 3,587 | - | 3,587 |
| United States corporate bonds | | 9,032 | 9,032 | - | 22,693 | 22,693 |
| Other assets: | | | | | | |
| Equity instruments offsetting deferred compensation liability | 814 | - | 814 | 732 | - | 732 |
| Total assets measured at fair value | \$ 22,269 | \$ 12,032 | \$ 34,301 | \$ 46,541 | \$ 34,689 | \$ 81,230 |

⁽¹⁾ Excludes cash in bank of \$26.9 million and \$22.9 million at December 31, 2009 and December 31, 2008, respectively.

5. Balance Sheet Details

| | December 31, | |
|-----------------------------------|------------------|------------------|
| | 2009 | 2008 |
| | (thousands) | |
| Inventories: | | |
| Purchased parts and raw materials | \$ 11,539 | \$ 24,708 |
| Work-in-process | 8,347 | 9,977 |
| Finished goods | 5,918 | 13,725 |
| | <u>\$ 25,804</u> | <u>\$ 48,410</u> |
| Property and equipment: | | |
| Machinery and equipment | \$ 56,818 | \$ 54,952 |
| Furniture and fixtures | 11,888 | 11,863 |
| Leasehold improvements | 18,390 | 17,797 |
| | 87,096 | 84,612 |
| Less: accumulated depreciation | (65,453) | (57,468) |
| | <u>\$ 21,643</u> | <u>\$ 27,144</u> |
| Accrued liabilities: | | |
| Accrued compensation and benefits | \$ 5,852 | \$ 7,103 |
| Accrued value-added tax | 2,942 | 1,234 |
| Warranty | 1,310 | 4,381 |
| Vendor purchase commitments | 1,062 | - |
| Restructuring | 609 | 3,872 |
| Other | 6,517 | 4,651 |
| | <u>\$ 18,292</u> | <u>\$ 21,241</u> |
| Other liabilities: | | |
| Deferred revenue, noncurrent | \$ 3,375 | \$ 3,875 |
| Other | 2,577 | 1,389 |
| | <u>\$ 5,952</u> | <u>\$ 5,264</u> |

As of December 31, 2009 and December 31, 2008, the Company had inventory reserves balances of \$27.7 million and \$15.1 million, respectively, representing 52 percent and 24 percent of the gross inventory balances as of December 31, 2009 and December 31, 2008, respectively. The Company increased its reserves for excess and obsolete inventory, a component of inventory reserves, by \$13.1 million during the year ended December 31, 2009. The Company estimates excess and obsolete reserve adjustments, which inherently involve judgments, using assumptions about expected future demand and the impact of market conditions on those assumptions. Although the Company believes that the assumptions it used in estimating excess and obsolete inventory reserves are reasonable, significant changes in any one of the assumptions in the future could produce a significantly different result.

Included in accrued liabilities as of December 31, 2009 were reserves for existing vendor commitments totaling \$1.1 million, representing inventory not yet received and in excess of its production requirements. The Company had no reserve for vendor commitments as of December 31, 2008.

During fiscal 2008, the Company recorded an impairment charge of \$2.8 million related to the write-off of certain property and equipment used in its research and development activities. The Company had no such charge in fiscal 2009.

6. Goodwill and Intangible Assets

The following table summarizes goodwill and intangible asset activities for the years ended December 31, 2009 and 2008:

| | <u>Goodwill</u> | <u>Developed Technology</u> | | |
|---------------------------|-----------------|-----------------------------|---------------------------------|-----------------|
| | | <u>Gross Assets</u> | <u>Accumulated Amortization</u> | <u>Net</u> |
| December 31, 2007: | \$ 18,076 | \$ 15,647 | \$ (8,567) | \$ 7,080 |
| Additions | - | - | (512) | (512) |
| Write-offs | (18,076) | (15,647) | 9,079 | (6,568) |
| December 31, 2008: | \$ - | - | - | - |
| Additions | - | 1,250 | - | 1,250 |
| Write-offs | - | - | - | - |
| December 31, 2009 | <u>\$ -</u> | <u>\$ 1,250</u> | <u>\$ -</u> | <u>\$ 1,250</u> |

During the fourth quarter of fiscal 2008, the Company recorded impairment charges of \$18.1 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. The resulting assessment indicated a material decline in the Company's 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. 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 were included in Intangibles, net in the Consolidated Balance Sheet as of December 31, 2009. These assets are being amortized over a 5-year period.

The Company had amortization charges of zero and \$0.5 million for the years ended December 31, 2009 and 2008, respectively.

7. Restructuring Charges

In fiscal 2009 and 2008, the Company implemented several restructuring programs, resulting in a reduction of approximately 40 percent of its workforce and related restructuring charges of \$2.6 million and \$6.0 million in 2009 and 2008, respectively. The restructuring charges were principally comprised of employee severance costs and lease contract termination costs, consisting of future rent obligations associated with a vacated facility, net of sublease income.

The following table summarizes the Company's restructuring activities for the years ended December 31, 2009 and 2008:

| | <u>Year ended December 31, 2009</u> | | | <u>Year ended December 31, 2008</u> | | |
|--------------------------|-------------------------------------|----------------------------------|---------------|-------------------------------------|----------------------------------|-----------------|
| | <u>Employee Severance Benefits</u> | <u>Contract Termination Cost</u> | <u>Total</u> | <u>Employee Severance Benefits</u> | <u>Contract Termination Cost</u> | <u>Total</u> |
| | | (thousands) | | | (thousands) | |
| Beginning balance | \$ 3,496 | \$ 376 | \$ 3,872 | \$ - | \$ - | \$ - |
| Restructuring charge | 2,859 | 159 | 3,018 | 5,781 | 394 | 6,175 |
| Severance payments | (5,859) | - | (5,859) | (2,100) | (18) | (2,118) |
| Reserve adjustments | (407) | (15) | (422) | (185) | - | (185) |
| Ending balance | <u>\$ 89</u> | <u>\$ 520</u> | <u>\$ 609</u> | <u>\$ 3,496</u> | <u>\$ 376</u> | <u>\$ 3,872</u> |

The Company anticipates that the remaining severance payments will be substantially completed in the first half of 2010. 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.

8. Guarantees

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, 2009, 2008 and 2007:

| | Year Ended December 31, | | |
|-----------------------------------------------|--------------------------------|-----------------|-----------------|
| | 2009 | 2008 | 2007 |
| | (thousands) | | |
| Balance at the beginning of the year | \$ 4,381 | \$ 9,174 | \$ 15,113 |
| Accrual for warranties issued during the year | 1,273 | 2,993 | 6,618 |
| Changes in pre-existing warranty liabilities | (1,834) | 688 | (695) |
| Settlements made during the year | (2,510) | (8,474) | (11,862) |
| Balance at the end of the year | <u>\$ 1,310</u> | <u>\$ 4,381</u> | <u>\$ 9,174</u> |

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 Company has not 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, 2009, the maximum potential amount that the Company could be required to pay was approximately \$1.6 million, consisting of standby letters of credit. The letters of credit are secured by certificates of deposit of \$2.0 million, which are classified as restricted cash in the accompanying Consolidated Balance Sheet as of December 31, 2009.

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.

9. Borrowing Facility

In June 2009, the Company's \$10 million revolving line of credit expired. The line of credit was collateralized by a blanket lien on all of the Company's domestic assets, excluding intellectual property assets. The Company used this credit line principally to secure letters of credit, totaling approximately \$1.6 million, provided primarily to certain landlords and 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, the letters of credit are now secured by cash of \$2 million, which is classified as restricted cash as of December 31, 2009.

10. Commitments and Contingencies

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, 2009:

| Year | Operating Lease Payments | |
|------------|-----------------------------|---------------|
| | (thousands) | |
| 2010 | \$ | 5,150 |
| 2011 | | 4,030 |
| 2012 | | 3,699 |
| 2013 | | 3,726 |
| 2014 | | 3,785 |
| Thereafter | | 10,967 |
| | \$ | <u>31,357</u> |

Rent expenses were approximately \$4.2 million, \$5.4 million and \$5.6 million, in 2009, 2008 and 2007, respectively. The Company recorded sublease income related to its Exton, Pennsylvania facility of approximately \$1.5 million for each year ended December 31, 2009, 2008 and 2007, 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 letter of credit of \$1.5 million, which is secured as part of a \$2.0 million restricted cash balance as of December 31, 2009.

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, less any sublet amounts. In determining the facilities lease loss, various assumptions were made, including the time period over which the buildings will be vacant, expected sublease terms and expected sublease rates. Total future expected lease payments of approximately \$8.4 million were assumed in determining the facilities lease loss, offset by the expected sublease income. In January 2008, the Company sublet this facility until December 2010, with an option for an additional three years; and in October 2009, the lessee entered into an agreement with the Company to terminate the sublease agreement as of June 30, 2010 and simultaneously entered into a new agreement to lease approximately 50 percent of the Exton facility until December 2015, cancellable anytime after December 31, 2012. Under the existing sublease agreement, the Company has approximately \$2.7 million of expected future sublease income as of December 31, 2009. At both December 31, 2009 and December 31, 2008, the Company had an accrual liability balance of \$0.7 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.

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 \$13.5 million based on the applicable exchange rate as of December 31, 2009), (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 \$13.5 million as of December 31, 2009) less any royalties paid by MTC or the Company to the Minister. As of December 31, 2009, 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 (approximately \$13.5 million as of December 31, 2009) less any royalties paid by MTC or the Company to the Minister.

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.

11. Stockholders' Equity

Common Stock Repurchase Program

In March 2007, the Company's Board of Directors authorized the repurchase of up to \$20 million of shares of the Company's common stock through open-market purchases or private transactions. In October 2007, the Company's Board of Directors authorized the repurchase of up to an additional \$30 million of shares of the Company's common stock. By December 31, 2008, a total of 3.8 million shares had been repurchased against the repurchase authorizations, at a weighted-average purchase price of \$9.20, translating into a purchase price of approximately \$35.0 million. The Company did not repurchase any shares of its common stock in fiscal 2009, and has authorization to repurchase up to an additional \$15 million of its shares of common stock as of December 31, 2009. The size and timing of future repurchases will depend on the Company's share price.

Accumulated Other Comprehensive Income

The components of accumulated other comprehensive income, net of related tax, at December 31, 2009 and 2008 are as follows:

| | December 31, | |
|-----------------------------------------------|---------------------|------------------|
| | 2009 | 2008 |
| | (thousands) | |
| Cumulative translation adjustments | \$ 22,123 | \$ 20,458 |
| Unrealized investment gain (loss), net of tax | (109) | (203) |
| | <u>\$ 22,014</u> | <u>\$ 20,255</u> |

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, 2009, the Company had approximately 50.0 million share purchase rights outstanding.

12. 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, 2009, the Company had approximately 3.7 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, 2009, 2008 and 2007:

| | Awards Available For Grant (thousands) | Stock Options Outstanding (thousands) | Weighted- Average Exercise Price | Restricted Stock Units Outstanding (thousands) | Weighted- Average Grant Date Fair Value |
|--------------------------------------|----------------------------------------------------------|---------------------------------------------------------|-----------------------------------------------------|----------------------------------------------------------------------|------------------------------------------------------------|
| Balances at December 31, 2006 | 1,486 | 6,036 | \$ 9.27 | 150 | \$ 11.39 |
| Stock options: | | | | | |
| Authorized June 4, 2007 | 2,500 | - | - | - | - |
| Granted | (888) | 888 | 9.03 | - | - |
| Exercised | - | (454) | 4.95 | - | - |
| Cancelled or forfeited | 345 | (352) | 12.08 | - | - |
| Restricted stock units: | | | | | |
| Granted | (177) | - | - | 101 | 9.08 |
| Released | - | - | - | (66) | 9.84 |
| Cancelled or forfeited | 22 | - | - | (13) | 10.59 |
| 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 | <u>3,651</u> | <u>5,033</u> | \$ 6.62 | <u>384</u> | \$ 4.21 |

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 1.6 million, 1.0 million and 0.9 million stock options during the years ended December 31, 2009, 2008 and 2007, respectively, with an estimated total grant-date fair value of \$0.8 million, \$2.5 million and \$4.5 million, respectively, net of estimated forfeitures.

The following table summarizes information about stock options outstanding as of December 31, 2009:

| Range of Exercise Prices | Outstanding Options | | | Exercisable Options | |
|--------------------------|---------------------------------|--------------------------------------------------------------|------------------------------------|---------------------------------|------------------------------------|
| | Number of Shares (Thousands) | Weighted Average Remaining Contractual Life (In Years) | Weighted Average Exercise Price | Number of Shares (Thousands) | Weighted Average Exercise Price |
| \$0.76-\$3.57 | 1,728 | 5.6 | \$ 1.22 | 342 | \$ 2.41 |
| \$4.17-\$5.86 | 550 | 5.2 | \$ 5.43 | 236 | \$ 5.47 |
| \$5.89-\$8.81 | 1,098 | 3.5 | \$ 7.93 | 917 | \$ 7.89 |
| \$8.88-\$11.03 | 1,038 | 3.7 | \$ 10.08 | 988 | \$ 10.09 |
| \$11.19-\$46.56 | 619 | 2.8 | \$ 14.64 | 600 | \$ 14.74 |
| Total | 5,033 | 4.4 | \$ 6.62 | 3,083 | \$ 9.13 |

The table below contains additional information with respect to the Company's stock options:

| | Aggregate Intrinsic Value | |
|-----------------------------------------------|---------------------------|----------------------|
| | Shares (thousands) | Value (thousands) |
| Options exercisable at December 31, 2009 | 3,083 | \$ 399 |
| Options expected to vest at December 31, 2009 | 1,950 | \$ 3,657 |
| Options outstanding at December 31, 2009 | 5,033 | \$ 4,056 |

The aggregate intrinsic value shown in the table above represents the difference between exercise price of the stock options and \$3.57, the closing price of the Company's common stock as of December 31 2009:

| | Year Ended December 31, | | |
|----------------------------------------|--------------------------------------------------|---------|----------|
| | 2009 | 2008 | 2007 |
| Stock options: | (thousands, except weighted-average fair values) | | |
| Weighted-average grant date fair value | \$ 0.52 | \$ 2.70 | \$ 5.72 |
| Intrinsic value of options exercised | \$ 4 | \$ 165 | \$ 2,324 |
| Cash received from options exercised | \$ 9 | \$ 181 | \$ 2,248 |

The Company settles employee stock option exercises with newly issued common shares. As of December 31, 2009, the Company had \$2.1 million in unrecognized stock-based compensation costs related to stock options, net of estimated forfeitures, which will be recognized over a weighted-average period of 2.1 years.

Acceleration of Stock Options

In August 2005, the Company accelerated the vesting of certain unvested and out-of-the-money stock options under the 2005 Plan. The acceleration of vesting applied to all unvested stock options that had an exercise price per share of \$9.05 or higher, totaling 1.47 million. As a result of the acceleration, the stock options became exercisable immediately and reduced the stock-based compensation the Company would otherwise have recognized in fiscal 2009, 2008 and 2007. Of the 1.47 million stock options subject to acceleration, approximately 503,000 shares were held by executive officers and directors of the Company, with a weighted average exercise price of \$10.20 per share. To prevent unintended benefits to the executive officers and directors, the Company imposed restrictions on all shares received through the exercise of the accelerated stock options held by those individuals, preventing the sale of those shares prior to the earlier of the original vesting date of the option or the individual's termination of employment.

Restricted Stock Units (RSU)

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 RSU's generally vest at $\frac{1}{4}$ per year. On occasion and for varying purposes, the Company grants time-based RSU's with different vesting criteria and duration. During the years ended December 31, 2009, 2008 and 2007, the Company granted zero, 0.2 million and 0.1 million time-based RSUs, respectively, with fair value of zero, \$1.1 million and \$0.8 million, respectively, net of estimated forfeitures. The associated stock-compensation expense on time-based RSUs is determined based on the fair value of the Company's common stock on the date of grant of the RSU, and such expenses were \$0.6 million, \$0.8 million and \$0.6 million, net of estimated forfeitures, for the years ended December 31, 2009, 2008 and 2007, respectively. As of December 31, 2009, the Company had 0.4 million of unvested time-based RSUs outstanding, with unrecognized compensation costs of \$0.4 million, net of estimated forfeitures and an estimated weighted-average amortization period of 2.0 years.

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. 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.

During the first quarter of 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 were deemed unrecognizable. Based on employee terminations, the Company cancelled 175,000 of these performance-based RSU, leaving 508,000 units outstanding as of December 31, 2008, and during 2009, the Company cancelled an additional 209,000 of these RSUs, leaving 299,000 units outstanding as of December 31, 2009. 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 assessment is made. The Company did not record any expenses related to these RSUs in fiscal 2009.

Employee Stock Purchase Plan

The Company's employee stock purchase plan (ESPP) allows eligible employees to designate up to 15 percent of their gross compensation for stock purchases. The ESPP has an offering period of up to 27 months. Such offering periods in fiscal 2009, 2008 and 2007 consisted of four-six month purchase periods. Under the ESPP, employees may purchase shares of the Company's common stock at a discount of up to 10 percent of the lesser of the market value at the beginning of the purchase period or the end of each 6-month purchase period, with such purchases limited to 2,000 shares in any offering period. The Company did not use a look-back feature in connection with ESPP purchases in fiscal 2009, 2008 and 2007, as the related compensation costs for these years were determined using a 10 percent discount of the market value of the Company's common stock at the end of the offering periods.

The Company has reserved 6.2 million shares of common stock for issuance under the ESPP, of which 3.0 million shares were available for issuance as of December 31, 2009. During the years ended December 31, 2009, 2008 and 2007, the Company issued shares under the ESPP totaling 183,000, 249,000 and 91,000, respectively, with average purchase prices of \$1.50, \$2.82 and \$8.12 respectively.

13. 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.

The Company's stock-based compensation for years ended December 31, 2009, 2008 and 2007 were as follows:

| | Year Ended December 31, | | |
|--------------------------------------------------|-------------------------|-----------------|-----------------|
| | 2009 | 2008 | 2007 |
| | | (thousands) | |
| Stock-based compensation by type of award: | | | |
| Stock options | \$ 2,280 | \$ 3,527 | \$ 3,234 |
| Restricted stock units | 626 | 766 | 585 |
| Employee stock purchase plan | 38 | 73 | 65 |
| Total stock-based compensation | <u>\$ 2,944</u> | <u>\$ 4,366</u> | <u>\$ 3,884</u> |
| Stock-based compensation by category of expense: | | | |
| Cost of sales | \$ 105 | \$ 135 | \$ 129 |
| Research, development and engineering | 426 | 521 | 478 |
| Selling, general and administrative | 2,413 | 3,710 | 3,277 |
| Effect on net income (loss) | <u>\$ 2,944</u> | <u>\$ 4,366</u> | <u>\$ 3,884</u> |

The Company did not capitalize any stock-based compensation as inventory as of December 31, 2009 and December 31, 2008, as such amounts were not material. Stock-based compensation for the year ended December 31, 2008 included an additional \$350,000 related to a stock option modification that occurred in 2006, which was recorded as an increase in selling, general and administrative.

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 the years ended December 31, 2009, 2008 and 2007:

| | Year Ended December 31, | | |
|---------------------------------|-------------------------|---------|---------|
| | 2009 | 2008 | 2007 |
| Expected dividend yield | — | — | — |
| Expected stock price volatility | 67% | 55% | 74% |
| Risk-free interest rate | 1.9% | 2.9% | 4.6% |
| Expected life of options | 5 years | 5 years | 5 years |

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.

14. 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. The Company made matching contributions of approximately \$0.1 million, \$0.7 million and \$0.6 million for the years ended December 31, 2009, 2008 and 2007, respectively. In March 2009, the Company suspended matching contributions under the ESP Plan as a cost-cutting measure.

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 obligations 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, 2009 and 2008, the Company had approximately \$0.8 million and \$0.7 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.

15. 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, | | | | | |
|-------------------|-------------------------|------------|---------------------|------------|---------------------|------------|
| | 2009 | | 2008 ⁽¹⁾ | | 2007 ⁽¹⁾ | |
| | (thousands) | % | (thousands) | % | (thousands) | % |
| United States | \$ 3,601 | 8 | \$ 12,704 | 10 | \$ 22,301 | 8 |
| Taiwan | 7,233 | 17 | 32,810 | 25 | 73,037 | 28 |
| Korea | 14,619 | 34 | 19,881 | 15 | 52,203 | 20 |
| Japan | 1,272 | 3 | 32,738 | 25 | 51,499 | 19 |
| Europe and others | 4,038 | 9 | 12,371 | 9 | 35,141 | 13 |
| Other Asia | 11,985 | 29 | 23,047 | 16 | 33,105 | 12 |
| | <u>\$ 42,748</u> | <u>100</u> | <u>\$ 133,551</u> | <u>100</u> | <u>\$ 267,286</u> | <u>100</u> |

⁽¹⁾ Royalty revenues from DNS (See Note 15) of \$6.4 million, and \$11.5 million in 2008 and 2007, respectively, were included in net sales to Japan. No such royalty revenue was recognized in fiscal 2009.

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. In 2007, four customers accounted for 15 percent, 13 percent, 12 percent and 10 percent of total revenues, respectively. At December 31, 2009, three customers accounted for 27 percent, 19 percent, and 14 percent of the Company's accounts receivable. At December 31, 2008, four customers accounted for 27 percent, 14 percent, 13 percent and 10 percent of the Company's accounts receivable.

Geographical information relating to the Company's property and equipment as of December 31, 2009 and 2008 is as follows:

| | December 31, | |
|---------------|---------------------|------------------|
| | 2009 | 2008 |
| | (thousands) | |
| United States | \$ 15,516 | \$ 18,778 |
| Germany | 3,937 | 6,637 |
| Canada | 1,981 | 1,337 |
| Others | 209 | 392 |
| | <u>\$ 21,643</u> | <u>\$ 27,144</u> |

16. 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 and \$11.5 million of royalty revenue from DNS for the years ended December 31, 2008 and 2007, respectively, which are reflected as a component of Net sales in the Consolidated Statements Operations for those years. DNS paid its last royalty payment to the Company in May 2008, and as of that date, DNS had satisfied all of its obligations to the Company pursuant to the settlement and license agreements.

17. Income Taxes

The components of income (loss) before provision for income taxes are as follows:

| | Year Ended December 31, | | |
|------------------------------------------|--------------------------------|--------------------|------------------|
| | 2009 | 2008 | 2007 |
| | (thousands) | | |
| Domestic income (loss) | \$ (71,241) | \$ (84,117) | \$ 31,396 |
| Foreign income (loss) | (3,867) | (5,735) | 1,058 |
| Income (loss) before income taxes | <u>\$ (75,108)</u> | <u>\$ (89,852)</u> | <u>\$ 32,454</u> |

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

| | Year Ended December 31, | | |
|-----------------------------------|-------------------------|-----------------|-----------------|
| | 2009 | 2008 | 2007 |
| | (thousands) | | |
| Current: | | | |
| Federal | \$ 158 | \$ (35) | \$ 67 |
| State | (1) | 35 | 31 |
| Foreign | (8,879) | 44 | 669 |
| Total current | (8,722) | 44 | 767 |
| Deferred: | | | |
| Federal | - | - | 62 |
| State | - | - | 32 |
| Foreign | 656 | 2,267 | 4,040 |
| Total deferred | 656 | 2,267 | 4,134 |
| Provision for income taxes | \$ (8,066) | \$ 2,311 | \$ 4,901 |

Deferred tax assets (liabilities) are comprised of the following:

| | December 31, | |
|-----------------------------------------|-----------------|----------------|
| | 2009 | 2008 |
| | (thousands) | |
| Net operating loss carryforwards | \$ 136,077 | \$ 108,396 |
| Capital loss carryforward | 12,668 | 13,145 |
| Reserves not currently deductible | 12,705 | 9,781 |
| Tax credit carryforwards | 2,281 | 2,085 |
| Depreciation | 4,197 | 5,689 |
| Deferred revenue | 1,178 | 1,382 |
| Research and development capitalization | 166 | 376 |
| Other | 504 | 1,034 |
| Total deferred tax asset | 169,776 | 141,888 |
| Valuation allowance | (164,931) | (141,888) |
| Net deferred tax asset | \$ 4,845 | \$ - |

Net changes in the income tax valuation allowance are as follows:

| | December 31, | |
|---------------------------------------------|-------------------|-------------------|
| | 2009 | 2008 |
| | (thousands) | |
| Balance at the beginning of the year | \$ 141,888 | \$ 131,564 |
| Utilization and other reductions, net | 23,043 | 10,324 |
| Balance at the end of the year | \$ 164,931 | \$ 141,888 |

The provision for income taxes reconciles to the amount computed by multiplying income before income tax by the U.S. statutory rate of 35 percent as follows:

| | Year Ended December 31, | | |
|--------------------------------------------------------|--------------------------------|-----------------|-----------------|
| | 2009 | 2008 | 2007 |
| | (thousands) | | |
| Provision at statutory rate | \$ (26,286) | \$ (31,448) | \$ 11,359 |
| Deferred tax asset valuation allowance | 24,747 | 10,324 | (5,733) |
| Foreign earnings taxed at different foreign rates | 3,126 | 4,926 | 1,476 |
| State taxes, net of Federal benefit | (1) | 23 | 1,000 |
| Nondeductible stock option expense | 512 | 771 | 517 |
| Net operating losses used to reduce goodwill | - | - | 421 |
| Foreign earnings taxed at U.S. rate | 366 | 288 | 362 |
| FIN 48 reserve release | (9,319) | - | - |
| Tax credit | - | 6,397 | - |
| Impairment expense | - | 7,315 | - |
| True up of deferred tax asset | (687) | 4,394 | (4,414) |
| Foreign tax credit | (150) | (332) | (285) |
| Other | (374) | (347) | 198 |
| Total provision for (benefit from) income taxes | \$ (8,066) | \$ 2,311 | \$ 4,901 |

The valuation allowance at December 31, 2009 and 2008 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 current weakness in 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, 2009, the Company had Federal and state net operating loss carryforwards of approximately \$386.2 million and \$138.2 million respectively, which will begin expiring in 2018 for Federal and 2010 for state. The Company also has foreign net operating loss carryforwards in Canada, Japan, and Germany of approximately \$21.5 million, \$1.5 million, and \$10.7 million, respectively. Canada and Japan net operating loss carryforwards will begin expiring in 2010. 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, 2009, 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 the subsidiaries earnings are

considered indefinitely reinvested outside the U.S. As of December 31, 2009, U.S. income taxes were not provided for on a cumulative total of \$3.8M 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. 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. During the twelve months ended December 31, 2009, due to decreased working capital requirements for one of its foreign subsidiaries, the Company initiated a repatriation of \$14.7 million from Mattson International to Mattson U.S. During the twelve months ended December 31, 2008, due to the global economic downturn, the Company initiated a repatriation of \$23.7 million from Mattson International to Mattson U.S.

As of December 31, 2009, the Company's total unrecognized tax benefits were approximately \$27.6 million exclusive of interest and penalties described below. Included in the \$27.6 million is approximately \$3.3 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 there will be a significant change of its unrecognized tax benefit within 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 2009, \$0.3 million for 2008, and \$0.6 million for 2007. As of December 31, 2009 and 2008, the Company had \$1.1 million and \$1.3 million respectively accrued for estimated interest. As of December 31, 2009 and 2008, the Company had \$0.1 million and \$0.1 million, respectively, accrued for estimated penalties.

The Company and its subsidiaries are subject to United States 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 2003. During the twelve months ended December 31, 2009, the Company closed its German audit for years 2001 through 2004, which resulted in a decrease of the recognized tax benefit of \$9.3 million and accrued interest of \$0.6 million, respectively.

A reconciliation of the January 1, 2009 through December 31, 2009 amount of unrecognized tax benefits is as follows:

| | Year Ended December 31, | | |
|---------------------------------------------|--------------------------------|----------------|----------------|
| | 2009 | 2008 | 2007 |
| | (millions) | (millions) | (millions) |
| Balance at the beginning of the year | \$ 36.3 | \$ 29.6 | \$ 25.2 |
| Increases for tax positions | 0.5 | 7.6 | 3.8 |
| Effect of exchange rates on tax positions | 0.2 | (0.7) | 0.9 |
| Settlements | (9.3) | - | - |
| Expiration of statutes of limitations | (0.1) | (0.2) | (0.3) |
| Balance at the end of the year | <u>\$ 27.6</u> | <u>\$ 36.3</u> | <u>\$ 29.6</u> |

18. Net Income Per Share

The Company presents both basic and diluted net income per share on the face of its Consolidated Statements of Operations in accordance with the authoritative guidance on earnings per share. Basic earnings per share is computed by dividing net income by the weighted-average number of shares of common stock outstanding for the period. Diluted net income 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, | | |
|-------------------------------------------------------------------------------|--------------------------------|---------------|---------------|
| | 2009 | 2008 | 2007 |
| | | (thousands) | |
| Weighted average common shares outstanding - basic | 49,832 | 49,471 | 51,771 |
| Diluted potential common shares from stock options and restricted stock units | - | - | 945 |
| Weighted average common shares - diluted | <u>49,832</u> | <u>49,471</u> | <u>52,716</u> |

There were no stock options or unvested RSU included in the computation of diluted shares for the years ended December 31, 2009 and 2008, since the Company has net losses in for these years, as the inclusion of such shares would have been antidilutive. For the year ended December 31, 2007, the Company excluded 3.8 million stock options and RSUs from the computations of diluted shares. As of December 31, 2009 and 2008, the Company had outstanding stock options and RSUs of 5.4 million and 6.5 million, respectively.

19. Related Party Transactions

The Company did not engage in related party transactions in fiscal 2009 and 2008. Through May 2007, the Company contracted outsourced installation and repair services and sold spare parts through an unrelated party, Mattson Service Company (MSC) in Japan. A director of the Company, Shigeru Nakayama, holds a minority interest in MSC. The value of spare parts and services transactions between the Company and MSC was \$0.5 million in fiscal 2007. The Company believes that the payments of commissions to MSC for sales of spare parts to customers in Japan and payments for installation and repair services rendered by MSC were on terms that represented the market value of such transactions.

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, 2009 and 2008 and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2009 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 accompanying 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, 2009 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 schedules, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control over Financial Reporting under Item 9(a). Our responsibility is to express opinions on these financial statements, on the financial statements, financial statement schedule, and on the Company's internal control over financial reporting based on our integrated audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

As discussed in Note 2 to the consolidated financial statements, in fiscal 2007, the Company changed the manner in which it accounts for uncertainty in income taxes and the manner in which it accounts for sabbatical leave and other similar benefits.

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 5, 2010

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, 2009. 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 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 |

| | Three Months Ended | | | |
|-------------------------------------------------------|--------------------|---------------------------------|--------------------------------------|-------------------------------------|
| | March 30, 2008 | June 29, 2008 ⁽⁵⁾ | September 28, 2008 ⁽⁴⁾ | December 31, 2008 ⁽³⁾ |
| (thousands, except per share amounts) | | | | |
| Net sales | \$ 48,655 | \$ 41,790 | \$ 30,041 | \$ 13,065 |
| Gross profit | \$ 20,834 | \$ 18,445 | \$ 7,670 | \$ 597 |
| Loss from operations | \$ (3,915) | \$ (7,238) | \$ (21,170) | \$ (59,502) |
| Net loss | \$ (4,216) | \$ (6,754) | \$ (20,737) | \$ (60,456) |
| Net loss per share: | | | | |
| Basic and diluted | \$ (0.09) | \$ (0.14) | \$ (0.42) | \$ (1.22) |
| Shares used in computing net income per share: | | | | |
| Basic and diluted | 49,362 | 49,419 | 49,481 | 49,614 |

⁽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.

⁽³⁾ Operating expenses for the fourth quarter of 2008 included significant items totaling \$30.9 million, related to restructuring charges of \$3.4 million, impairment of goodwill of \$18.1 million and impairment of intangible and long-lived assets of \$9.4 million. Operating expenses for the fourth quarter also included \$3.3 million in additional allowances for bad debts and \$3.4 million in amortization of evaluation tools placed at customer sites.

⁽⁴⁾ Operating expenses for the third quarter of 2008, included severance expenses of \$1.9 million for a Cost Alignment Plan to reduce headcount by 11 percent and optimize facilities worldwide.

⁽⁵⁾ Operating expenses for the second quarter of 2008 included \$0.7 million in restructuring expenses for severance costs related to a 5 percent headcount reduction, primarily in the office support organizations.

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, 2009. 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, 2009. 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, 2009.

The effectiveness of the Company's internal control over financial reporting as of December 31, 2009 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, 2009 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 and Executive Officers of the Registrant

For information with respect to our executive officers, see Part I of this Annual Report on Form 10-K, under the caption “Executive Officers of the Registrant.” The other information required by this item will be set forth in our 2010 Proxy Statement under the captions “Election of Directors,” “Report of the Audit Committee” and “Section 16(a) Beneficial Ownership Reporting Compliance” 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 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 2010 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 2010 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 2010 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 2010 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, 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, 2009, 2008 and 2007, which is included in Schedule II of this Form 10-K.

(a)(3) Exhibits

| <u>Exhibit Number</u> | <u>Description</u> | <u>Notes</u> |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| 3.1 | Amended and Restated Certificate of Incorporation of Mattson Technology, Inc. | (1) |
| 3.2 | Third Amended and Restated Bylaws of Mattson Technology, Inc. | (2) |
| 4.1 | Form of Senior Indenture. | (3) |
| 4.2 | Form of Senior Debt security (included in Exhibit 4.1). | |
| 4.3 | Form of Subordinated Indenture. | (3) |
| 4.4 | Form of Subordinated Debt security (Included in Exhibit 4.3). | |
| 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 | (16) |
| 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 | 1994 Employee Stock Purchase Plan | (9) (C) |
| 10.6 | Form of Indemnity Agreement | (10) (C) |
| 10.7 | Executive Change of Control agreement between Mattson Technology, Inc. and David Dutton, dated as of March 4, 2002. | (2) (C) |
| 10.8 | Form of Executive Change of Control agreement Between Mattson Technology, Inc. and its Executive Vice Presidents and Product Division Presidents. | (2) (C) |
| 10.9 | Separation Agreement Between Robert MacKnight and Mattson Technology, Inc. | (11) (C) |
| 10.10 | Industrial Space Lease, dated August 1, 2005, between the Company and Renco Equities IV, a California partnership. | (12) |
| 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. | (13) |
| 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. | (13) |
| 10.13 | Form of Performance Based Restricted Stock Units Agreement between Mattson Technology and some employees. | (14) |
| 10.14 | Separation Agreement between Mattson Technology, Inc. and Bill Turner. | (15) (C) |

- | | | |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| 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 Financial Officer, Nigel Wenden, Senior Vice-President, Global Business Operations, and certain other executives. | (17) (C) |
| 10.16 | Separation Agreement between Mattson Technology, Inc. and Nigel Wenden dated August 10, 2009. | (18) |
| 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:

(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. registration statement on Form S-3 (File No. 333-111527) filed on December 23, 2003.
- (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. current report on Form S-8 filed on December 16, 2005.
- (9) Incorporated by reference to corresponding exhibit to Mattson Technology, Inc. quarterly report on Form 10-Q filed on August 6, 2004.
- (10) Incorporated by reference to Appendix B to the Mattson Technology, Inc. proxy statement filed on June 20, 1997.
- (11) Incorporated by reference to corresponding exhibit to Mattson Technology, Inc. current report on Form 8-K filed on November 14, 2007.
- (12) Incorporated by reference to corresponding exhibit to Mattson Technology, Inc. quarterly report on Form 10-Q filed on November 4, 2005.
- (13) Incorporated by reference to corresponding exhibit to Mattson Technology, Inc. quarterly report on Form 10-Q filed on May 14, 2003.
- (14) Incorporated by reference to corresponding exhibit to Mattson Technology, Inc. quarterly report on Form 10-Q filed on May 09, 2008
- (15) Incorporated by reference to corresponding exhibit to Mattson Technology, Inc. current report on Form 8-K filed on June 23, 2008.
- (16) Incorporated by reference to corresponding exhibit to Mattson Technology, Inc. current report on Form 8-K filed on July 14, 2008.
- (17) Incorporated by reference to the corresponding exhibit to Mattson Technology, Inc current report on Form 8-K filed on September 17, 2008.
- (18) Incorporated by reference to corresponding exhibit to Mattson Technology, Inc. Current Report on Form 8-K filed on August 10, 2009.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

MATTSON TECHNOLOGY, INC.
(Registrant)

March 5, 2010

By: /s/ David Dutton
David Dutton
President, Chief Executive Officer and Director
(Principal Executive Officer)

March 5, 2010

By: /s/ Andy Moring
Andy Moring
Chief Financial Officer
and Executive Vice President — Finance
(Principal Financial and Accounting Officer)

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

| <u>Signature</u> | <u>Title</u> | <u>Date</u> |
|---------------------------------------------------|------------------------------------|---------------|
| <u>/s/ Kenneth Kannappan</u> Kenneth Kannappan | Chairman of the Board and Director | March 5, 2010 |
| <u>/s/ Hans-Georg Betz</u> Hans-Georg Betz | Director | March 5, 2010 |
| <u>/s/ John Bolger</u> John Bolger | Director | March 5, 2010 |
| <u>/s/ Richard E. Dyck</u> Richard E. Dyck | Director | March 5, 2010 |
| <u>/s/ Shigeru Nakayama</u> Shigeru Nakayama | Director | March 5, 2010 |
| <u>/s/ Kenneth Smith</u> Kenneth Smith | Director | March 5, 2010 |

SCHEDULE II
VALUATION AND QUALIFYING ACCOUNTS
Allowance for Doubtful Accounts

| Fisal Year | Balance at Beginning of Year | Charged (Credited) to Income | Deductions and Other | Balance at End of Year |
|-------------------|---------------------------------------------|---------------------------------------------|---------------------------------|-----------------------------------|
| | | (thousands) | | |
| 2009 | \$ 4,606 | \$ (2,441) | \$ 2 | \$ 2,167 |
| 2008 | \$ 1,463 | \$ 3,355 | \$ (212) | \$ 4,606 |
| 2007 | \$ 3,222 | \$ (1,034) | \$ (725) | \$ 1,463 |

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.