

ADVANCED ENERGY INDUSTRIES INC

Form 10-K

March 18, 2008

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

**FORM 10-K**

(Mark One)

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

**For the fiscal year ended December 31, 2007.**

**or**

☐ **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: 000-26966  
ADVANCED ENERGY INDUSTRIES, INC.**

(Exact name of registrant as specified in its charter)

**Delaware**

(State or other jurisdiction of incorporation or  
organization)

**84-0846841**

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

**1625 Sharp Point Drive, Fort Collins, CO**

(Address of principal executive offices)

**80525**

(Zip Code)

Registrant's telephone number, including area code: **(970) 221-4670**

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

Title of each class

**Common Stock, \$0.001 par value**

Name of each exchange on which registered

**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 such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☐ No ☒.

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K 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 the 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 ☐

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(Do not check if a smaller reporting company)

The aggregate market value of voting and non-voting common stock held by non-affiliates of the registrant was \$813,409,490 as of June 29, 2007, based upon the price at which such common stock was last sold on such date.

43,732,707

(Number of shares of Common Stock outstanding as of March 12, 2008)

**DOCUMENTS INCORPORATED BY REFERENCE**

Part III of this Annual Report on Form 10-K incorporates information by reference from the registrant's definitive proxy statement for its 2008 Annual Meeting of Stockholders, scheduled to be held on May 7, 2008. Except as expressly incorporated by reference, the registrant's definitive proxy statement shall not be deemed to be a part of this Annual Report on Form 10-K.

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*Unless the context otherwise requires, as used in this Form 10-K, references to Advanced Energy , the Company , we , us or our refer to Advanced Energy Industries, Inc. and its consolidated subsidiaries.*

**ITEM 1. BUSINESS**

**Overview**

We develop innovative power and control technologies that enable high-growth, plasma-based thin-film manufacturing processes worldwide, including semiconductors, flat panel displays, data storage products, solar cells, architectural glass, and other advanced product applications. We also develop grid-connect inverters for the solar energy market.

Our installed base enables recurring revenue opportunities as we sell spare parts, repair services and field upgrades worldwide through our customer service and technical support organization.

We provide solutions to a diverse range of markets and geographic regions, with the semiconductor capital equipment industry being our largest market. Sales to customers in the semiconductor capital equipment industry comprised 69% of our sales in each of 2006 and 2007 and 63% of our sales in 2005. Other markets we serve include flat panel display, data storage, architectural glass, solar and other industrial thin-film manufacturing.

We incorporated in Colorado in 1981 and reincorporated in Delaware in 1995. Our executive offices are located at 1625 Sharp Point Drive, Fort Collins, Colorado 80525, and our telephone number is 970-221-4670.

**Products**

Our products fall into five categories: Power Conversion, Flow Control Technologies, Solar Inverter, Thermal Instrumentation, and Source Technology. Our products are designed to enable new process technologies, improve productivity and lower the cost of ownership for our customers.

**POWER CONVERSION**

Our power conversion systems include direct current (DC), high power, low and mid frequency, and radio frequency (RF) power supplies, matching networks and RF instrumentation. Our power conversion systems refine, modify and control the raw electrical power from a utility and convert it into power that is customized, predictable and repeatable. Our power conversion systems are primarily used by semiconductor and similar thin-film manufacture including flat panel display, data storage and architectural glass manufacturers in the following applications: physical vapor deposition; chemical vapor deposition; reactive sputtering; electroplating; plasma vacuum processes; oxide, poly and conductor etch; and carbon dioxide laser excitation.

**FLOW CONTROL TECHNOLOGIES**

Our flow control technology products include thermal mass flow controllers (MFCs), pressure-based MFCs, liquid MFCs, liquid vapor delivery systems, pressure control systems and ultrasonic control systems. Our flow control technology products control or monitor the flow of high-purity liquids, liquid vapor, and gases encompassing a wide range of input pressures. Our flow control technology products are primarily used in semiconductor, flat panel display manufacturing and similar thin-film applications, fiber optics, safe delivery systems and silica industries.

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***SOLAR INVERTER***

Our solar inverter products include a line of photovoltaic (PV) energy inverters that offer an advanced, transformerless, grid-tie PV solution for commercial system installations. Our PV inverter is designed to convert raw, solar DC power from standard solar arrays to high-quality AC grid electricity enabling commercial installations to produce targeted output power levels with fewer solar modules.

***THERMAL INSTRUMENTATION***

Our thermal instrumentation products, used primarily in the semiconductor industry, provide thermal management and control solutions for applications in which time-temperature cycles affect productivity and yield. They are used in physical vapor deposition, chemical vapor deposition, rapid thermal processing and other semiconductor applications requiring non-contact temperature measurement.

***SOURCE TECHNOLOGY***

Our source technology products include plasma and ion beam sources which are used in the direct deposition of thin films of diamond-like carbon, ion-assisted deposition, ion beam etching, optical coating, industrial coating, pre-cleaning and chamber cleaning. Our plasma-source platforms are complete systems, including a remote plasma source, a power supply and an active matching network.

**Markets, Applications and Customers**

***MARKETS***

The following is a discussion of the major markets for our products.

***SEMICONDUCTOR CAPITAL EQUIPMENT MARKET.*** The majority of our sales have been to customers in the semiconductor capital equipment industry for incorporation into equipment used in the major semiconductor processing steps that make integrated circuits, as well as to other equipment manufacturers discussed below. Sales to customers in the semiconductor capital equipment industry comprised 69% of our sales in each of 2007 and 2006 and 63% of our sales in 2005. Our power conversion systems provide the energy to enable chemical reaction for thin-film processes such as deposition and etch. Our flow control technology products control the fluid or gas being delivered to ensure accuracy, repeatability and stability. Our thermal instrumentation products measure the temperature of the process chamber. Our source technology products optimize chemical vapor deposition (CVD) clean, deposition and etch processes. Precise control over the energy delivered to plasma-based processes enables the production of integrated circuits with reduced feature sizes and increased speed and performance. We anticipate that the semiconductor capital equipment industry will continue to be a substantial part of our business for the foreseeable future.

***FLAT PANEL DISPLAY CAPITAL EQUIPMENT MARKET.*** We sell our products to manufacturers of flat panel displays and flat panel projection devices, which have thin film deposition processes similar to those employed in manufacturing integrated circuits. Flat panel technology produces bright, sharp, large, color-rich images on flat screens for products ranging from hand-held devices to laptop and desktop computer monitors to plasma and liquid crystal display (LCD) screen televisions. The transition to larger panel sizes and higher display resolution is driving the need for tighter process controls to reduce manufacturing costs and defects. There are three major types of flat panel displays: LCD s, field emitter displays, and gas plasma displays. We sell our products to all of the flat panel markets.

***SOLAR CAPITAL EQUIPMENT MARKET.*** We sell our products to original equipment manufacturers (OEMs) and manufacturers of solar cells who use our products to produce thin-films using both bulk silicon substrates as

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well as glass or metal substrates. The majority of solar cell manufacturing currently uses a bulk silicon wafer as the substrate, which requires both CVD and physical vapor deposition (PVD) thin film processes. The solar cell industry also has developed processes for manufacturing solar cells on non-silicon substrates such as glass, plastic or metal using thin film processes that will also employ CVD and PVD tools. Our RF and DC power supply and flow products are designed for use in these CVD and PVD tools. The CIGS, CIS and CADtel solar cell manufacturing process also requires thin film processing which requires our power supply and flow products.

*DATA STORAGE CAPITAL EQUIPMENT MARKETS.* We sell products to manufacturers of data storage equipment and data storage devices for use in producing a variety of products, including CDs and DVDs (read-only, one-time recordable and rewriteable); computer hard discs, including both media and thin-film heads; and magneto-optical storage media. These products use a PVD process to produce optical and magnetic thin-film layers as well as a protective-wear layer. In this market, the trend towards higher recording densities requires thinner and more precise films. The use of equipment incorporating magnetic media to store analog and digital data expands with the growth of the laptop, desktop and workstation computer markets and the consumer electronics audio, video, gaming and entertainment markets.

*ARCHITECTURAL GLASS CAPITAL EQUIPMENT MARKET.* We sell our products to OEMs and to producers of Low Emissivity or Low-E architectural glass. This glass is used in commercial and residential buildings to reflect heat and cold through the use of thin films coated directly on the glass which reduces the energy used in the building. The thin film deposition process employs PVD tools which use our DC power products. This market is driven by end market demand for glass related to the residential and commercial construction industry.

*INDUSTRIAL PRODUCTS CAPITAL EQUIPMENT MARKETS.* We sell our products to OEMs and producers of end products who use thin films in a variety of industrial markets. Thin films of diamond-like coatings and other materials are applied to products in plasma-based processes to strengthen and harden surfaces on such diverse products as tools, automotive parts and various other end products. The advanced thin-film production processes allow precise control of various optical and physical properties, including color, transparency and electrical and thermal conductivity. The improved adhesion and high-film quality resulting from plasma-based processing make it the preferred method of applying the thin films. Many of these thin-film industrial applications require power levels substantially greater than those used in our other markets.

*COMMERCIAL SOLAR INVERTER MARKET.* We sell a commercial solar inverter to integrators who integrate our Solaron inverter into their solar array solutions. The Solaron converts DC power, which is produced by the solar panels in the array, into AC power for consumption on-site or to be sold back through the public utility grid. The commercial solar inverter market is characterized by installations generating power above 100kw. We introduced the 333kw Solaron product in September 2007.

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***CUSTOMERS***

Our products are sold worldwide to more than 100 OEMs and directly to more than 500 end users. Our ten largest customers accounted for 61%, of our sales in 2007, 63% of our sales in 2006 and 57% of our sales in 2005. We expect that sales of our products to these customers will continue to account for a large percentage of our sales for the foreseeable future.

Applied Materials Inc., our largest customer, accounted for 29% of our sales in 2007, 30% of our sales in 2006 and 23% of our sales in 2005. Ulvac, Inc., our largest customer in the flat panel display industry, accounted for 11% of our sales in 2005. With the exceptions of Applied Materials and Ulvac, no single customer accounted for more than 10% of our sales during 2007, 2006 or 2005.

**Backlog**

Our backlog decreased 18% from \$56 million at December 31, 2006 to \$46 million at December 31, 2007. We schedule production of our systems based on order backlog and customer commitments. Backlog includes orders scheduled to ship in the following twelve months for which written authorizations have been accepted and revenue has not been recognized. Due to possible customer changes in delivery schedules and cancellations of orders, our backlog at any particular date is not indicative of actual sales for any succeeding period. Delays in delivery schedules and/or a reduction of backlog during any particular period could have a material adverse effect on our business and results of operations.

**Marketing, Sales and Service**

We sell our products primarily through direct sales personnel to customers in the United States, Europe and Asia. Our sales personnel are located at our headquarters in Fort Collins, Colorado, and in sales offices in San Jose, California; Austin Texas; and Vancouver, Washington. To serve customers in Asia and Europe, we have offices in Shanghai, China; Bicester, England; Filderstadt, Germany; Hachioji, Japan; Sungnam City, South Korea; and Hsinchu and Taipei, Taiwan. These offices have primary responsibility for sales in their respective markets. We also



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have sales representatives and distributors inside and outside the United States. We maintain customer service offices at many of the locations listed above, as well as other sites chosen considering our customer locations as we believe that customer service and technical support are important competitive factors and are essential to building and maintaining close, long-term relationships with our customers.

The following table represents our net sales by geographic region and percentage of net sales for the years ended 2007, 2006 and 2005:

	Years Ended December 31,			Years Ended December 31,		
	2007	2006	2005	2007	2006	2005
	(In thousands)					
United States	\$ 207,265	\$ 238,468	\$ 163,657	54%	58%	50%
Europe	42,051	41,760	34,228	11%	10%	11%
Asia	135,383	130,514	127,597	35%	32%	39%
Total sales	\$ 384,699	\$ 410,742	\$ 325,482	100%	100%	100%

See Item 1A. Risk Factors beginning on page 8 for a discussion of certain risks attendant to our foreign operations.

**Manufacturing**

Our manufacturing locations are in Shenzhen, China; Fort Collins, Colorado; Hachioji, Japan; and Vancouver, Washington. In 2005, we completed the realignment of our worldwide manufacturing infrastructure, with Shenzhen, China being the central high-volume manufacturing site. The rest of our manufacturing locations produce low volume, high end products, service and support.

We manufacture different products at each facility. Our manufacturing activities consist of the assembly and testing of components and subassemblies, which are then integrated into our final products. Once final testing of all electrical and electro-mechanical subassemblies is completed, the final product is subjected to a series of reliability-enhancing operations prior to shipment to our customers. We purchase a wide range of electronic, mechanical and electrical components, some of which are designed to our specifications.

**Intellectual Property**

We have a practice of seeking patent protection for inventions governing new products or technologies as part of our ongoing research, development and manufacturing activities. We currently hold 89 United States patents, 54 foreign-issued patents, and have over 100 patent applications pending in the United States, Europe and Asia. Generally, our efforts to obtain international patents have been concentrated in the industrialized countries of Europe and Asia, because there are other manufacturers and developers of power conversion and control systems in those countries as well as customers for those systems.

Litigation may from time to time be necessary to enforce patents issued to us, to protect trade secrets or know-how owned by us, to defend us against claimed infringement of the rights of others or to determine the scope and validity of the proprietary rights of others. See Item 1A. Risk Factors We are highly dependent on our intellectual property.

**Competition**

The markets we serve are highly competitive and characterized by ongoing technological development and changing customer requirements. Significant competitive factors in our markets include product performance, compatibility with adjacent products, price, quality and reliability and level of customer service and support. We believe that we currently compete effectively with respect to these factors, although we cannot assure that we will be able to compete effectively in the future.

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The markets in which we compete have seen an increase in global competition, especially from Asian and European-based equipment vendors. We have several foreign and domestic competitors for each of our product lines. Some of these competitors are larger and have greater resources than us. Our ability to continue to compete successfully in these markets depends on our ability to make timely introductions of system enhancements and new products. We expect our competitors will continue to improve the design and performance of their products and to introduce new products with competitive performance characteristics.

### **Operating Segment**

We operate and manage our business of manufacturing, marketing and servicing components and products for thin-film manufacturing processes as one segment. All segment financial information required by SFAS No. 131 is found in Note 15 Foreign Operations and Major Customers in the accompanying consolidated financial statements included in Part II, Item 8 of this Form 10-K.

### **Research and Development**

The market for our products is characterized by ongoing technological changes. We believe that continued and timely development of new highly differentiated products and enhancements to existing products to support OEM requirements is necessary for us to maintain a competitive position in the markets we serve. Accordingly, we devote a significant portion of our personnel and financial resources to research and development projects and seek to maintain close relationships with our customers and other industry leaders in order to remain responsive to their product requirements. Research and development expenses were \$50.4 million in 2007, \$44.8 million in 2006 and \$39.7 million in 2005, representing 13.1% of our sales in 2007, 12.2% of our sales in 2006 and 12.9% of our sales in 2005.

### **Number of Employees**

As of December 31, 2007, we had a total of 1,611 employees. There is no union representation of our employees, notwithstanding statutory organization rights applicable to our employees in China, and we have never experienced an involuntary work stoppage. We consider our employee relations to be good.

### **Effect of Environmental Laws**

We are subject to federal, state and local environmental laws and regulations, as well as the environmental laws and regulations of the foreign federal and local jurisdictions in which we have manufacturing facilities. We believe we are in material compliance with all such laws and regulations.

### **Website Access**

Our website address is [www.advanced-energy.com](http://www.advanced-energy.com). We make available, free of charge on our website, our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and all amendments to these reports as soon as reasonably practicable after filing such reports with, or furnishing them to, the Securities and Exchange Commission (SEC). Such reports are also available at [www.sec.gov](http://www.sec.gov). Information contained on our website is not incorporated by reference in, or otherwise part of, this Annual Report on Form 10-K or any of our other filings with the SEC.

### **Special Note Regarding Forward-Looking Statements**

This Annual Report on Form 10-K includes or incorporates by reference forward-looking statements within the meanings of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. All statements contained or incorporated by reference in this Annual Report on Form 10-K, other than statements of historical fact, are forward-looking statements. For example, statements relating to our

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beliefs, expectations, plans and projections are forward-looking statements as are statements that specified actions, conditions or circumstances will continue or change. Forward-looking statements involve risks and uncertainties. In some cases, forward-looking statements can be identified by the inclusion of words such as believe, expect, plan, anticipate, estimate and similar words.

Some of the forward-looking statements in this Annual Report on Form 10-K are or reflect our expectations or projections relating to:

Our future revenues;

Our future gross profit;

Reducing our operating breakeven point;

Incremental profit above our breakeven point;

Market acceptance of our products;

Customer inventory levels, requirements and order levels;

Research and development expenses;

Selling, general and administrative expenses;

Sufficiency and availability of capital resources;

Capital expenditures;

Restructuring activities and expenses; and

General global economic conditions.

Our actual results could differ materially from those projected or assumed in our forward-looking statements, because forward-looking statements by their nature are subject to risks and uncertainties. Factors that could contribute to these differences or prove our forward-looking statements, by hindsight, to be overly optimistic or unachievable include the factors described in Item 1A. Risk Factors beginning on page 8. Other factors might also contribute to the differences between our forward-looking statements and our actual results. We assume no obligation to update any forward-looking statement or the reasons why our actual results might differ.

**Executive Officers of the Registrant**

Our executive officers, their positions and their ages as of March 12, 2008 are as follows:

Dr. Hans Georg Betz, 61, has been our Chief Executive Officer and President since August 2005 and has been a member of our Board of Directors since July 2004. From August 2001 until he became our Chief Executive Officer and President, Dr. Betz served as chief executive officer of West Steag Partners GmbH, a German-based venture capital company focused on the high-technology industry. In his over 30-year career in the electronics industry, Dr. Betz also has served as chief executive officer of STEAG Electronic Systems AG and a managing director at Leybold AG. Dr. Betz currently serves as a director of Mattson Technology, Inc., a publicly held supplier of advanced process equipment used to manufacture semiconductors, and serves as a member of its compensation committee.

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Lawrence D. Firestone, 49, joined us in August 2006 as Executive Vice President and Chief Financial Officer. Immediately prior to joining the Company, Mr. Firestone had served as the chief financial officer, secretary and treasurer of Applied Films Corporation, a supplier of thin film deposition equipment, since 1999. From 1996 to 1999, Mr. Firestone served as vice president and chief operating officer of Avalanche Industries, a contract manufacturer of custom cables and harnesses.

Yuval Wasserman, 53, joined us in August 2007 as Executive Vice President of Sales, Marketing and Service. Immediately prior to joining the Company, Mr. Wasserman had served as the president and chief executive officer of Tevet Process Control Technologies, Inc., an integrated metrology equipment provider, since 2002. In his 25 years in the semiconductor industry, Mr. Wasserman also has held the positions of senior vice president for sales and marketing at Boxer Cross, a metrology company; vice president and general manager of Fusion Systems, a plasma strip equipment manufacturer and a division of Axcelis Technologies, Inc; and executive and senior management positions in technology and marketing at AG Associates, a manufacturer of RTP processing equipment. Mr. Wasserman started his career at National Semiconductor, where he held various process engineering and management positions from 1983 to 1989.

Charles S. Rhoades, 47, joined us in September 2002 as Senior Vice President and General Manager of Control Systems and Instrumentation. In November 2004 he was named Executive Vice President of Products and Operations. On December 19, 2005, Mr. Rhoades was appointed as Chief Operating Officer. From March 2000 to September 2002, Mr. Rhoades was Vice President, Corporate Development at Portera Systems. Prior to Portera Systems, he was Managing Director of Product Development at Lam Research. Mr. Rhoades tendered his resignation on December 31, 2007 with an agreement to continue his employment until June 30, 2008.

**ITEM 1A. RISK FACTORS**

***The semiconductor, semiconductor capital equipment and flat panel display industries are highly cyclical, which impacts our operating results.***

Our business and operating results depend in significant part upon capital expenditures by manufacturers of semiconductors and flat panel displays, which in turn depend upon current and anticipated demand for their products. Historically, these industries have been highly cyclical, with recurring periods of over-supply that have had a negative impact on the demand for capital equipment used to manufacture their products.

During periods of declining demand, such as they are currently experiencing, our customers typically reduce purchases of, and cancel orders for, our products and delay delivery of their own products. We may incur significant charges as we seek to align our cost structure with any such reduction in sales to these customers. In addition, we may not be able to respond adequately or quickly to the declining demand by reducing our costs. We may also be required to record significant reserves for excess and obsolete inventory as demand for our products changes. Our inability to reduce costs and the charges resulting from other actions taken in response to changes in demand for our products would adversely affect our business, financial condition and operating results.

***Our quarterly and annual operating results fluctuate significantly and are difficult to predict.***

Our operating results may be adversely affected by a variety of factors, many of which are beyond our control and difficult to predict. These factors include:

Fluctuations in demand in the semiconductor, semiconductor capital equipment and flat panel display industries and other industries in which our customers operate;

The timing and nature of orders placed by our customers;

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Seasonal variations in capital spending by our customers;

Changes in our customers' inventory management practices;

Customer cancellation or postponement of previously placed orders;

Pricing competition from our competitors;

Customer requests for us to reduce prices, enhance features, improve reliability, shorten delivery times and extend payment terms;

Component shortages or allocations or other factors that result in delays in manufacturing and sales or result in changes to our inventory levels or cause us to substantially increase our spending on inventory;

The introduction of new products by us or our competitors;

Changes in macroeconomic conditions;

Litigation, especially regarding intellectual property

Currency exchange rate fluctuations; at December 31, 2007, a 10% change in exchange rates would have had an approximately 2% to 4% impact on reported revenues and expenses; and

Our estimates of the fair value of our auction rate securities and expectations regarding our ability to liquidate such securities.

***We have transferred the production of substantially all of our product lines to our manufacturing facility in Shenzhen, China, and may experience unforeseen difficulties and challenges with these operations.***

We have invested significant human and financial resources to establish our manufacturing facility in Shenzhen, China. These investments were made with the goal of reducing our labor costs by increasing our workforce in China and correspondingly decreasing our workforce in the United States. We cannot predict with certainty the impact that this relatively new facility will have on our operating results. We may incur unforeseen costs with respect to this facility and the related workforce, including escalations of costs that could have an adverse impact on our operating results.

***We might not realize all of the intended benefits of transitioning our supply base to Asian suppliers.***

We are continuing our transition to purchasing a substantial portion of components for our products from Asian suppliers to lower our materials costs and shipping expenses. These components might require us to incur higher than anticipated testing or repairing costs, which would have an adverse effect on our operating results. Customers, including major customers who have strict and extensive requirements, might not accept our products if they contain these lower-priced components. A delay or refusal by our customers to accept such products, as well as an inability of our suppliers to meet our purchasing requirements, might require us to continue to purchase higher-priced components from our existing suppliers or might cause us to lose sales to these customers, which would have an adverse effect on our operating results.

***A significant portion of our sales is concentrated among a few customers.***

Our ten largest customers accounted for 61% of our sales in 2007, 63% of our sales in 2006 and 57% of our sales in 2005. Applied Materials Inc., our largest customer, accounted for 29% of our sales in 2007, 30% of our sales in 2006 and 23% of our sales in 2005. Ulvac, Inc., our largest customer in the flat panel display industry, accounted for 11% of our sales in 2005. With the exceptions of Applied Materials and Ulvac, no single customer accounted for more than 10% of our sales during 2007, 2006 or 2005. The loss of any of our significant customers or a material reduction in any of their purchase orders could significantly harm our business, financial condition and results of operations.



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Our customers continually exert pressure on us to reduce our prices and extend payment terms. Given the nature of our customer base and the highly competitive markets in which we compete, we may be required to reduce our prices or extend payment terms to remain competitive. We may not be able to reduce our expenses in an amount sufficient to offset potential margin declines.

***Raw material, part, component and subassembly shortages, exacerbated by our dependence on sole and limited source suppliers, could affect our ability to manufacture products and systems and could delay our shipments.***

Our business depends on our ability to manufacture products that meet the rapidly changing demands of our customers. Our ability to manufacture our products timely depends in part on the timely delivery of raw materials, parts, components and subassemblies from suppliers. We rely on sole and limited source suppliers for some of our raw materials, parts, components and subassemblies that are critical to the manufacturing of our products. This reliance involves several potential risks, including the following:

Inability to obtain an adequate supply of required parts, components or subassemblies;

Supply shortages if a sole or limited source provider ceases operations;

Having to fund the operating losses of a sole or limited source provider;

Reduced control over pricing and timing of delivery of raw materials and parts; components or subassemblies;

Need to qualify alternative suppliers which could be time consuming and lead to delays in delivery of products to our customers, as well as increased costs; and

Inability of our suppliers to develop technologically advanced products to support our growth and development of new products.

If we are unable to qualify additional suppliers and manage relationships with our existing and future suppliers successfully, if our suppliers experience financial difficulties including bankruptcy or if our suppliers cannot meet our performance or quality specifications or timing requirements, we may experience shortages, delays, or increased costs of raw materials, parts, components or subassemblies. This in turn could limit our ability to manufacture and ship our products, which could adversely and materially affect our business, financial condition and operating results and relationships with our current and prospective customers.

***We generally have no written long-term contracts with our customers requiring them to purchase any specified quantities from us.***

As is typical in the industries we serve, our sales are primarily made on a purchase order basis, and we generally have no written long-term purchase commitments from our customers. As a result, we are limited in our ability to predict the level of future sales or commitments from our current customers, which may diminish our ability to allocate labor, materials and equipment in the manufacturing process effectively. In addition, we may accumulate inventory in anticipation of sales that do not materialize, resulting in excess and obsolete inventory write-offs.

***If we are unable to adjust our business strategy successfully for some of our product lines to reflect the increasing price sensitivity on the part of our customers, our business and financial condition could be harmed.***

Our business strategy for many of our product lines has been focused on product performance and technology innovation to provide enhanced efficiencies and productivity. As a result of recent economic conditions and changes in various markets that we serve, our customers have experienced significant cost pressures and, as a result, we have observed increased price sensitivity on the part of our customers. If competition for any of our product lines should come to focus solely on price rather than on product performance and technology innovation, we will need to adjust our business strategy and product offerings accordingly and, if we are unable to do so, our business, financial condition and operating results could be materially and adversely affected.

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### ***The markets in which we operate are highly competitive.***

We face substantial competition, primarily from established companies, some of which have greater financial, marketing and technical resources than we do. We expect our competitors will continue to develop new products in direct competition with ours, improve the design and performance of their products and introduce new products with enhanced performance characteristics.

To remain competitive, we must improve and expand our products and product offerings. In addition, we may need to maintain a high level of investment in research and development and expand our sales and marketing efforts, particularly outside of the United States. We might not be able to make the technological advances and investments necessary to remain competitive. Our inability to improve and expand our products and product offerings would have an adverse affect on our sales and results of operations.

### ***Our competitive position could be weakened if we are unable to convince end users to specify that our products be used in the equipment sold by our customers.***

Semiconductor device and flat panel display manufacturers are end users of our products, but not necessarily our customers. In some cases, these end users may direct equipment manufacturers to use a specified supplier's product in their equipment at a particular facility. This occurs with frequency in respect of mass flow controller products. Our success therefore, particularly in respect of our MFCs, depends in part on our ability to have end users specify that our products be used at their facilities. In addition, we may encounter difficulties in changing established relationships of competitors that already have a large installed base of products within such facilities.

### ***Our products may suffer from defects or errors leading to damage or warranty claims***

Our products use complex system designs and components that may contain errors or defects, particularly when we incorporate new technology into our products or release new versions. While we have never recalled a product, if any of our products are defective, we might be required to redesign or recall those products or pay damages or warranty claims. Product defects could result in substantial product liability. We maintain product liability insurance, but cannot be certain that it is adequate or will remain available on acceptable terms. We accrue a warranty reserve for estimated costs to provide warranty services, including the cost of technical support, product repairs, and product replacement for units that cannot be repaired. Our estimate of costs to fulfill our warranty obligations is based on historical experience and expectation of future conditions. To the extent we experience increased warranty claim activity or increased costs associated with servicing those claims, our warranty accrual will increase, resulting in decreased gross profit.

### ***We must achieve design wins to retain our existing customers and to obtain new customers, although design wins achieved do not necessarily result in substantial sales.***

The constantly changing nature of semiconductor fabrication and flat panel display technology causes equipment manufacturers to continually design new systems. We must work with these manufacturers early in their design cycles to modify our equipment or design new equipment to meet the requirements of their new systems. Manufacturers typically choose one or two vendors to provide the components for use with the early system shipments. Selection as one of these vendors is called a design win. It is critical that we achieve these design wins in order to retain existing customers and to obtain new customers.

We believe that equipment manufacturers often select their suppliers based on factors such as long-term relationships. Accordingly, we may have difficulty achieving design wins from equipment manufacturers who are not currently our customers. In addition, we must compete for design wins for new systems and products of our existing customers, including those with whom we have had long-term relationships. Our efforts to achieve design



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wins are time consuming and expensive, and may not be successful. If we are not successful in achieving design wins, our business, financial condition and operating results will be adversely impacted.

Once a manufacturer chooses a component for use in a particular product, it is likely to retain that component for the life of that product. Our sales and growth could experience material and prolonged adverse effects if we fail to achieve design wins. However, design wins do not always result in substantial sales, as sales of our products are dependent upon our customers' sales of their products.

***We are subject to risks inherent in international operations.***

Sales to our customers outside the United States were approximately 46% in 2007, 42% in 2006 and 50% in 2005. Our success competing in international markets is subject to our ability to manage various risks and difficulties, including, but not limited to:

Our ability to effectively manage our employees at remote locations who are operating in different business environments from the United States;

Our ability to develop relationships with suppliers and other local businesses;

Compliance with product safety requirements and standards that are different from those of the United States;

Variations and changes in laws applicable to our operations in different jurisdictions, including enforceability of intellectual property and contract rights;

Trade restrictions, political instability, disruptions in financial markets and deterioration of economic conditions;

Customs regulations and the import and export of goods;

The ability to provide sufficient levels of technical support in different locations;

Our ability to obtain business licenses as may be needed in international locations to support expanded operations;

Collecting past due accounts receivable from foreign customers; and

Changes in tariffs, taxes and foreign currency exchange rates.

Our ability to implement our business strategies, maintain market share and compete successfully in international markets will be compromised if we are unable to manage these and other international risks successfully.

***Unfavorable currency exchange rate fluctuations may lead to lower operating margins, or may cause us to raise prices which could result in reduced sales.***

Currency exchange rate fluctuations could have an adverse effect on our sales and results of operations and we could experience losses with respect to our forward exchange contracts. Unfavorable currency fluctuations could require us to increase prices to foreign customers which could result in lower net sales by us to such customers. Alternatively, if we do not adjust the prices for our products in response to unfavorable currency fluctuations, our operating results could be adversely affected. In addition, most sales made by our foreign subsidiaries are denominated in the currency of the country in which these products are sold and the currency they receive in payment for such sales could be less valuable at the time of receipt as a result of exchange rate fluctuations. We enter into forward exchange contracts and local currency purchased options to reduce currency exposure arising from intercompany sales of inventory. However, we cannot be certain that our efforts will be adequate to protect us against significant currency fluctuations or that such efforts will not expose us to additional exchange rate risks which could adversely affect our operating results.



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### ***Changes in the value of the Chinese yuan could impact the cost of our operation in Shenzhen, China.***

The Chinese government is continually pressured by its trading partners to allow its currency to float in a manner similar to other major currencies. The 2005 revaluation of the yuan has not had a material impact on our operations. Any further change may impact our ability to control the cost of our products in the world market. Specifically, the decision by the Chinese government to allow the yuan to begin to float against the United States dollar could significantly increase the labor and other costs incurred in the operation of our Shenzhen facility and the cost of raw materials, parts, components and subassemblies that we source in China, thereby negatively affecting our financial condition and operating results.

### ***We are highly dependent on our intellectual property.***

Our success depends significantly on our proprietary technology. We attempt to protect our intellectual property rights through patents and non-disclosure agreements; however, we might not be able to protect our technology, and competitors might be able to develop similar technology independently. In addition, the laws of some foreign countries might not afford our intellectual property the same protections as do the laws of the United States. Our intellectual property is not protected by patents in several countries in which we do business, and we have limited patent protection in other countries, including China. The cost of applying for patents in foreign countries and translating the applications into foreign languages requires us to select carefully the inventions for which we apply for patent protection and the countries in which we seek such protection. Generally, our efforts to obtain international patents have been concentrated in the European Union and certain industrialized countries in Asia, including, Korea, Japan and Taiwan. If we are unable to protect our intellectual property successfully, our business, financial condition and operating results could be adversely affected.

China commercial law is relatively undeveloped compared to the commercial law in the United States. Limited protection of intellectual property is available under Chinese law. Consequently, manufacturing our products in China may subject us to an increased risk that unauthorized parties may attempt to copy our products or otherwise obtain or use our intellectual property. We cannot give assurance that we will be able to protect our intellectual property rights effectively or have adequate legal recourse in the event that we encounter infringements of our intellectual property in China.

### ***We have been, and in the future may again be, involved in patent litigation. Patent litigation is costly and could result in further restrictions on our ability to sell certain products or an inability to prevent others from using technology we have developed.***

Litigation may be necessary to enforce patents issued to us, to protect our trade secrets or know-how, to defend ourselves against claimed infringement of the rights of others or to determine the scope and validity of our proprietary rights or the proprietary rights of others. This type of litigation often requires substantial management time and attention, as well as financial and other resources.

We are and have been subject to patent litigation, which has required us to expend significant resources for legal fees and other costs, as well as management time and attention. Patent litigation can result in:

substantial costs in the form of legal fees, fines and royalty payments;

restrictions on our ability to sell certain products;

our inability to prevent others from using technology we have developed; and

us needing to redesign products or seek alternative technologies.

Any of these events could have a significant adverse effect on our business, financial condition and results of operations.

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### ***Our invested cash and marketable securities are subject to risks which may cause losses and affect the liquidity of these investments.***

As of December 31, 2007, we held approximately \$51 million in auction rate securities, classified as current assets on our balance sheet as management intends to continue to attempt to sell these securities. Our auction rate securities consist of investment grade municipal notes. In February 2008, liquidity issues in the global credit markets caused auctions with respect to \$23.7 million of our auction rate securities to fail, because the amount of securities offered for sale exceeded the amount of bids. As a result, the liquidity of our auction-rate securities has diminished. As of March 12, 2008, we held approximately \$40 million in auction rate securities. If the credit markets do not improve sufficiently, or auctions on such securities otherwise continue to fail, we may be required to record an impairment charge with respect to these investments. Management intends to attempt to sell these securities at amounts invested; however, it could take until the final maturity of the underlying municipal notes, 28 years in some cases, to realize the recorded value of these investments. If management determines that such sales cannot occur in 2008, without significant loss, we may classify these investments as long-term on our balance sheet.

### ***We are subject to numerous governmental regulations.***

We are subject to federal, state, local and foreign regulations, including environmental regulations and regulations relating to the design and operation of our products and control systems. We might incur significant costs as we seek to ensure that our products meet safety and emissions standards, many of which vary across the states and countries in which our products are used. In the past, we have invested significant resources to redesign our products to comply with these directives. Compliance with future regulations, directives and standards could require us to modify or redesign some products, make capital expenditures or incur substantial costs. If we do not comply with current or future regulations, directives and standards:

we could be subject to fines;

our production or shipments could be suspended; or

we could be prohibited from offering particular products in specified markets.

Any inability to comply with current or future regulations, directives and standards could adversely affect our business, financial condition or operating results.

### ***The market price of our common stock has fluctuated and may continue to fluctuate for reasons over which we have no control.***

The stock market has from time to time experienced, and is likely to continue to experience, extreme price and volume fluctuations. Prices of securities of technology companies have been especially volatile and have often fluctuated for reasons that are unrelated to their operating performance. In the past, companies that have experienced volatility in the market price of their stock have been the subject of securities class action litigation. If we were the subject of securities class action litigation, it could result in substantial costs and a diversion of our management's attention and resources.

### ***Our Chairman of the Board owns a significant percentage of our outstanding common stock, which could enable him to control our business and affairs and future sales of our common stock by our Chairman of the Board may negatively affect the market price of our common stock.***

Douglas S. Schatz, our Chairman of the Board, beneficially owns approximately 21% of our outstanding common stock as of March 12, 2008. This stockholding gives Mr. Schatz significant voting power and influence. Depending on the number of shares that abstain or otherwise are not voted on a particular matter, Mr. Schatz may be able to elect all of the members of our board of directors and to control our business affairs for the foreseeable future in a manner with which our other stockholders may not agree. In addition, the sale of a substantial amount of the shares beneficially owned by him could negatively affect the market price of our common stock. The trust through which Mr. Schatz beneficially owns a significant number of shares has entered into a written trading plan pursuant to Rule 10b5-1 under the Securities Exchange Act of 1934, which provides for the sale of up to 900,000 shares of common stock if certain price targets and other conditions are met.

## **ITEM 1B. UNRESOLVED STAFF COMMENTS**

None.

**Table of Contents****ITEM 2. PROPERTIES**

Information concerning our principal properties at December 31, 2007 is set forth below.

<b>Location</b>	<b>Type</b>	<b>Principal Use</b>	<b>Sq. Footage</b>	<b>Ownership</b>
San Jose, CA	Office	Distribution, Sales, Service	20,000	Leased
Fort Collins, CO	Office, plant	Headquarters, Research and development, Manufacturing, Distribution	205,000	Leased
Austin, TX	Office	Distribution, Service	8,000	Leased
Dallas, TX	Office	Distribution, Service	2,000	Leased
Vancouver, WA	Office, plant	Research and development, Manufacturing, Distribution	20,000	Leased
Shanghai, China	Office	Distribution	11,700	Leased
Shenzhen, China	Office, plant	Manufacturing, Distribution	131,000	Leased
Bicester, England	Office	Distribution, Sales	1,000	Leased
Filderstadt, Germany	Office	Distribution, Sales, Service	9,000	Leased
Hachioji, Japan	Office, plant	Research and development, Manufacturing, Distribution	46,000	Owned
Sungnam City, South Korea	Office	Distribution, Sales, Service	14,000	Owned
Hsinchu, Taiwan	Office	Distribution, Sales, Service	9,000	Leased
Taipei, Taiwan	Office	Distribution, Sales, Service	13,000	Leased
Sendai-shi Miyagi-ken, Japan	Office	Sales and Service	1,000	Leased
Osaka, Japan	Office	Sales	1,300	Leased
Hiroshima, Japan	Office	Service	300	Leased
Kumamoto-ken, Japan	Office	Service	800	Leased

**ITEM 3. LEGAL PROCEEDINGS**

We are involved in disputes and legal actions from time to time in the ordinary course of our business. On November 5, 2007, a complaint was filed in the U.S. District Court for the District of Colorado by Xantrex Technology, Inc., alleging various breaches of confidence and interference with contractual duties in connection with the Company's hiring of a former employee of Xantrex. The Company believes the allegations to be unfounded and will defend itself vigorously against the claims.

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

None.

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

Our common stock is listed on the NASDAQ Global Select Market under the symbol AEIS. At March 12, 2008, the number of common stockholders of record was 593, and the closing sale price of our common stock on the NASDAQ Global Select Market on that day was \$13.38 per share.

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The table below shows the range of high and low closing sale prices for the common stock as quoted (without retail markup or markdown and without commissions) on the NASDAQ Global Select Market:

	2007		2006	
	High	Low	High	Low
First Quarter	\$ 21.46	\$ 16.69	\$ 16.13	\$ 12.06
Second Quarter	\$ 25.68	\$ 21.3	\$ 17.08	\$ 12.39
Third Quarter	\$ 24.12	\$ 13.93	\$ 17.12	\$ 11.63
Fourth Quarter	\$ 17.31	\$ 12.56	\$ 18.87	\$ 14.89

We have not declared or paid any cash dividends on our capital stock since we terminated our election to be treated as an S-corporation for tax purposes, effective January 1, 1994. We currently intend to retain all future earnings to finance our business and do not anticipate paying cash or other dividends on our common stock in the foreseeable future. Furthermore, our revolving credit facility prohibits the declaration or payment of any cash dividends on our common stock.

On December 24, 2007, our Board of Directors authorized the repurchase of up to \$75 million of the Company's common stock. We may repurchase shares in the open market, through privately negotiated transactions, block trades, Rule 10b5-1 plans or other available means. In February 2008, we began repurchasing shares pursuant to a Rule 10b5-1 plan. There is no minimum number of shares to be repurchased, and we may discontinue repurchasing shares at any time. Our repurchases of shares may depend upon the availability of cash, general economic and stock market conditions and other considerations.

**ITEM 6. SELECTED FINANCIAL DATA**

The selected consolidated statement of operations data and the related consolidated balance sheet data were derived from the audited consolidated financial statements. The information below is not necessarily indicative of results of future operations and should be read in conjunction with Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations of Part II of this Form 10-K in order to understand more fully the factors that may affect the comparability of the information presented below.

(In thousands, except per share data)	Years Ended December 31,				
	2007	2006	2005	2004	2003
<b>Statement of Operations Data:</b>					
Sales	\$384,699	\$410,742	\$325,482	\$380,537	\$253,536
Gross profit	162,809	175,218	117,081	114,626	84,319
Total operating expenses	116,869	107,829	101,107	118,093	108,746
Income (loss) from operations	45,940	67,389	15,974	(3,467)	(24,427)
Income (loss) from continuing operations	34,361	87,184	3,622	(14,670)	(45,536)
Net income (loss)	34,361	88,322	12,817	(12,747)	(44,241)
Income (loss) from continuing operations per share - diluted	\$ 0.75	\$ 1.93	\$ 0.10	\$ (0.45)	\$ (1.41)
Net income (loss) per share - diluted	\$ 0.75	\$ 1.95	\$ 0.34	\$ (0.39)	\$ (1.37)
Diluted weighted-average common shares outstanding	45,704	45,265	37,434	32,649	32,271
<b>Balance Sheet Data:</b>					
Cash, cash equivalents and marketable securities	\$205,264	\$144,218	\$ 59,685	\$107,982	\$134,892
Working capital	305,955	247,798	143,633	206,915	205,835
Total assets	459,028	411,903	310,117	394,407	414,731
Total debt	243	329	4,190	196,123	202,468

Stockholders' equity	407,061	355,790	257,430	144,978	151,834
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Certain statements set forth below under this caption constitute forward-looking statements. See Business Special Note Regarding Forward-Looking Statements in Item 1 of this report for additional factors relating to such statements, and see Risk Factors beginning on page 8 for a discussion of certain risks applicable to our business, financial condition and results of operations.

***Business Overview and Presentation***

We develop, manufacture and sell innovative power and control technologies that enable high-growth, plasma-based thin-film manufacturing processes worldwide, including semiconductors, flat panel displays, data storage products, solar cells, architectural glass, and other advanced product applications. We also develop, manufacture and sell grid-connect inverters for the solar energy market.

Our installed base generates recurring revenue opportunities as we sell spare parts, repair services and field upgrades worldwide through our customer service and technical support organization.

We provide solutions to a diverse range of markets and geographic regions with the semiconductor capital market being our largest market. Sales to customers in the semiconductor capital equipment industry comprised 69% of our sales in both 2006 and 2007, and 63% of our sales in 2005. Other markets we sell to include flat panel display, data storage, architectural glass, solar inverter and other industrial thin-film manufacturing.

Our analysis presented below is organized to provide the information we believe will be instructive for understanding the relevant trends going forward. However, this discussion should be read in conjunction with our consolidated financial statements in Item 8 of this report, including the notes thereto.

***Results of Operations***

The following table summarizes our results of operations for the years ended 2007, 2006 and 2005:

	Years ended December 31,			Increase/(decrease)		Percentage change	
	2007	2006	2005	2007 v 2006	2006 v 2005	2007 v 2006	2006 v 2005
	(in thousands)			(in thousands)			
Sales	\$ 384,699	\$ 410,742	\$ 325,482	\$ (26,043)	\$ 85,260	(6)%	26%
Gross profit	162,809	175,218	117,081	(12,409)	58,137	(7)%	50%
Operating expenses:							
Research and development	50,393	44,848	39,720	5,545	5,128	12%	13%
Selling, general and administrative	63,189	62,870	55,681	319	7,189	1%	13%
Litigation settlement			3,000		(3,000)	nm	nm
Restructuring charges	3,287	111	2,706	3,176	(2,595)	nm	nm
Total operating expenses	116,869	107,829	101,107	9,040	6,722	8%	7%
Income from operations	45,940	67,389	15,974	(21,449)	51,415	(32)%	nm
Other income (expense), net	4,810	4,677	(7,479)	133	12,156	3%	nm
	50,750	72,066	8,495	(21,316)	63,571	30%	nm

Income from continuing operations  
before income taxes

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	Years ended December 31,			Increase/(decrease)		Percentage change	
	2007	2006 (in thousands)	2005	2007 v 2006 (in thousands)	2006 v 2005 (in thousands)	2007 v 2006	2006 v 2005
Benefit (Provision) for income taxes	(16,389)	15,118	(4,873)	(31,507)	19,991	nm	nm
Income from continuing operations	34,361	87,184	3,622	(52,823)	83,562	(61)%	nm
Income from discontinued operations, net of tax		1,138	9,195	(1,138)	(\$8,057)	nm	nm
Net income	\$ 34,361	\$ 88,322	\$ 12,817	\$ (53,961)	\$ 75,505	(61)%	nm

nm percentages greater than 200% and comparisons from positive to negative values or to zero values are considered not meaningful.

**SALES**

The following tables summarize annual net sales, and percentages of net sales, by customer type for each of the years ended 2007, 2006 and 2005:

	Years Ended December 31,			Increase/(decrease)		Percentage change	
	2007	2006 (In thousands)	2005	2007 v 2006	2006 v 2005	2007 v 2006	2006 v 2005
Semiconductor capital equipment	\$ 262,740	\$ 283,470	\$ 205,322	\$ (20,730)	\$ 78,148	(7)%	38%
Non-semiconductor equipment	121,959	127,272	120,160	(5,313)	7,112	(4)%	6%
Total sales	\$ 384,699	\$ 410,742	\$ 325,482	\$ (26,043)	\$ 85,260	(6)%	26%

**Years Ended December 31,**  
**2007                      2006                      2005**

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Semiconductor capital equipment	68%	69%	63%
Non-semiconductor equipment	32%	31%	37%
	100%	100%	100%

The following tables summarize annual net sales, and percentages of net sales, by geographic region for each of the years ended 2007, 2006 and 2005. The following amounts do not contemplate where our customers may subsequently transfer our products.

	Years Ended December 31,					
	2007	2006	2005	2007 v 2006	2006 v 2005	2007 v 2006
	(In thousands)					
United States	\$ 207,265	\$ 238,468	\$ 163,657	\$ (31,203)	\$ 74,811	(13)%
Europe	42,051	41,760	34,228	291	7,532	0%
Asia	135,383	130,514	127,597	4,869	2,917	4%
Total sales	\$ 384,699	\$ 410,742	\$ 325,482	\$ (26,043)	\$ 85,260	(6)%

	Years Ended December 31,		
	2007	2006	2005
United States	54%	58%	50%
Europe	11%	10	11
Asia	35%	32	39
	100%	100%	100%

The decrease in total sales from 2006 to 2007 and the increase in total sales from 2005 to 2006 principally reflect fluctuations in demand in the semiconductor capital equipment industry. The semiconductor capital equipment industry is highly cyclical and is impacted by changes in the macroeconomic environment, changes in semiconductor supply and demand and rapid technological advances in both semiconductor devices and wafer fabrication processes. Our sales to our largest semiconductor capital equipment customers represented the majority of the fluctuating sales volume.

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Applied Materials Inc., our largest customer, accounted for 29% of our sales in 2007, 30% of our sales in 2006 and 23% of our sales in 2005. Ulvac, Inc., our largest customer in the flat panel display industry, accounted for 11% of our sales in 2005. With the exceptions of Applied Materials and Ulvac, no single customer accounted for more than 10% of our sales during 2007, 2006 or 2005.

**GROSS PROFIT**

Our gross margin was 42.3% in 2007, 42.7% in 2006 and 36.0% in 2005. The decrease in our gross margin from 2006 to 2007 was primarily attributable to lower revenues and costs incurred in transitioning manufacturing from Stolberg, Germany to Shenzhen, China and an additional charge of \$2.2 million to cost of goods sold related to a change in estimates of warranty expenses for two products. The improvement in our gross margin from 2005 to 2006 was attributable to increased volume of production and advanced manufacturing processes in our China manufacturing facility, lower freight costs, increased utilization of local Asian suppliers, design-led cost reductions and the increase in sales.

**OPERATING EXPENSES**

The following table summarizes our operating expenses as a percentage of sales for the years ended 2007, 2006 and 2005:

	<b>Years Ended December 31,</b>			<b>% of Sales</b>		
	<b>2007</b>	<b>2006</b>	<b>2005</b>	<b>2007</b>	<b>2006</b>	<b>2005</b>
	(in thousands)					
Research and development	\$ 50,393	\$ 44,848	\$ 39,720	13%	11%	12%
Selling, general and administrative	63,189	62,870	55,681	16%	15%	17%
Litigation settlement			3,000			1%
Restructuring charges	3,287	111	2,706	1%		1%
Total operating expenses	\$ 116,869	\$ 107,829	\$ 101,107	30%	26%	31%

**RESEARCH AND DEVELOPMENT**

The market for our products is characterized by ongoing technological changes. We believe that continued and timely development of new, highly differentiated products and enhancements to our existing products in support of customer requirements is necessary for us to maintain a competitive position in the markets we serve. Accordingly, we devote a significant portion of our personnel and financial resources to research and development projects and seek to maintain close relationships with our customers and other industry leaders in order to remain responsive to their product requirements. We believe that the continued investment in research and development and ongoing development of new products are essential to the expansion of our markets, and expect to continue to make significant investments in research and development activities. All of our research and development costs have been expensed as incurred.

The increase in our research and development expenses from 2006 to 2007 was primarily due to increased compensation expense related to development of new and existing platforms to support business growth, such as the solar inverter, Solaron . The increase in our research and development expenses from 2005 to 2006 was primarily due to increased compensation and non-cash, stock-based compensation expense of \$1 million as a result of our adoption of SFAS No. 123(R), additional research projects in response to customer requests and costs incurred to support the development of new products and enhancement of existing products.

**SELLING, GENERAL AND ADMINISTRATIVE**

Our selling expenses support domestic and international sales and marketing activities that include personnel, trade shows, advertising, third-party sales representative commissions, and other selling and marketing activities.

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Our general and administrative expenses support our worldwide corporate, legal, tax, financial, governance, administrative, information systems and human resource functions in addition to our general management.

Selling, general and administrative (SG&A) expense from 2006 to 2007 remained flat as increases in audit, legal and compensation costs were offset by decreases in insurance expense, property tax expense and depreciation. The increase from 2005 to 2006 was primarily due to increased compensation expense, increased commissions, and non-cash stock-based compensation expense of \$1.5 million as a result of the adoption of SFAS No. 123(R) on January 1, 2006.

### ***LITIGATION SETTLEMENT***

On October 3, 2005, we executed a settlement agreement with MKS Instruments, Inc. ( MKS ), resolving all pending claims worldwide relating to our Xstream With Active Matching Network reactive gas generator products. Pursuant to the settlement agreement, we paid MKS \$3.0 million in cash. We also stipulated to a final judgment of infringement and an injunction prohibiting us from making, using, selling, offering to sell, or importing into the United States, or any country in which a counterpart patent exists, our Xstream products and all other toroidal plasma generator products, except as permitted under the settlement agreement. Sales of these products have accounted for less than 5% of our total sales each year since introduction of the products.

### ***RESTRUCTURING CHARGES***

On March 2, 2007, we announced the closure of our manufacturing, distribution and research and development facility located in Stolberg, Germany. Related to this manufacturing transition, we recorded restructuring charges of \$3.5 million in 2007, associated with employee separation costs and the write-down of certain real and personal property located at this facility to estimated fair value. On October 2, 2007, we completed the sale of assets related to our LPPA product line for \$2.2 million and recorded the net gain on the sale of \$200,000 as a credit to the restructuring charge.

At the end of 2002, we announced major changes in our operations, which we began implementing in 2003. These included establishing the manufacturing location in China; consolidating worldwide sales forces; a move to lower-cost Asian suppliers; and the closure or sale of certain facilities. We recorded restructuring charges associated with these changes of \$111,000 in 2006 and \$2.7 million in 2005.

In the first quarter of 2008, we restructured a portion of our general and administrative operations. In conjunction with this, we will record approximately \$1.1 million in restructuring charges in the first quarter of 2008.

### ***IMPAIRMENT OF INTANGIBLE ASSETS***

We perform an annual impairment test for goodwill as of the end of each fiscal year. Additionally, whenever events or circumstances indicate that the carrying value of our goodwill or other intangible assets may not be recoverable, we perform tests for impairment of these assets and record impairment charges, as necessary. Such events or circumstances include downturns or anticipated downturns in the industries in which we serve, changes in customer technology requirements, and other changes in circumstances affecting the underlying value of the recorded asset.

### ***OTHER INCOME (EXPENSE)***

Other income (expense), net consists primarily of interest income and expense, foreign exchange gains and losses and other miscellaneous gains, losses, income and expense items.

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Income from investments and cash was approximately \$6.3 million in 2007, \$3.7 million in 2006 and \$2.9 million in 2005. The increase in income from investments was primarily due to our higher level of cash, cash equivalents and marketable securities generated from operations and net proceeds from our public offering of 11.5 million shares in 2005. This was offset in 2005 by our use of those proceeds to redeem our convertible subordinated notes in September 2005.

Interest expense was approximately \$77,000 in 2007, \$413,000 in 2006 and \$8.2 million in 2005. In 2007 and 2006, interest expense consisted principally of borrowings under capital lease facilities and senior debt, and amortization of our deferred debt issuance costs. Interest expense for 2005 also includes our convertible subordinated notes, which were redeemed in September 2005.

Our foreign subsidiaries' sales are primarily denominated in currencies other than the United States dollar. We recorded net foreign currency loss of \$1.8 million in 2007 and \$206,000 in 2006, and a net foreign currency gain of \$243,000 in 2005. The loss in 2007 is primarily due to a net charge of \$1.4 million in the third quarter of 2007 related to a foreign exchange loss during the quarter, as the Japanese yen and euro strengthened relative to the U.S. dollar.

Debt extinguishment expense of \$3.2 million in 2005 resulted from the redemption of our convertible subordinated notes with a total principal balance of \$187.7 million. The expense of \$3.2 million is comprised of \$2.1 million for redemption premium and \$1.1 million for the write-off of deferred debt issuance costs.

### ***PROVISION FOR INCOME TAXES***

We account for income taxes in accordance with SFAS No. 109, Accounting for Income Taxes. SFAS No. 109 requires deferred tax assets and liabilities to be recognized for temporary differences between the tax basis and financial reporting basis of assets and liabilities, computed at the expected tax rates for the periods in which the assets or liabilities will be realized, as well as for the expected tax benefit of net operating loss and tax credit carryforwards. In 2003, we began recording valuation allowances against certain of our United States and foreign net deferred tax assets in jurisdictions where we had incurred significant losses. Given such experience, prior to December 31, 2006, management could not conclude that it was more likely than not that these net deferred tax assets would be realized. Based on our 2005 and 2006 operating results, our management, in accordance with SFAS No. 109, evaluated the recoverability of its net deferred tax assets and concluded that it was more likely than not that the majority of net deferred tax assets would be realized. The reduction in the valuation allowance was \$39.3 million for the entire 2006 year. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the period in which those difference become deductible, the timing and amount of which is uncertain. We assess the recoverability of our net deferred tax assets on a quarterly basis. If we determine that it is more likely than not that we will realize a portion or all of our remaining net deferred tax assets, some portion or all of the valuation allowance will be reversed with a corresponding reduction in income tax expense in such period.

The income tax expense of \$16.4 million in 2007 represents an effective tax rate on income from continuing operations of 32%. The income tax benefit of \$15.1 million in 2006 represents an effective tax rate on income from continuing operations of (21)%. This negative rate includes the impact of the reversal of the valuation allowance discussed above. The income tax provision of \$4.9 million in 2005 represents an effective tax rate on income from continuing operations of 57%, due to taxable income earned in certain foreign jurisdictions. The Company's income from discontinued operations earned in prior periods was earned in the United States. No provision for income taxes is attributed to these discontinued operations, due to the reversal of valuation allowances against certain deferred tax assets in the United States that existed in those periods, including those generated by net operating losses, that offset the income from discontinued operations.

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Approximately \$5.3 million of net deferred tax assets at December 31, 2007 related to certain U.S. net operating losses that are subject to limitations under the US tax code. These assets continue to have a full valuation allowance as management could not conclude that it was more likely than not that these net deferred tax assets would be realized.

When recording acquisitions, we have recorded valuation allowances due to the uncertainty related to the realization of certain deferred tax assets existing at the acquisition dates. The amount of deferred tax assets considered realizable is subject to adjustment in future periods if estimates of future taxable income are changed. At December 31, 2006, approximately \$2.9 million of the valuation allowance related to deferred tax assets obtained through acquisition. Any reversals of valuation allowances recorded in purchase accounting will be reflected as a reduction of goodwill in the period of reversal. For the year ended December 31, 2006, \$3.7 million of valuation allowances, representing 100% of the valuation allowances established in purchase accounting, were reversed with a corresponding reduction in goodwill. There are no further adjustments related to these items to be booked in the current or future periods. Please refer to Note 12 Income Taxes included in Part II, Item 8 of this Form 10-K for further discussion regarding income taxes.

We adopted the provisions of FIN48 as of January 1, 2007. Upon adoption, the Company increased the long-term liability associated with uncertain tax positions by approximately \$6 million and also increased the long-term receivable by approximately \$5 million consisting of offsetting tax benefits. The balance of \$1 million is an adjustment to the opening balance of retained earnings on January 1, 2007. If the tax position reverses, the net \$1 million will affect our effective tax rate. There have been no significant changes to these amounts during the year ended December 31, 2007.

The tax years 2003 through 2007 remain open to examination by the United States taxing jurisdictions to which we are subject. The foreign taxing jurisdictions have open tax years from 2001 through 2007. In accordance with our accounting policy, we recognize accrued interest and penalties related to unrecognized tax benefits as a component of tax expense. This policy did not change as a result of the adoption of FIN 48. We did not have any accrued interest or penalties at December 31, 2007. We do not anticipate a material change to the amount of unrecognized tax positions within the next 12 months.

While we believe we have adequately provided for all tax positions, amounts asserted by taxing authorities could materially differ from our accrued positions as a result of uncertain and complex application of tax regulations. Additionally, the recognition and measurement of certain tax benefits includes estimates and judgment by management and inherently includes subjectivity. Accordingly, additional provisions on federal and foreign tax-related matters could be recorded in the future as revised estimates are made or the underlying matters are settled or otherwise resolved.

### ***DISCONTINUED OPERATIONS***

Income from discontinued operations was \$1.1 million in 2006 and \$9.2 million in 2005. In 2005, we sold the assets of our EMCO product line and our IKOR product line, as they were not critical to our core operations. We recognized a gain on the sale of the EMCO product line of \$2.9 million and a gain on the sale of the IKOR product line of \$5.0 million. In the second quarter of 2006, \$138,000 held in escrow relating to the EMCO product line was released and in the fourth quarter of 2006, \$1.0 million held in escrow relating to the IKOR product line was released as various contingencies were resolved. These amounts were recorded as gains on the sale of discontinued assets.

### ***Quarterly Results of Operations***

The following tables present unaudited quarterly results in dollars and as a percentage of sales for each of the



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eight quarters in the period ended December 31, 2007. We believe that all necessary adjustments have been included in the amounts stated below to present fairly such quarterly information. Due to the volatility of the industries in which our customers operate the operating results for any quarter are not necessarily indicative of results for any subsequent period.

	<b>Quarters Ended</b>							
	<b>Mar. 31, 2006</b>	<b>June 30, 2006</b>	<b>Sept. 30, 2006</b>	<b>Dec. 31, 2006</b>	<b>Mar. 31, 2007</b>	<b>June 30, 2007</b>	<b>Sept. 30, 2007</b>	<b>Dec. 31, 2007</b>
Sales	\$ 93,950	\$ 104,571	\$ 107,688	\$ 104,533	\$ 107,323	\$ 103,049	\$ 90,491	\$ 83,836
Gross profit	38,550	44,760	47,014	44,894	48,309	44,955	36,726	32,819
Income from operations	13,180	19,231	18,329	16,649	17,940	16,270	7,495	4,235
Income from continuing operations	12,761	18,025	16,992	39,406	12,671	11,667	5,856	4,167
Income from discontinued operations		138		1,000				
Net income	\$ 12,761	\$ 18,163	\$ 16,992	\$ 40,406	\$ 12,671	\$ 11,667	\$ 5,856	\$ 4,167
Diluted earnings per share	\$ 0.28	\$ 0.40	\$ 0.38	\$ 0.89	\$ 0.28	\$ 0.25	\$ 0.13	\$ 0.09

	<b>Quarters Ended</b>							
	<b>Mar. 31, 2006</b>	<b>June 30, 2006</b>	<b>Sept. 30, 2006</b>	<b>Dec. 31, 2006</b>	<b>Mar. 31, 2007</b>	<b>June 30, 2007</b>	<b>Sept. 30, 2007</b>	<b>Dec. 31, 2007</b>
<b>Percentage of Sales:</b>								
Sales	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Gross profit	41.0%	42.8%	43.7%	42.9%	45.0%	43.6%	40.6%	39.1%
Income from operations	14.0%	18.4%	17.0%	15.9%	16.7%	15.8%	8.3%	5.1%
Income from continuing operations	13.6%	17.2%	15.8%	37.7%	11.8%	11.3%	6.5%	5.0%
Income from discontinued operations		0.1%		1%				
Net income	13.6%	17.4%	15.8%	38.7%	11.8%	11.3%	6.5%	5.0%

**Liquidity and Capital Resources**

At December 31, 2007, our principal sources of liquidity consisted of cash, cash equivalents of \$94.6 million and marketable securities of \$110.7 million. Included in our marketable securities as of December 31, 2007 was approximately \$51 million in auction rate securities. Subsequent to December 31, 2007, we sold approximately \$11 million in municipal auction rate securities. However, beginning in February 2008, we experienced difficulty in selling additional securities due to the failure of the auction mechanism which provides liquidity to these securities.

The securities for which auctions have failed will continue to accrue interest and be auctioned every 35 days until the auction succeeds, the issuer calls the securities, or they mature. Accordingly, there may be no effective mechanism for selling these securities and we may own long-term investments. As of March 12, 2008, the Company had approximately \$40 million of auction rate securities and continued deterioration in the credit and equity markets, continued failed auctions or the lack of a developing secondary market may potentially cause impairment in the value of these securities or negatively impact our ability to liquidate these securities.

During 2007, our cash, cash equivalents and marketable securities increased \$61.1 million, or 42.3%, from \$144.2 million at December 31, 2006, primarily due to cash generated from our operations.

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Operating activities provided cash of \$61.8 million in 2007, \$88.3 million in 2006, and \$36.1 million in 2005. The increase in cash was primarily due to cash generated from operations partially offset by increased inventory.

Investing activities used cash of \$30.6 million in 2007 and \$83.1 million in 2006, and provided cash of \$67.0 million in 2005. In 2007, we purchased \$112.4 million and sold \$88.5 million in marketable securities, as compared to the purchase of \$79.4 million of marketable securities in 2006, and the purchases of \$87.2 million and sales of \$151.7 million of marketable securities used to redeem a portion of the convertible subordinated notes in 2005. Capital expenditures were \$8.9 million in 2007, \$6.1 million in 2006, and \$10.8 million in 2005. Cash provided by investing activities in 2005 also reflects \$8.9 million received on the sale of our IKOR product line and \$3.9 million on the sale of our EMCO product line.

With the significant capital expenditures related to our investment in our manufacturing operations as well as our information technology infrastructure, we expect to increase our capital expenditures in 2008 to approximately \$11.9 million. Our planned level of capital expenditures is subject to frequent revisions as our business experiences sudden changes. In addition, changes in foreign currency exchange rates may significantly impact our capital expenditures in a particular period.

Investing cash flows experience significant fluctuations from year to year as we buy and sell marketable securities, which we convert to cash to fund strategic investments and our current operations, and as we transfer cash into marketable securities when we attain levels of cash that are greater than needed for current operations.

Financing activities provided cash of \$4.8 million in 2007, primarily due to proceeds from the exercise of stock options. Financing activities used cash of \$741,000 in 2006, due primarily to \$4.0 million in payments on our senior borrowings and capital lease obligations offset by the proceeds from the exercise of stock options of \$2.9 million, as compared to \$86.0 million in 2005, primarily due to the redemption of our convertible subordinated notes offset in part by our public offering of common stock. During the third quarter of 2005, we raised \$105.5 million in net proceeds from a public offering of 11.5 million shares of common stock. With these proceeds we fully redeemed the 5.25% convertible subordinated notes due November 15, 2006. This redemption consisted of a \$66.2 million principal payment, \$883,000 for redemption premium, and \$1.1 million for interest through the redemption dates. After the redemption of the 5.25% convertible subordinate notes, proceeds of approximately \$37.3 million remained. These proceeds together with approximately \$88.9 million of cash, cash equivalents and marketable securities were used to redeem the 5.0% convertible subordinated notes due September 1, 2006. This redemption consisted of a \$121.5 million principal payment, \$1.2 million for redemption premium, and \$3.5 million for interest through the redemption dates.

We expect our financing activities to continue to fluctuate in the future. Our financing payments may also increase in the future if we enter into additional capital lease obligations or utilize our line of credit. A significant portion of these obligations are held in countries other than the United States; therefore, future foreign currency fluctuations, especially between the U.S. dollar and the Japanese yen, could cause significant fluctuations in our estimated payment obligations.

We currently have a \$25 million secured revolving line of credit with a maturity date of July 5, 2008. Any advances under our amended credit facility will bear interest at the prime rate (6% at March 12, 2008) minus 1%. No amounts are currently outstanding under this credit facility.

On December 24, 2007, our Board of Directors authorized the repurchase of up to \$75 million of the Company's common stock. Purchases under the program may be made from time-to-time in the open market, through privately negotiated transactions, through block trades, Rule 10b5-1 trading plans or other available means. There is no minimum number of shares to be repurchased under the program and the program may be discontinued at any time. Purchases under the program will depend upon the availability of cash, as well as prevailing general economic and stock market conditions.

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We believe that our working capital, together with cash anticipated to be generated by operations and our line of credit will be sufficient to satisfy our anticipated liquidity requirements for the next twelve months.

**Off Balance Sheet Arrangements and Contractual Obligations**

The following table sets forth our future payments due under contractual obligations as of December 31, 2007.

	<b>Payments Due by Period (In thousands)</b>						
	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>Thereafter</b>	<b>Total</b>
Operating lease obligations	\$5,446	\$4,146	\$2,965	\$1,830	\$1,448	\$4,753	\$20,590
Non-cancelable purchase obligations	5,000						5,000
Severance obligation	350						350
Capital lease obligations	124	76	38	5			243

As of December 31, 2007, we have \$5.8 million in uncertain tax positions, net of federal benefit. Because of the uncertainty of the amounts to be ultimately paid as well as the timing of such payments, these liabilities are not reflected in the contractual obligations table.

**Critical Accounting Policies and Estimates**

The above discussion and analysis of our financial condition and results of operations is based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. In preparing our consolidated financial statements, we must make estimates and judgments that affect the reported amounts of assets and liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities at the date of our financial statements. Actual results may differ from these estimates under different assumptions or conditions. We have evaluated the accounting policies used in the preparation of the consolidated financial statements and related notes under Part II, Item 8 of this Form 10-K and believe that our accounting policies are reasonable and appropriate. We believe that the following critical accounting policies, among others, are most critical as they relate to our more significant judgments and estimates used in the preparation of our consolidated financial statements.

**REVENUE RECOGNITION** Most of the Company's product revenue is recognized upon shipment of the Company's products, at which time title passes to the customer, the price is fixed and collectibility is reasonably assured. The remainder of the Company's product revenue is recognized upon receipt of the products by the customer, at which time title passes to the customer, the price is fixed and collectibility is reasonably assured. Revenues from contracts that contain specific customer acceptance provisions are deferred until customer acceptance occurs. Generally, the Company does not have obligations to its customers after its products are shipped under standard shipping terms, after its products are received by customers under destination terms, and after the products are accepted by customers under contractual acceptance provisions, other than pursuant to warranty obligations. In limited instances, the Company provides installation of its products. In accordance with Emerging Issues Task Force Issue 00-21 Accounting for Revenue Arrangements With Multiple Deliverables, the Company allocates revenue based on the fair value of the delivered item, generally the product, and the undelivered item, installation, based on their respective fair values. Revenue related to the undelivered item is deferred until the services have been completed.

In certain instances, the Company requires its customers to pay for a portion or all of their purchases prior to the Company building or shipping these products. Cash payments received prior to shipment are recorded as customer deposits and deferred revenue in the condensed consolidated balance sheets, and then recognized as revenue as

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appropriate based upon the transfer of title of the products. The Company does not offer price protection to customers or allow returns, unless covered by our normal policy for repair of defective products.

**WARRANTY POLICY** We offer warranty coverage for our products for periods typically ranging from 12 to 24 months after shipment. We estimate the anticipated costs of repairing products under warranty based on the historical or expected cost of the repairs and expected failure rates. The assumptions used to estimate warranty accruals are reevaluated quarterly, at a minimum, in light of actual experience and, when appropriate, the accruals or the accrual percentage is adjusted based on specific estimates of project repair costs and quantity of product returns. Our determination of the appropriate level of warranty accrual is based on estimates of the percentage of units affected and the repair costs. Estimated warranty costs are recorded at the time of sale of the related product, and are recorded within cost of sales in the consolidated statements of operations.

**EXCESS AND OBSOLETE INVENTORY** Inventory is written down or written off when it becomes obsolete, generally due to engineering changes to a product or discontinuance of a product line, or when it is deemed excess. Judgment by management is necessary in estimating the net realizable value of inventory based primarily upon forecasts of product demand. Charges for excess and obsolete inventory are recorded, as necessary, within cost of sales in the consolidated statement of operations.

**STOCK-BASED COMPENSATION** On January 1, 2006, the Company adopted the provisions of SFAS No. 123(R) to account for its stock plans and employee stock purchase plan, which requires the recognition of the fair value of stock-based compensation in the statement of income. The fair value of stock options and purchase rights pursuant to the employee stock purchase plan is estimated using the Black-Scholes valuation model. This model requires the input of highly subjective assumptions, including expected life of the award, forfeiture rate and expected stock price volatility. The fair value of restricted stock units is determined based upon the Company's closing stock price on the grant date. The fair value of stock-based awards expected to vest is amortized over the requisite service period, typically the vesting period, of the award on a straight-line basis.

**COMMITMENTS AND CONTINGENCIES** From time to time we are involved in disputes and legal actions arising in the normal course of our business (see Item 3 within Part I and Note 14 within Part II, Item 8). While we currently believe that the amount of any ultimate loss would not be material to our financial position, the outcome of these actions is inherently difficult to predict. In the event of an adverse outcome, the ultimate loss could have a material adverse effect on our financial position or reported results of operations in a particular quarter. An unfavorable decision, particularly in patent litigation, could require material changes in production processes and products or result in our inability to ship products or components found to have violated third-party patent rights. We accrue loss contingencies in connection with our commitments and contingencies, including litigation, when it is probable that a loss has occurred or will occur and the amount of the loss can be reasonably estimated.

**INCOME TAXES** We account for income taxes in accordance with SFAS No. 109, Accounting for Income Taxes. SFAS No. 109 requires deferred tax assets and liabilities to be recognized for temporary differences between the tax basis and financial reporting basis of assets and liabilities, computed at the tax rates expected in the period that the assets or liabilities are realized, as well as for the expected tax benefit of net operating loss and tax credit carryforwards. We assess the recoverability of our net deferred tax assets on a quarterly basis. Our assessment includes a number of factors, including historical results and income projections for each jurisdiction. If we determine that it is more likely than not that we will realize a portion or all of our remaining net deferred tax assets, some portion or all of the valuation allowance will be reversed with a corresponding reduction in income tax expense in such period. We adopted the provision of FIN 48 (FASB Interpretation No. 48 Accounting for Uncertainty in Income Taxes an interpretation of FASB Statement 109 (FIN 48)) as of January 1, 2007.

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**GOODWILL AND OTHER INTANGIBLE ASSETS** Goodwill represents the excess of the cost over the fair market value of net tangible and identifiable intangible assets of acquired businesses. Goodwill is not amortized. We use a two-step approach to assess our goodwill annually, or more frequently, if events or changes in circumstances indicate that goodwill might be impaired. In step 1 of the assessment the Company compares the fair value of the reporting unit to the carrying value of the reporting unit to determine if an impairment of goodwill is indicated. The estimated fair value is based on market capitalization, as complemented by a discounted cash flow analysis. If no impairment is indicated in Step 1 no additional analysis is performed. Should an impairment be indicated the Company would determine any loss in Step 2 by comparing the enterprise's implied fair value of goodwill to the carrying amount of goodwill. Finite-lived intangible assets continue to be amortized using the straight-line method over their estimated useful lives and are reviewed for impairment whenever events or circumstances indicate that their carrying amount may not be recoverable.

See Note 1 Summary of Significant Accounting Policies in our Notes to Consolidated Financial Statements for details of recently issued accounting pronouncements and their expected impact on our financial statements.

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

### **Interest Rate Risk**

Our exposure to market risk for changes in interest rates relates primarily to our investment portfolio and long-term debt obligations. We generally place our investments with high-credit quality issuers and by policy are averse to principal loss and seek to protect and preserve our invested funds by limiting default risk, market risk and reinvestment risk. As of December 31, 2007, our investments in marketable securities consisted primarily of commercial paper, municipal bonds, auction rate securities and notes and institutional money markets. With the exception due to market conditions of the auction rate securities, these securities are highly liquid. Earnings on our marketable securities are typically invested into similar securities. We believe that a 10% decrease in average interest rates on these instruments would not have a material effect on our financial condition and results of operations.

### **Foreign Currency Exchange Rate Risk**

We transact business in various foreign countries. Our primary foreign currency cash flows are generated in countries in Asia and Europe. It is highly uncertain how currency exchange rates will fluctuate in the future. We enter into various foreign currency forward exchange contracts to mitigate risk of currency fluctuations in the British pound, European euro, Japanese yen, Taiwanese dollar, South Korean won and Chinese yuan. The notional amount of our foreign currency contracts at December 31, 2007 was \$10.1 million. The potential fair value loss for a hypothetical 10% adverse change in foreign currency exchange rates at December 31, 2007, would be approximately \$2.0 million, which would be essentially offset by corresponding gains related to the underlying assets. At December 31, 2007 we held foreign currency forward exchange contracts, maturing through January 2008, primarily

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to purchase U.S. dollars and sell various foreign currencies. The following table summarizes our outstanding contracts as of December 31, 2007:

(in thousands)	<b>Notional Amounts</b>	<b>Market Settlement Amounts (In thousands)</b>	<b>Unrealized Gain/(Loss)</b>
Purchase contracts:			
British pound contract	\$ 1,700	\$ 1,703	\$ (3)
South Korean won contract	1,500	1,517	(17)
Taiwanese dollar contract	6,900	6,919	(19)
			\$ (39)

**Auction Rate Securities Risk**

We face market risk exposure associated with our investments in auction rate securities. As of December 31, 2007, we held approximately \$51 million in auction rate securities. Subsequent to December 31, 2007, we sold approximately \$11 million in municipal auction rate securities. However, starting in February 2008, we experienced difficulty in selling additional securities due to the failure of the auction mechanism which provides liquidity to these securities. The securities for which auctions have failed will continue to accrue interest and be auctioned every 35 days until the auction succeeds, the issuer calls the securities, or they mature. Accordingly, there may be no effective mechanism for selling these securities at face value, however, we intend to continue to attempt to sell our auction rate securities without a loss in principal and thus these securities are classified as short-term investments. As of March 12, 2008, the Company had approximately \$40 million of auction rate securities and continued deterioration in the credit and equity markets, continued failed auctions or the lack of a developing secondary market may potentially cause impairment in the value of these securities or negatively impact our ability to liquidate these securities.

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**ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA**  
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**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

Board of Directors and Stockholders  
of Advanced Energy Industries, Inc.

We have audited the accompanying consolidated balance sheets of Advanced Energy Industries, Inc. (a Delaware corporation) and subsidiaries (together the Company) as of December 31, 2007 and 2006, and the related consolidated statements of income, stockholders' equity and comprehensive income, and cash flows for each of the three years in the period ended December 31, 2007. Our audits of the basic financial statements included the financial statement schedule listed in the index appearing under Item 8. These financial statements and financial statement schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and financial statement schedule based on our 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 audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Advanced Energy Industries, Inc. and subsidiaries as of December 31, 2007 and 2006, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2007, in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the related financial statement schedule, when considered in relation to the basic financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein.

As discussed in Note 2 to the consolidated financial statements, the Company adopted the Statement of Financial Accounting Standards No. 123(R), *Share-Based Payment*, on January 1, 2006. As discussed in Note 12 to the consolidated financial statements, the Company adopted the Financial Accounting Standards Board Interpretation No. 48, *Accounting for Uncertainty in Income Taxes*—an interpretation of FASB Statement No. 109, on January 1, 2007.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Advanced Energy Industries, Inc. and subsidiaries' internal control over financial reporting as of December 31, 2007, based on criteria established in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and our report dated March 17, 2008 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

/s/ GRANT THORNTON LLP

Denver, Colorado

March 17, 2008

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**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

Board of Directors and Stockholders  
of Advanced Energy Industries, Inc.

We have audited Advanced Energy Industries, Inc. (a Delaware Corporation) and subsidiaries (together the Company) internal control over financial reporting as of December 31, 2007, based on criteria established in *Internal Control Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Advanced Energy Industries, Inc.'s management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control over Financial Reporting appearing under Item 9A. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

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 (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) 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 (3) 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.

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In our opinion, Advanced Energy Industries, Inc. and subsidiaries maintained, in all material respects, effective internal control over financial reporting as of December 31, 2007, based on criteria established in *Internal Control Integrated Framework* issued by COSO.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of Advanced Energy Industries, Inc. and subsidiaries as of December 31, 2007 and 2006, and the related consolidated statements of income, stockholders' equity and comprehensive income, and cash flows for each of the three years in the period ended December 31, 2007, and our report dated March 17, 2008 expressed an unqualified opinion on those financial statements.

/s/ GRANT THORNTON LLP

Denver, Colorado

March 17, 2008

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**ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES**  
**CONSOLIDATED BALANCE SHEETS**  
(In thousands)

	<b>December 31,</b>	
	<b>2007</b>	<b>2006</b>
<b>ASSETS</b>		
<b>CURRENT ASSETS:</b>		
Cash and cash equivalents	\$ 94,588	\$ 58,240
Marketable securities	110,676	85,978
Accounts receivable trade, net	61,545	71,956
Inventories, net	50,532	52,778
Deferred income taxes	23,696	24,434
Other current assets	6,932	7,341
 Total current assets	 347,969	 300,727
 PROPERTY AND EQUIPMENT, net	 30,912	 33,571
 <b>OTHER ASSETS:</b>		
Deposits and other	7,045	2,640
Goodwill	61,406	58,679
Other intangible assets, net	6,362	6,905
Customer service equipment, net	1,236	832
Deferred income tax assets	4,098	8,549
 Total assets	 \$ 459,028	 \$ 411,903

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

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**ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES**  
**CONSOLIDATED BALANCE SHEETS**  
(In thousands, except share data)

	<b>December 31,</b>	
	<b>2007</b>	<b>2006</b>
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
<b>CURRENT LIABILITIES:</b>		
Trade accounts payable	\$ 12,424	\$ 16,310
Income taxes payable	5,692	7,741
Accrued payroll and employee benefits	11,945	16,899
Accrued warranty expense	8,812	7,845
Other accrued expenses	2,251	3,252
Customer deposits and deferred revenue	759	751
Capital lease obligations, current portion	131	131
 Total current liabilities	 42,014	 52,929
<b>LONG-TERM LIABILITIES:</b>		
Capital leases, net of current portion	112	198
Deferred income tax liabilities	1,891	1,971
Uncertain tax positions	5,800	
Other long-term liabilities	2,150	1,015
 Total long-term liabilities	 9,953	 3,184
 Total liabilities	 51,967	 56,113
<b>COMMITMENTS AND CONTINGENCIES</b>		
<b>STOCKHOLDERS' EQUITY:</b>		
Preferred stock, \$0.001 par value, 1,000 shares authorized, none issued and outstanding		
Common stock, \$0.001 par value, 70,000 shares authorized; 45,288 and 44,855 shares issued and outstanding at December 31, 2007 and 2006, respectively	45	45
Additional paid-in capital	267,205	258,688
Retained earnings	121,745	88,344
Unrealized holding gains on available-for-sale securities, net		323
Cumulative translation adjustments, net	18,066	8,390
 Total stockholders' equity	 407,061	 355,790
 Total liabilities and stockholders' equity	 \$ 459,028	 \$ 411,903

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

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**ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF INCOME**  
(In thousands, except per share amounts)

	<b>2007</b>	<b>2006</b>	<b>2005</b>
SALES	\$ 384,699	\$ 410,742	\$ 325,482
COST OF SALES	221,890	235,524	208,401
 GROSS PROFIT	 162,809	 175,218	 117,081
 OPERATING EXPENSES:			
Research and development	50,393	44,848	39,720
Selling, general and administrative	63,189	62,870	55,681
Litigation settlement			3,000
Restructuring charges	3,287	111	2,706
 Total operating expenses	 116,869	 107,829	 101,107
 INCOME FROM OPERATIONS	 45,940	 67,389	 15,974
 OTHER INCOME (EXPENSE):			
Interest income	6,329	3,659	2,866
Interest expense	(77)	(412)	(8,171)
Foreign currency (loss) gain	(1,773)	(206)	243
Debt extinguishment expense			(3,180)
Other income, net	331	1,636	763
 Total other income (expense), net	 4,810	 4,677	 (7,479)
 Income from continuing operations before income taxes	 50,750	 72,066	 8,495
(PROVISION) BENEFIT FOR INCOME TAXES	(16,389)	15,118	(4,873)
 INCOME FROM CONTINUING OPERATIONS	 34,361	 87,184	 3,622
 Gain on sale of discontinued assets		1,138	7,855
Results of discontinued operations			1,340
 INCOME FROM DISCONTINUED OPERATIONS		 1,138	 9,195
 NET INCOME	 \$ 34,361	 \$ 88,322	 \$ 12,817

**BASIC EARNINGS PER SHARE**

Income from continuing operations	\$ 0.76	\$ 1.95	\$ 0.10
Income from discontinued operations		\$ 0.03	\$ 0.25
<b>NET INCOME PER SHARE</b>	<b>\$ 0.76</b>	<b>\$ 1.98</b>	<b>\$ 0.35</b>

**DILUTED EARNINGS PER SHARE**

Income from continuing operations	\$ 0.75	\$ 1.93	\$ 0.10
Income from discontinued operations		\$ 0.03	\$ 0.25
<b>NET INCOME PER SHARE</b>	<b>\$ 0.75</b>	<b>\$ 1.95</b>	<b>\$ 0.34</b>

**BASIC WEIGHTED-AVERAGE COMMON SHARES**

<b>OUTSTANDING</b>	<b>45,156</b>	<b>44,721</b>	<b>37,084</b>
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**DILUTED WEIGHTED-AVERAGE COMMON SHARES**

<b>OUTSTANDING</b>	<b>45,704</b>	<b>45,265</b>	<b>37,434</b>
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The accompanying notes to consolidated financial statements are an integral part of these consolidated statements.



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**ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY AND COMPREHENSIVE INCOME**  
(In thousands)

	<b>Common Stock</b>		<b>Additional Paid-in Capital</b>	<b>Retained Earnings (Accumulated Deficit)</b>	<b>Deferred Compensation</b>	<b>Accumulated Other Comprehensive (Loss) Income</b>	<b>Total Stockholders' Equity</b>
<b>Shares</b>	<b>Amount</b>						
BALANCES, December 31, 2004	32,760	\$ 33	\$ 144,500	\$ (12,795)	\$	\$ 13,240	\$ 144,978
Exercise of stock options for cash	195		1,659				1,659
Sale of common stock through public offering	11,500	12	105,533				105,545
Sale of common stock through employee stock purchase plan	45		348				348
Stock-based compensation and amortization			1,635		(1,290)		345
Comprehensive income:							
Equity adjustment from foreign currency translation						(8,539)	(8,539)
Unrealized holding gains						1,159	1,159
Reclassification adjustment for amounts included in net loss related to sales of securities						(882)	(882)
Net income				12,817			12,817
Total comprehensive income							4,555
BALANCES, December 31, 2005	44,500	\$ 45	\$ 253,675	\$ 22	\$ (1,290)	\$ 4,978	\$ 257,430

Exercise of stock options for cash	304	2,913							2,913
Sale of common stock through employee stock purchase plan	32	379							379
Issuance of restricted stock and stock- based compensation and amortization	19	3,011							3,011
Removal of opening deferred stock compensation balance upon adoption of SFAS 123(R)		(1,290)				1,290			
Comprehensive income:									
Equity adjustment from foreign currency translation							4,739		4,739
Unrealized holding gains							(40)		(40)
Reclassification adjustment for amounts included in net loss related to sales of securities							(964)		(964)
Net income					88,322				88,322
Total comprehensive income									92,057
BALANCES, December 31, 2006	44,855	\$ 45	\$ 258,688	\$	88,344	\$	\$ 8,713	\$	355,790
Adoption of FIN 48					(960)				(960)
Exercise of stock options for cash	339	4,518							4,518
Sale of common stock through employee stock purchase plan	28	403							403
Issuance of restricted stock	66	3,596							3,596

and stock- based compensation and amortization, net Comprehensive income: Equity adjustment from foreign currency translation		9,676	9,676
Unrealized holding gains		(323)	(323)
Net income	34,361		34,361
Total comprehensive income			43,714

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

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**ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**  
(In thousands)

	<b>Years Ended December 31,</b>		
	<b>2007</b>	<b>2006</b>	<b>2005</b>
<b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>			
Net income	\$ 34,361	\$ 88,322	\$ 12,817
Adjustments to reconcile net income to net cash provided by (used in) operating activities -			
Depreciation and amortization	12,218	16,451	18,377
Stock-based compensation expense	4,105	3,011	345
Provision (benefit) for deferred income taxes	5,125	(22,280)	(1,130)
Provision for excess and obsolete inventory	918	2,644	1,689
(Recovery of) provision for doubtful accounts	(119)	(56)	126
Unrealized loss (gain) on foreign currency forward contracts	39	41	(91)
Net loss (gain) on disposal of assets	555	(1,577)	(7,944)
Debt extinguishment expense			3,180
Changes in operating assets and liabilities -			
Accounts receivable-trade	14,163	(5,330)	(1,743)
Inventories	1,877	1,553	11,737
Other current assets	277	2,673	(1,311)
Accounts payable trade	(4,063)	(5,925)	6,000
Other current liabilities and accrued expenses	(3,033)	7,166	(7,260)
Income taxes payable/receivable, net	(3,967)	1,497	3,307
Non-current assets	(1,576)	(1,360)	(2,133)
Non-current liabilities	930	1,477	85
 Net cash provided by operating activities	 61,810	 88,307	 36,051
<b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>			
Purchase of marketable securities	(112,370)	(79,441)	(87,175)
Proceeds from sale of marketable securities	88,523	1,992	151,697
Proceeds from sale of assets	2,149	539	13,335
Purchase of property and equipment	(8,870)	(6,142)	(10,825)
 Net cash (used in) provided by investing activities	 (30,568)	 (83,052)	 67,032
<b>CASH FLOWS FROM FINANCING ACTIVITIES:</b>			
Repayment of senior borrowings and capital lease obligations	(101)	(4,033)	(3,708)
Payments on convertible subordinated notes			(189,816)
Sale of common stock through public offering, net of expenses			105,545
Sale of common stock through employee stock purchase plan	403	379	348
Proceeds from exercise of stock options	4,518	2,913	1,659
 Net cash provided by (used in) financing activities	 4,820	 (741)	 (85,972)

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EFFECT OF CURRENCY TRANSLATION ON CASH	286	852	(2,641)
INCREASE IN CASH AND CASH EQUIVALENTS	36,348	5,366	14,470
CASH AND CASH EQUIVALENTS, beginning of year	58,240	52,874	38,404
CASH AND CASH EQUIVALENTS, end of year	\$ 94,588	\$ 58,240	\$ 52,874

SUPPLEMENTAL DISCLOSURE OF CASH FLOW  
INFORMATION:

Cash paid for interest	\$ 82	\$ 413	\$ 9,292
Cash paid for income taxes	\$ 13,432	\$ 5,665	\$ 3,035
Cash held in banks outside the United States	\$ 70,220	\$ 29,280	\$ 24,615

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

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**ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**(1) COMPANY OPERATIONS AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

Advanced Energy Industries, Inc., a Delaware corporation, is primarily engaged in the development and production of components and products critical to plasma-based manufacturing processes, which are used by manufacturers of semiconductors and in industrial thin-film manufacturing processes.

**BASIS OF PRESENTATION** The consolidated financial statements include the accounts of Advanced Energy Industries, Inc. and its wholly-owned subsidiaries (collectively, the Company). All significant intercompany accounts and transactions have been eliminated in consolidation. The consolidated financial statements are stated in United States dollars and are prepared in accordance with accounting principles generally accepted in the United States.

**SEGMENT REPORTING** The Company operates in one segment for the manufacture, marketing and servicing of key products, primarily to the semiconductor capital equipment industry, in accordance with Statement of Financial Accounting Standard (SFAS) No. 131, Disclosures About Segments of an Enterprise and Related Information. Since the Company operates in one segment, all financial information required by SFAS No. 131 can be found in the consolidated financial statements and notes thereto.

**ESTIMATES AND ASSUMPTIONS** The preparation of the Company's consolidated financial statements in conformity with accounting principles generally accepted in the United States requires the Company's management to make estimates and assumptions that affect the reported amounts of assets and liabilities, and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Significant estimates are used when establishing allowances for doubtful accounts, determining useful lives for depreciation and amortization, assessing the need for impairment charges, establishing warranty reserves, establishing the fair value and forfeiture rate of stock-based compensation, accounting for income taxes, and assessing excess and obsolete inventory and various others items. The Company evaluates these estimates and judgments on an ongoing basis and bases its estimates on historical experience, current conditions and various other assumptions that are believed to be reasonable under the circumstances. The results of these estimates form the basis for making judgments about the carrying values of assets and liabilities as well as identifying and assessing the accounting treatment with respect to commitments and contingencies. Actual results may differ from these estimates under different assumptions or conditions.

**REVENUE RECOGNITION** Most of the Company's product revenue is recognized upon shipment of the Company's products, at which time title passes to the customer, the price is fixed and collectibility is reasonably assured. The remainder of the Company's product revenue is recognized upon receipt of the products by the customer, at which time title passes to the customer, the price is fixed and collectibility is reasonably assured. Revenues from contracts that contain specific customer acceptance provisions are deferred until customer acceptance occurs. Generally, the Company does not have obligations to its customers after its products are shipped under standard shipping terms, after its products are received by customers under destination terms, and after the products are accepted by customers under contractual acceptance provisions, other than pursuant to warranty obligations. In limited instances, the Company provides installation of its products. In accordance with Emerging Issues Task Force Issue 00-21 Accounting for Revenue Arrangements With Multiple Deliverables, the Company allocates revenue based on the fair value of the delivered item, generally the product, and the undelivered item, installation, based on their respective fair values. Revenue related to the undelivered item is deferred until the services have been completed.

In certain instances, the Company requires its customers to pay for a portion or all of their purchases prior to the Company building or shipping these products. Cash payments received prior to shipment are recorded as customer deposits and deferred revenue in the condensed consolidated balance sheets, and then recognized as revenue as appropriate based upon the transfer of title of the products. The Company does not offer price protection to customers or allow returns, unless covered by our normal policy for repair of defective products.

**SHIPPING AND HANDLING COSTS** Amounts billed to customers for shipping and handling are recorded in sales in the consolidated statements of income. Shipping and handling costs incurred by the Company for the delivery of products to customers are included in cost of sales in the consolidated statements of income.

*EXCESS AND OBSOLETE INVENTORY* Inventory is written down or written off when it becomes obsolete, generally due to engineering changes to a product or discontinuance of a product line, or when it is deemed excess. Judgment by management is necessary in estimating the net realizable value of inventory based primarily upon forecasts of product demand. Charges for excess and obsolete inventory are recorded, as necessary, within cost of sales in the consolidated statements of income.

*WARRANTY POLICY* The Company offers warranty coverage for its products for periods typically ranging from 12 to 24 months after shipment. The Company estimates the anticipated costs of repairing products under warranty based on the historical cost of the repairs and expected failure rates. The assumptions used to estimate warranty accruals are reevaluated periodically in light of actual experience and, when appropriate, the accruals are adjusted. The Company's determination of the appropriate level of

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warranty accrual is subjective and based on estimates. Estimated warranty costs are recorded at the time of sale of the related product, and are recorded within cost of sales in the consolidated statements of income.

The Company recorded warranty charges of \$11.2 million in 2007, \$12.9 million in 2006 and \$11.2 million in 2005.

Included within the warranty charges is amortization of customer service equipment, which is manufactured product that is utilized as replacement and loaner equipment to existing customers, of \$411,000 in 2007, \$1.8 million in 2006 and \$2.1 million in 2005.

The following summarizes the activity in the Company's warranty reserves during 2007 and 2006:

	2007	2006
	(In thousands)	
Balance at beginning of period	\$ 7,845	\$ 6,313
Additions charged to expense	10,859	11,087
Deductions	(9,892)	(9,555)
Balance at end of period	\$ 8,812	\$ 7,845

**SELLING, GENERAL AND ADMINISTRATIVE** Selling, general and administrative expenses in the accompanying consolidated statements of income are expensed as incurred, including legal and advertising costs.

**ALLOWANCE FOR DOUBTFUL ACCOUNTS** The Company's allowance for doubtful accounts reflects management's best estimate of probable losses inherent in the account receivable balance. Management determines the allowance based on known troubled accounts, historical experience, and other currently available evidence.

**INCOME TAXES** The Company accounts for income taxes in accordance with SFAS No. 109, Accounting for Income Taxes. SFAS No. 109 requires deferred tax assets and liabilities to be recognized for temporary differences between the tax basis and financial reporting basis of assets and liabilities, computed at the expected tax rates for the periods in which the assets or liabilities will be realized, as well as for the expected tax benefit of net operating loss and tax credit carryforwards. The Company assesses the recoverability of its net deferred tax assets on a quarterly basis. If the Company determines that it is more likely than not that it will realize a portion or all of its remaining net deferred tax assets, some portion or all of the valuation allowance will be reversed with a corresponding reduction in income tax expense in such period. We adopted the provisions of FASB Interpretation No. 48 Accounting for Uncertainty in Income Taxes - an interpretation of FASB Statement 109 (FIN 48) as of January 1, 2007.

**STOCK-BASED COMPENSATION** On January 1, 2006, the Company adopted the provisions of SFAS No. 123(R), Share Based Payment, to account for its stock plans and employee stock purchase plan, which requires the recognition of the fair value of stock-based compensation in the statement of operations. The fair value of stock options and purchase rights pursuant to the employee stock purchase plan is estimated using the Black-Scholes valuation model. This model requires the input of highly subjective assumptions, including expected life of the award and expected stock price volatility. The fair value of restricted stock units is determined based upon the Company's closing stock price on the grant date. The fair value of stock-based awards expected to vest is amortized over the requisite service period, typically the vesting period, of the award on a straight-line basis.

**COMMITMENTS AND CONTINGENCIES** The Company is involved in disputes and legal actions arising in the normal course of our business. While we currently believe that the amount of any ultimate loss would not be material to our financial position, the outcome of these actions is inherently difficult to predict. In the event of an adverse outcome, the ultimate loss could have a material adverse effect on our financial position or reported results of operations in a particular quarter. An unfavorable decision, particularly in patent litigation, could require material changes in production processes and products or result in our inability to ship products or components found to have violated third-party patent rights. The Company accrues loss contingencies in connection with its commitments and contingencies, including litigation, when it is probable that a loss has occurred and the amount of the loss can be reasonably estimated.



**CASH AND CASH EQUIVALENTS** The Company considers all amounts on deposit with financial institutions and highly liquid investments (valued at cost, which approximates fair value) with an original maturity of 90 days or less to be cash and cash equivalents.

**CONCENTRATIONS OF CREDIT RISK** Financial instruments, which potentially subject the Company to credit risk, include cash and cash equivalents, marketable securities and trade accounts receivable. The Company maintains cash and cash equivalents, marketable securities and certain other financial instruments with various major financial institutions. The Company performs periodic evaluations of the relative credit standing of these financial institutions and limits the amount of credit exposure with any one institution. The Company's customers generally are concentrated in the semiconductor capital equipment industry. As a result the Company is generally exposed to credit risk associated with this industry. Sales by the Company's foreign subsidiaries are primarily denominated in currencies other than the United States dollar. The Company establishes an allowance for doubtful accounts based upon factors surrounding the credit risk of specific customers, historical trends and other information.

**INVENTORIES** Inventories include costs of materials, direct labor, manufacturing overhead, in-bound freight, duty and purchase price variance. Inventories are valued at the lower of market or cost, computed on a first-in, first-out basis and are presented net of reserves for excess and obsolete inventory.

**PROPERTY AND EQUIPMENT** Property and equipment is stated at cost or estimated fair value if acquired in a business combination. Depreciation is computed using the straight-line method over twenty to forty years for buildings; three to ten years for machinery, equipment, furniture and fixtures and vehicles; and three years for computer and communication equipment. Amortization

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of leasehold improvements and leased equipment is calculated using the straight-line method over the lease term or the estimated useful life of the assets, whichever period is shorter. Additions, improvements, and major renewals are capitalized, while maintenance, repairs, and minor renewals are expensed as incurred. When depreciable assets are retired, or otherwise disposed of, the cost and related accumulated depreciation are removed from the accounts and any related gains or losses are included in the consolidated statement of income. Property and other long-lived assets are reviewed for impairment whenever events or circumstances indicate that their carrying amount may not be recoverable.

**GOODWILL AND OTHER INTANGIBLE ASSETS** Goodwill represents the excess of the cost over the fair market value of net tangible and identifiable intangible assets of acquired businesses. Goodwill is not amortized. Instead, goodwill is subject to periodic (at least annual) tests for impairment. Impairment testing is performed in two steps: (i) the Company assesses goodwill for potential impairment by comparing the fair value of its reporting unit with its carrying value, and (ii) if potential impairment is indicated because the reporting unit's fair value is less than its carrying amount, the Company measures the amount of impairment loss by comparing the implied fair value of goodwill with the carrying amount of that goodwill. Finite-lived intangible assets continue to be amortized using the straight-line method over their estimated useful lives and are reviewed for impairment whenever events or circumstances indicate that their carrying amount may not be recoverable.

**TAXES COLLECTED FROM CUSTOMERS** In the course of doing business we collect various taxes from customers including, but not limited to, sales and use taxes and value added taxes. It is our policy to record these on a net basis in the consolidated statement of income and, therefore, we do not include taxes collected from customers as a component of revenue.

**CUSTOMER SERVICE EQUIPMENT** Customer service equipment is manufactured product that is utilized as replacement and loaner equipment to existing customers, which is amortized to cost of sales over its estimated useful life of two years.

**FOREIGN CURRENCY TRANSLATION** The functional currency of the Company's foreign subsidiaries is their local currency, with the exception of the Company's manufacturing facility in Shenzhen, China where the United States dollar is the functional currency. Assets and liabilities of international subsidiaries are translated to United States dollars at period-end exchange rates, and statement of income activity and cash flows are translated at average exchange rates during the period. Resulting translation adjustments are recorded as a separate component of stockholders' equity.

Transactions denominated in currencies other than the local currency are recorded based on exchange rates at the time such transactions arise. Subsequent changes in exchange rates result in foreign currency transaction gains and losses which are reflected in income as unrealized (based on period end translation) or realized (upon settlement of the transactions). Unrealized transaction gains and losses applicable to permanent investments by the Company in its foreign subsidiaries are included as cumulative translation adjustments, and unrealized translation gains or losses applicable to non-permanent intercompany receivables from or payables to the Company and its foreign subsidiaries are included in income.

**HEDGING AND DERIVATIVE INSTRUMENTS** We utilize foreign currency forward contracts to hedge foreign currency-denominated intercompany payables and receivables. To date, we have not hedged forecasted transactions or firm commitments denominated in foreign currencies and therefore, financial reporting of our foreign operations is subject to foreign currency risk. We do not invest in contracts for speculative purposes.

**RECENT ACCOUNTING PRONOUNCEMENTS** In February 2007, the FASB issued SFAS No. 159, "The Fair Value Option for Financial Assets and Financial Liabilities" (SFAS No. 159), which permits entities to choose to measure eligible financial instruments and certain other items at fair value that are not currently required to be measured at fair value. Unrealized gains and losses on items for which the fair value option has been elected are reported in earnings at each subsequent reporting date. SFAS No. 159 is effective for fiscal years beginning after November 15, 2007. The Company will adopt this pronouncement in the first quarter of fiscal 2008 and does not expect a material impact from the pronouncement on its consolidated results of operations and financial condition as the Company does not expect to exercise the fair value option for any financial asset or liability.

In September 2006, the FASB issued SFAS No. 157, Fair Value Measurements ( SFAS No. 157 ), which clarifies the definition of fair value, establishes guidelines for measuring fair value, and expands disclosures regarding fair value measurements. SFAS No. 157 does not require any new fair value measurements and eliminates inconsistencies in guidance found in various prior accounting pronouncements. SFAS No. 157, as originally issued, was effective for fiscal years beginning after November 15, 2007. However, in February 2008, the FASB deferred the effective date of SFAS No. 157 for one year as it relates to non-financial assets and liabilities that are recognized or disclosed at fair value in the financial statements on a non-recurring basis. The Company will adopt SFAS No. 157 as it relates to financial assets and liabilities in the first quarter of fiscal 2008 and does not expect any material impact on its consolidated financial condition and results of operations.

In December 2007, the FASB issued SFAS 141R, Business Combinations (SFAS 141R). SFAS 141R amends the requirements for accounting for business combinations. SFAS 141R will be effective for financial statements issued for fiscal years beginning after December 15, 2008. The effect of this pronouncement will depend on the terms and timing of future acquisitions, if any.

From time to time, new accounting pronouncements are issued by the FASB or other standards setting bodies that are adopted by us as of the specified effective date. Unless otherwise discussed, our management believes that the impact of recently issued standards that are not yet effective will not have a material impact on our consolidated financial statements upon adoption.

**Table of Contents****(2) STOCK-BASED COMPENSATION**

Prior to January 1, 2006, the Company accounted for its stock plans under the provisions of Accounting Principles Board ( APB ) Opinion No. 25, Accounting for Stock Issued to Employees and related interpretations. APB Opinion No. 25 required the use of the intrinsic value method, which measured compensation cost as the excess, if any, of the quoted market price of the stock at the measurement date over the amount an employee must pay to acquire the stock. As the stock options granted under these plans typically had an exercise price equal to the market value of the underlying common stock on the date of grant, no compensation cost related to stock options was reflected in the Company's results of operations. The Company began to grant restricted stock units ( RSUs ) in the first quarter of 2005, for which the related compensation expense is recorded over the requisite service period.

In December 2004, the FASB reissued Statement of Financial Accounting Standard ( SFAS ) No. 123, Accounting for Stock-Based Compensation as SFAS No. 123(R), Share Based Payment. This statement replaces SFAS No. 123, amends SFAS No. 95, Statement of Cash Flows, and supersedes APB Opinion No. 25, Accounting for Stock Issued to Employees. SFAS No. 123(R) requires companies to apply a fair-value based measurement method in accounting for share-based payment transactions with employees and to record compensation expense for all share-based awards granted, and to awards modified, repurchased or cancelled after the required effective date. Compensation expense for outstanding awards for which the requisite service had not been rendered as of the effective date will be recognized over the remaining service period using the compensation cost calculated for pro forma disclosure purposes under SFAS No. 123, adjusted for expected forfeitures. Additionally, SFAS No. 123(R) requires entities to record compensation expense for employee stock purchase plans that may not have been considered compensatory under the previous rules. It also requires the benefits associated with tax deductions in excess of recognized compensation cost to be reported as a financing cash flow rather than as an operating cash flow as previously required.

The Company adopted SFAS No. 123(R) as of January 1, 2006 (the adoption date) using the modified prospective transition method. Under the modified prospective transition method, stock-based compensation expense recognized in the Company's statement of income in the year ended December 31, 2006 includes: (a) stock options and RSUs granted prior to, but not fully vested as of the adoption date, based on the grant-date fair value estimated in accordance with the original provisions of SFAS No. 123, (b) stock options and RSUs granted subsequent to the adoption date, based on the grant-date fair value estimated in accordance with the provisions of SFAS No. 123(R), (c) purchase rights granted under the employee stock purchase plan (the ESPP) with the offering period beginning prior to, but not yet vested as of the adoption date, based on the fair value estimated in accordance with the original provisions of SFAS 123, and (d) purchase rights granted under the ESPP subsequent to the adoption date, based on the grant-date fair value estimated in accordance with the provisions of SFAS No. 123(R). The estimated fair value of the Company's stock-based awards, less expected forfeitures, is amortized on a straight-line basis over the awards' requisite service period, typically the vesting period. Under the modified prospective transition method, results for prior periods are not restated.

The Company recognized stock-based compensation expense of \$4.1 million in 2007, \$3.0 million in 2006 and \$345,000 in 2005. Included in these amounts are expenses related to RSUs of \$638,000 in 2007, \$825,000 in 2006 and \$345,000 in 2005. As a result of adopting SFAS No. 123(R), the Company's income before income taxes and net income for the year ended December 31, 2006 was reduced by \$2.2 million. The implementation of SFAS No. 123(R) reduced basic and diluted earnings per share by \$0.05 for the year ended December 31, 2006.

The modified prospective transition method of SFAS No. 123(R) requires the presentation of pro forma information, for periods presented prior to the adoption of SFAS No. 123(R), regarding net income and earnings per share as if the Company had accounted for its stock plans under the fair value method. Had compensation expense for the Company's stock plans been determined consistent with the fair value-based method prescribed by the original provisions of SFAS No. 123, the Company's net income would have decreased to the following adjusted amounts:

(in thousands, except per share data)

Net income:

As reported

**2005**

\$ 12,817  
(13,551)

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Adjustment for stock-based compensation determined under fair value-based method for all awards  
(a), (b) (d)

Adjustment for compensation expense recognized in net income (a) (c) 345

As adjusted \$ (389)

Basic earnings per share:

As reported \$ 0.35

As adjusted \$ (0.01)

Diluted earnings per share:

As reported \$ 0.34

As adjusted \$ (0.01)

(a) Compensation  
expense in 2005  
is presented  
prior to income  
tax effects due  
to the Company  
fully reserving  
against the  
related deferred  
tax assets in  
those periods.

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- (b) Cumulative compensation cost recognized with respect to options that are forfeited prior to vesting is reflected as a reduction of compensation expense in the period of forfeiture. Compensation expense related to awards granted under the Company's employee stock purchase plan is estimated until the period in which settlement occurs, as the number of shares of common stock awarded and the purchase price are not known until settlement.
- (c) Compensation expense in 2005 represents the expense associated with the Company's grants to employees of restricted stock units.
- (d) Pro forma expense includes approximately \$6.9 million,

resulting from the acceleration of vesting of options outstanding as of October 18, 2005 that have an exercise price of \$15.00 per share or higher. Options to purchase approximately 624,000 shares of common stock that would otherwise have vested over the subsequent 30 months became fully vested.

In 2005, the fair value of each option grant and purchase right granted under the ESPP were estimated on the date of grant using the Black-Scholes option pricing model with the following weighted-average assumptions:

	2005
<b>OPTIONS:</b>	
Risk-free interest rates	3.7%
Expected dividend yield rates	0.0%
Expected lives	3.8 years
Expected volatility	74.1%
<b>ESPP:</b>	
Risk-free interest rates	2.9%
Expected dividend yield rates	0.0%
Expected lives	0.5 years
Expected volatility	59.6%

#### *Stock Plans and ESPP*

As of December 31, 2007, the Company had three active stock plans; the 2003 Stock Option Plan, the 2003 Non-Employee Directors' Stock Option Plan and the ESPP, which are described below.

#### *Stock Options and RSUs*

**2003 STOCK OPTION PLAN** The 2003 Stock Option Plan is a broad-based plan for employees, executive officers, and consultants in which directors of the Company are not allowed to participate. The Board of Directors

currently administers this plan, and makes all decisions concerning which employees, executive officers and consultants are granted options, how many to grant to each optionee, when options are granted, how the plan should be properly interpreted, whether to amend or terminate the plan, and whether to delegate administration of the plan to a committee. The 2003 Plan provides for the issuance of up to 6,750,000 shares of common stock. Shares may be issued under the 2003 Plan on exercise of incentive stock options or non-qualified stock options granted under the 2003 Plan or as restricted stock awards. Stock appreciation rights may also be granted under the 2003 Plan, and the shares represented by the stock appreciation rights will be deducted from shares issuable under the 2003 Plan. The exercise price of incentive stock options and non-qualified stock options may not be less than the market value of the Company's common stock on the date of grant. The administrator of the plan has the discretion to determine the vesting period of options granted under the 2003 Plan, however option grants will generally vest over four years, contingent upon the optionee continuing to be an employee, executive officer or consultant of the Company. On January 31, 2005, the Company amended the 2003 Plan to provide additional terms for the restricted stock units. The contractual life of the options is ten years from the date of grant. In 2005, restricted stock units issued vest 10% on the first anniversary of the grant date, an additional 20% on the second anniversary of the grant date, an additional 30% on the third anniversary of the grant date and the remaining 40% on the fourth anniversary of the grant date. In 2007 and 2006, restricted stock units issued vest 25% each year for four years. The 2003 Plan will expire in February 2013, unless the administrator of the plan terminates it earlier. As of December 31, 2007, approximately 3.9 million shares of common stock were available for grant under this plan.



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**2003 NON-EMPLOYEE DIRECTORS STOCK OPTION PLAN** The 2003 Non-Employee Directors Stock Option Plan (the 2003 Directors Plan), a shareholder-approved plan, provides for the issuance of up to 750,000 shares of common stock. The exercise price of options granted under the 2003 Directors Plan may not be less than the market value of the Company's common stock on the date of grant. On May 24, 2006, the stockholders of the Company approved an amendment of the 2003 Directors Plan, which enables different forms of equity awards to be granted under the 2003 Directors Plan. Pursuant to the Company's current non-employee director compensation structure, non-employee directors are granted 15,000 RSUs on the date first elected or appointed as a member of the Company's board, and 6,000 RSUs on any date re-elected as a member of the board. Such RSU grants vest over four years, contingent upon the recipient continuing to be a director of the Company. As of December 31, 2007, 509,000 shares of common stock were available for grant under the 2003 Directors Plan.

A summary of the status of the Company's stock options for the year ended December 31, 2007 is presented below: (In thousands, except share prices)

	<b>2007</b>	
	Shares	Weighted-average Exercise Price
Stock options:		
Employees		
Options outstanding at beginning of period	2,933	\$ 19.09
Options granted	728	19.82
Options exercised	(324)	13.62
Options cancelled	(206)	24.34
Options outstanding at end of period	3,131	19.48
Options exercisable at end of period	1,962	20.94
Price range of outstanding options	\$ 7.15-\$60.75	
Price range of options terminated	\$ 7.15-\$43.69	
Non-employee directors		
Options outstanding at beginning of period	128	\$ 13.21
Granted		
Exercised	(15)	9.13
Terminated	(3)	29.88
Options outstanding at end of period	110	13.39
Options exercisable at end of period	110	13.39
Price range of outstanding options	\$ 8.25-\$46.13	
Price range of options terminated	\$ 29.88	

The weighted average fair value of options issued to employees was \$19.82, \$9.90 and \$4.42 for the years ended December 31, 2007, 2006 and 2005, respectively. The weighted average fair value of options issued to directors was \$8.13 for the year ended December 31, 2005. The total intrinsic value of options exercised during the years ended December 31, 2007, 2006 and 2005 was \$4.2 million, \$1.8 million and \$700,000, respectively, determined as of the exercise date. The aggregate intrinsic value of employee options outstanding and exercisable at December 31, 2007 was \$3.1 million and \$2.2 million, respectively, and the aggregate intrinsic value of non-employee director options outstanding and exercisable at December 31, 2007 was \$170,000. As of December 31, 2007, there was \$10.9 million of total unrecognized compensation cost related to stock options granted and outstanding, which is expected to be

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recognized through fiscal year 2011, with a weighted average remaining vesting period of 3.5 years. Cash received from stock option exercises was \$4.5 million during the year ended December 31, 2007.

The following table summarizes information about the stock options outstanding at December 31, 2007:

(In thousands, except share prices and lives)

Range of Exercise Prices	Options Outstanding			Options Exercisable	
	Number Outstanding	Weighted- Average Remaining Contractual Life	Weighted- Average Exercise Price	Number Exercisable	Weighted- Average Exercise Price
\$7.15 to \$7.70	358	6.0 years	\$ 7.40	265	\$ 7.49
\$9.12 to \$11.95	318	6.9 years	9.76	215	9.67
\$12.75 to \$14.93	353	8.6 years	14.50	87	13.47
\$16.13 to \$17.12	350	8.3 years	16.48	88	16.48
\$17.85 to \$20.19	433	6.4 years	19.11	283	18.54
\$20.81 to \$22.47	452	7.1 years	22.12	313	21.95
\$22.52 to \$24.21	335	7.3 years	23.32	179	22.55
\$24.90 to \$36.56	326	3.2 years	28.45	326	28.44
\$38.55 to \$44.97	173	3.6 years	40.17	173	40.17
\$60.75 to \$60.75	33	2.6 years	60.75	33	60.75
	3,131	6.5 years	\$ 19.48	1,962	\$ 20.94
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The fair value of each option grant is estimated on the date of grant using the Black-Scholes option pricing model with the following weighted-average assumptions:

	2007	2006
Risk-free interest rates	4.5%	4.7%
Expected dividend yield rates	0.0%	0.0%
Expected lives	5.5 years	5.5 years
Expected volatility	60.5%	65.5%
Expected forfeiture rate	22%	22%

The computation of the expected volatility assumption for new grants is based on a combination of historical and implied volatilities. When establishing the expected life assumption, the Company reviews historical exercise behavior of option grants with similar vesting periods and post-vesting termination behavior.

A summary of the status of the Company's non-vested RSUs as of December 31, 2007, and changes during the year then ended are presented below:

	Shares	2007 Weighted- average Grant-date Fair Value
(In thousands, except fair values)		
Non-vested RSUs outstanding	376	\$11.42
RSUs granted	205	22.49
RSUs vested	(87)	18.83
RSUs forfeited	(26)	
Non-vested RSUs outstanding	468	16.04

The fair value of the Company's RSUs is determined based upon the closing fair market value of the Company's common stock on the grant date. As of December 31, 2007, there was \$4.8 million of total unrecognized compensation cost related to non-vested RSUs granted, which cost is expected to be recognized over a weighted average period of 1.2 years. During the years ended December 31, 2007 and 2006, the total fair value of RSUs which vested was \$1.7 million and \$363,000, based upon the closing fair market value of the Company's common stock on the date the underlying common stock was released to the recipient.

*Employee Stock Purchase Plan (the ESPP)*

**EMPLOYEE STOCK PURCHASE PLAN** The ESPP, a shareholder-approved plan, provides for the issuance of up to 500,000 shares of common stock. Employees are eligible to participate in the ESPP if employed by the Company for at least 20 hours per week during at least five months per calendar year. Participating employees may have the lesser of 5% their earnings or \$1,250 per six-month period withheld. The purchase price of common stock purchased under the ESPP is equal to 85% of the lower of the fair market value on the commencement date of each offering period or the relevant purchase date. Each plan period is six months. At December 31, 2007, approximately 87,000 shares remained available for future issuance under the ESPP.

Purchase rights granted under the ESPP are valued using the Black-Scholes model. Prior to the adoption of SFAS No. 123(R), the Company used historical volatility in deriving its expected volatility assumption; however, the Company has determined that implied volatility provides a more accurate reflection of market conditions and is a better indicator of expected volatility than historical volatility for the six month plan period. As of December 31, 2007, there was \$55,000 of total unrecognized compensation cost related to the ESPP that is expected to be recognized over a remaining period of four months.

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The fair value of each purchase right granted under the ESPP was estimated on the date of grant using the Black-Scholes option pricing model with the following weighted-average assumptions:

	2007	2006
<b>ESPP:</b>		
Risk-free interest rates	4.5%	4.8%
Expected dividend yield rates	0.0%	0.0%
Expected lives	0.5 years	0.5 years
Expected volatility	60.5%	46.8%

**(3) DISPOSITIONS AND DISCONTINUED OPERATIONS**

On June 24, 2005, the Company sold the assets of its EMCO product line to an unrelated third party for net cash proceeds of \$3.7 million, as this product line was not critical to the Company's core operations. The sale included assets with a book value of approximately \$663,000, comprised of \$515,000 of accounts receivable, \$71,000 of inventory, \$42,000 of fixed assets, and \$35,000 of prepaid expenses, and liabilities of approximately \$94,000. In accordance with SFAS No. 142, *Goodwill and Other Intangible Assets*, goodwill of \$471,000 was allocated to the sale based upon its estimated fair value relative to the portion of the reporting unit that will be retained. The Company recognized a gain on the sale of \$2.6 million, which is recorded in discontinued operations in the statement of income. In the fourth quarter of 2005, a purchase price adjustment of \$237,000 was made in favor of the Company, and recorded as additional gain on the sale. In the second quarter of 2006, \$138,000 held in escrow was released and a gain recorded in discontinued operations. The EMCO product line did not represent a significant portion of the Company's operations, with revenues representing 1.8% of annual consolidated sales through its sale on June 24, 2005.

On November 23, 2005, the Company entered into an agreement to sell the assets of its IKOR product line to an unrelated third party, as this product line was not considered to be critical to the Company's core operations. Net cash proceeds of \$8.9 million were received, with an additional \$1.0 million held in escrow to satisfy any potential indemnity claims. The sale included assets with a book value of approximately \$4.1 million, comprised of \$1.3 million of accounts receivable, \$1.3 million of inventory, \$492,000 of fixed assets, and \$44,000 of prepaid expenses, and liabilities of approximately \$207,000. Goodwill of \$1.0 million was allocated to the sale based upon its estimated fair value relative to the portion of the reporting unit that will be retained. The Company recognized a gain on the sale of \$5.0 million, which is recorded in discontinued operations in the consolidated statement of income. In the fourth quarter of 2006, the \$1.0 million held in escrow was released and a gain recorded for this amount in discontinued operations. The results of operations directly attributed to the IKOR product line that have been reclassified from continuing operations are as follows:

	2005 (in thousands)
Sales	\$ 11,581
Cost of sales	6,505
Operating expenses	3,736

**(4) RESTRUCTURING COSTS**

Restructuring charges include the costs associated with actions taken by the Company primarily in response to downturns in the semiconductor capital equipment industry. These charges consist of costs that are incurred to exit an activity or cancel an existing contractual obligation, including the closure of facilities and employee termination related charges.

Effective January 1, 2003, the Company adopted SFAS No. 146, *Accounting for Exit or Disposal Activities*, which nullifies EITF Issue No. 94-3, *Liability Recognition for Certain Employee Termination Benefits and Other Costs to*

Exit an Activity. SFAS No. 146 requires costs associated with exit or disposal activities to be recognized when they are incurred, whereas under EITF Issue No. 94-3, a liability was recognized at the date of an entity's commitment to an exit plan. As related to employee termination benefits, the provisions of SFAS No. 146 offer guidance on one-time termination benefits, and exclude from the scope on-going benefit arrangements, therefore, the Company follows the guidance within SFAS No. 146 for voluntary severances and other one-time termination benefits.

The accounting for the standard severance benefits that the Company pays for involuntarily severed employees, considered an on-going benefit arrangement, is excluded from the scope of SFAS No. 146. For these benefits, the Company follows the guidance under SFAS No. 88, Employers' Accounting for Settlements and Curtailments of Defined Benefit Pension Plans and for Termination Benefits. Severance costs accounted for under SFAS No. 88 are accrued and recorded as restructuring expense when such amount is probable that employees will be entitled to benefits and the amount can be reasonably estimated.

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The following table summarizes the components of the restructuring charges, the payments and non-cash charges, and the remaining accrual as of December 31, 2007, 2006 and 2005:

	<b>Employee Severance and Termination Costs</b>	<b>Facility Closure &amp; Other Costs</b>	<b>Impairment of Facility- related Assets and other (In thousands)</b>	<b>Total Restructuring Charges</b>
Accrual balance December 31, 2004	\$ 3,293	\$ 1,121	\$	\$ 4,414
Total net restructuring charges in 2005	1,894	66	746	2,706
Payments and other settlements in 2005	(5,057)	(701)	(746)	(6,504)
Accrual balance December 31, 2005	130	486		616
Total net restructuring charges in 2006		111		111
Payments and other settlements in 2006	(130)	(597)		(697)
Accrual balance December 31, 2006				
Total net restructuring charges in 2007	1,879	743	854	3,476
Gain on sale of assets			(189)	(189)
Payments and other settlements in 2007	(1,879)	(743)	(665)	(3,287)
Accrual balance December 31, 2007	\$	\$	\$	\$

On March 2, 2007, the Company announced that it would close its manufacturing, distribution, and research and development facility located in Stolberg, Germany. Related to this manufacturing transition, the Company recorded restructuring charges of \$3.5 million in 2007, consisting primarily of severance benefit costs associated with the planned reduction of employees at this facility, and an asset impairment charge of approximately \$854,000 relating to the write-down of certain real and personal property located at this facility to estimated fair value. The Stolberg facility closed in October 2007 and related to the restructuring, on October 2, 2007, the Company completed the sale of assets related to its LPPA product line for \$2.2 million resulting in a gain of \$189,000.

In 2004, the Company transitioned certain product lines from certain of the Company's locations in Europe and Japan, the Company recorded restructuring charges for employee severance and termination costs of \$2.1 million in 2005. These charges are associated with 216 employees in the United States, 11 employees in Europe and three employees in Japan. Through the transition of the Company's manufacturing operations from the Fort Collins facility to Shenzhen, China, the Company recognized the need to retain 11 employees considered in the original reserve, and therefore in the third quarter of 2005 restructuring reserves of \$180,000 were reversed.

Impairments of facility-related assets were recorded in 2005 for \$589,000 in the United States and \$157,000 in Japan, as a result of consolidation of certain of the Company's facilities.

**(5) MARKETABLE SECURITIES**

Investment securities with original maturities of more than three months but less than one year at time of purchase are considered marketable securities. Marketable securities as of December 31, 2007 included commercial paper, municipal bonds and notes, institutional money markets and auction rate securities. Auction rate securities are debt instruments with long-term scheduled maturities, but have interest rates that are typically reset at pre-determined intervals, usually every 7, 28, 35 or 90 days, at which time the securities can typically be purchased or sold. When there is an active secondary market for such investments, the rate reset for each instrument is an opportunity to accept the reset rate or sell the instrument at its face value. The Company's investments are classified as available for sale securities, and are recorded at fair value with changes in fair market value recorded as unrealized holding gains or

losses in other comprehensive income (loss), net of tax.

The Company's short-term investments are carried at their fair value based on the quoted market prices of the securities. For purposes of determining realized gains and losses, the cost of securities sold is based on specific identification. The composition of securities, classified as current assets is as follows at December 31, 2007, and December 31, 2006:

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	December 31, 2007 (in thousands)		December 31, 2006 (in thousands)	
	Cost	Fair Value	Cost	Fair Value
Commercial paper	\$ 1,475	\$ 1,496	\$ 26,824	\$ 29,910
Certificates of deposit	6,299	6,299	3,404	3,404
Corporate bonds/notes	2,375	2,398	6,209	6,216
Municipal bonds/notes	24,662	24,595	4,063	4,078
Auction rate securities	50,563	51,003	40,800	40,899
Institutional money markets	24,885	24,885	1,471	1,471
 Total securities	 \$ 110,259	 \$ 110,676	 \$ 82,771	 \$ 85,978

The value and liquidity of these securities are affected by market conditions as well as the ability of the issuer to make principal and interest payments when due, and the functioning of the markets in which these securities are traded. Subsequent to December 31, 2007, we sold approximately \$11 million in auction rate securities. However, starting on February 14, 2008, we experienced difficulty in selling additional securities due to the failure of the auction mechanism which provides liquidity to these securities. The securities for which auctions have failed will continue to accrue interest and be auctioned every 35 days until the auction succeeds, the issuer calls the securities, or they mature. Accordingly, there may be no effective mechanism for selling these securities. As of March 12, 2008, the Company had approximately \$40 million of auction rate securities and as of December 31, 2007, the Company does not believe such securities are impaired or that the failure of the auction mechanism will have a material impact on our liquidity.

In 2007, the Company sold its investments in marketable equity securities which were included in deposits and other in the accompanying consolidated balance sheets and consisted of \$1.2 million and \$2.9 million at December 31, 2006 and 2005, respectively. These investments were classified as available-for-sale securities and were reported at fair value with unrealized holding gains and losses included in other comprehensive income, net of tax.

Investment income for the years ended December 31, 2007, and December 31, 2006 consisted of the following:

	2007 (in thousands)	2006
Gross realized gains from sale of securities	\$ 232	\$ 1,669
Gross realized losses from sale of securities		
Dividend and interest income	3,800	1,932
Net unrealized holding gains	323	40
 Net investment income	 \$ 4,355	 \$ 3,641

**(6) ACCOUNTS RECEIVABLE TRADE**

Trade accounts receivable consisted of the following:

	December 31, 2007 2006 (In thousands)	
Domestic	\$ 18,909	\$ 32,043
Foreign	42,996	40,458
Allowance for doubtful accounts	(360)	(545)



Total accounts receivable	trade	\$ 61,545	\$ 71,956
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**(7) INVENTORIES**

Inventories consisted of the following:

	<b>December 31,</b>	
	<b>2007</b>	<b>2006</b>
	<b>(In thousands)</b>	
Parts and raw materials	\$ 37,742	\$ 39,515
Work in process	2,212	3,190
Finished goods	10,578	10,073
 Total inventories	 \$ 50,532	 \$ 52,778

Inventories include costs of materials, direct labor and manufacturing overhead. Inventories are valued at the lower of market or cost, computed on a first-in, first-out basis. Inventory obsolescence reserves were \$7.9 million and \$8.6 million at December 31, 2007 and 2006, respectively.

**Table of Contents****(8) PROPERTY AND EQUIPMENT AND CUSTOMER SERVICE EQUIPMENT**

Property and equipment consisted of the following:

	<b>December 31,</b>	
	<b>2007</b>	<b>2006</b>
	<b>(In thousands)</b>	
Land	\$ 4,841	\$ 4,489
Buildings	4,455	4,070
Machinery and equipment	44,740	42,667
Computer and communication equipment	27,927	32,039
Furniture and fixtures	6,828	6,062
Vehicles	609	643
Leasehold improvements	23,688	21,808
	113,088	111,778
Less accumulated depreciation	(82,176)	(78,207)
Total property and equipment	\$ 30,912	\$ 33,571

Aggregate depreciation expense related to property and equipment was \$10.4 million in 2007, \$12.1 million in 2006 and \$12.8 million in 2005.

Customer service equipment is manufactured product that is utilized as replacement and loaner equipment to existing customers, which is amortized to cost of sales over its estimated useful life of two years. Customer service equipment was \$10.3 million and \$9.9 million at December 31, 2007 and 2006, respectively and accumulated amortization for this equipment was \$9.1 million and \$9.1 million at December 31, 2007 and 2006, respectively.

**(9) GOODWILL AND OTHER INTANGIBLE ASSETS**

Goodwill and other intangible assets consisted of the following as of December 31, 2007:

	<b>Gross</b>	<b>Effect of Changes in</b>		<b>Net</b>	<b>Weighted-</b>
	<b>Carrying Amount</b>	<b>Exchange Rates</b>	<b>Other Charges</b>	<b>Accumulated Amortization</b>	<b>Carrying Amount</b>
	<b>(In thousands, except weighted-average useful life)</b>				
					<b>Average Useful Life in Years</b>
Amortizable intangibles:					
Technology-based	\$ 7,015	\$ 1,553	\$	\$ (7,990)	\$ 578
Trademarks and other	8,604	1,905		(4,725)	5,784
Total amortizable intangibles	15,619	3,458		(12,715)	6,362
Goodwill	49,581	12,010	(185)		61,406
	\$ 65,200	\$ 15,468	\$ (185)	\$ (12,715)	\$ 67,768

Total goodwill and other  
intangible assets

In accordance with SFAS No. 142, goodwill of \$185,000 was allocated to the 2007 sale of one of our product lines based upon its estimated fair value relative to the portion of the reporting unit that will be retained. Goodwill and other intangible assets consisted of the following as of December 31, 2006:

	<b>Gross</b>	<b>Effect of</b>		<b>Net</b>	<b>Weighted-</b>
	<b>Carrying</b>	<b>Changes</b>		<b>Carrying</b>	<b>Average</b>
	<b>Amount</b>	<b>in</b>	<b>Accumulated</b>	<b>Amount</b>	<b>Useful</b>
		<b>Exchange</b>	<b>Amortization</b>		<b>Life</b>
		<b>Rates</b>			<b>in Years</b>
	<b>(In thousands, except weighted-average useful life)</b>				
Amortizable intangibles:					
Technology-based	\$ 7,015	\$ 1,477	\$ (7,499)	\$ 993	5
Trademarks and other	8,604	1,578	(4,270)	5,912	17
 Total amortizable intangibles	 15,619	 3,055	 (11,769)	 6,905	 12
 Goodwill	 49,766	 8,914		 58,679	
 Total goodwill and other intangible assets	 \$ 65,385	 \$ 11,969	 \$ (11,769)	 \$ 65,584	

The Company's goodwill and other intangible assets have primarily resulted from purchases of Japanese and German companies, and accordingly, carrying amounts for these assets are impacted by changes in foreign currency exchange rates.

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Aggregate amortization expense related to amortizable intangibles was \$946,000 in 2007, \$1.8 million in 2006, and \$2.1 million in 2005. Estimated amortization expense related to the Company's acquired intangibles fluctuates with changes in foreign currency exchange rates between the United States dollar and the Japanese yen and the euro. Estimated amortization expense related to amortizable intangibles for each of the five years 2008 through 2012 is as follows (in thousands):

	<b>Estimated Amortization Expense (in thousands)</b>
2008	\$ 833
2009	521
2010	418
2011	418
2012	418

In the fourth quarter of 2007, the Company performed its annual goodwill impairment test, and concluded that no impairment of goodwill existed at the measurement date, as the estimated fair value of the Company's reporting unit exceeded its carrying amount.

**(10) DEBT**

On August 17, 2005, the Company issued 10 million shares of common stock at a price of \$9.75 per share pursuant to an underwritten public offering. On August 22, 2005, the Company issued an additional 1.5 million shares of common stock at the same price, pursuant to the underwriters' exercise of their over-allotment option. Proceeds from this offering of 11.5 million shares of common stock were approximately \$105.5 million, net of the underwriters' discount and offering expenses of approximately \$6.6 million. The net proceeds were used to fully redeem the Company's 5.25% convertible subordinated notes due 2006, and toward the full redemption of the Company's 5.0% convertible subordinated notes due 2006. Debt extinguishment expense recorded in the consolidated statements of income of \$3.2 million is comprised of \$2.1 million for redemption premium and \$1.1 million for the write-off of deferred debt issuance costs.

We currently have a \$25 million secured revolving line of credit with a maturity date of July 5, 2008. Any advances under our amended credit facility will bear interest at the prime rate (6% at March 12, 2008) minus 1%. No amounts are currently outstanding under this credit facility.

**(11) EARNINGS PER SHARE**

Basic earnings per share (EPS) is computed by dividing income available to common stockholders by the weighted-average number of common shares outstanding during the period. The computation of diluted EPS is similar to the computation of basic EPS except that the numerator is increased to exclude certain charges which would not have been incurred, and the denominator is increased to include the number of additional common shares that would have been outstanding (using the if-converted and treasury stock methods), if securities containing potentially dilutive common shares (convertible notes payable, stock options and restricted stock units) had been converted to such common shares, and if such assumed conversion is dilutive. As of December 31, 2007 and 2006, stock options and restricted stock units totaling approximately 3.7 million and 3.5 million shares, respectively, were outstanding, of which 3.2 million and 2.9 million shares, respectively are not included in the computation of diluted earnings per share because the effect of including such options in the computation would be anti-dilutive.

The following is a reconciliation of the numerators and denominators used in the calculation of basic and diluted EPS for the years ended December 31, 2007, 2006 and 2005:

	<b>Years Ended December 31,</b>		
<b>(In thousands, except per share data)</b>	<b>2007</b>	<b>2006</b>	<b>2005</b>
<b>Earnings per common share - basic</b>			

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Net income	\$ 34,361	\$ 88,322	\$ 12,817
Weighted average common shares outstanding	45,156	44,721	37,084
 Earnings per common share basic	 \$ 0.76	 \$ 1.98	 \$ 0.35
 <b>Earnings per common share assuming dilution</b>			
Net income	\$ 34,361	\$ 88,322	\$ 12,817
Weighted average common shares outstanding	45,156	44,721	37,084
Effect of dilutive securities:			
Stock options and restricted stock units	548	544	350
 Potentially dilutive common shares	 548	 544	 350
 Adjusted weighted average common shares outstanding	 45,704	 45,265	 37,434
 Earnings per common share assuming dilution	 \$ 0.75	 \$ 1.95	 \$ 0.34

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On December 24, 2007, the Company's Board of Directors authorized the repurchase of up to \$75 million of the Company's common stock. The Company may repurchase shares in the open market, through privately negotiated transactions, block trades, Rule 10b5-1 plans or other available means. In February 2008, The Company began repurchasing shares pursuant to a Rule 10b5-1 plan. There is no minimum number of shares to be repurchased, and the Company may discontinue repurchasing shares at any time. The repurchases of shares may depend upon the availability of cash, general economic and stock market conditions and other considerations.

**(12) INCOME TAXES**

The Company accounts for income taxes in accordance with SFAS No. 109, Accounting for Income Taxes. SFAS No. 109 requires deferred tax assets and liabilities to be recognized for temporary differences between the tax basis and financial reporting basis of assets and liabilities, computed at the expected tax rates for the periods in which the assets or liabilities will be realized, as well as for the expected tax benefit of net operating loss and tax credit carryforwards. In 2003, the Company began recording valuation allowances against certain of its United States and foreign net deferred tax assets in jurisdictions where the Company has incurred significant losses. Given such experience, prior to December 31, 2006, management could not conclude that it was more likely than not that these net deferred tax assets would be realized. Based on the Company's 2006 operating results, the Company's management, in accordance with SFAS No. 109, evaluated the recoverability of its net deferred tax assets and concluded that it was more likely than not that the majority of net deferred tax assets would be realized and recorded a reduction in the valuation allowance of approximately \$39 million for the entire 2006 year. The Company assesses the recoverability of its net deferred tax assets on a quarterly basis. If the Company determines that it is more likely than not that it will realize a portion or all of its remaining net deferred tax assets, some portion or all of the valuation allowance will be reversed with a corresponding reduction in income tax expense in such period.

The income tax expense of \$16.4 million in 2007 represents an effective tax rate on income from continuing operations of 32%. The income tax benefit of \$15.1 million in 2006 represents an effective tax rate on income from continuing operations of (21)%. This negative rate includes the impact of the reversal of the valuation allowance in the fourth quarter of 2006. The income tax provision of \$4.9 million in 2005 represents an effective tax rate on income from continuing operations of 57%, due to taxable income earned in certain foreign jurisdictions. The Company's income from discontinued operations was earned in the United States. No provision for income taxes is attributed to these discontinued operations, due to the valuation allowances against certain deferred tax assets in the United States that existed in those periods, including those generated by net operating losses, that offset the income from discontinued operations.

Approximately \$5.3 million of net deferred tax assets at December 31, 2007 related to certain US net operating losses that are subject to limitations under the US tax code, these assets continue to have a full valuation allowance as management could not conclude that it was more likely than not that these net deferred tax assets would be realized.

When recording acquisitions, the Company has recorded valuation allowances due to the uncertainty related to the realization of certain deferred tax assets existing at the acquisition dates. The amount of deferred tax assets considered realizable is subject to adjustment in future periods if estimates of future taxable income are changed. At December 31, 2006, approximately \$2.9 million of the valuation allowance related to deferred tax assets obtained through acquisitions. Any reversals of valuation allowances recorded in purchase accounting will be reflected as a reduction of goodwill in the period of reversal. For the year ended December 31, 2006, \$3.7 million of valuation allowance, representing 100% of the valuation allowances established in purchase accounting, was reversed with a corresponding reduction in goodwill. There are no further adjustments related to deferred tax assets established in purchase accounting to be booked in the current or future periods.

The provision (benefit) for income taxes for the years ended December 31, 2007, 2006 and 2005 was, as follows:

	2007	December 31, 2006 (In thousands)	2005
Federal	\$ 5,363	\$ (18,719)	\$ 700
State and local	667	(2,120)	300

Foreign taxes	10,358	5,721	3,873
	\$ 16,389	\$ (15,118)	\$ 4,873
Current	\$ 11,264	\$ 7,162	\$ 6,003
Deferred	5,125	(22,280)	(1,130)
	\$ 16,389	\$ (15,118)	\$ 4,873

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The following reconciles the Company's effective tax rate on income from continuing operations to the federal statutory rate for the years ended December 31, 2006, 2005 and 2004:

	<b>2007</b>	<b>December 31, 2006 (In thousands)</b>	<b>2005</b>
Income taxes per federal statutory rate	\$ 17,767	\$ 25,223	\$ 2,973
State income taxes, net of federal deduction	565	889	2
Effect of discontinued operations		398	3,219
Extraterritorial income exclusion	(340)	(1,543)	(1,050)
Nondeductible intangible and goodwill amortization		2	2
Other permanent items, net	(120)	(1,688)	(361)
Effect of foreign taxes	(1,074)	(581)	(2,135)
Change in valuation allowance	54	(39,283)	283
Tax credits and other items	(463)	1,465	1,940
	<b>\$ 16,389</b>	<b>\$ (15,118)</b>	<b>\$ 4,873</b>

The sources of the Company's net deferred income tax assets are summarized as follows:

	<b>December 31, 2007 (In thousands)</b>	<b>2006</b>
Current:		
Employee bonuses and commissions	\$ 803	\$ 429
Warranty reserve	3,193	2,877
Bad debt reserve		76
Vacation accrual	1,762	1,152
Restructuring accrual		
Excess and obsolete inventory	3,201	3,292
Other	4,562	3,539
Net operating loss and tax credit carryforward	10,175	13,069
Current	<b>23,696</b>	<b>24,434</b>
Long-term:		
Net operating loss and tax credit carryforward	7,012	11,785
Depreciation and amortization, net	560	(173)
Other, net		277
Valuation allowance	(5,365)	(5,311)
Long-term, net	<b>\$ 2,207</b>	<b>\$ 6,578</b>
Total deferred tax assets, net	<b>\$ 25,903</b>	<b>\$ 31,012</b>



As of December 31, 2007, the Company had a gross federal net operating loss, alternative minimum tax credit and research and development credit carryforwards of approximately \$34.7 million, \$3.0 million and \$3.0 million, respectively, which may be available

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to offset future federal income tax liabilities. In addition, there is an additional \$1.0 million research and development credit that will become an unrecognized tax benefit as the Company's net operating losses are utilized. Approximately \$14 million of the gross federal net operating losses are limited by certain provisions of the US tax code which restricts their utilization in the future. The federal net operating loss and research and development credit carryforwards expire at various dates through December 31, 2027, the alternative minimum tax credit carryforward has no expiration date. In addition, as of December 31, 2007, the Company had a gross foreign net operating loss carryforward of \$2.0 million, which may be available to offset future foreign income tax liabilities and expire at various dates through December 31, 2012.

Undistributed earnings of the Company are considered to be permanently reinvested and accordingly, no provision for U.S. federal and state income taxes or foreign withholding taxes has been made. These earnings could become subject to U.S. income taxes (subject to a reduction for foreign tax credits) and withholding taxes payable to the various foreign countries if they are remitted as dividends, are loaned to the Company, or if we sell our stock in the subsidiaries.

The domestic versus foreign component of the Company's income from continuing operations before income taxes for the years ended December 31, 2007, 2006 and 2005, was as follows:

	2007	December 31, 2006 (In thousands)	2005
Domestic	\$ 19,570	\$ 44,064	\$ (4,772)
Foreign	31,180	28,002	13,267
	\$ 50,750	\$ 72,066	\$ 8,495

**Tax Contingencies**

Effective January 1, 2007, the Company adopted the provisions of FASB Interpretation No. 48, Accounting for Uncertainty in Income Taxes—an interpretation of FASB Statement No. 109 (FIN 48). FIN 48 establishes a single model to address accounting for uncertain tax positions. FIN 48 clarifies the accounting for income taxes by prescribing a minimum recognition threshold a tax position is required to meet before being recognized in the financial statements. FIN 48 also provides guidance on derecognition, measurement classification, interest and penalties, accounting in interim periods, disclosure and transition. Upon adoption, the Company increased the long-term liability associated with uncertain tax positions by approximately \$6 million and also increased the long-term receivable by approximately \$5 million consisting of offsetting tax benefits. The balance of \$1 million is an adjustment to the opening balance of retained earnings on January 1, 2007.

The reconciliation of our tax contingencies is as follows (in thousands):

Balance at January 1, 2007	\$ 5,960
Additions based on tax positions taken during a prior period	50
Reductions based on tax positions taken during a prior period	(210)
Additions based on tax positions taken during the current period	
Reductions based on tax positions taken during the current period	
Reductions related to settlement of tax matters	
Reductions related to a lapse of applicable statute of limitations	
Balance at December 31, 2007	\$ 5,800

If the \$5.8 million of tax contingencies reverse, \$1.1 million will affect our effective tax rate. The tax years 2003 through 2007 remain open to examination by the United States taxing jurisdictions to which we are subject. The foreign jurisdictions have open tax years from 2001 to 2007. In accordance with the Company's accounting policy, the Company recognizes accrued interest and penalties related to unrecognized tax benefits as a component of tax expense. This policy did not change as a result of the adoption of FIN 48. The Company did not have any accrued interest or penalties at December 31, 2007. The Company does not anticipate a material change to the amount of unrecognized tax positions within the next 12 months.

While management believes the Company has adequately provided for all tax positions, amounts asserted by taxing authorities could materially differ from our accrued positions as a result of uncertain and complex application of tax regulations. Additionally, the recognition and measurement of certain tax benefits includes estimates and judgment by management and inherently includes subjectivity. Accordingly, additional provisions on federal and foreign tax-related matters could be recorded in the future as revised estimates are made or the underlying matters are settled or otherwise resolved.

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**(13) RETIREMENT PLANS**

The Company has a 401(k) profit sharing plan which covers most full-time employees age eighteen or older. Participants may defer up to the maximum amount allowed as determined by law. Participants are immediately vested in their contributions.

The Company may make discretionary contributions based on corporate financial results. For the year ended December 31, 2007, the Company's contribution for participants in its 401(k) plan was 50% matching on contributions by employees up to 6% of the employee's compensation. For the years ended December 31, 2005 and 2006, the Company's contribution for participants in its 401(k) plan was 25% matching on contributions by employees up to 6% of the employee's compensation. The Company's total contributions to the plan were approximately \$1.3 million, \$633,000, and \$698,000 in 2007, 2006 and 2005, respectively. Vesting in the profit sharing contribution account is based on years of service, with most participants fully vested after four years of credited service.

**(14) COMMITMENTS AND CONTINGENCIES**

***DISPUTES AND LEGAL ACTIONS***

The Company is involved in disputes and legal actions arising in the normal course of its business. The Company's most significant legal actions have involved the application of patent law to complex technologies and intellectual property. The determination of whether such technologies infringe upon the Company's or others' patents can be highly subjective. This subjectivity introduces substantial additional risk with regard to the outcome of the Company's disputes and legal actions related to intellectual property. In the event of any adverse outcome, the ultimate loss could have a material adverse effect on the Company's financial position or reported results of operations in a particular period. An unfavorable decision, particularly in patent litigation, could require material changes in production processes and products or result in the Company's inability to ship products or components found to have violated third-party patent rights. The Company accrues loss contingencies in connection with its litigation when it is probable that a loss has occurred or may occur and the amount of the loss can be reasonably estimated.

In April 2003, the Company filed a claim in the United States District Court for the District of Colorado seeking a declaratory ruling that its plasma source products Xstream With Active Matching Network (Xstream products) were not in violation of patents held in the United States by MKS Instruments, Inc. (MKS). On June 2, 2004, MKS filed a petition in the District Court in Munich, Germany, alleging infringement by the Company's Xstream products of a counterpart German patent owned by MKS. On July 12, 2004, the Company filed a complaint in the United States District Court for the District of Delaware against MKS alleging that MKS's Astron reactive gas source products infringe Advanced Energy's United States Patent No. 6,046,546. The case was voluntarily dismissed on March 11, 2005 under an agreement that left the Company free to refile its claims upon conclusion of MKS's lawsuit against the Company's Xstream products. On October 3, 2005, the Company executed a settlement agreement with MKS resolving all pending claims. Pursuant to the settlement agreement, the Company paid \$3.0 million to MKS.

On December 11, 2006, the Audit Division of U.S. Customs and Border Protection issued a report to the Company stating that as a result of a recently concluded audit, the Division recommended that a loss of revenue claim be made by CBP with respect to certain duty-free entries of returned goods made by Advanced Energy.

On November 5, 2007, a complaint was filed in the U.S. District Court for the District of Colorado by Xantrex Technology, Inc., alleging various breaches of confidence and interference with contractual duties in connection with the Company's hiring of a former employee of Xantrex. The Company believes the allegations to be unfounded and will defend itself vigorously against the claims.

***OPERATING LEASES***

The Company has various operating leases for automobiles, equipment, and office and production facilities. Lease expense under operating leases was approximately \$5.8 million, \$5.8 million and \$5.9 million in 2007, 2006, and 2005 respectively.

The future minimum rental payments required under non-cancelable operating leases as of December 31, 2007 are as follows:

(In  
thousands)

2008	\$	5,448
2009		4,146
2010		2,965
2011		1,830
2012		1,448
Thereafter		4,753
	\$	20,590

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The Company finances a portion of its property and equipment under capital lease obligations at interest rates averaging approximately 3%. Pursuant to the capital lease agreements, future minimum lease payments totaling \$243,000 are due in varying monthly increments through 2012.

**(15) FOREIGN OPERATIONS AND MAJOR CUSTOMERS**

The Company has operations in the United States, Europe and Asia. The following is a summary of the Company's operations by region:

	<b>2007</b>	<b>2006</b>	<b>2005</b>
Sales:			
United States	\$ 207,265	\$ 238,468	\$ 163,657
Europe	42,051	41,760	34,228
Asia	135,383	130,514	127,597
	\$ 384,699	\$ 410,742	\$ 325,482
Income from operations:			
United States	\$ 15,158	\$ 38,678	\$ 709
Europe	7,732	6,678	1,868
Asia	24,037	21,318	12,285
Intercompany eliminations	(987)	715	1,112
	\$ 45,940	\$ 67,389	\$ 15,974
Long-lived assets:			
United States	\$ 19,203	\$ 14,954	\$ 19,813
Europe	980	2,276	1,667
Asia	17,526	18,616	21,144
	\$ 37,709	\$ 35,846	\$ 42,624

- (1) These sales amounts do not contemplate where our customers may subsequently transfer our products.

Intercompany sales among the Company's geographic areas are recorded on the basis of intercompany prices established by the Company.

The Company has two major customers (sales in excess of 10% of total sales), one which is a manufacturer of semiconductor capital equipment, and the other which is a manufacturer of flat panel display capital equipment. Sales to these customers accounted for the following percentages of sales for the years ended December 31, 2007, 2006 and 2005:

		<b>December 31,</b>	
	<b>2007</b>	<b>2006</b>	<b>2005</b>
Applied Materials, Inc	28%	30%	23%
Ulvac, Inc.	*	*	11%

\* Sales to Ulvac, Inc. represented less than 10% during this period.

There were no other customers that represented greater than 10% of the Company's total sales for the years ended December 31, 2007, 2006 and 2005.

Trade accounts receivable from Applied Materials, Inc. were approximately \$9.5 and \$12.7 million as of December 31, 2007 and 2006, respectively, which represented approximately 15% and 18% of the Company's total trade accounts receivable, respectively. No other customers had a trade accounts receivable balance in excess of 10% of the total trade accounts receivable at December 31, 2007.

#### **(16) RELATED PARTY TRANSACTIONS**

The Company leases its executive offices and manufacturing facilities in Fort Collins, Colorado from two limited liability partnerships in which the Company's Chairman of the Board of Directors holds an interest. The leases relating to these spaces expire in 2009, 2011 and 2016 and contain monthly payments of approximately \$96,000, \$74,000 and \$89,000, respectively.

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For the year ended December 31, 2007, approximately \$3.1 million was paid attributable to these leases, and approximately \$3.2 and \$2.9 million in each of the years ended December 31, 2006 and 2005, respectively. Rent and related amounts are expensed as incurred.

The Company also had an agreement, which was terminated in 2006, whereby monthly payments of approximately \$12,000 were made to one of the above mentioned limited liability partnerships, which secured future leasing rights on a parcel of land in Colorado. Such amounts were expensed as incurred. Approximately \$100,000 and \$144,000 was paid attributable to this agreement in the years ended December 31, 2006 and 2005, respectively.

**(17) CONCENTRATIONS OF CREDIT RISK**

**FORWARD CONTRACTS** The Company, including its subsidiaries, enters into foreign currency forward contracts with counterparties to mitigate foreign currency exposure from foreign currency denominated trade purchases and intercompany receivables and payables. These derivative instruments are not held for trading or speculative purposes.

To the extent that changes occur in currency exchange rates, the Company is exposed to market risk on its open derivative instruments. This market risk exposure is generally offset by the gain or loss recognized upon the translation of its trade purchases and intercompany receivables and payables. Foreign currency forward contracts are entered into with major commercial United States, Japanese and German banks that have high credit ratings, and the Company does not expect the counterparties to fail to meet their obligations under outstanding contracts. Foreign currency gains and losses under these arrangements are not deferred. The Company generally enters into foreign currency forward contracts with maturities of one month, with contracts outstanding at December 31, 2007 maturing through January 2008. The Company did not seek specific hedge accounting treatment for its foreign currency forward contracts.

At December 31, 2007, the Company held the following foreign currency forward contracts to buy United States dollars and sell various foreign currencies:

	<b>Notional Amounts</b>	<b>Market Settlement Amounts (In thousands)</b>	<b>Unrealized Gain/(Loss)</b>
Purchase contracts:			
British pound contract	\$ 1,700	\$ 1,703	\$ (3)
South Korean won contract	1,500	1,517	(17)
Taiwanese dollar contract	6,900	6,919	(19)
			\$ (39)

**OTHER CONCENTRATIONS OF CREDIT RISK** The Company uses financial instruments that potentially subject it to concentrations of credit risk. Such instruments include cash equivalents, short-term investments, accounts receivable, and foreign currency forward contracts. The Company invests its cash in cash deposits, money market funds, commercial paper, auction rate securities and municipal bonds and notes. The Company places its investments with high-credit quality financial institutions and limits the credit exposure from any one financial institution or instrument. The Company performs ongoing credit evaluations of its customers' financial condition and generally requires no collateral. Because the Company's receivables are primarily related to companies in the semiconductor capital equipment industry, the Company is exposed to credit risk generally related to this cyclical industry.

**(18) FAIR VALUE OF FINANCIAL INSTRUMENTS**

The Company's financial instruments include cash, trade receivables, trade payables, marketable securities, including auction rate securities, short-term and foreign currency forward exchange contracts (see Note 17). The fair values of cash, trade receivables, trade payables and short-term debt approximate the carrying values due to the short-term nature of these instruments. Marketable securities are stated at fair value (see Note 5).

**(19) QUARTERLY FINANCIAL DATA UNAUDITED**



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The following table presents unaudited quarterly financial data for each of the eight quarters in the period ended December 31, 2007. The Company believes that all necessary adjustments have been included in the amounts stated below to present fairly such quarterly information. The operating results for any quarter are not necessarily indicative of results for any subsequent period. The amounts below have been restated to reclassify the results of discontinued operations.

	Quarters Ended							
	Mar. 31, 2006	June 30, 2006	Sept. 30, 2006	Dec. 31, 2006	Mar. 31, 2007	June 30, 2007	Sept. 30, 2007	Dec. 31, 2007
	(In thousands, except per share data)							
Sales	\$93,950	\$104,571	\$107,688	\$104,533	\$107,323	\$103,049	\$90,941	\$83,836
Gross profit	38,550	44,760	47,014	44,894	48,309	44,955	36,726	32,819
Income from operations	13,180	19,231	18,329	16,649	17,940	16,270	7,495	4,235
Income from continuing operations	12,761	18,025	16,992	39,406	12,671	11,667	5,856	4,167
Income from discontinued operations.		138		1,000				
Net income	\$12,761	\$18,163	\$16,992	\$40,406	\$12,671	\$11,667	\$5,856	\$4,167
Diluted earnings per share	\$0.28	\$0.40	\$0.38	\$0.89	\$0.28	\$0.25	\$0.13	\$0.09
Diluted weighted-average shares outstanding	45,004	45,108	45,166	45,345	45,636	45,992	45,761	45,758

The net income of \$40.4 million in the fourth quarter of 2006 includes a reduction in the valuation allowance at December 31, 2006 of \$23.5 million.

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**ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES**  
**SCHEDULE II VALUATION AND QUALIFYING ACCOUNTS**

	<b>Balance at Beginning of Period</b>	<b>Additions  Charged to Expense (Recoveries)</b>	<b>Deductions</b>	<b>Balance at  End of Period</b>
Year ended December 31, 2005:				
Inventory obsolescence reserve	\$ 14,651	\$ 1,689	\$ 5,752	\$ 10,588
Warranty reserve	6,791	9,116	9,594	6,313
Allowance for doubtful accounts	1,049	126	530	645
Year ended December 31, 2006:				
Inventory obsolescence reserve	\$ 10,588	\$ 2,644	\$ 4,638	\$ 8,594
Warranty reserve	6,313	11,087	9,555	7,845
Allowance for doubtful accounts	645	(56)	44	545
Year ended December 31, 2007:				
Inventory obsolescence reserve	\$ 8,594	\$ 918	\$ 1,621	\$ 7,891
Warranty reserve	7,845	10,859	9,892	8,812
Allowance for doubtful accounts	545	(119)	66	360

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

Not applicable.

**ITEM 9A. CONTROLS AND PROCEDURES**

***Evaluation of Disclosure Controls and Procedures***

We maintain disclosure controls and procedures that are designed to ensure that the information required to be disclosed in the reports that we file or submit under the Securities Exchange Act of 1934 is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

Management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as of December 31, 2007. Based upon this evaluation, management concluded that our disclosure controls and procedures were effective as of December 31, 2007.

***Management's Report on Internal Control over Financial Reporting***

We maintain internal control over our financial reporting, which is a process designed under the supervision of our Chief Executive Officer and Chief Financial Officer and implemented by our Board of Directors, management and other personnel. Our internal control over financial reporting is designed to provide reasonable assurance concerning the reliability of our financial reporting and the preparation of our financial statements.

Management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our internal control over financial reporting as of December 31, 2007, using the criteria described in *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based upon this evaluation, management concluded that our internal control over financial reporting was effective as of December 31, 2007.

***Changes in Internal Control over Financial Reporting***

There was no change in our internal control over financial reporting that occurred during the fourth quarter of 2007 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

***Limitations on Controls and Procedures***

Management has concluded that our disclosure controls and procedures and internal control over financial reporting provide

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reasonable assurance that the objectives of our control system are met. We do not expect, however, that our disclosure controls and procedures or internal control over financial reporting will prevent or detect all misstatements, errors and fraud, if any. All control systems, no matter how well designed and implemented, have inherent limitations; and no evaluation therefore can provide absolute assurance that every misstatement, error or instance of fraud, if any, or risk thereof, has been or will be prevented or detected. The occurrence of a misstatement, error or fraud, if any, would not necessarily require a conclusion that our controls and procedures are not effective.

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

None.

## **PART III**

In accordance with General Instruction G(3) of Form 10-K, certain information required by this Part III is incorporated by reference to the definitive proxy statement relating to our 2008 Annual Meeting of Stockholders (the 2008 Proxy Statement ), as set forth below. The 2008 Proxy Statement will be filed with the Securities and Exchange Commission within 120 days after the end of our fiscal year.

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

The information set forth in the 2008 Proxy Statement under the headings Proposal No. 1/ Election of Directors Nominees and Section 16(a) Beneficial Ownership Reporting Compliance is incorporated herein by reference. The information under the heading Executive Officers of the Registrant in Part I of this Form 10-K is also incorporated herein by reference.

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

The information set forth in the 2008 Proxy Statement under the headings Executive Compensation and Stock Performance Graph is incorporated herein by reference.

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

The information set forth in the 2008 Proxy Statement under the headings Common Stock Ownership by Management and Other Stockholders and Equity Compensation Plan Information is incorporated herein by reference.

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

The information set forth in the 2008 Proxy Statement under the caption Certain Transactions with Management is incorporated herein by reference.

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

The information set forth in the 2008 Proxy Statement under the caption Fees Billed by Independent Public Accountants is incorporated herein by reference.

## **PART IV**

### **ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES**

(A) Documents filed as part of this report are as follows:

	Page
1. Financial Statements:	
Reports of Grant Thornton LLP	31
Consolidated Financial Statements:	
Balance Sheets at December 31, 2007 and 2006	33
Statements of Operations for each of the three years in the period ended December 31, 2007	35
Statements of Stockholders' Equity and Comprehensive loss for each of the three years in the period ended December 31, 2007	36
Statements of Cash Flows for each of the three years in the period ended December 31, 2007	37
Notes to Consolidated Financial Statements	38
2.	

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Financial Statement Schedules for each of the three years in  
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- (B) Exhibits:
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  - 3.2 By-laws.(2)
  - 3.3 Amendment to By-laws.(3)
  - 4.1 Form of Specimen Certificate for Common Stock.(2)
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  - 10.11 1995 Non-Employee Directors Stock Option Plan, as amended and restated through February 7, 2001.(9)\*
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  - 10.13 2002 Employee Stock Option Plan.(1)\*
  - 10.14 2003 Stock Option Plan.(1)\*
  - 10.15 Amendment No. 1 to 2003 Stock Option Plan, dated January 31, 2005.(10)\*

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10.30	Settlement Agreement dated October 3, 2005, by and between Advanced Energy Industries, Inc. and MKS Instruments, Inc. and its subsidiary, Applied Science and Technology, Inc.(19)
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10.32	2006 Leadership Performance Incentive Plan. (12) *
10.33	Advisory Services Agreement dated as of October 26, 2007 by and between Advanced Energy Industries, Inc. and Joseph R. Bronson.
14.1	Code of Ethical Conduct, as revised. (21)
21.1	Subsidiaries of Advanced Energy Industries, Inc.
23.1	Consent of Grant Thornton LLP, Independent Registered Public Accounting Firm
24.1	Power of Attorney.(15)
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\* Compensation  
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+ Confidential  
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**SIGNATURES**

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

ADVANCED ENERGY  
INDUSTRIES, INC.

(Registrant)

/s/ Hans Georg Betz

Hans Georg Betz  
Chief Executive Officer and  
President

March 18, 2008

Date

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

Signatures	Title	Date
/s/ Hans Georg Betz Hans Georg Betz	Chief Executive Officer and President and Director	March 18, 2008
/s/ Lawrence D. Firestone Lawrence D. Firestone	Executive Vice President and Chief Financial Officer	March 18, 2008
/s/ Douglas S. Schatz Douglas S. Schatz	Chairman of the Board	March 18, 2008
/s/ Richard P. Beck Richard P. Beck	Director	March 18, 2008
/s/ Trung Doan Trung Doan	Director	March 18, 2008
/s/ Barry Z. Posner Barry Z. Posner	Director	March 18, 2008
/s/ Tom Rohrs	Director	

Tom Rohrs		March 18, 2008
/s/ Elwood Spedden	Director	March 18, 2008
Elwood Spedden		

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