

ADVANCED ENERGY INDUSTRIES INC

Form 10-K

February 20, 2007

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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, 2006.**

**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**

**84-0846841**

(State or other jurisdiction of incorporation or organization)

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

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

**80525**

(Address of principal executive offices)

(Zip Code)

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

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

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

Securities registered pursuant to section 12(g) of the Act:

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, or a non-accelerated filer. See definition of "accelerated filer and large accelerated filer" in Rule 12b-2 of the Exchange Act (Check one):

Large accelerated filer  Accelerated filer  Non-accelerated filer

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

The approximate aggregate market value of voting and non-voting common stock held by non-affiliates of the registrant was \$391.1 million as of June 30, 2006.

44,906,405

(Number of shares of Common Stock outstanding as of February 15, 2007)

**DOCUMENTS INCORPORATED BY REFERENCE**

Document

Portions of Advanced Energy Industries, Inc. definitive proxy statement for its 2006 Annual Meeting of Stockholders to be held on May 2, 2007

Incorporated  
By  
Reference  
In Part No.

III

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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 design, manufacture and support complex power conversion and control systems and gas flow control devices used in plasma-based thin-film processing equipment. This equipment is essential to the manufacture of products including the following:

Semiconductor devices for electronics applications;

Flat panel displays for television, computer monitors and hand-held devices;

Compact discs, DVDs, magnetic hard drives and other digital storage media;

Solar panels or photovoltaics;

Thermal coatings for architectural glass;

Optical coatings for eyeglasses;

Industrial laser and medical applications; and

Other markets where thin film deposition is a critical part of the manufacturing process.

Our installed base enables us to also sell spare parts, repair services and field upgrades worldwide through our customer service and technical support organization.

We market and sell our products primarily to large, original equipment manufacturers ( OEMs ) of semiconductor, flat panel display, data storage and other industrial thin-film manufacturing equipment. Sales to customers in the semiconductor capital equipment industry comprised 69% of our sales in 2006 and 63% of our sales in 2005 and 2004.

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 major products fall into four categories: Power Conversion, Flow Control Technologies, 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.

***THERMAL INSTRUMENTATION***

Our thermal instrumentation products, primarily used in the semiconductor industry, provide thermal management and control solutions for applications where 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

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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 MANUFACTURING MARKET.** Most of our sales have historically 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 this industry represented 69% of our sales in 2006 and 63% of our sales in 2005 and 2004. Our power conversion systems provide the energy to enable the 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 and our source technology products optimize CVD clean, deposition and etch processes. The 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 MANUFACTURING EQUIPMENT MARKET.** We sell our products to manufacturers of flat panel displays and flat panel projection devices, which have fabrication 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: liquid crystal displays, field emitter displays, and gas plasma displays. There are two types of flat panel projection devices: liquid crystal projection and digital micro-mirror displays. We sell our products to all five of these flat panel markets.

**DATA STORAGE MANUFACTURING 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 Physical Vapor Deposition, or 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.

**SOLAR CELL MARKET.** We sell our products to both OEMs and manufacturers of solar cells. The majority of the industry's research and development efforts are focused on thin film solar, which is the manufacture of the solar cell on a non-silicon substrate such as glass, plastic or metal. The coatings form optically absorbing and electrically conducting layers, allowing sunlight to be converted to electrical power. Today, the majority of solar cell manufacturers use a bulk silicon wafer as the substrate, which requires both CVD and PVD thin film processes using our DC and RF power supply products in those tools to manufacture the solar cell. As new companies emerge and technologies progress, such as thin film solar, we believe capital will increase as this market continues to grow. Our power supply and flow products are critical solutions for our customers in the solar cell market.

**ARCHITECTURAL GLASS MARKET.** We sell our products to OEMs and to producers of Low Emissivity (Low-E ) architectural glass. This glass is used in commercial and residential buildings to reflect heat through the use of thin films coated directly on the glass which significantly reduces heat transfer through the glass, improving the efficiency of the heating and cooling systems in the building. The thin film deposition process employs PVD tools which use our DC power products. This market is driven by the need for energy conservation and the end market demand for glass related to the residential and commercial construction industry.

*ADVANCED PRODUCT APPLICATIONS MARKETS.* We sell our products to OEMs and producers of end products in a variety of industrial markets. Thin films of diamond-like coatings and other materials are currently applied to products in plasma-based processes to strengthen and harden surfaces on such diverse products as tools, razor blades, automotive parts and hip joint replacements. Other thin-film processes that use our products enable a variety of industrial packaging applications such as decorative wrapping and food packaging. 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.



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We have sold our products for use in connection with the following processes and applications:

<b>Semiconductor</b>	<b>Data Storage</b>	<b>Flat Panel Display</b>	<b>Advanced Product Applications</b>
Chemical vapor deposition	CDs, DVDs, CD/DVD ROMs	Active matrix LCDs Digital micro-mirror	Advanced computer technology workstations and servers
Etch (conductor and dielectric)	CDs/DVDs rewritable	Field emission displays	Automobile coatings
High-density plasma CVD	Hard disc carbon wear coatings	Large flat panel displays	Chemical, physical and materials research
Ion implantation	Hard disc magnetic media	LCD projection	Circuit board etch-back and de-smear
Magnet field controls	Thin-film heads	Liquid crystal displays	Consumer product coatings
Mass flow management	Magneto-optic disks	Medical applications	Diamond-like coatings
Megasonic cleaning		Plasma displays	Superconductors
Photo-resist stripping			Food package coatings
Physical vapor deposition			Eyeglasses
Plasma-enhanced CVD			Optical coatings
Chemical mechanical polishing			Front surface mirrors
Solid-state temperature controls			Large-area glass coatings
Wafer handling			
Rapid thermal processing			
Electro-chemical deposition			

**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 63%, 57% and 60% of our sales in 2006, 2005 and 2004, respectively. We expect that sales of our products to these customers will continue to account for a large percentage of our sales in the foreseeable future.

Applied Materials, our largest customer, accounted for 30%, 23% and 28% of our sales in 2006, 2005 and 2004, respectively. With the exception of Applied Materials and Ulvac, Inc., our largest customer in the flat panel display industry, accounting for 11% of our sales in 2005, no other customer exceeded 10% of our sales during these annual periods.

**Backlog**

Our backlog increased 12.5% from \$49.8 million at December 31, 2005 to \$56.0 million at December 31, 2006. We schedule production of our systems based on order backlog and customer commitments. Backlog includes only orders scheduled to ship in the following quarter for which written authorizations have been accepted and revenue has not been recognized and does not include just in time contractual obligations. 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 Shenzhen and Shanghai, China; Bicester, England; Filderstadt and Stolberg, 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 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 2006, 2005 and 2004:

	<b>Years Ended December 31,</b>			<b>2006</b>	<b>2005</b>	<b>2004</b>
	<b>2006</b>	<b>2005</b>	<b>2004</b>			
	(In thousands)					
United States	\$ 238,468	\$ 163,657	\$ 198,263	58%	50%	52%
Europe	41,760	34,228	58,852	10%	11%	16%
Asia	130,115	126,480	122,533	32%	39%	32%
Rest of world	399	1,117	889			
<b>Total sales</b>	<b>\$ 410,742</b>	<b>\$ 325,482</b>	<b>\$ 380,537</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

### **Manufacturing**

Our manufacturing locations are in Shenzhen, China; Fort Collins, Colorado; Hachioji, Japan; Stolberg, Germany; and Vancouver, Washington. In 2005, we completed the realignment of our worldwide manufacturing infrastructure, with Shenzhen, China being the

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central high-volume manufacturing site. The focus of our Fort Collins, Colorado and Hachioji, Japan locations is low volume, high end manufacturing, service and support, new product design and launch and advanced manufacturing.

We generally 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 patents on inventions governing new products or technologies as part of our ongoing research, development and manufacturing activities. We currently hold 83 United States patents, 52 foreign-issued patents, and have over 80 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 the Pacific Rim, 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, 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.

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 plasma-based manufacturing processes as one segment. All financial segment information required by SFAS No. 131 is found in the accompanying consolidated financial statements. Please refer to Note 16 Foreign Operations and Major Customers, included in Part II, Item 8 of this Form 10-K for further discussion regarding our operations.

### **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 \$44.8 million, \$39.7 million and \$49.0 million in 2006, 2005 and 2004, respectively, representing 10.9%, 12.2% and 12.9% of our total sales in 2006, 2005 and 2004, respectively.

### **Number of Employees**

As of December 31, 2006, we had a total of 1,583 employees. There is no union representation of our employees, 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**

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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

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practicable after filing such reports with, or furnishing them to, the Securities and Exchange Commission (the SEC ). Such reports are also available at [www.sec.gov](http://www.sec.gov).

**Special Note Regarding Forward-Looking Statements**

This 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 Form 10-K, other than statements of historical fact, are forward-looking statements. For example, statements relating to our 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 Form 10-K are 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 within Part I of this Form 10-K. 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.

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**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, 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;

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; and

Currency exchange rate fluctuations. At December 31, 2006, a 10% change in exchange rates would have approximately a 2% to 4% impact on reported revenues and expenses.

***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. Because our operating history in Shenzhen is

limited, we cannot predict with certainty the impact that this new facility will have on our operating results. We may incur unforeseen costs with respect to this facility and the related workforce including, unforeseen escalation 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.

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

Our ten largest customers accounted for 63%, 57% and 60% of our total sales in 2006, 2005 and 2004, respectively. Applied Materials, our largest customer, accounted for 30%, 23% and 28% of our sales in 2006, 2005 and 2004, respectively. With the exception of Applied Material and Ulvac, Inc., our largest customer in the flat panel display industry, accounting for 11% of our sales in 2005, no other customer exceeded 10% of our sales during these annual periods. 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.

Our customers continuously 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 source provider ceases operations;

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

Reduced control over pricing and timing of delivery of raw materials, 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 successfully qualify additional suppliers and manage relationships with our existing and future suppliers or if our suppliers cannot meet our performance or quality specifications, or timing requirements, we may experience shortages of raw materials, parts, components or subassemblies, increased material costs and shipping delays for our products, which would adversely 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 our industry, 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 effectively allocate labor, materials and equipment in the manufacturing process. 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.

***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.

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***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.***

Our competitive success often depends upon factors outside of our control. For example, in some cases, particularly with respect to mass flow controller products, semiconductor device and flat panel display manufacturers may direct equipment manufacturers to use a specified supplier's product in their equipment at a particular facility. Accordingly, for such products, our success will depend 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. If device manufacturers do not specify the use of our products, our sales may be reduced which would negatively affect our business, financial condition and operating results.

***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 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 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 42%, 50% and 48% of our sales in 2006, 2005 and 2004, respectively. 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 in enforcement of intellectual property and contract rights in different jurisdictions;

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.

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***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.

***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 recent 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.

Future patent litigation might:

Cause us to incur substantial costs in the form of legal fees, fines and royalty payments;

Result in restrictions on our ability to sell certain products;

Result in an inability to prevent others from using technology we have developed; and

Require us 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.

***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

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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 February 15, 2007. 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 owned by him could negatively affect the market price of our common stock. Mr. Schatz 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 720,000 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, 2006 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,	20,000	Leased
Fort Collins, CO	Office, plant	Headquarters, Research and development, Manufacturing, Distribution	205,000	Leased
Austin, TX	Office	Distribution	8,000	Leased
Dallas, TX	Office	Distribution	2,000	Leased
Vancouver, WA	Office, plant	Research and development, Manufacturing, Distribution	20,000	Leased
Shanghai, China	Office	Distribution	8,000	Leased
Shenzhen, China	Office, plant	Manufacturing, Distribution	131,000	Leased
Bicester, England	Office	Distribution	1,000	Leased
Filderstadt, Germany	Office	Distribution	9,000	Leased
Stolberg, Germany	Office, plant	Research and development, Manufacturing, Distribution	17,000	Leased
Hachioji, Japan	Office, plant	Research and development, Manufacturing, Distribution	46,000	Owned
Sungnam City, South Korea	Office	Distribution	14,000	Owned
Hsinchu, Taiwan	Office	Distribution	9,000	Leased
Taipei, Taiwan	Office	Distribution	13,000	Leased

**ITEM 3. LEGAL PROCEEDINGS**

None.

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

None.

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

Our common stock trades on the Nasdaq National Market under the symbol AEIS. At February 15, 2007, the number of common stockholders of record was 663, and the closing sale price on that day was \$20.26 per share.

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 National Market; quotations do not necessarily represent actual transactions:

	<b>2006</b>		<b>2005</b>	
	<b>High</b>	<b>Low</b>	<b>High</b>	<b>Low</b>
First Quarter	\$ 16.13	\$ 12.06	\$ 9.96	\$ 6.88
Second Quarter	\$ 17.08	\$ 12.39	\$ 11.10	\$ 7.86
Third Quarter	\$ 17.12	\$ 11.63	\$ 12.61	\$ 7.76
Fourth Quarter	\$ 18.87	\$ 14.89	\$ 13.85	\$ 10.01

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.

**Table of Contents****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 more fully understand the factors that may affect the comparability of the information presented below.

(In thousands, except per share data)	Years Ended December 31,				
	2006	2005	2004	2003	2002
<b>Statement of Operations Data:</b>					
Sales	\$ 410,742	\$ 325,482	\$ 380,537	\$ 253,536	\$ 233,730
Gross profit	175,218	117,081	114,626	84,319	66,192
Total operating expenses	107,829	101,107	118,093	108,746	128,891
Income (loss) from operations	67,389	15,974	(3,467)	(24,427)	(62,699)
Income (loss) from continuing operations	87,184	3,622	(14,670)	(45,536)	(42,113)
Net income (loss)	88,322	12,817	(12,747)	(44,241)	(41,399)
Income (loss) from continuing operations per share diluted	\$ 1.93	\$ 0.10	\$ (0.45)	\$ (1.41)	\$ (1.31)
Net income (loss) per share diluted	\$ 1.95	\$ 0.34	\$ (0.39)	\$ (1.37)	\$ (1.29)
Diluted weighted-average common shares outstanding	45,265	37,434	32,649	32,271	32,026
	As of December 31,				
	2006	2005	2004	2003	2002
<b>Balance Sheet Data:</b>					
Cash, cash equivalents and marketable securities	\$ 144,218	\$ 59,685	\$ 107,982	\$ 134,892	\$ 172,347
Working capital	247,798	143,633	206,915	205,835	247,942
Total assets	411,903	310,117	394,407	414,731	455,733
Total debt	329	4,190	196,123	202,468	213,580
Stockholders' equity	355,790	257,430	144,978	151,834	183,339



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

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* in Item 1A of this report for a discussion of certain risk factors applicable to our business, financial condition and results of operations.

***Business Overview and Presentation***

We design, manufacture and support complex power conversion and control systems and gas flow control devices used in plasma-based, thin-film processing equipment. This equipment is essential to the manufacture of products including the following:

- Semiconductor devices for electronics applications;
- Flat panel displays for hand-held devices and computer and television screens;
- Compact discs, DVDs, magnetic hard drives and other digital storage media;
- Solar panels or photovoltaics;
- Optical coatings for eyeglasses;
- Barrier coatings for architectural glass;
- Industrial laser and medical applications; and

Other markets where thin film deposition is a critical part of the manufacturing process.

Our vast installed base enables a recurring revenue opportunity 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. However, we are focused on the semiconductor capital equipment industry and market and sell our products primarily to large, original equipment manufacturers (OEMs) in this industry. Sales to customers in the semiconductor capital equipment industry comprised 69% of our sales in 2006 and 63% of our sales in 2005 and 2004. Our customers in non-semiconductor industries are also large OEMs that sell flat panel display, data storage, architectural glass, solar cell and other industrial thin-film manufacturing equipment.

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 2006, 2005 and 2004:

	Years Ended December 31,			Increase/(decrease)		Percentage change	
	2006	2005	2004	2006 v 2005	2005 v 2004	2006 v 2005	2005 v 2004
	(in thousands)			(in thousands)			
Sales	\$ 410,742	\$ 325,482	\$ 380,537	\$ 85,260	(\$55,055)	26%	(14)%
Gross profit	175,218	117,081	114,626	58,137	2,455	50%	2%

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Operating expenses:							
Research and development	44,848	39,720	49,004	5,128	(9,284)	13%	(19)%
Selling, general and administrative	62,870	55,681	61,851	7,189	(6,170)	13%	(10)%
Litigation settlement		3,000		(3,000)	3,000	nm	nm
Restructuring charges	111	2,706	3,912	(2,595)	(1,206)	(96)%	(31)%
Impairment of intangible assets			3,326		(3,326)	nm	nm
Total operating expenses	107,829	101,107	118,093	6,722	(16,986)	7%	(14)%
Income (loss) from operations	67,389	15,974	(3,467)	51,415	19,441	nm	nm
Other income (expense), net	4,677	(7,479)	(7,256)	12,156	(223)	nm	(3)%
Income (loss) from continuing operations before income taxes	72,066	8,495	(10,723)	63,571	19,218	nm	179%
Benefit (Provision) for income taxes	15,118	(4,873)	(3,947)	19,991	(926)	nm	23%
Income (loss) from continuing operations	87,184	3,622	(14,670)	83,562	18,292	nm	(125)%
Income from discontinued operations, net of tax	1,138	9,195	1,923	(\$8,057)	7,272	nm	nm
Net income (loss)	\$ 88,322	\$ 12,817	\$ (12,747)	\$ 75,505	25,564	nm	nm

nm percentages greater than 200% and comparisons from positive to

negative values  
or to zero values  
are considered  
not meaningful.

**Table of Contents****SALES**

The following tables summarize annual net sales, and percentages of net sales, by customer type for each of the years ended 2006, 2005 and 2004:

	Years Ended December 31,			Increase/(decrease)		Percentage change	
	2006	2005	2004	2006 v	2005 v	2006	2005
	(In thousands)			2005	2004	v	v
Semiconductor capital equipment	\$ 283,470	\$ 205,322	238,728	\$ 78,148	\$ (33,406)	38%	(14)%
Non-semiconductor equipment	127,272	120,160	141,809	7,112	(21,649)	6%	(15)%
Total sales	\$ 410,742	\$ 325,482	\$ 380,537	\$ 85,260	\$ (55,055)	26%	(14)%

	Years Ended December 31,		
	2006	2005	2004
Semiconductor capital equipment	69%	63%	63%
Non-semiconductor equipment	31%	37%	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 2006, 2005 and 2004. The following amounts do not contemplate where our customers may subsequently transfer our products.

	Years Ended December 31,			Increase/(decrease)		Percentage change	
	2006	2005	2004	2006 v	2005 v	2006	2005
	(In thousands)			2005	2004	v	v
United States	\$ 238,468	\$ 163,657	\$ 198,263	\$ 74,811	\$ (34,606)	46%	(17)%
Europe	41,760	34,228	58,852	7,532	(24,624)	22%	(42)%
Asia	130,115	126,480	122,533	3,635	3,947	3%	3%
Rest of world	399	1,117	889	(718)	228	(64)%	26%
Total sales	\$ 410,742	\$ 325,482	\$ 380,537	\$ 85,260	\$ (55,055)	26%	(14)%

	Years Ended December 31,		
	2006	2005	2004
United States	58%	50%	52%
Europe	10	11	16
Asia	32	39	32
Rest of world			

100% 100% 100%

The increase in total sales from 2005 to 2006 and the decrease from 2004 to 2005 principally reflects fluctuations in demand in the semiconductor capital equipment. 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.

Applied Materials is our largest customer and accounted for 30%, 23% and 28% of our total sales 2006, 2005 and 2004, respectively. Our ten largest customers accounted for 63%, 57% and 60% of our total sales in 2006, 2005 and 2004, respectively. With the exception of Applied Materials and Ulvac, Inc., our largest customer in the flat panel display industry, accounting for 11% of our sales in 2005, no other customer exceeded 10% of our sales during these annual periods.

#### *GROSS PROFIT*

Our gross margin was 42.7%, 36.0% and 30.1% in 2006, 2005 and 2004, respectively. The improvement in our gross margin was attributed 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. Additionally, our gross margin in 2005 was positively impacted by our discontinuance of the allocation of human resource and finance department costs to cost of sales. As part of our significant operational restructuring, we have reviewed all aspects of our management reporting and determined that the continued allocation of such costs was no longer appropriate. In 2005, these costs are recorded in selling, general and administrative expenses. Human resource and finance department costs included in our gross margin represented 1.6 percentage points in 2004.

**Table of Contents****OPERATING EXPENSES**

The following table summarizes our operating expenses as a percentage of sales for the years ended 2006, 2005 and 2004:

	Years Ended December 31,			% of Sales		
	2006	2005 (in thousands)	2004	2006	2005	2004
Research and development	\$ 44,848	\$ 39,720	\$ 49,004	11%	12%	13%
Selling, general and administrative	62,870	55,681	61,851	15%	17%	16%
Litigation settlement		3,000			1%	
Restructuring charges	111	2,706	3,912		1%	1%
Impairment of intangible assets			3,326			1%
Total operating expenses	\$ 107,829	\$ 101,107	\$ 118,093	26%	31%	31%

**RESEARCH AND DEVELOPMENT**

The market for our products for thin film deposition systems and related accessories 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. 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. Since our inception, all of our research and development costs have been expensed as incurred.

The increase in our research and development expenses from 2005 to 2006 was primarily due to increased variable compensation and non-cash stock-based compensation expense of \$1 million as a result of the adoption of SFAS No. 123(R) and additional research projects in response to customer requests and to support the development of new products and enhancement of existing products. The decrease in our research and development expenses from 2004 to 2005 was primarily due to less engineering support needed in connection with the transition of high-volume product manufacturing to China, prioritization of our research and development projects and increased scrutiny of our costs.

**SELLING, GENERAL AND ADMINISTRATIVE**

Our selling expenses support domestic and international sales and marketing activities that include personnel, trade shows, advertising, and other selling and marketing activities. Our general and administrative expenses support our worldwide corporate, legal, patent, tax, financial, corporate governance, administrative, information systems and human resource functions in addition to our general management.

The increase in our selling, general and administrative (SG&A) expense from 2005 to 2006 was primarily due to increased variable compensation expense, increased commissions, non-cash stock-based compensation expense of \$1.5 million as a result of the adoption of SFAS No 123(R) and severance and related expenses related to the reorganization of our operations in Germany. The decrease from 2004 to 2005 was due primarily to the benefit of our cost reduction measures and decreased commissions, partially offset by the increased allocation of certain costs from cost of sales to SG&A expenses discussed above.

Patent litigation expenses in 2004 and 2005 have comprised a portion of our SG&A expenses. In addition to the litigation settlement paid to MKS Instruments, Inc. ( MKS ) as described below, we have recorded legal fees and expenses related to litigation with MKS and others of approximately 2% to 8% of our total SG&A expenses for each

of the years ended December 31, 2005 and 2004. Patent litigation expenses in 2006 comprised less than 1% of our SG&A expenses.

*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*

At the end of 2002, we announced major changes in our operations planned to occur through 2003. These included establishing the manufacturing location in China; consolidating worldwide sales forces; a move to lower-cost Asian suppliers; and the intention to close or sell certain facilities. Associated with these changes, we recorded restructuring charges of \$111,000, \$2.7 million and \$3.9 million in 2006, 2005 and 2004, respectively.

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Our restructuring charges throughout 2004 and 2005 were incurred primarily in conjunction with our transition of our high-volume manufacturing to Shenzhen, China, which was substantially complete as of September 30, 2005. In 2004, we recorded \$3.9 million of restructuring charges, primarily attributable to employee severance and termination costs for 262 employees in the Fort Collins facility. Related to this operations restructuring, and the transition of certain product lines from certain of our locations in Europe and Japan, we recorded restructuring charges in 2005 of \$2.7 million, consisting primarily of \$1.9 million for employee severance and termination costs and \$746,000 for impairments of facilities-related assets in the United States and Japan, as a result of consolidation of certain of our facilities. The employee severance and termination costs were associated with 216 employees in the United States, 11 employees in Europe and three employees in Japan. As of December 31, 2006, all employee severance and termination costs have been paid and there is no remaining facility closing liability associated with those actions.

***IMPAIRMENT OF INTANGIBLE ASSETS***

We perform our annual impairment test for goodwill in the fourth quarter. However, 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.

During the fourth quarter of 2004, in conjunction with our financial forecasting for future periods, it was evident that projected cash flows from certain customers of the Dressler product line were substantially below amounts previously projected. The projected cash flows were considered in determining the fair value of certain contract-based and other amortizable intangible assets recorded at acquisition and also in subsequent periods to assess such assets for potential impairment. Due to the decline in projected cash flows, we performed assessments of the carrying values of the related amortizable intangible assets. These assessments consisted of estimating the intangible asset's fair value and comparing the estimated fair value to the carrying value of the asset. We estimated the intangible asset's fair value through the use of projected cash flows based upon projected revenue streams over the life of the asset, discounted at rates consistent with the risk of the related cash flows. Based on this analysis we determined that the fair values of certain intangible assets were below the respective carrying values, and recorded impairment charges of approximately \$2.9 million, which has been reported as an impairment of intangible assets in the accompanying consolidated statement of operations.

Also during the fourth quarter of 2004, in conjunction with our restructuring plan, employees who were the subject of certain contract-based amortizable intangibles left the Company or their responsibilities were significantly altered. As a result, we performed assessments of the carrying values of the related amortizable intangible assets. These assessments consisted of estimating the intangible asset's fair value and comparing the estimated fair value to the carrying value of the asset. We estimated the intangible asset's fair value through the use of a lost profits method of determining the fair value, arriving at projected cash flows which were then discounted at rates consistent with the risk of the related cash flows. Based on this analysis we determined that the fair values of certain intangible assets were below the respective carrying values, and recorded impairment charges of approximately \$397,000, which has been reported as an impairment of intangible assets in the accompanying consolidated statement of operations.

***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.

Income from investments and cash was approximately \$3.7 million, \$2.9 million and \$1.7 million in 2006, 2005 and 2004, respectively. 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. This was offset in 2005 by our use of those proceeds to redeem our convertible subordinated notes in September 2005.

Interest expense consisted principally of interest on our convertible subordinated notes, on borrowings under capital lease facilities and senior debt, and amortization of our deferred debt issuance costs. Interest expense was approximately \$413,000, \$8.2 million and \$11.0 million in 2006, 2005 and 2004, respectively. The decrease was due primarily to the redemption of our convertible subordinated notes 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 \$206,000 in 2006 and a net foreign currency gain of \$243,000 and \$1.0 million in 2005 and 2004, respectively.

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.

Net other income (expense) consists principally of miscellaneous gains and losses, including gains and losses on the sale of investments and impairments of investments.

**Table of Contents***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. Since 2003, we have recorded valuation allowances against certain of our United States and foreign net deferred tax assets in jurisdictions where we have 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 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 and recorded a reduction in the valuation allowance of approximately \$23.5 million at December 31, 2006. The reduction in the valuation allowance was \$39.3 million for the entire 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. Approximately \$5.3 million of net deferred tax assets at December 31, 2006 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. Additionally, approximately \$3.0 million of the December 31, 2006 valuation allowance relates to the benefit from stock-based compensation. Any reversal of valuation allowance from this item will be reflected as a component of stockholders' equity. Please refer to Note 13 Income Taxes included in Part II, Item 8 of this Form 10-K for further discussion regarding income taxes.

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 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. The income tax provision of \$4.9 million in 2005 represents an effective tax rate on income from continuing operations of 57% and the income tax provision of \$3.9 million in 2004 represents an effective tax rate on income from continuing operations of negative 37%, 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 valuation allowances against certain deferred tax assets in the United States that existed in those periods, including those generated by net operating losses.

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 established in purchase accounting were reversed with a corresponding reduction in goodwill.

*DISCONTINUED OPERATIONS*

Income from discontinued operations was \$1.1 million, \$9.2 million and \$1.9 million in 2006, 2005 and 2004, respectively. 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. Because the EMCO product line has not represented a significant portion of our operations, with revenues representing 1.6% of annual consolidated sales in 2004 and 1.8% through its sale on June 24, 2005, and represents an insignificant portion of our operating results for all periods presented, we have not reclassified the results of operations of the EMCO product line to income from discontinued operations. The results of operations of the IKOR product line have been reclassified to income from discontinued operations, which results include income of \$1.3 million and \$1.9 million in 2005 and 2004, respectively. No provision for income taxes is attributed to these operations due to the valuation allowances against certain deferred tax assets in the United States,

as the income from our discontinued operations was earned in the United States. 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.

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## Quarterly Results of Operations

The following tables present unaudited quarterly results in dollars and as a percentage of sales for each of the eight quarters in the period ended December 31, 2006. 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, 2005</b>	<b>June 30, 2005</b>	<b>Sept. 30, 2005</b>	<b>Dec. 31, 2005</b>	<b>Mar. 31, 2006</b>	<b>June 30, 2006</b>	<b>Sept. 30, 2006</b>	<b>Dec. 31, 2006</b>
Sales	\$ 82,176	\$ 84,163	\$ 78,756	\$ 80,387	\$ 93,950	\$ 104,571	\$ 107,688	\$ 104,533
Gross profit	27,322	30,646	28,922	30,191	38,550	44,760	47,014	44,894
Income from operations	2,533	5,026	2,177	6,238	13,180	19,231	18,329	16,649
(Loss) income from continuing operations	(83)	2,877	(4,203)	5,031	12,761	18,025	16,992	39,406
Income from discontinued operations	817	3,072	312	4,994		138		1,000
Net income (loss)	\$ 734	\$ 5,949	\$ (3,891)	\$ 10,025	\$ 12,761	\$ 18,163	\$ 16,992	\$ 40,406
Diluted earnings (loss) per share	\$ 0.02	\$ 0.18	\$ (0.10)	\$ 0.22	\$ 0.28	\$ 0.40	\$ 0.38	\$ 0.89

	<b>Quarters Ended</b>							
	<b>Mar. 31, 2005</b>	<b>June 30, 2005</b>	<b>Sept. 30, 2005</b>	<b>Dec. 31, 2005</b>	<b>Mar. 31, 2006</b>	<b>June 30, 2006</b>	<b>Sept. 30, 2006</b>	<b>Dec. 31, 2006</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	33.2%	36.4%	36.7%	37.6%	41.0%	42.8%	43.7%	42.9%
Income from operations	3.1%	6.0%	2.8%	7.8%	14.0%	18.4%	17.0%	15.9%
(Loss) income from continuing operations	(0.1)%	3.4%	(5.3)%	6.3%	13.6%	17.2%	15.8%	37.7%
Income from discontinued operations	1.0%	3.7%	0.4%	6.2%		0.1%		1%
Net income (loss)	0.9%	7.1%	(4.9)%	12.5%	13.6%	17.4%	15.8%	38.7%

Our loss from continuing operations in the third quarter of 2005 included pretax charges of \$3.2 million for debt extinguishment expenses (see Note 11 within Part II, Item 8) and \$3.0 million for a litigation settlement (see Note 15

within Part II, Item 8).

### **Liquidity and Capital Resources**

At December 31, 2006, our principal sources of liquidity consisted of cash, cash equivalents and marketable securities of \$144.2 million, and a credit facility consisting of a \$25.0 million revolving line of credit, none of which was outstanding at December 31, 2006. Borrowings under the revolving line of credit agreement are limited based upon letters of credit outstanding under this agreement and the lenders borrowing base calculation, which considers among other factors, our accounts receivable and inventory balances. Advances under the revolving line of credit would bear interest at the prime rate (8.25% at February 9, 2007) minus 1%. Any advances under this revolving line of credit will be due and payable in July 2007. We are subject to covenants on our line of credit that provide certain restrictions related to working capital, net worth, acquisitions and payment and declaration of dividends. We were in compliance with all such covenants at December 31, 2006.

We have historically financed our operations and capital requirements through a combination of cash provided by operations, the issuance of long-term debt and common stock, bank loans, capital lease obligations and operating leases. During 2006, our cash, cash equivalents and marketable securities increased \$84.5 million, or 142%, to \$144.2 million from \$59.7 million at December 31, 2005, primarily due to cash generated from our operations. During 2005, our cash, cash equivalents and marketable securities decreased \$48.3 million from \$108.0 million at December 31, 2004 to \$59.7 million at December 31, 2005, primarily due to the redemption of our convertible subordinated notes for \$189.8 million, offset by the \$105.5 million of net proceeds from our public offering of 11.5 million shares of common stock and \$36.1 million of net cash provided by operating activities.

Operating activities provided cash of \$88.3 million 2006 and \$36.1 million in 2005. The increase in cash generated from operations is primarily attributed to our increased profitability in 2006. Operating activities used cash of \$11.4 million in 2004 primarily due to working capital changes.

Investing activities used cash of \$83.1 million in 2006 and provided cash of \$67.0 million in 2005. Due to the significant cash generated from operations, in 2006 we purchased \$79.4 million of marketable securities, compared to 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 in 2006 were \$6.1 million, compared to capital expenditures of \$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. Investing activities provided cash of \$12.3 million in 2004, which primarily consisted of \$23.8 million from proceeds on the net sale of marketable securities, offset by \$14.0 million for the purchase of property and equipment.

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 2007 to approximately \$8.0 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

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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 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. Financing activities used cash of \$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. Financing activities used cash of \$5.2 million in 2004, which primarily consisted of payments on our senior borrowings and capital lease obligations, partially offset by proceeds from the exercise of employee stock options and sale of common stock through our employee stock purchase plan and in 2004 proceeds of a senior borrowing used to purchase a building in South Korea.

We expect our financing activities to continue to fluctuate in the future. Our payments under capital lease obligations and other borrowings may also increase in the future if we enter into additional capital lease obligations or change the level of our bank financing.

**OFF-BALANCE SHEET ARRANGEMENTS AND CONTRACTUAL OBLIGATIONS**

Our off-balance sheet liabilities primarily consist of lease payment obligations incurred under operating leases. The following table sets forth our future payments due under operating lease obligations as of December 31, 2006.

	Payments Due by Period (In thousands)						Total
	2007	2008	2009	2010	2011	Thereafter	
Operating lease obligations	\$ 5,557	\$ 4,947	\$ 3,831	\$ 2,724	\$ 1,758	\$ 6,060	\$ 24,877

Other commitments as of December 31, 2006 include \$5.3 million in non-cancelable purchase order obligations related primarily to inventory purchases. We expect to receive and pay for these materials and services in 2007 in the normal course of business. Please refer to Note 15 Commitments And Contingencies included in Part II, Item 8 of this Form 10-K for further discussion regarding our long-term debt and capital lease obligations.

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

**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** Our standard shipping term is free on board ( FOB ) shipping point, for which revenue is recognized upon shipment of its products, at which time title passes to the customer, the price is fixed and collectibility is reasonably assured. For certain customers, we have FOB destination terms, for which 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 certain customer acceptance provisions are deferred until customer acceptance occurs. Generally, we do not have obligations to our customers after its products are shipped under FOB shipping point terms, after its products are received by customers under FOB destination terms, and after the products are accepted by customers under contractual acceptance provisions, other than pursuant to warranty obligations. In limited instances, we provide installation of our products. In accordance with Emerging Issues Task Force Issue 00-21 Accounting for Revenue Arrangements With Multiple Deliverables , we allocate 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, we require our customers to pay for a portion or all of their purchases prior to 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.

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We do not offer price protections to its customers or allow returns, unless covered by its 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 cost of the repairs, adjusted for inflation, and expected failure rates. Unanticipated product failures or exceptional product performance can result in changes to our future liability. The assumptions used to estimate warranty accruals are reevaluated quarterly, at a minimum, in light of actual experience and, when appropriate, the accruals are adjusted. Our determination of the appropriate level of warranty accrual is 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 operations.

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

**STOCK-BASED COMPENSATION** On January 1, 2006, we adopted the provisions of SFAS No. 123(R) to account for our 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 our closing stock price on the grant date. The fair value of stock-based awards 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 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 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.

**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 and certain other intangible assets with indefinite lives are not amortized. Instead, goodwill and other indefinite-lived intangible assets are subject to periodic (at least annual) tests for impairment. For the periods presented, we did not have any indefinite-lived intangible assets, other than goodwill. Impairment testing is performed in two steps: (i) we assess goodwill for potential impairment by comparing the fair value of our reporting unit with the carrying value, and (ii) if potential impairment is indicated because the reporting unit's fair value is less than its carrying amount, we measure 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.

#### **Recent Accounting Pronouncements**

*RECENT ACCOUNTING PRONOUNCEMENTS* In July 2006, the Financial Accounting Standards Board (the FASB ) issued FASB Interpretation ( FIN ) No. 48, Accounting for Uncertainty in Income Taxes an interpretation of FASB Statement No. 109 , which clarifies the accounting for uncertainty in tax positions. FIN No. 48 prescribes a comprehensive model for how a company should recognize, measure, present, and disclose in its financial statements uncertain tax positions that it has taken or expects to take on a tax return. The provisions of FIN No. 48 are effective as of the beginning of our fiscal year beginning January 1, 2007, with the cumulative effect of the change in accounting principle recorded as an adjustment to opening retained earnings. We are currently evaluating the impact of adopting FIN No. 48 and at this time have not determined what the impact will be.

In September 2006, the Securities and Exchange Commission issued Staff Accounting Bulletin No. 108 (SAB 108). Due to diversity in practice among registrants, SAB 108 expresses SEC staff views regarding the process by which misstatements in financial statements are evaluated for purposes of determining whether financial statement restatement is necessary. SAB 108 is effective for fiscal years ending after November 15, 2006, and early application is encouraged. The adoption of SAB 108 did not have an impact on our financial position, results of operations or cash flows.

In September 2006, the FASB issued Statement No. 158, *Employers Accounting for Defined Benefit Pension and Other Postretirement Plans, an amendment of FASB Statements No. 87, 88, 106, and 132(R)* ( FAS 158 ). Among other items, FAS 158 requires recognition of the overfunded or underfunded status of an entity s defined benefit postretirement plan as an asset or liability in the financial statements, requires the measurement of defined benefit postretirement plan assets and obligations as of the end of the employer s fiscal year, and requires recognition of the funded status of defined benefit postretirement plans in other comprehensive income. FAS 158 is effective for fiscal years ending after December 15, 2006, and early application is encouraged. The adoption of FAS 158 did not have a material impact on our financial position, results of operations or cash flows.

### **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, 2006, our investments in marketable securities consisted primarily of commercial paper, municipal bonds and notes and institutional money markets. These securities are highly liquid. Earnings on our marketable securities are typically invested into similar securities. We

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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 have entered into various foreign currency forward exchange contracts to mitigate against currency fluctuations in the Japanese yen, Taiwanese dollar, South Korean won and Chinese yuan. The notional amount of our foreign currency contracts at December 31, 2006 was \$8.7 million. The potential fair value loss for a hypothetical 10% adverse change in foreign currency exchange rates at December 31, 2006, would be approximately \$1.2 million, which would be essentially offset by corresponding gains related to the underlying assets. At December 31, 2006 we held foreign currency forward exchange contracts, maturing through January 2007, primarily to purchase U.S. dollars and sell various foreign currencies. The following table summarizes our outstanding contracts as of December 31, 2006:

(in thousands)	Notional Amounts	Market Settlement Amounts (In thousands)	Unrealized Gain/(Loss)
Purchase contracts:			
British pound contract	\$ 700	\$ 695	\$ 5
Chinese yuan contract	500	499	1
European Euro contract	1,000	994	6
South Korean won contract	100	98	2
Taiwanese dollar contract	4,000	4,001	(1)
Sales contract:			
Japanese yen contract	2,400	2,346	(54)
			\$ (41)

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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, 2006 and 2005, and the related consolidated statements of operations, stockholders' equity and comprehensive income, and cash flows for each of the three years in the period ended December 31, 2006. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements 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, 2006 and 2005, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2006, in conformity with accounting principles generally accepted in the United States of America.

As discussed in Note 1 to the consolidated financial statements, the Company adopted the Statement of Financial Accounting Standards No. 123(R), *Share-Based Payment*, on January 1, 2006.

Our audits were conducted for the purpose of forming an opinion on the basic financial statements taken as a whole. The schedule II is presented for purposes of additional analysis and is not a required part of the basic financial statements. This schedule has been subjected to the auditing procedures applied in the audits of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the effectiveness of Advanced Energy Industries, Inc. and subsidiaries' internal control over financial reporting as of December 31, 2006, based on criteria established in *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated February 15, 2007 expressed an unqualified opinion on management's assessment of the effectiveness of the Company's internal control over financial reporting and an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

/s/ GRANT THORNTON LLP

Denver, Colorado  
February 15, 2007

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**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

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

We have audited management's assessment, included in the accompanying Management's Report on Internal Control Over Financial Reporting appearing under Item 9A, that Advanced Energy Industries, Inc. (a Delaware Corporation) and subsidiaries (together the Company) maintained effective internal control over financial reporting as of December 31, 2006, 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. Our responsibility is to express an opinion on management's assessment and an opinion on the effectiveness of 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, evaluating management's assessment, testing and evaluating the design and operating effectiveness of internal control, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (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.

In our opinion, management's assessment that Advanced Energy Industries, Inc. and subsidiaries maintained effective internal control over financial reporting as of December 31, 2006, is fairly stated, in all material respects, based on criteria established in *Internal Control Integrated Framework* issued by COSO. Also in our opinion, Advanced Energy Industries, Inc. and subsidiaries maintained, in all material respects, effective internal control over financial reporting as of December 31, 2006, based on criteria established in *Internal Control Integrated Framework* issued by COSO. We have also 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, 2006 and 2005, and the related consolidated statements of operations, stockholders' equity and comprehensive income, and cash flows for each of the three years in the period ended December 31, 2006 and our report dated February 15, 2007 expressed an unqualified opinion on those financial statements.

/s/ GRANT THORNTON LLP

Denver, Colorado  
February 15, 2007

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

	December 31,	
	2006	2005
<b>ASSETS</b>		
<b>CURRENT ASSETS:</b>		
Cash and cash equivalents	\$ 58,240	\$ 52,874
Marketable securities	85,978	6,811
Accounts receivable trade, net	71,956	64,900
Inventories, net	52,778	56,199
Deferred income taxes	24,434	
Other current assets	7,341	10,865
Total current assets	300,727	191,649
PROPERTY AND EQUIPMENT, net	33,571	39,294
<b>OTHER ASSETS:</b>		
Deposits and other	2,640	3,808
Goodwill	58,679	61,316
Other intangible assets, net	6,905	8,527
Customer service equipment, net	832	2,407
Deferred income tax assets, net	8,549	3,116
Total assets	\$ 411,903	\$ 310,117

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>2006</b>	<b>2005</b>
<b>LIABILITIES AND STOCKHOLDERS EQUITY</b>		
<b>CURRENT LIABILITIES:</b>		
Trade accounts payable	\$ 16,310	\$ 22,028
Taxes payable	7,741	5,538
Accrued payroll and employee benefits	16,899	8,313
Accrued warranty expense	7,845	6,313
Accrued restructuring charges		616
Other accrued expenses	3,252	2,226
Customer deposits and deferred revenue	751	971
Capital lease obligations, current portion	131	196
Senior borrowings, current portion		1,815
Total current liabilities	52,929	48,016
<b>LONG-TERM LIABILITIES:</b>		
Capital leases, net of current portion	198	270
Senior borrowings, net of current portion		1,909
Deferred income tax liabilities, net	1,971	
Other long-term liabilities	1,015	2,492
Total long-term liabilities	3,184	4,671
Total liabilities	56,113	52,687
<b>COMMITMENTS AND CONTINGENCIES (Note 15)</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; 44,855 and 44,500 shares issued and outstanding at December 31, 2006 and 2005, respectively	45	45
Additional paid-in capital	258,688	253,675
Retained earnings	88,344	22
Deferred compensation		(1,290)
Unrealized holding gains on available-for-sale securities, net	323	1,328
Cumulative translation adjustments	8,390	3,650

Total stockholders' equity	355,790	257,430
Total liabilities and stockholders' equity	\$ 411,903	\$ 310,117

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 OPERATIONS**  
(In thousands, except per share amounts)

	<b>2006</b>	<b>2005</b>	<b>2004</b>
SALES	\$ 410,742	\$ 325,482	\$ 380,537
COST OF SALES	235,524	208,401	265,911
 GROSS PROFIT	 175,218	 117,081	 114,626
 OPERATING EXPENSES:			
Research and development	44,848	39,720	49,004
Selling, general and administrative	62,870	55,681	61,851
Litigation settlement		3,000	
Restructuring charges	111	2,706	3,912
Impairment of intangible assets			3,326
 Total operating expenses	 107,829	 101,107	 118,093
 INCOME (LOSS) FROM OPERATIONS	 67,389	 15,974	 (3,467)
 OTHER INCOME (EXPENSE):			
Interest income	3,659	2,866	1,737
Interest expense	(412)	(8,171)	(11,049)
Foreign currency (loss) gain	(206)	243	1,023
Debt extinguishment expense		(3,180)	
Other income, net	1,636	763	1,033
 Total other income (expense), net	 4,677	 (7,479)	 (7,256)
 Income (loss) from continuing operations before income taxes	 72,066	 8,495	 (10,723)
BENEFIT (PROVISION) FOR INCOME TAXES	15,118	(4,873)	(3,947)
 INCOME (LOSS) FROM CONTINUING OPERATIONS	 87,184	 3,622	 (14,670)
 Gain on sale of discontinued assets	 1,138	 7,855	
Results of discontinued operations		1,340	1,923
 INCOME FROM DISCONTINUED OPERATIONS	 1,138	 9,195	 1,923

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NET INCOME (LOSS)	\$ 88,322	\$ 12,817	\$ (12,747)
BASIC EARNINGS (LOSS) PER SHARE			
Income (loss) from continuing operations	\$ 1.95	\$ 0.10	\$ (0.45)
Income from discontinued operations	\$ 0.03	\$ 0.25	\$ 0.06
NET INCOME (LOSS) PER SHARE	\$ 1.98	\$ 0.35	\$ (0.39)
DILUTED EARNINGS (LOSS) PER SHARE			
Income (loss) from continuing operations	\$ 1.93	\$ 0.10	\$ (0.45)
Income from discontinued operations	\$ 0.03	\$ 0.25	\$ 0.06
NET INCOME (LOSS) PER SHARE	\$ 1.95	\$ 0.34	\$ (0.39)
BASIC WEIGHTED-AVERAGE COMMON SHARES			
OUTSTANDING	44,721	37,084	32,649
DILUTED WEIGHTED-AVERAGE COMMON SHARES			
OUTSTANDING	45,265	37,434	32,649

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)

	Common Stock		Additional	Retained	Deferred	Accumulated	Total
	Shares	Amount	Paid-in	Earnings	Compensation	Other	Stockholders
			Capital	(Accumulated		Comprehensive	Equity
				Deficit)		(Loss)	
						Income	
BALANCES, December 31, 2003	32,573	\$ 33	\$ 142,667	\$ (48)	\$ (60)	\$ 9,242	\$ 151,834
Exercise of stock options for cash	122		1,224				1,224
Sale of common stock through employee stock purchase plan	65		609				609
Amortization of deferred compensation					60		60
Comprehensive loss:							
Equity adjustment from foreign currency translation, net of tax						4,438	
Unrealized holding losses, net of tax						(146)	
Reclassification adjustment for amounts included in net loss related to sales of securities						(294)	
Net loss				(12,747)			
Total comprehensive loss							(8,749)
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	45		348				348

purchase plan Stock-based compensation and amortization, net			1,635		(1,290)		345
Comprehensive income: Equity adjustment from foreign currency translation, net of tax						(8,539)	
Unrealized holding gains, net of tax						1,159	
Reclassification adjustment for amounts included in net loss related to sales of securities						(882)	
Net income				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, net	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	
Unrealized holding gains, net of tax						(40)	

Reclassification adjustment for amounts included in net loss related to sales of securities								(964)
Net income				88,322				
Total comprehensive income								92,057
BALANCES,								
December 31, 2006	44,855	\$ 45	\$ 258,688	\$ 88,344	\$	\$ 8,713	\$	355,790

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>2006</b>	<b>2005</b>	<b>2004</b>
<b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>			
Net income (loss)	\$ 88,322	\$ 12,817	\$ (12,747)
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities -			
Depreciation and amortization	16,451	18,377	21,059
Stock-based compensation expense	3,011	345	60
Demonstration and evaluation equipment write-off			3,752
Benefit (provision) for deferred income taxes	(22,280)	(1,130)	444
Provision for excess and obsolete inventory	2,644	1,689	11,262
Asset impairment charges			3,326
Provision for (recovery of) doubtful accounts	(56)	126	198
Unrealized loss (gain) on foreign currency forward contracts	41	(91)	(107)
Net (gain) on disposal of assets	(1,577)	(7,944)	(864)
Debt extinguishment expense		3,180	
Changes in operating assets and liabilities - Accounts receivable-trade	(5,330)	(1,743)	(8,925)
Inventories	1,553	11,737	(19,783)
Other current assets	2,673	(1,311)	(675)
Accounts payable trade	(5,925)	6,000	(5,849)
Other current liabilities and accrued expenses	7,166	(7,260)	(2,329)
Income taxes payable/receivable, net	1,497	3,307	2,507
Non-current assets	(1,360)	(2,133)	(3,099)
Non-current liabilities	1,477	85	392
 Net cash provided by (used in) operating activities	 88,307	 36,051	 (11,378)
<b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>			
Purchase of marketable securities	(79,441)	(87,175)	(1,208)
Proceeds from sale of marketable securities	1,992	151,697	25,000
Proceeds from sale of assets	539	13,335	2,556
Purchase of property and equipment	(6,142)	(10,825)	(14,019)
 Net cash (used in) provided by investing activities	 (83,052)	 67,032	 12,329
<b>CASH FLOWS FROM FINANCING ACTIVITIES:</b>			
Proceeds from senior borrowings			1,585
Repayment of senior borrowings and capital lease obligations	(4,033)	(3,708)	(8,609)
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	379	348	609
Proceeds from exercise of stock options	2,913	1,659	1,224

Net cash used in financing activities	(741)	(85,972)	(5,191)
EFFECT OF CURRENCY TRANSLATION ON CASH	852	(2,641)	1,122
INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	5,366	14,470	(3,118)
CASH AND CASH EQUIVALENTS, beginning of year	52,874	38,404	41,522
CASH AND CASH EQUIVALENTS, end of year	\$ 58,240	\$ 52,874	\$ 38,404

SUPPLEMENTAL DISCLOSURE OF CASH FLOW  
INFORMATION:

Cash paid for interest	\$ 413	\$ 9,292	\$ 9,949
Cash paid for income taxes	\$ 5,665	\$ 3,035	\$ 1,227
Assets sold for note receivable	\$	\$	\$ 1,842

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 condensed 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 other 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** The Company's standard shipping term is freight on board (FOB) shipping point, for which revenue is recognized upon shipment of its products, at which time title passes to the customer, the price is fixed and collectibility is reasonably assured. For certain customers, the Company has FOB destination terms, for which 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 certain 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 FOB shipping point terms, after its products are received by customers under FOB 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 protections to its customers or allow returns, unless covered by its 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 operations. 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 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 statements of operations. The Company recorded charges for excess and obsolete inventory of \$2.6 million in 2006, \$1.7 million in 2005 and \$11.3 million in 2004.

*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 operations.

The Company recorded warranty charges of \$12.9 million, \$11.2 million and \$10.5 million in 2006, 2005 and 2004, respectively.

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 \$1.8 million, \$2.1 million and \$2.0 million in 2006, 2005 and 2004, respectively.

The following summarizes the activity in the Company's warranty reserves during 2006 and 2005:

	<b>2006</b>	<b>2005</b>
	<b>(In thousands)</b>	
Balance at beginning of period	\$ 6,313	\$ 6,791
Additions charged to expense	11,087	9,116
Deductions	(9,555)	(9,594)
Balance at end of period	\$ 7,845	\$ 6,313

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

**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.

**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 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 is amortized over the requisite service period, typically the vesting period, of the award on a straight-line basis. See Note 2 Stock-Based Compensation, for discussion of the impact of adoption and additional disclosures.

**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.

*MARKETABLE SECURITIES* The Company's investment in marketable securities, includes commercial paper, municipal bonds and notes and institutional money markets. These 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 the Balance Sheet in other comprehensive income (loss), net of tax. Due to the short-term, highly liquid nature of the marketable securities held by the Company, the cost, including accrued interest on such investments, approximates fair value. Unrealized gains and losses are reclassified out of accumulated other comprehensive income as realized gains and losses using the specific indemnification method.

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The Company also has investments in marketable equity securities which have been included in deposits and other in the accompanying consolidated balance sheets, due to the Company's expressed intent and demonstrated ability to hold for greater than one year. These investments are classified as available-for-sale securities and are reported at fair value with unrealized holding gains and losses included in other comprehensive income (loss), net of tax.

**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 upon acquisition. Depreciation is computed using the straight-line method over thirty-five 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 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 operations. 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 and certain other intangible assets with indefinite lives are not amortized. Instead, goodwill and other indefinite-lived intangible assets are subject to periodic (at least annual) tests for impairment. For the periods presented, the Company does not have any indefinite-lived intangible assets, other than goodwill. 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.

**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 operations 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.

**ADVERTISING** In accordance with Statement of Position 93-7 Reporting on Advertising Costs, the Company expenses advertising costs as incurred. Total advertising cost was \$600,000 in both 2006 and 2005 and \$1.4 million in 2004.

*RECENT ACCOUNTING PRONOUNCEMENTS* In July 2006, the Financial Accounting Standards Board (the FASB ) issued FASB Interpretation ( FIN ) No. 48, Accounting for Uncertainty in Income Taxes an interpretation of FASB Statement No. 109 , which clarifies the accounting for uncertainty in tax positions. FIN No. 48 prescribes a comprehensive model for how a company should recognize, measure, present, and disclose in its financial statements uncertain tax positions that it has taken or expects to take on a tax return. The provisions of FIN No. 48 are effective as of the beginning of the Company s fiscal year beginning January 1, 2007, with the cumulative effect of the change in accounting principle recorded as an adjustment to opening retained earnings. The Company is currently evaluating the impact of adopting FIN No. 48 and at this time has not determined what the impact will be.

In September 2006, the Securities and Exchange Commission issued Staff Accounting Bulletin No. 108 (SAB 108). Due to diversity in practice among registrants, SAB 108 expresses SEC staff views regarding the process by which misstatements in financial statements are evaluated for purposes of determining whether financial statement restatement is necessary. SAB 108 is effective for fiscal years ending after November 15, 2006, and early application is encouraged. The adoption of SAB 108 did not have an impact on our financial position, results of operations or cash flows.

In September 2006, the FASB issued Statement No. 158, *Employers Accounting for Defined Benefit Pension and Other Postretirement Plans, an amendment of FASB Statements No. 87, 88, 106, and 132(R)* ( FAS 158 ). Among other items, FAS 158 requires recognition of the overfunded or underfunded status of an entity s defined benefit postretirement plan as an asset or liability

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in the financial statements, requires the measurement of defined benefit postretirement plan assets and obligations as of the end of the employer's fiscal year, and requires recognition of the funded status of defined benefit postretirement plans in other comprehensive income. FAS 158 is effective for fiscal years ending after December 15, 2006, and early application is encouraged. The adoption of FAS 158 did not have a material impact on the Company's financial position, results of operations or cash flows.

**(2) STOCK-BASED COMPENSATION***Implementation of SFAS No. 123(R)*

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 operations 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 \$3.0 million in year ended December, 2006 and \$345,000 and \$60,000 in the years ended December 31, 2005 and 2004, respectively, of stock-based compensation expense recognized prior to the adoption of SFAS No. 123(R). Included in these amounts are expenses related to RSUs of \$825,000 and \$305,000 in the years ended December 31, 2006 and 2005, respectively. The 2005 RSU amount was included in the Company's condensed consolidated statements of operations under the provisions of APB Opinion No. 25. The expense related to RSUs is therefore excluded from the impact of the adoption of SFAS No. 123(R). 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.



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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)	<b>2005</b>	<b>2004</b>
Net (loss) income:		
As reported	\$ 12,817	\$ (12,747)
Adjustment for stock-based compensation determined under fair value-based method for all awards (a), (b) (d)	(13,551)	(12,133)
Adjustment for compensation expense recognized in net income (a) (c)	345	60
As adjusted	\$ (389)	\$ (24,820)
Basic earnings per share:		
As reported	\$ 0.35	\$ (0.39)
As adjusted	\$ (0.01)	\$ (0.76)
Diluted earnings per share:		
As reported	\$ 0.34	\$ (0.39)
As adjusted	\$ (0.01)	\$ (0.76)

(a) Compensation expense in 2005 and 2004 is presented prior to income tax effects due to the Company fully reserving against the related deferred tax assets in those periods.

(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. Compensation expense in 2004 represents expense associated with employee option grants made by a shareholder of Sekidenko, Inc. (prior to its acquisition by the Company in August 2000) to employees under a preexisting arrangement to purchase shares of his common stock already outstanding at

exercise prices below fair value. The options fully vested during the first quarter of 2004.

- (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.

For pro forma purposes, 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:

	<b>2005</b>	<b>2004</b>
<b>OPTIONS:</b>		
Risk-free interest rates	3.7%	3.1%
Expected dividend yield rates	0.0%	0.0%
Expected lives	3.8 years	3.0 years
Expected volatility	74.1%	75.2%
<b>ESPP:</b>		
Risk-free interest rates	2.9%	1.7%
Expected dividend yield rates	0.0%	0.0%
Expected lives	0.5 years	0.5 years
Expected volatility	59.6%	65.3%

*Stock Plans and ESPP*

As of December 31, 2006, 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

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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 3,250,000 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 options are exercisable for 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 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, 2006, approximately 1.1 million shares of common stock were available for grant under this plan.

**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 250,000 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 5,000 RSUs on the date first elected or appointed as a member of the Company's board, and 2,000 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. On July 24, 2006, the Company's independent compensation consultant presented to the Board of Directors the consultant's report on, among other things, non-employee director compensation. Based on the data contained in such report, it was determined to revise the equity component of the non-employee director compensation structure to increase the number of restricted stock units to be granted to non-employee directors upon initial election or appointment to the board and upon re-election. It was also determined to make a one-time grant of restricted stock units to each of the incumbent non-employee directors who is re-elected at the next Annual Meeting of Stockholders, which will likely be held in May 2007. As of December 31, 2006, 105,000 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 years ended December 31, 2006, 2005 and 2004 are presented below:

	2006		2005		2004	
	Shares	Weighted-average Exercise Price	Shares	Weighted-average Exercise Price	Shares	Weighted-average Exercise Price
(In thousands, except share prices)						
Stock options:						
Employees						
Options outstanding at beginning of period	3,183	\$ 19.22	4,527	\$ 19.53	3,920	\$ 19.95
Options granted	426	16.18	404	7.99	1,196	16.99
Options exercised	(274)	9.65	(195)	8.41	(117)	9.52
Options cancelled	(402)	23.12	(1,553)	18.55	(472)	19.09
	2,933	19.09	3,183	19.22	4,527	19.53

Options outstanding at end of period						
Options exercisable at end of period	2,160	21.37	2,540	21.81	1,943	22.70
Weighted-average fair value of options granted during the period		\$ 9.90		\$ 4.42		\$ 8.40
Price range of outstanding options	\$ 7.15-\$60.75		\$ 3.88-\$60.75		\$ 3.11-\$60.75	
Price range of options terminated	\$ 3.88-\$56.13		\$ 3.11-\$60.75		\$ 0.83-\$60.75	
Non-employee directors						
Options outstanding at beginning of period	183	\$ 14.58	172	\$ 15.81	104	\$ 19.00
Granted			40	11.68	85	13.62
Exercised	(30)	11.02	0		(5)	10.67
Terminated	(25)	26.41	(29)	17.95	(12)	51.10
Options outstanding at end of period	128	13.21	183	14.58	172	15.81
Options exercisable at end of period	123	13.22	158	15.18	122	16.94
Weighted-average fair value of options granted during the period				\$ 8.13		\$ 9.67
Price range of outstanding options	\$ 8.25-\$46.13		\$ 6.13-\$46.13		\$ 6.13-\$46.13	
Price range of options terminated	\$ 6.13-\$45.90		\$ 6.15-\$22.30		\$ 6.15-\$64.94	

The total intrinsic value of options exercised during the years ended December 31, 2006, 2005 and 2004 was \$1.8 million,

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\$700,000 and \$875,000, respectively, determined as of the exercise date. As of December 31, 2006, there was \$4.1 million of total unrecognized compensation cost related to stock options granted and outstanding, which is expected to be recognized through fiscal year 2010, with a weighted average remaining vesting period of 1.5 years. Cash received from stock option exercises was \$2.9 million during the year ended December 31, 2006.

The following table summarizes information about the stock options outstanding at December 31, 2006: (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 \$7.61	311	7.4 years	\$ 7.33	148	\$ 7.47
\$ 7.70 to \$9.56	428	6.6 years	8.81	315	8.55
\$ 9.97 to \$14.40	313	7.0 years	11.74	202	11.81
\$14.50 to \$16.13	321	8.8 years	15.92	31	14.50
\$16.27 to \$18.00	313	6.8 years	17.62	211	17.86
\$18.08 to \$22.30	544	6.9 years	21.04	544	21.04
\$22.52 to \$24.90	335	6.1 years	23.47	335	23.47
\$26.12 to \$38.55	397	4.3 years	33.18	397	33.18
\$43.69 to \$46.13	66	3.1 years	43.83	67	43.83
\$60.75 to \$60.75	33	3.53 years	60.75	33	60.75
	3,061	6.6 years	\$18.86	2,283	\$20.93

For SFAS No. 123(R) purposes, 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:

	<b>2006</b>
Risk-free interest rates	4.7%
Expected dividend yield rates	0.0%
Expected lives	5.5 years
Expected volatility	65.5%
Expected forfeiture rate	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, 2006 and 2005, and changes during the year then ended are presented below:

(In thousands, except fair values)	<b>2006</b>		<b>2005</b>	
	Shares	Weighted-average Grant-date Fair Value	Shares	Weighted-average Grant-date Fair Value
Non-vested RSUs outstanding at December 31, 2005	235	\$ 7.72		

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RSUs granted	191	15.44	280	7.65
RSUs vested	(24)	7.74	(45)	7.17
RSUs forfeited	(26)	11.01		
Non-vested RSUs outstanding at December 31, 2006	376	11.42	235	\$ 7.72

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, 2006, there was \$2.8 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 2.6 years. During the years ended December 31, 2006, the total fair value of RSUs which vested was \$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 )*

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**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, 2006, approximately 114,000 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, 2006, there was \$55,000 of total unrecognized compensation cost related to the ESPP that is expected to be recognized over a remaining period of five months.

For pro forma purposes, 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:

	<b>2006</b>
<b>ESPP:</b>	
Risk-free interest rates	4.8%
Expected dividend yield rates	0.0%
Expected lives	0.5 years
Expected volatility	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 operations. 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 2.7% of annual consolidated sales in 2003, 1.6% in 2004 and 1.8% through its sale on June 24, 2005. Due to the insignificant impact of the EMCO product line on the Company's results of operations, such results are included in income from operations in the accompanying consolidated statements of operations.

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 operations. 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:



<b>(in thousands)</b>	<b>2006</b>	<b>2005</b>	<b>2004</b>
Sales		\$11,581	\$14,768
Cost of sales		6,505	9,715
Operating expenses		3,736	3,130
<b>(4) RESTRUCTURING COSTS</b>			

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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.

The following table summarizes the components of the restructuring charges, the payments and non-cash charges, and the remaining accrual as of December 31, 2006, 2005 and 2004:

	<b>Employee Severance and Termination Costs</b>	<b>Facility Closure Costs</b>	<b>Impairment of Facility- related Assets (In thousands)</b>	<b>Total Restructuring Charges</b>
Accrual balance December 31, 2003	\$ 560	\$ 2,615		\$ 3,175
First quarter 2004 restructuring charge	220			220
Second quarter 2004 restructuring charge	187			187
Third quarter 2004 restructuring charge	57	31		88
Third quarter 2004 restructuring reversal	(127)	(126)		(253)
Fourth quarter 2004 restructuring charge	3,639	31		3,670
Total net restructuring charges 2004	3,976	(64)		3,912
Payments in 2004	(1,243)	(1,430)		(2,673)
Accrual balance December 31, 2004	3,293	1,121		4,414
First quarter 2005 restructuring charge	1,262			1,262
Second quarter 2005 restructuring charge	475	4	589	1,068
Third quarter 2005 restructuring charge	202	31	157	390
Third quarter 2005 restructuring reversal	(180)			(180)
Fourth quarter 2005 restructuring charge	135	31		166
Total net restructuring charges 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

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First quarter 2006 restructuring charge		29		29
Second quarter 2006 restructuring charge		31		31
Fourth quarter 2006 restructuring charge		31		31
Third quarter 2006 restructuring charge		30		30
Fourth quarter 2006 restructuring reversal		(10)		(10)
Total net restructuring charges 2006		111		111
Payments and other settlements in 2006	(130)	(597)		(697)
Accrual balance December 31, 2006	\$	\$	\$	\$

At the end of 2002, the Company announced major changes in its operations to occur through the end of 2003. These included establishing a new manufacturing facility in China, consolidating worldwide sales forces, a move to lower-cost Asian suppliers and the intention to close or sell certain facilities.

Associated with the above plan, the Company recognized charges during 2003 as follows:

In the first quarter of 2003, the Company recorded charges totaling approximately \$1.5 million primarily associated with manufacturing and administrative personnel headcount reductions in the Company's Japanese operations. In accordance with Japanese labor regulations the Company offered voluntary termination benefits to all of its Japanese employees. The voluntary termination benefits were accepted by 36 employees, with termination dates in the second quarter of 2003.

In the second quarter of 2003, the Company recognized charges totaling \$768,000 that consisted primarily of the involuntary termination of 55 manufacturing and administrative personnel in the Company's United States operations.

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In the third quarter of 2003, the Company recognized charges of approximately \$1.0 million that consisted of \$704,000 of expense for involuntary employee termination benefits for 20 employees and \$307,000 related to asset impairments incurred as a result of exiting its Longmont, Colorado manufacturing facilities.

In the fourth quarter of 2003, the Company recognized approximately \$1.0 million that consisted primarily of the recognition of expense for involuntary employee termination benefits associated with the involuntary employee termination benefits of 34 manufacturing and administrative personnel in the Company's United States operations.

In the first, second and third quarters of 2004, the Company recorded restructuring charges of \$220,000, \$187,000 and \$88,000, respectively, which primarily consisted of the recognition of expense for involuntary employee termination benefits associated with headcount reductions of approximately 34, 12 and 4 employees, respectively, in the Company's United States operations. All affected employees were terminated prior to the respective quarter ends. Additionally, in the third quarter, the Company reversed \$253,000 of previously recorded charges due to variances from the original estimates used to establish the Company's reserve due to some voluntary employee terminations prior to their agreed upon termination date (no longer meeting the requirements to receive a severance payment) and negotiated lease termination payments below original estimates. As a result of such reversal, the Company's restructuring accrual balance for employee severance and termination costs was \$0 at September 30, 2004.

In the fourth quarter of 2004, the Company recorded restructuring charges of \$3.7 million. The \$3.7 million charge primarily consisted of employee termination and related costs associated with the involuntary severance of 212 employees, including 60 agency employees, at the Company's Fort Collins facility. All of such charges relate to separation costs anticipated to be paid to the terminated employees, in cash, by the end of the second quarter of 2005. The need to reduce headcount in Fort Collins resulted primarily from the transfer of a substantial portion of the Company's manufacturing operations to Shenzhen, China.

Related to this operational restructuring, and the transition of 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 \$1.3 million in the first quarter of 2005, \$475,000 in the second quarter, \$202,000 in the third quarter and \$135,000 in the fourth quarter. 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 have been reversed. The Company paid the remaining accrual for employee severance and termination costs of approximately \$130,000 in the first quarter of 2006.

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

The remaining facility closure cost liability was paid over the remaining lease term which expired at the end of 2006 and is reflected net of sublease income of \$51,000.

**(5) MARKETABLE SECURITIES**

Marketable securities consisted of the following:

	<b>December 31,</b>	
	<b>2006</b>	<b>2005</b>
	<b>(In thousands)</b>	
Commercial paper	\$ 29,910	\$ 4,639
Certificates of deposit	3,404	
Municipal/Corporate bonds and notes	51,193	1,901
Institutional money markets	1,471	271
Total marketable securities	\$ 85,978	\$ 6,811

These marketable securities are considered available-for-sale and are stated at period end market value. The commercial paper consists of high-credit quality, short-term money market common and preferreds, with maturities or reset dates of 120 days or less.

The Company also had investments in marketable equity securities which are included in deposits and other in the accompanying consolidated balance sheets of \$1.2 million, \$2.9 million and \$3.6 million at December 31, 2006, 2005 and 2004, respectively. These investments are classified as available-for-sale securities and are reported at fair value with unrealized holding gains and losses included in other comprehensive loss, net of tax. The Company had realized gains on the sales of stock investment securities of \$1.7 million, \$1.1 million and 703,000 in 2006, 2005 and 2004, respectively.

**Table of Contents****(6) ACCOUNTS RECEIVABLE TRADE**

Trade accounts receivable consisted of the following:

	<b>December 31,</b>	
	<b>2006</b>	<b>2005</b>
	<b>(In thousands)</b>	
Domestic	\$ 32,043	\$ 21,797
Foreign	40,458	43,748
Allowance for doubtful accounts	(545)	(645)
Total accounts receivable trade	\$ 71,956	\$ 64,900

**(7) INVENTORIES**

Inventories consisted of the following:

	<b>December 31,</b>	
	<b>2006</b>	<b>2005</b>
	<b>(In thousands)</b>	
Parts and raw materials	\$ 39,515	\$ 42,090
Work in process	3,190	3,982
Finished goods	10,073	10,127
Total inventories	\$ 52,778	\$ 56,199

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 \$8,594 and \$10,558 at December 31, 2006 and 2005, respectively.

**(8) PROPERTY AND EQUIPMENT AND CUSTOMER SERVICE EQUIPMENT**

Property and equipment consisted of the following:

	<b>December 31,</b>	
	<b>2006</b>	<b>2005</b>
	<b>(In thousands)</b>	
Land	\$ 4,489	\$ 4,513
Buildings	4,070	3,030
Machinery and equipment	42,667	41,033
Computer and communication equipment	32,039	33,123
Furniture and fixtures	6,062	5,223
Vehicles	643	646
Leasehold improvements	21,808	22,392
	111,778	109,960
Less accumulated depreciation	(78,207)	(70,666)
Total property and equipment	\$ 33,571	\$ 39,294

Aggregate depreciation expense related to property and equipment was \$12.1 million in 2006, \$12.8 million in 2005 and \$13.7 million in 2004.

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 \$9.9 million and 10.8 million at December 31, 2006 and 2005, respectively and accumulated amortization for this equipment was \$9.1 million, and \$8.4 million at December 31, 2006 and 2005, respectively

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

Goodwill and other intangible assets consisted of the following as of December 31, 2006:

	<b>Gross</b>	<b>Effect of Changes in</b>		<b>Net</b>	<b>Weighted-</b>
	<b>Carrying</b>	<b>Exchange</b>	<b>Accumulated</b>	<b>Carrying</b>	<b>Average</b>
	<b>Amount</b>	<b>Rates</b>	<b>Amortization</b>	<b>Amount</b>	<b>Useful</b>
	<b>(In thousands, except weighted-average useful life)</b>				<b>Life</b>
					<b>in Years</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	

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Goodwill and other intangible assets consisted of the following as of December 31, 2005:

	<b>Gross</b>	<b>Effect of Changes in</b>		<b>Net</b>	<b>Weighted- Average Useful Life in Years</b>
	<b>Carrying Amount</b>	<b>Exchange Rates</b>	<b>Accumulated Amortization</b>	<b>Carrying Amount</b>	
	<b>(In thousands, except weighted-average useful life)</b>				
Amortizable intangibles:					
Technology-based	\$ 7,000	\$ 1,354	\$ (6,322)	\$ 2,032	5
Trademarks and other	8,500	1,613	(3,618)	6,495	17
<b>Total amortizable intangibles</b>	<b>15,500</b>	<b>2,967</b>	<b>(9,940)</b>	<b>8,527</b>	<b>12</b>
<b>Goodwill</b>	<b>53,589</b>	<b>7,727</b>		<b>61,316</b>	
<b>Total goodwill and other intangible assets</b>	<b>\$ 69,089</b>	<b>\$ 10,694</b>	<b>\$ (9,940)</b>	<b>\$ 69,843</b>	

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.

Aggregate amortization expense related to amortizable intangibles was \$1.8 million in 2006, \$2.1 million in 2005 and \$3.9 million in 2004. 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 2007 through 2011 is as follows (in thousands):

	<b>Estimated Amortization Expense (in thousands)</b>
2007	\$ 958
2008	833
2009	521
2010	418
2011	418

In the fourth quarter of 2006, 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.

During the fourth quarter of 2004, in conjunction with our financial forecasting for future periods, it was evident that projected cash flows from certain customers of the Dressler product line were substantially below amounts previously projected. The projected cash flows were considered in determining the fair value of certain contract-based



and other amortizable intangible assets recorded at acquisition and also in subsequent periods to assess such assets for potential impairment. Due to the decline in projected cash flows, the Company performed assessments of the carrying values of the related amortizable intangible assets. These assessments consisted of estimating the intangible asset's fair value and comparing the estimated fair value to the carrying value of the asset. The Company estimated the intangible asset's fair value through the use of projected cash flows based upon projected revenue streams over the life of the asset, discounted at rates consistent with the risk of the related cash flows. Based on this analysis the Company determined that the fair values of certain intangible assets were below the respective carrying values, and recorded impairment charges of approximately \$2.9 million, which has been reported as an impairment of intangible assets in the accompanying consolidated statement of operations.

Also during the fourth quarter of 2004, in conjunction with the Company's restructuring plan, employees who were the subject of certain contract-based amortizable intangibles left the Company or their responsibilities were significantly altered. As a result, the Company performed assessments of the carrying values of the related amortizable intangible assets. These assessments consisted of estimating the intangible asset's fair value and comparing the estimated fair value to the carrying value of the asset. The Company estimated the intangible asset's fair value through the use of a lost profits method of determining the fair value, arriving at projected cash flows which were then discounted at rates consistent with the risk of the related cash flows. Based on this analysis the Company determined that the fair values of certain intangible assets were below the respective carrying values, and recorded impairment charges of approximately \$397,000, which has been reported as an impairment of intangible assets in the accompanying consolidated statement of operations.

**Table of Contents****(10) SENIOR BORROWINGS**

Senior borrowings consisted of the following:

	<b>December 31,</b>	
	<b>2006</b>	<b>2005</b>
	<b>(In thousands)</b>	
Unsecured revolving line of credit of \$25 million at December 31, 2006, expiring July 2007, interest at bank's prime rate minus 1%, at December 31, 2006. Secured revolving line of credit of \$40 million at December 31, 2005.	\$	\$
Senior borrowings (assumed in the acquisition of Aera Japan Limited), maturing serially through May 2007, interest from 1.5% to 3.1% at December 31, 2005		2,084
Mortgage note payable, maturing July 2007, interest at 5.5% at December 31, 2005		1,640
Less current portion		(1,815)
 Senior borrowings, net of current portion	 \$	 \$ 1,909

Our borrowings under the line of credit agreement are limited based upon letters of credit outstanding under this agreement and the lenders borrowing base calculation, which considers among other factors, our accounts receivable and inventory balances. As a condition of borrowing and maintaining an outstanding balance under the line of credit, we are subject to covenants that provide certain restrictions related to working capital, net worth, acquisitions and payment and declaration of dividends. We were in compliance with all such covenants and \$20.9 million was available for use under this line at December 31, 2006.

**(11) CONVERTIBLE SUBORDINATED NOTES PAYABLE**

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 operations 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.

**(12) 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, 2006 and 2005, stock options and restricted stock units totaling approximately 3.5 million and 3.6 million, respectively, were outstanding, of which 2.9 million and 3.3 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. Due to the Company's net loss for the year ended December 31, 2004 basic and diluted EPS are the same, as the assumed conversion of all potentially dilutive securities would be anti-dilutive. For the year ended December 31, 2004, the effect of potential conversion of the Company's convertible subordinated notes payable was not included in this computation because to do so would be anti-dilutive.

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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, 2006, 2005 and 2004:

<b>(In thousands, except per share data)</b>	<b>Years Ended December 31,</b>		
	<b>2006</b>	<b>2005</b>	<b>2004</b>
<b>Earnings (loss) per common share basic</b>			
Net income (loss)	\$ 88,322	\$ 12,817	\$ (12,747)
Weighted average common shares outstanding	44,721	37,084	32,649
Earnings (loss) per common share basic	\$ 1.98	\$ 0.35	\$ (0.39)
<b>Earnings (loss) per common share assuming dilution</b>			
Net income (loss)	\$ 88,322	\$ 12,817	\$ (12,747)
Weighted average common shares outstanding	44,721	37,084	32,649
Effect of dilutive securities:			
Stock options and restricted stock units	544	350	
Potentially dilutive common shares	544	350	
Adjusted weighted average common shares outstanding	45,265	37,434	32,649
Earnings (loss) per common share assuming dilution	\$ 1.95	\$ 0.34	\$ (0.39)

**(13) 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. Since 2003, the Company has recorded 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

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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 year. Approximately \$5.3 million of net deferred tax assets at December 31, 2006 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. Additionally, approximately \$3.0 million of the December 31, 2006 valuation allowance relates to the benefit from stock-based compensation. Any reversal of valuation allowance from this item will be reflected as a component of stockholders' equity.

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.

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 established in purchase accounting was reversed with a corresponding reduction in goodwill.

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% and the income tax provision of \$3.9 million in 2004 represents an effective tax rate on income from continuing operations of negative 37%, 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.

The provision (benefit) for income taxes for the years ended December 31, 2006, 2005 and 2004 was, as follows:

	<b>2006</b>	<b>December 31, 2005</b>	<b>2004</b>
	<b>(In thousands)</b>		
Federal	\$ (18,719)	\$ 700	\$
State and local	(2,120)	300	
Foreign taxes	5,721	3,873	3,947
	\$ (15,118)	\$ 4,873	\$ 3,947
Current	\$ 7,162	\$ 6,003	\$ 3,503
Deferred	(22,280)	(1,130)	444
	\$ (15,118)	\$ 4,873	\$ 3,947

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>2006</b>	<b>December 31, 2005</b>	<b>2004</b>
		<b>(In thousands)</b>	
Income tax benefit (provision) per federal statutory rate	\$ 25,223	\$ 2,973	\$ (3,753)
State income taxes, net of federal deduction	889	2	(810)
Effect of discontinued operations	398	3,219	673
Extraterritorial income exclusion	(1,543)	(1,050)	(350)
Nondeductible intangible and goodwill amortization	2	2	98
Other permanent items, net	(1,688)	(361)	(514)
Effect of foreign taxes	(581)	(2,135)	(415)
Change in valuation allowance	(39,283)	283	7,884
Tax credits and other items	1,465	1,940	1,134
	\$ (15,118)	\$ 4,873	\$ 3,947

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

	<b>December 31,</b>	
	<b>2006</b>	<b>2005</b>
	<b>(In thousands)</b>	
Current:		
Employee bonuses and commissions	\$ 429	\$ 250
Warranty reserve	2,877	2,357
Bad debt reserve	76	242
Vacation accrual	1,152	866
Restructuring accrual		237
Excess and obsolete inventory	3,292	4,345
Other	3,539	1,540
Net operating loss and tax credit carryforward	13,069	
Valuation allowance (a)		(9,837)
Net current	24,434	
Long-term:		
Net operating loss and tax credit carryforward	14,985	44,637
Accumulated other comprehensive income		(1,947)
Depreciation and amortization	(173)	(575)
Other, net	277	2,013
Valuation allowance (a)	(8,511)	(41,012)
Net long-term	\$ 6,578	\$ 3,116
Total deferred tax assets and liabilities	\$ 31,012	\$ 3,116

(a) Valuation allowance represents a reserve against the recovery of certain deferred tax assets.

The following reconciles the change in the net deferred income tax assets and liabilities from December 31, 2005 to December 31, 2006, to the deferred income tax provision:

	<b>2006</b>
	<b>(In thousands)</b>
Net change in deferred income tax assets and liabilities from the preceding table	\$ (27,896)
Net change in deferred tax assets and liabilities associated with foreign currency fluctuation	(35)
Net change in deferred tax assets and liabilities associated with purchase accounting reduction in Goodwill	3,704

Increase in deferred tax assets and liabilities associated with other comprehensive income	1,947
Deferred income tax provision for the period	\$ (22,280)

As of December 31, 2006, the Company had a gross federal net operating loss, alternative minimum tax credit and research and development credit carryforwards of approximately \$56.3 million, \$2.6 million and \$2 million, respectively, which may be available to offset future federal income tax liabilities. 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, 2025, the alternative minimum tax credit carryforward has no expiration date. In addition, as of December 31, 2006, the Company had a gross foreign net operating loss carryforward of \$1.8 million, which may be available to offset future foreign income tax liabilities and expire at various dates through December 31, 2011.

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.

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The domestic versus foreign component of the Company's income (loss) from continuing operations before income taxes for the years ended December 31, 2006, 2005 and 2004, was as follows:

	2006	December 31, 2005 (In thousands)	2004
Domestic	\$ 44,064	\$ (4,772)	\$ (22,648)
Foreign	28,002	13,267	11,925
	\$ 72,066	\$ 8,495	\$ (10,723)

**(14) 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 years ended December 31, 2004, 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 \$600,000, \$633,000 and \$698,000 in 2006, 2005 and 2004, 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.

**(15) 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). This case was transferred by the Colorado court to the United States District Court for the District of Delaware for consolidation with a patent infringement suit filed in that court by MKS in May 2003, alleging that the Company's Xstream products infringe five patents held by MKS. On July 23, 2004, a jury returned a verdict of infringement of three MKS patents, which did not stipulate damages. On October 3, 2005, the Company executed a settlement agreement with MKS resolving all pending claims involving the Xstream products and all other toroidal plasma generator products. Pursuant to the settlement agreement, the Company paid \$3.0 million in cash to MKS. The Company also stipulated to a final judgment of infringement and an injunction prohibiting the Company from making, using, selling, offering to sell, or importing into the United States, or any country in which a counterpart patent exists, its 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 the Company's total sales each year since introduction of the products.

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 August 4, 2004, this court dismissed MKS's petition and assessed costs of the proceeding against MKS. MKS refiled an infringement petition in the District



Court of Mannheim. On April 8, 2005, the Mannheim court issued a judgment against the Company for infringement of MKS's patent, which did not specify damages. The action was dismissed pursuant to the settlement agreement referenced above in connection with the Xstream products litigation in the United States. A petition for invalidity of MKS's patent brought by the Company was also dismissed.

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. Pursuant to the settlement agreement referenced above in connection with the Xstream products litigation, the Company agreed to not refile its claims related to MKS's Astron reactive gas source products.

On September 19, 2005, the Korean Customs Service ( KCS ) issued Taxation Notifications concerning back duties and value added taxes allegedly owed on goods imported by the Company's Korean subsidiary. No date for a ruling has been set and the Company does not expect the amount of any settlement to exceed the amount accrued for this dispute.

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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. An estimated settlement of \$350,000 has been accrued as a contingency.

**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, \$5.9 million and \$6.2 million in 2006, 2005 and 2004, respectively.

The future minimum rental payments required under non-cancelable operating leases as of December 31, 2006 are as follows:

	<b>(In thousands)</b>
2007	\$ 5,557
2008	4,947
2009	3,831
2010	2,724
2011	1,758
Thereafter	6,060
	\$ 24,877

**CAPITAL LEASES**

The Company finances a portion of its property and equipment under capital lease obligations at interest rates averaging approximately 3%. The future minimum lease payments under capital lease obligations as of December 31, 2006 are as follows:

	<b>(In thousands)</b>
2007	\$ 131
2008	101
2009	72
2010	35
2011	5
Total minimum lease payments	344
Less amount representing interest	(15)
Less current portion	(131)
	\$ 198

**(16) 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>2006</b>	<b>2005</b>	<b>2004</b>
Sales (1):			
Originating in United States and sold to United States customers	\$ 150,086	\$ 163,657	\$ 197,540
Originating in United States and sold to foreign customers	19,346	19,134	37,378

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Originating in Europe and sold to United States customers			115
Originating in Europe and sold to foreign customers	28,598	26,432	36,151
Originating in Asia Pacific and sold to United States customers	84,752		608
Originating in Asia Pacific and sold to foreign customers	127,960	116,259	108,745
	\$ 410,742	\$ 325,482	\$ 380,537
Income (loss) from operations:			
United States	\$ 38,678	\$ 709	\$ (15,526)
Europe	6,678	1,868	(1,540)
Asia	21,318	12,285	13,508
Intercompany eliminations	715	1,112	91
	\$ 67,389	\$ 15,974	\$ (3,467)

	<b>2006</b>	<b>2005</b>
Long-lived assets:		
United States	\$ 14,954	\$ 19,813
Europe	2,276	1,667
Asia	18,616	21,144
	\$ 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, 2006, 2005 and 2004:

	<b>December 31,</b>		
	<b>2006</b>	<b>2005</b>	<b>2004</b>
Applied Materials, Inc	30%	23%	28%
Ulvac, Inc.	*	11%	*

\*

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

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There were no other customers that represented greater than 10% of the Company's total sales for the years ended December 31, 2006, 2005 and 2004.

Trade accounts receivable from Applied Materials, Inc. were approximately \$12.7 and \$10.2 million as of December 31, 2006 and 2005, respectively, which represented approximately 18% and 22% 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, 2006.

A portion of the Company's Chinese subsidiaries earnings may be limited as to the amount that can be distributed out of that country under Chinese law.

**(17) 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 \$89,000, \$72,000 and \$89,000, respectively.

For the year ended December 31, 2006, approximately \$3.2 million was paid attributable to these leases, and approximately \$2.9 and \$2.8 million in each of the years ended December 31, 2005 and 2004, respectively. Rent and related amounts are expensed as incurred.

The Company also had an agreement, which was terminated 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, \$144,000 and \$132,000 was paid attributable to this agreement in the years ended December 31, 2006, 2005 and 2004, respectively.

The Company leased, for business purposes, a condominium owned by a partnership of certain stockholders, including the Company's Chairman of the Board of Directors. The Company paid the partnership \$10,000 in 2004. In February 2004, this lease agreement was terminated.

Prior to 2005, the Company reimbursed expenses associated with its use of an aircraft owned by a company, which is owned by the Company's Chairman of the Board of Directors. Aggregate payments for the use of such aircraft were \$16,000 in 2004.

There were no related party balances outstanding of December 31, 2006 and 2005.

**(18) 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, 2006 maturing through January 2007. Unrealized gains and losses are recorded on the Balance Sheet in accumulated other comprehensive income. The Company did not seek specific hedge accounting treatment for its foreign currency forward contracts.

At December 31, 2006, 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:			

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British pound contract	\$ 700	\$ 695	\$ 5
Chinese yuan contract	500	499	1
European Euro contract	1,000	994	6
South Korean won contract	100	98	2
Taiwanese dollar contract	4,000	4,001	(1)
Sales contract:			
Japanese yen contract	2,400	2,346	(54)
			\$ (41)

*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, 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. To date, the Company has not experienced significant losses on these investments. The Company performs ongoing credit evaluations of its customers' financial condition and generally requires no collateral. Because

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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.

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

The Company's financial instruments include cash, trade receivables, trade payables, marketable securities, short-term and long-term debt, and foreign currency forward exchange contracts (see Note 18). 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 Notes 1 and 5).

**(20) SUPPLEMENTAL CASH FLOW DISCLOSURES**

As of December 31, 2006, approximately \$29.3 million of the Company's cash balance is held in banks outside of the United States.

*Assets sold for note receivable:* In the first quarter of 2004, the Company made a strategic decision to further focus its marketing and product support resources on its core competencies and reorient its operating infrastructure towards sustained profitability. As a result, the Company sold its Noah chiller business to an unrelated third party for \$797,000 in cash and a \$1.9 million note receivable due March 31, 2009. The note bears interest at 5.0%, payable annually on March 31. The sale included property and equipment with a book value of approximately \$300,000, inventory of approximately \$1.0 million, goodwill and intangible assets net of accumulated amortization of approximately \$900,000, demonstration and customer service equipment of approximately \$140,000, and estimated warranty obligations of approximately \$140,000. The Company recognized a gain on the sale of \$404,000, which has been recorded as other income and expense in the accompanying consolidated statement of operations. In the third quarter of 2004, the Company purchased equipment of approximately \$71,000 from the buyers of the Noah chiller assets in exchange for an equivalent reduction of the note receivable due March 31, 2009. In the fourth quarter of 2005, the Company negotiated an early settlement of the note, and as a result recorded a loss of \$942,000, which was recorded as other income and expense, the same line item as the original gain on the sale.

**(21) QUARTERLY FINANCIAL DATA - UNAUDITED**

The following table presents unaudited quarterly financial data for each of the eight quarters in the period ended December 31, 2006. 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.

	<b>Quarters Ended</b>							
	<b>Mar. 31, 2005</b>	<b>June 30, 2005</b>	<b>Sept. 30, 2005</b>	<b>Dec. 31, 2005</b>	<b>Mar. 31, 2006</b>	<b>June 30, 2006</b>	<b>Sept. 30, 2006</b>	<b>Dec. 31, 2006</b>
	<b>(In thousands, except per share data)</b>							
Sales	\$82,176	\$84,163	\$78,756	\$80,387	\$93,950	\$104,571	\$107,688	\$104,533
Gross profit	27,322	30,646	28,922	30,191	38,550	44,760	47,014	44,894
Income (loss) from operations	2,533	5,026	2,177	6,238	13,180	19,231	18,329	16,649
Income (loss) from continuing operations	(83)	2,877	(4,203)	5,031	12,761	18,025	16,992	39,406
Income from discontinued operations	817	3,072	312	4,994		138		1,000
Net income (loss)	\$ 734	\$ 5,949	\$ (3,891)	\$10,025	\$12,761	\$ 18,163	\$ 16,992	\$ 40,406
Diluted earnings (loss) per share	\$ 0.02	\$ 0.18	\$ (0.10)	\$ 0.22	\$ 0.28	\$ 0.40	\$ 0.38	\$ 0.89
Diluted weighted-average shares outstanding	32,878	33,094	38,366	44,902	45,004	45,108	45,166	45,345

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. The net loss of \$3.9 million in the third quarter of 2005 included pretax charges of \$3.2 million for debt extinguishment expenses (see Note 10) and \$3.0 million for a litigation settlement (see Note

14). The net income of \$10.0 million in the fourth quarter of 2005 includes pretax gains on the sale of discontinued operations \$5.2 million.



**Table of Contents****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, 2004:				
Inventory obsolescence reserve	\$ 9,491	\$ 11,262	\$ 6,102	\$ 14,651
Warranty reserve	6,612	8,457	8,278	6,791
Allowance for doubtful accounts	1,303	198	452	1,049
	\$ 17,406	\$ 19,917	\$ 14,832	\$ 22,491
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
	\$ 22,491	\$ 10,931	\$ 15,876	\$ 17,546
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
	\$ 17,546	\$ 13,675	\$ 14,237	\$ 16,984

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

None.

**ITEM 9A. CONTROLS AND PROCEDURES***Evaluation of Disclosure Controls and Procedures*

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our 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 Principal Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

As of the end of the period covered by this report, we carried out an evaluation, with the participation of management, including our Chief Executive Officer and Principal Financial Officer, of the effectiveness of the disclosure controls and procedures pursuant to the Exchange Act Rule 13a-15(b). Based upon this evaluation, the

Chief Executive Officer and Principal Financial Officer concluded that our disclosure controls and procedures were effective as of December 31, 2006.

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

Management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rule 13a-15(f). Our internal controls over financial reporting are designed to provide reasonable assurance concerning the reliability of financial data used in the preparation of our financial statements. All internal control systems, no matter how well designed, have inherent limitations and may not prevent or detect misstatements. Controls considered to be operating effectively in one period may become inadequate in future periods because of changes in conditions or a deterioration in the degree of compliance with policies or procedures.

Management, including our Chief Executive Officer and Principal Financial Officer, assessed the effectiveness of our internal control over financial reporting as of December 31, 2006 using the criteria described in *Internal Control Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission. As a result of the assessment, Management has concluded that our internal control over financial reporting was effective as of December 31, 2006.

Grant Thornton LLP, an independent registered public accounting firm, has issued an attestation report on both management's assessment and the effectiveness of the Company's internal control over financial reporting, which is included in Part II, Item 8 of this Annual Report on Form 10-K.

**Table of Contents***Changes in Internal Control over Financial Reporting*

There were no changes in our internal control over financial reporting that occurred during our most recent year that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

**ITEM 9B. OTHER INFORMATION**

None.

**PART III**

In accordance with General Instruction G(3) of Form 10-K, the information required by this Part III is incorporated by reference to Advanced Energy's definitive proxy statement relating to its 2007 Annual Meeting of Stockholders (the 2007 Proxy Statement), as set forth below. The 2007 Proxy Statement will be filed with the Securities and Exchange Commission within 120 days after the close of the Company's fiscal year end.

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

The information set forth in the 2007 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 2007 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 2007 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 2007 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 2007 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	25
Consolidated Financial Statements:	
Balance Sheets at December 31, 2006 and 2005	27
Statements of Operations for each of the three years in the period ended December 31, 2006	29
Statements of Stockholders' Equity and Comprehensive loss for each of the three years in the period ended December 31, 2006	30
Statements of Cash Flows for each of the three years in the period ended December 31, 2006	31
Notes to Consolidated Financial Statements	32
2. Financial Statement Schedules for each of the three years in the period ended December 31, 2006	
Schedule II Valuation and Qualifying Accounts	51

(B) Exhibits:

3.1 Restated Certificate of Incorporation, as amended.(8)

3.2 By-laws.(1)

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**Table of Contents**

- 4.1 Form of Specimen Certificate for Common Stock.(1)
  
- 10.1 Loan and Security Agreement dated July 6, 2005, by and among Silicon Valley Bank, as a bank, and Advanced Energy Industries, Inc., as borrower.(10)
  
- 10.2 Lease, dated June 12, 1984, amended June 11, 1992, by and between Prospect Park East Partnership and Advanced Energy Industries, Inc., for property located in Fort Collins, Colorado.(1)
  
- 10.3 Lease, dated March 14, 1994, as amended, by and between Sharp Point Properties, L.L.C., and Advanced Energy Industries, Inc., for property located in Fort Collins, Colorado.(1)
  
- 10.4 Lease, dated May 19, 1995, by and between Sharp Point Properties, L.L.C. and Advanced Energy Industries, Inc., for a building located in Fort Collins, Colorado.(1)
  
- 10.5 Form of Indemnification Agreement.(1)
  
- 10.6 1995 Stock Option Plan, as amended and restated through February 7, 2001.(2)\*
  
- 10.7 1995 Non-Employee Directors Stock Option Plan, as amended and restated through February 7, 2001.(2)\*
  
- 10.8 2003 Stock Option Plan.(8)\*
  
- 10.9 Amendment No. 1 to 2003 Stock Option Plan, dated January 31, 2005.(11)\*
  
- 10.10 Restricted Stock Unit Agreement pursuant to the 2003 Stock Option Plan.(19)\*
  
- 10.11 Stock Option Agreement pursuant to the 2003 Stock Option Plan.(11)\*
  
- 10.12 2003 Non-Employee Directors Stock Option Plan.(8)\*
  
- 10.13 2001 Employee Stock Option Plan.(8)\*
  
- 10.14 2002 Employee Stock Option Plan.(8)\*
  
- 10.15 Lease dated March 20, 2000, by and between Sharp Point Properties, L.L.C. and Advanced Energy Industries, Inc., for a building located in Fort Collins, Colorado.(3)
  
- 10.16 Agreement and Plan of Reorganization, dated April 5, 2000, by and among Advanced Energy Industries, Inc., Noah Holdings, Inc. and AE Cal Merger Sub, Inc.(4)
  
- 10.17 Escrow and Indemnity Agreement, dated April 5, 2000, by and among Advanced Energy Industries, Inc., the former stockholders of Noah Holdings, Inc. and Commercial Escrow Services, Inc.(4)
  
- 10.18 Agreement and Plan of Reorganization, dated July 21, 2000, by and among Advanced Energy Industries, Inc., Mercury Merger Corporation, Sekidenko, Inc. and Dr. Ray R. Dils.(5)
  
- 10.19 Agreement and Plan of Reorganization, dated July 6, 2000, amended and restated as of October 20, 2000, by and among Advanced Energy Industries, Inc., Flow Acquisition Corporation, and Engineering Measurements Company.(6)

- 10.20 License Agreement, dated January 3, 2003, by and among Advanced Energy Industries, Inc., and APJeT, Inc.(7)
- 10.21 Lease dated January 16, 2003, by and between China Great Wall Computer Shenzhen Co., Ltd., Great Wall Limited and Advanced Energy Industries (Shenzhen) Co., Ltd., for a building located in Shenzhen, China.(9)
- 10.22 Non-employee Director Compensation summary.(15)\*
- 10.23 Executive Change in Control Severance Agreement.(12)
- 10.24 Retirement Term Sheet relating to Douglas S. Schatz.(17)

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- 10.25 Separation and Release Agreement dated as of August 4, 2005, by and between Advanced Energy Industries, Inc. and Linda Capuano.(18)
- 10.26 Offer Letter to Hans-Georg Betz dated June 30, 2005.(16)
- 10.27 Executive Change in Control Severance Agreement dated June 30, 2005 by and between Advanced Energy Industries, Inc. and Hans-Georg Betz.(16)
- 10.28 Global Supply Agreement by and between Advanced Energy Industries, Inc. and Applied Materials Inc. dated August 29, 2005.(14) +
- 10.29 Shipping Amendment to the Global Supply Agreement by and between Advanced Energy Industries, Inc. and Applied Materials Inc. dated August 29, 2005.(14) +
- 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.(13)
- 10.31 Asset Purchase Agreement dated November 23, 2005, by and between Advanced Energy Industries, Inc. and iWatt, Inc., a California corporation. (19)
- 10.32 2003 Non-Employee Directors Stock Option Plan, as amended and restated as of February 15, 2006. (20) \*
- 10.33 Form of Restricted Stock Unit Award Agreement pursuant to the 2003 Non-Employee Directors Stock Option Plan, as amended and restated as of February 15, 2006. (20) \*
- 10.34 Loan Modification Agreement dated July 25, 2006, by and between Silicon Valley Bank and Advanced Energy Industries, Inc. (21)
- 10.35 Non-Employee Director Compensation Structure. (22) \*
- 10.36 2006 Leadership Performance Incentive Plan. (23) \*
- 10.37 Form of Restricted Stock Unit Agreement pursuant to the 2003 Non-Employee Directors Stock Option Plan. (23) \*
- 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.(12)
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- 31.2 Certification of the Chief Financial Officer Pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
- 32.1 Certification of the Chief Executive Officer Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

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- (2) Incorporated by reference to the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2001 (File No. 000-26966), filed May 9, 2001.
- (3) Incorporated by reference to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2000 (File No. 000-26966), filed March 27, 2001.
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2005.

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on Form 10-Q  
for the quarter  
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filed February 1,  
2006.

(16) Incorporated by  
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2005.

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(21) Incorporated by reference to the Registrant's Current Report on Form 8-K (File No. 000-26966), filed July 26, 2006.

(22) Incorporated by reference to the Registrant's Current Report on Form 8-K (File No. 000-26966), filed July 28,

2006.

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\* Compensation Plan

+ Confidential treatment has been granted for portions of this agreement.

**Table of Contents****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

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, President (Principal Executive Officer)	February 16, 2007
/s/ Lawrence D. Firestone Lawrence D. Firestone	Executive Vice President and Chief Financial Officer	February 16, 2007
/s/ Douglas S. Schatz Douglas S. Schatz	Chairman of the Board	February 16, 2007
/s/ Richard P. Beck Richard P. Beck	Director	February 16, 2007
/s/ Joseph R. Bronson Joseph R. Bronson	Director	February 16, 2007
/s/ Trung Doan Trung Doan	Director	February 16, 2007
/s/ Barry Z. Posner Barry Z. Posner	Director	February 16, 2007
/s/ Tom Rohrs	Director	February 16, 2007

Tom Rohrs

/s/ Elwood Spedden

Director

February 16,  
2007

Elwood Spedden

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**Exhibit Index**

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(19) Incorporated by reference to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2005 (File No. 000-26966), filed March 28, 2006.

(20) Incorporated by reference to the Registrant's Current Report on Form 8-K (File No. 000-26966), filed May 31, 2006.

(21) Incorporated by reference to the Registrant's Current Report on Form 8-K (File No. 000-26966), filed July 26, 2006.

(22) Incorporated by reference to the Registrant's Current Report on Form 8-K (File No. 000-26966), filed July 28, 2006.

(23) Incorporated by reference to the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2006 (File No. 000-26966), filed August 9, 2006.

\* Compensation Plan

+ Confidential treatment has been granted for portions of this agreement.