AUGUST TECHNOLOGY CORP
Form 10-K
March 01, 2004

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

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

For the fiscal year ended December 31, 2003 **Commission File Number 000-30637**

AUGUST TECHNOLOGY CORPORATION

(Exact name of Registrant as specified in its charter)

Minnesota	**41-1729485**
(State of incorporation)	(I.R.S. Employer Identification No.)
4900 West 78th Street **Bloomington, MN**	**55435**
(Address of principal executive offices)	(Zip Code)

(952) 820-0080
(Registrant s telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act: None

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

Title of each class:

Common Stock, no par value

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

Indicate by check mark 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 the 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. o

Indicate by check mark whether the registrant is an accelerated filer (as defined in Exchange Act Rule 12b-2). Yes x No o

The aggregate market value of voting stock held by nonaffiliates of the Registrant was $73,008,610 as of June 30, 2003.

The number of shares of Common Stock, no par value, outstanding as of February 23, 2004 was 17,671,930.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the definitive Proxy Statement to be delivered to shareholders in connection with the 2004 Annual Meeting of Shareholders are incorporated by reference into Part III.

AUGUST TECHNOLOGY CORPORATION
FORM 10-K
TABLE OF CONTENTS
FOR THE YEAR ENDED DECEMBER 31, 2003

PART I

Item 1. Business

Company Overview

Since our founding in 1992, we have become recognized as a world-class provider of automated defect detection and product characterization systems for microelectronic device manufacturers. Our systems provide these manufacturers with information that enables process-enhancing decisions, ultimately lowering manufacturing costs, improving time-to-market and enhancing the performance of their products. We combine our core competencies in machine vision technology, optics, lighting and precision motion control with our proprietary software and extensive microelectronic-specific applications experience to deliver scalable, modular systems that excel at the automated detection of advanced macro

defects, which we define to be defects greater in size than 0.5 micron. We sell our systems to many of the leading microelectronic device manufacturers throughout the world within the markets of semiconductors, advanced packaging applications, optoelectronics, MEMS, data storage and other emerging markets.

We have traditionally provided systems to address the automated inspection needs of the early stages of the final manufacturing or back-end of the microelectronic device manufacturing process. These needs were met primarily with our NSX Series and 3Di Series of products. We recently introduced the AXi Series and EXi Series systems for advanced macro detection in the front-end of the wafer manufacturing process. When used in conjunction with the B20 back-side inspection option these systems allow a manufacturer to inspect the top, edge and bottom of a wafer s surface. We believe we will be the first to offer all surface wafer inspection. We complement this broad inspection capability with an expanding suite of software tools designed to enhance the speed and effectiveness of the process by which device manufacturers analyze defects and make decisions regarding their manufacturing process to reduce or eliminate such defects. We refer to this process as the detection-to-decision process

In addition to internal development, we look to expand through strategic acquisitions of complementary products and technologies. In April 2003 we completed the acquisition of Semiconductor Technologies & Instruments, Inc. (STI), adding the WAV product line for high speed wafer probe mark inspection and metrology to our product portfolio. In July 2003 we acquired the assets of Counterpoint Solutions, Inc. (CSI), including the design for a recently introduced defect review system for advanced microscope-based defect imaging and analysis. The VersaScope provides us the ability to serve our customers earlier in their device development process and to more quickly analyze defects and understand their manufacturing process as they move toward high volume production.

Our Market

Rapid advances in semiconductor and other microelectronic device technology, including miniaturization, increasing complexity and advanced packaging and interconnect solutions, allow manufacturers to enhance the quality and capabilities of their devices. These advances often increase the complexity of the processes required to produce the devices as well as the associated production costs. Because of these increased costs and the need to ensure that performance and reliability are not sacrificed, the role of inspection and rapid detection of defects during multiple stages of the microelectronic production process is becoming increasingly critical. Defects can occur throughout the manufacturing process as a result of such things as equipment misalignment, contamination, residue, corrosion, or the misapplication of various films. Defects such as scratches, cracks and chip-outs also can be generated by mechanical handling in the manufacturing process.

Historically, manufacturers generally have relied on engineers and technicians using microscopes to manually inspect sample batches of wafers to detect defects during the various stages of the manufacturing process. As a result, it has been impractical and cost-prohibitive for manufacturers to capture critical

process data by inspecting every wafer and die after each process step. These manual inspection limitations result in the following:

Yield loss due to a lack of process data. The inability to capture adequate data throughout the manufacturing process prevents microelectronic device manufacturers from locating problems on a timely basis and taking corrective action. Timely corrective action could minimize the scrapping of valuable wafers and improve the process and yield for future products.

Productivity constraints. As microelectronic devices have become more complex, the need for more extensive inspections and defect data has increased significantly. Given these requirements, manufacturers must either add more technicians, significantly impacting productivity of the microelectronic fabrication facility or assume a greater risk of defects remaining undetected until later in the process.

Defective product shipments. By inspecting less than 100% of their products, manual inspection requires manufacturers to assume a greater risk of shipping defective products to their customers.

Slower time-to-market. As microelectronic device and end-product life cycles decrease, the speed at which manufacturers must reach optimal production yields has become increasingly critical. This pressure to minimize time-to-market requires manufacturers to reduce the amount of time spent training technicians, qualifying new production equipment and managing the logistics of a manual inspection process.

Increased labor and facility requirements. The large number of technicians and microscopes needed to manually inspect microelectronic devices requires valuable floor space and significant capital commitments. In addition, attracting and retaining qualified technicians has become increasingly difficult.

Automated inspection systems and data management and analysis software enable manufacturers to overcome these limitations by allowing them to inspect 100% of their products and identify and resolve defects at various stages of the manufacturing process, helping to drive down production costs, increase throughput and decrease time-to-market.

Our Solutions

We deliver automated advanced macro defect inspection and metrology systems for microelectronic industries. Our systems provide device manufacturers with valuable information about their products and processes, at a speed that makes it practical to inspect each device rather than a small sample. We accomplish this by combining our core competencies in machine vision technology, optics, lighting and precision motion control with our proprietary software and extensive microelectronic-specific applications experience to provide cost-effective solutions. We offer our systems at several price performance levels to satisfy our customers diverse requirements. Specifically, we provide:

Fast, automated, 100% wafer inspection. Our systems are specifically designed to address our customers need for fast, automated inspection tools. Our systems are able to inspect up to 120 wafers per hour depending upon the application and wafer size. Depending on the application, our systems can inspect a complex die approximately 100 times faster than a human operator. This speed allows our customers to inspect 100% of their production without decreasing throughput.

Data collection to enable higher productivity and yields. Our systems enable microelectronic device manufacturers to cost-effectively collect and process defect data at multiple key points in the production process and provide manufacturers with the information required to improve their production processes and yields. Integrated reporting and analysis tools allow manufacturers to extract critical information about product defects, including location, size and other important defect characteristics.

Scalable, modular inspection platforms. Our systems are designed on common platforms that allow us to configure flexible systems to meet our customers application and throughput requirements. This

4

flexibility provides an easy upgrade path for customers to respond to changes in process technologies, substrate sizes or materials.

Access to expert application development resources. Our advanced application engineers and design experts work collaboratively with our customers to optimize the use of inspection in their manufacturing process. This reduces their process development time and costs. We have field application engineers in strategic locations throughout the world to work with our customers on-site and provide the knowledge and expertise to deliver a total inspection solution.

Focus on advanced macro inspection. We focus on serving various advanced macro inspection applications rather than attempting to pursue the entire range of possible inspection and metrology applications. This allows us to most effectively concentrate our resources on delivering leading solutions to these 0.5 micron and larger applications. As our business continues to grow we will expand our focus to include other areas of inspection and metrology that are complimentary to our existing advanced macro inspection business.

Our Strategy

Our strategy is built around achieving our vision to dominate the automated inspection market and generate complete product characterization solutions for evolving microelectronic markets in order to drive down costs and time-to-market for our customers. We have identified five strategic initiatives that are critical to successfully implementing our vision:

Market diversification. We leverage our core competencies across a variety of microelectronic industries using similar manufacturing processes and within multiple applications. While our customers include the suppliers of semiconductor devices used in a wide range of electronic products such as cellular phones, personal digital assistants, cable modems, network switches and personal computers, they also include suppliers of microelectronic devices within markets such as advanced packaging applications, MEMS, optoelectronics, data storage and other emerging markets. By maintaining our diversification initiatives, we strive to maximize our market opportunity while lessening the impact from the economic cycles of any one industry.

The following table represents our net revenues for the years ended December 31, 2003 and 2002 from each of the microelectronic markets we serve.

	2003		2002		
Microelectronic Market	**Net Revenues (in thousands)**	**Percent of total net revenues**	**Net Revenues (in thousands)**	**Percent of total net revenues**	**Year-over-year change**
Semiconductor	$ 17,595	44 %	$ 6,011	24 %	193 %
Advanced packaging applications	15,772	39 %	12,410	50 %	27 %
MEMS	2,775	7 %	1,781	7 %	56 %
Optoelectronics	2,581	6 %	3,291	13 %	-22 %
Data storage & other	1,600	4 %	1,565	6 %	2 %
Total	$ 40,323		$ 25,058		61 %

Technology leadership. Through our technology leadership we deliver customer-driven product innovations focused on price, performance and flexibility. Technology leadership is critical to increasing our competitive win rate, maintaining strong gross margins and building market dominance. Our recent product development efforts resulted in several new enhancements to our existing NSX Series, 3Di Series and Yield *Pilot* product lines. New introductions in 2003 include the AXi Series for advanced macro defect inspection and EXi Series for edge inspection and metrology. These products allow us to more aggressively enter the front-end of the microelectronic device manufacturing process by addressing

advanced macro inspection needs. Another new introduction in 2003 was VersaScope, a semi-automated defect review system for advanced microscope-based imaging and analysis designed to allow customers to analyze and eliminate their defects once they ve been detected.

In 2003, 47% of our revenues were derived from products and solutions introduced during the prior two years. We plan to continue making significant investments in research and development to maintain and extend our technology leadership.

Customer application partnerships. Our customer application partnership program is designed to meet specific customer requirements with solutions that are engineered to their unique specifications. Through this process, we are able to forge stronger and more strategic relationships with existing and new customers. In 2003, we completed a joint development program with one of the top ten semiconductor manufacturers in the world to facilitate our entry into front end wafer processing applications with the commercialization of our AXi Series.

Global presence. We continually maintain and enhance our global presence in order to provide the infrastructure necessary to support our global customer base. In 2003, we enhanced our presence in Asia by adding staff in our Taiwan office to better support our customers in Southeast Asia. We believe our direct presence in Southeast Asia and our relationships with large Taiwanese foundries will be a catalyst for expansion in mainland China. In March 2004 we are opening a direct sales and service office in South Korea. We also have direct sales and service personnel and independent distributors located strategically in Singapore, Europe and Japan. Our support services include web-based service capability and 24-hour global support.

External growth. We increase and enhance our growth opportunities through external sources, including acquisitions, collaborations, licensing and joint ventures. We completed the acquisitions of STI and CSI in 2003 and will continue to examine potential acquisitions that will provide us with additional products, technological expertise, or sales and service capabilities. The acquisition of STI expands our presence within final manufacturing and brings access to key customers and technology. We acquired CSI to improve our data analysis and defect classification capabilities. We are also active in industry collaborations, such as the Advanced Packaging and Interconnect Alliance (APiA) and the Die Products Consortium (DPC). The APiA is focused on enhancing productivity and process solutions for advanced packaging. The DPC is a collaboration of leading chip manufacturers and equipment suppliers promoting improved die product quality and manufacturing processes. We believe that organizations such as these will enable us to build stronger relationships with industry leaders and increase our market opportunity by driving the need for advanced automated inspection products.

Our Products

We strive to be early to market with innovative defect inspection and review solutions to emerging microelectronic device manufacturing needs. In 1997, we introduced the NSX Series, our first automated defect inspection system for final manufacturing, and since then have maintained leadership of that market segment. In 2003, we introduced inspection technology to address the front-end of the microelectronic device manufacturing process with the introduction of the AXi Series and EXi Series of products and the B20 back-side inspection option permitting inspection of the entire surface of a wafer. Most recently, we introduced the VersaScope, a semi-automated, microscope-based, defect review system. The following table summarizes the primary attributes of our products:

			Applications			
			Front-End			
Product	Introduced	Functionality	Fab	Outgoing Quality Control	Final Manufacturing	Price Range
VersaScope[1]	2003	• Advanced imaging microscope-based system • Harmony review and classification system	X			$350,000-$750,000
B20 Option	2003	• 2D defect detection on the wafer's back-side	X	X	X	$140,500-$475,000
EXi Series	2003	• 2D defect detection on the wafer's edge • Metrology of edge features	X	X	X	$195,500-$530,000
AXi Series	2003	• Advanced detection of defects >0.5 micron • Inspection of patterned and unpatterned wafers • In line, high-speed, 100% inspection • Full color review	X	X		$600,000-$1,000,000
3Di Series	2001	• 2D & 3D wafer bump inspection & metrology system • In line, high-speed, 100% inspection		X	X	$475,000-$1,200,000
Yield*Pilot*	2000	• Tool-centric defect and metrology review and analysis software used with the NSX, 3Di, AXi and EXi Series • Reduces defect review time • Allows offline defect review	X	X	X	$85,000-$250,000
NSX Series	1997	• Fully automated defect detection >0.5 micron • 2D wafer, die & bump inspection • In line, high-speed, 100% inspection		X	X	$275,000-$1,100,000
WAV Series[2]	1997	• Probe mark wafer & die defect inspection and metrology • Defect detection >1.0 microns • In line, high-speed, 100% inspection • Fully integrated on prober		X	X	$150,000-$400,000
CV Series	1993	• Verification of critical wafer carrier dimensions	X			$115,000-$250,000

(1) Acquired with the acquisition of Counterpoint Solutions, Inc. in July 2003.

(2) Acquired with the acquisition of Semiconductor Technologies and Instruments, Inc. in April 2003.

VersaScope ***Advanced microscope-based imaging system.*** As part of our acquisition of CSI in July 2003, we acquired the VersaScope, a product that was in design at CSI. The VersaScope operates with the Harmony software system developed by CSI to automate the control of advanced microscope-based inspection equipment and facilitate the processing of defect images. The VersaScope is designed to offer a unique combination of ease of use, flexibility and advanced microscope imaging, enabling technicians to more quickly review, classify and annotate defects. When the VersaScope is coupled with our broad array of high performance defect detection systems, the combination is expected to provide customers with a unique, efficient and complete inspection and review solution.

We have received an initial order for two VersaScope systems that we expect to ship in the first quarter of 2004.

B20 ***Automated wafer back-side inspection and metrology option.*** In December 2003 we introduced the B20 option for wafer back-side inspection, completing the all-surface inspection portfolio of products. The B20 detects back-side defects such as cracks and particles which may negatively impact further processing of the wafer and cause wafer breakage later in the process. The B20, built on the same flexible and easy to set up platform as the EXi, can be combined with our front-side inspection systems (NSX, AXi or 3Di) or edge inspection systems (EXi) to provide an all-surface wafer inspection solution.

We have received orders and expect to ship the B20 in the first half of 2004. We expect to begin to recognize revenue from the B20 in the second half of 2004.

EXi Series ***Automated wafer edge inspection and metrology systems.*** In July 2003, we introduced the EXi Series for wafer edge inspection and metrology, which inspects for chip-outs, cracks, delamination, residual resist, particles and other defects that occur along the edge of the wafer. The EXi Series also automatically performs metrology of key edge features and is designed for deployment at several locations throughout the fab. For example, automated edge inspection, implemented during the lithography process, will identify wafer edge variations and particles early and allow for possible wafer rework that can increase yields and reduce manufacturing costs.

Due to the increase in edge area and wafer stress levels in 300mm wafer processing, the value of wafer edge inspection is magnified. The EXi Series also incorporates our latest user-interface platform, making the system easy to set up and run in production.

Our first edge inspection system shipped in December 2003 for evaluation and testing by one of the world s leading device manufacturers. We expect to begin to recognize revenue from the EXi Series in the first half of 2004.

AXi Series ***Automated defect inspection systems.*** In January 2003, we introduced our AXi Series, designed specifically as an advanced macro defect inspection tool to be used throughout the fab process. The ability to inspect 100% of wafers for defects between 5 and 10 microns at high throughputs offers device manufacturers new insight into their complex manufacturing process. We believe other macro defect solutions currently are unable to achieve this combination of resolution and throughput. The AXi Series has been deployed on multiple production lines at one of the world s leading integrated device manufacturers and has also been ordered by two other chip manufacturers.

We began to recognize revenues from the AXi Series during the third quarter of 2003. Revenues from the AXi Series represented 12% of our net revenues during 2003.

3Di Series ***Automated wafer bump inspection and metrology systems.*** Our 3Di automated inspection and metrology systems provide two-dimensional (2D) and three-dimensional (3D) inspection and metrology capabilities designed for the latest and most advanced microelectronic device packaging processes, including flip-chip wafer bumping. In 2002, we enhanced this product family with the introduction of entry level and higher performance models of the 3Di Series.

The 3Di Series incorporates the 2D defect inspection capabilities of the NSX Series and features our proprietary Rapid Confocal Sensor (RCS) 3D inspection technology. This patent-pending technology, conceived by merging the proven concepts of confocal microscopy with innovative optical design and proprietary software, has established its high speed, high accuracy 3D inspection capabilities in the production lines of leading microelectronic device manufacturers. The 3Di Series is available with up to 300mm wafer handling in addition to film frame handling and may be tailored toward specific customer applications with various options and features.

Revenues from the 3Di Series represented 15%, 37% and 7% of our net revenues during 2003, 2002 and 2001, respectively.

YieldPilot ***Defect review and process analysis software.*** Yield *Pilot* , which provides a means for efficient defect review and classification, continues to play a pivotal role in enabling our customers to make process-enhancing decisions. By filtering, classifying and then presenting only the relevant data, Yield *Pilot* assists process engineers in quickly and effectively making the decisions that lead to yield enhancements. Currently, nearly 50% of our systems are delivered with the optional Yield *Pilot* package either for evaluation or direct implementation in the customer s yield enhancement strategy.

NSX Series ***Automated defect inspection systems.*** We became pioneers of automated macro defect inspection in 1997 with the introduction of our NSX Series. These flexible automated wafer and die defect inspection systems deliver high-speed, consistent, reliable defect detection to microelectronic device manufacturers. As a replacement for the human eye in the inspection process, the NSX Series significantly improves the quality and throughput of the inspection process, leading to lower overall manufacturing costs.

The NSX Series is driven by proprietary software and includes integrated yield enhancement tools such as automated data collection and reporting, extensive communication options and fast setup using Windows®-based menus. The NSX Series handles all wafer sizes, 50mm up to 300mm, with both whole wafer and film frame capabilities. The NSX-105 is the highest performance model in the series, demonstrating industry-leading inspection throughput and capabilities, and delivering the best price/performance ratio of all NSX models. With four models available in the NSX Series, customers may tailor systems toward their specific application, process or budget by choosing from a range of system capabilities.

Revenues from the NSX Series represented 50%, 45% and 77% of our net revenues in 2003, 2002 and 2001, respectively.

WAV Series ***Probe mark inspection systems.*** The WAV Series, which was added to our product line with our April 2003 acquisition of STI, is a leading solution for high-speed inspection and metrology of defects caused by the electrical probing process. As devices continue to get smaller the electrical probing process is more likely to create damage. The WAV Series systems check for this potential damage immediately following the electrical probing process and warn process engineers of potential yield problems.

CV Series ***Cassette verification and metrology.*** The CV Series is designed to automatically verify critical wafer carrier dimensions. Using advanced machine vision technology and proprietary software, our CV Series systems identify out-of-tolerance cassettes and up to 300mm Front Opening Unified Pods (FOUPs), allowing microelectronic device manufacturers to remove dimensionally defective carriers and thereby decrease wafer damage and improve yield.

Research and Development

Our success depends on our ability to effectively develop and commercialize new technologies and products. Our research and development activities emphasize application development and new product introductions in collaboration with our customers. Our engineering teams support these efforts with

software development, machine vision technology, optics, lighting and precision motion control expertise. Our recent product development efforts resulted in several new product enhancements within our NSX Series, 3Di Series and Yield*Pilot* product lines as well as new products that expanded our front end fab applications. New product introductions include the AXi Series for advanced macro inspection, an all-surface advanced macro wafer inspection and metrology tool set for front-side, back-side and edge wafer inspection, and the VersaScope optical defect review system. We also placed significant effort into leveraging our core automated inspection technologies into other applications within the microelectronic device manufacturing process and anticipate announcing new products related to this effort in 2004. We spent 26%, 39% and 27% of our net revenues on research and development during 2003, 2002 and 2001, respectively.

To maintain technology leadership and pursue customer driven opportunities for the application of our core technologies, we plan to continue to invest in research and development to bring new products to market and add additional capabilities to extend our market leadership and meet our customers product characterization needs.

Customers

We have sold our systems to many of the leading microelectronic device manufacturers throughout the world. Customers accounting for more than 10% of net revenues during 2003 included Samsung Electronics Corporation, Texas Instruments Incorporated, Intel Corporation and Advanced Semiconductor Engineering, Inc. Customers accounting for more than 10% of net revenues during 2002 included Intel Corporation and Silicon Precision Industries Co., Ltd. Customers accounting for more than 10% of net revenues during 2001 included Seagate Technology LLC and Intel Corporation. There were no other customers, excluding distributors, which accounted for greater than 10% of net revenues during 2003, 2002 or 2001.

Net revenues by geographic region were as follows:

	Years Ended December 31,					
	2003		2002		2001	
United States	24	%	48	%	56	%
Taiwan	38	%	37	%	18	%
South Korea	14	%				
Japan	7	%	4	%	13	%
Europe and other	17	%	11	%	13	%
	100	%	100	%	100	%

Sales, Service and Marketing

We provide direct sales, service and field application support through strategically placed offices in key regions throughout the world. In the United States, we currently have sales and service personnel in California, Arizona, Florida, New Mexico, North Carolina, Oregon, Texas and at our corporate headquarters in Minnesota. Internationally, we service customers directly in Taiwan, China, Southeast Asia, the United Kingdom, Ireland, Benelux, Scandinavia and France. We also have sales and service personnel in Europe and Japan to support our distributors in these areas. In March 2004 we are opening an office in South Korea providing direct sales, customer service and support. With the opening of this office, we are terminating our distributor agreement with Metron Technology B.V. Previously, we had sales and service personnel in South Korea supporting Metron Technology B.V.

With respect to our European distributors, we terminated our distributor agreement with Firfax Systems effective January 2003 and notified Quasys AG, which acts as our distributor for all products except for the WAV and AXi Series, of our intent to terminate our distributor agreement effective

April 2004. We market the WAV Series in Europe through High Tech Trade, GmbH and all of our products in Japan through Marubeni Solutions Corporation. Each of our distributors has entered into an international distributor agreement with us. All of our distributor agreements grant our distributors an exclusive territory, provide for price and payment procedures, specify the applicable warranty procedures and contain a confidentiality provision.

Backlog

Our backlog was $19.1 million as of December 31, 2003, as compared to $9.1 million as of December 31, 2002. The $10.0 million increase in backlog resulted from an increase in orders of $20.0 million that exceeded the $15.2 million growth in net revenues compared to 2002 with the remainder of the increase primarily a result of backlog purchased as part of the two acquisitions completed during the year. Our backlog consists of orders for which we have accepted purchase orders and have either assigned shipment dates within the next twelve months or under which systems have shipped but have not yet met customer specifications. These orders are subject to cancellation or delay by the customer without penalty. In addition, since only a portion of our revenues for any quarter represents systems in backlog, we do not believe that backlog is a meaningful or accurate indication of our future revenues and performance.

Competition

While we believe that we are currently the leader in the commercialization of solutions for the inspection of advanced macro defects of 0.5 micron and larger, several other firms also manufacture similar products. Our primary competitors in final manufacturing are Camtek Ltd., Hitachi, Ltd., Robotic Vision Systems, Inc. and Toray Industries, Inc. As we enter the front-end market, we expect to compete with larger competitors, such as KLA-Tencor Corporation and Rudolph Technologies, Inc., for certain macro applications.

Significant competitive factors in our market include performance, ease of use, development of new technologies, established customer base, application support, customer service, product flexibility, price and ability to deliver products on a timely basis. We believe we compete favorably with respect to these factors, but must continue to develop and design new and improved products in order to maintain our competitive position.

Manufacturing

We perform system design, assembly and testing at our headquarters in Bloomington, Minnesota. We utilize an outsourcing strategy for the manufacture of many of our components and major subassemblies. Our manufacturing activities are considered horizontal in nature and consist primarily of testing and assembling parts, components and subassemblies acquired from our vendors, and integrating these parts into our products. Our engineering and manufacturing teams work together to continually improve the modularity of our systems and reduce the number of discrete components and subassemblies required to serve our various product families. To meet specific customer requirements, we often manufacture products that include custom system engineering and software development. Our manufacturing operations do not require a major investment in capital equipment.

We use numerous domestic and international vendors to supply parts for the manufacture and support of our products. Although we make reasonable efforts to ensure that parts are available from multiple qualified suppliers, this is not always possible. Accordingly, some key parts are obtained only from a single supplier or a limited group of suppliers. We endeavor to minimize the risk of product interruption by selecting and qualifying alternative suppliers for key parts, monitoring the financial condition of key suppliers and maintaining appropriate inventories of key parts. We continually strive to reduce our component lead time and build cycles to maximize the efficiency of our manufacturing operations. During 2003, we worked with our key suppliers to significantly reduce lead times and to implement a supplier

stocking program. If we do not receive a sufficient quantity of parts in a timely and cost-effective manner to meet production requirements, our results of operations may be materially and adversely affected. We do not maintain long-term supply contracts with any of our suppliers. We do enter into blanket purchase orders with key suppliers for parts with long lead times. These purchase orders are generally to lock-in prices and provide the supplier with visibility of future requirements.

Intellectual Property

Proprietary information plays a significant role in the development of our products. We rely upon a combination of contract provisions and copyright, trademark, patent and trade secret laws to protect our proprietary know-how, ideas, inventions, goodwill and rights in our solutions and products. We also have a policy of seeking U.S. and foreign patents on technology considered of particular strategic or competitive importance. As of January 1, 2004, we had 4 issued U.S. patents and 49 pending U.S. patent applications on our key inventions including those associated with our key product lines. We have also applied for foreign patent rights covering our solutions and products in strategic markets. The technological focus of the issued patents and pending applications includes general microelectronic 2D and 3D inspection techniques as well as devices, systems and processes in the following areas: lighting, focusing, sensing, viewing, material handling, imaging, inspecting and data manipulating. We also license non-exclusive software programs from a third party developer and incorporate them into our products.

Although we believe that the copyrights, trademarks and patents we own are of value, we do not believe that they will determine our success, which depends principally upon our engineering, manufacturing, marketing and service skills.

Employees

As of December 31, 2003, we employed 168 people, including 65 in research and development, 33 in service, technical support and training, 29 in sales and marketing, 23 in manufacturing and 18 in administration. We also utilize independent contractors and temporary employees. None of our employees is represented by a labor union and we consider our employee relations to be good.

Available Information

Our web site is http://www.augusttech.com. We make available free of charge, on or through our web site, our annual, quarterly and current reports, and any amendments to those reports, as soon as reasonably practicable after electronically filing such reports with the Securities and Exchange Commission. Information contained on our web site is not part of this report.

Item 2. Properties

Location	Type	Principal Use	Square Footage	Ownership
Bloomington, MN	Office, plant, warehouse	Headquarters, Research and Development, Sales and Service, Manufacturing, Marketing and Administration	78,437	Leased
Plano, Texas	Office	Research and Development, Sales and Service	10,600	Leased
Hsinchu, Taiwan	Office	Sales and Service	5,383	Leased
Thornwood, New York	Office	Research and Development	1,208	Leased

The Company currently occupies 80% of its available space at the Bloomington office. We believe the facilities listed above will be adequate for the foreseeable future.

Item 3. Legal Proceedings

From time to time in the ordinary course of business, we are subject to claims, asserted or unasserted, or named as a party to lawsuits or investigations. Litigation, in general, and intellectual property and securities litigation in particular, can be expensive and disruptive to normal

business operations. Moreover, the results of legal proceedings cannot be predicted with any certainty and in the case of more complex legal proceedings such as intellectual property and securities litigation, the results are difficult to predict at all.

On September 23, 2003, we filed a complaint in the district court of Dallas County, Texas seeking a declaratory judgment that we have no liability to Rudolph Technologies, Inc. or its subsidiary, ISOA, Inc. (doing business as Yield Metrology Group), with respect to claims they have asserted against us and our subsidiary, STI. In addition, we are seeking a judgment against Rudolph and ISOA for repayment of royalties previously paid by STI to ISOA and costs and attorney s fees incurred in bringing this action. In various letters and conversations with STI and us, Rudolph has asserted that STI owes Rudolph development fees and royalty payments pursuant to a December 24, 1997 Development Agreement between STI and ISOA, Inc., which Rudolph later acquired and renamed Yield Metrology Group. Rudolph has also asserted that we may have used ISOA technology in the development of one of our products and owe additional royalties to Rudolph as a result. We believe STI has no obligations to Rudolph under the December 24, 1997 Development Agreement and that we have used no ISOA technology in any of our products.

In connection with the acquisition of STI, we placed 180,000 shares of our common stock issued in the transaction in escrow to secure ASTI s performance of its agreement to indemnify us against damages up to a maximum amount of $670,000 in connection with STI s dispute with Rudolph and to share related outside legal expenses. Of these 180,000 shares, 110,000 remain as shares in escrow, while the remaining 70,000 were sold as part of the stock offering in September 2003 with all of the cash proceeds minus fees returned to the escrow. Shares distributed from the escrow in payment of any indemnification claim will be valued at the market price of our common stock on the date of resolution of the claim. The escrow agreement provides that the escrow would have terminated on October 15, 2003 if a legal proceeding regarding these issues had not been initiated prior to that date. Because we have initiated this legal proceeding, the escrow remains in effect until the resolution of the claims subject to such legal proceeding.

We may incur significant legal fees and expenses in pursuing this action for a declaratory judgment. In addition, there can be no assurance that we will prevail in such litigation and we may suffer an adverse result requiring us to pay damages or royalties adversely affecting our business. Notwithstanding the foregoing, we believe the indemnification escrow established in connection with the acquisition of STI is reasonably likely to protect us against any losses incurred in connection with Rudolph s claims.

Item 4. Submission of Matters to a Vote of Security Holders

There were no matters submitted to a vote of our shareholders during the quarter ended December 31, 2003.

Executive Officers of the Registrant

The following sets forth the names and ages of our current executive officers in addition to information regarding their positions, their periods of service in such positions and their business experience for the past five years. Executive officers generally serve in office for terms of approximately one year.

Name	Age	Position
Jeff L. O Dell	42	Chief Executive Officer and Director
Stanley D. Piekos	56	Chief Financial Officer, Treasurer and Assistant Secretary
David L. Klenk	39	President, Chief Operating Officer and Assistant Secretary
Scott A. Gabbard	37	Chief Accounting Officer and Vice President, Finance
Cory M. Watkins	31	Chief Technology Officer
D. Mayson Brooks	45	Vice President, Global Sales and Field Operations
Wayne J. Hubin	60	Vice President, Manufacturing

Jeff L. O Dell was one of our co-founders and has served as our Chief Executive Officer since 1992 and Chairman of the Board since 1994. From 1992 to July 2001, Mr. O Dell also served as President. From August 1987 to August 1992, Mr. O Dell was Director of Sales and Marketing for MicroVision Corporation, which develops and manufactures robotic and inspection systems. From February 1985 to August 1987, Mr. O Dell was a Field Applications Engineer for Cognex Corporation, which designs, develops and markets machine vision systems that are used to automate a wide range of manufacturing processes. From March 1984 to February 1985, Mr. O Dell served as a Systems Analyst for Control Data Corporation.

Stanley D. Piekos joined us in April 2003 as Chief Financial Officer. From February 1998 until March 2003, Mr. Piekos served as Senior Vice President, Finance and Corporate Development and Chief Financial Officer at American Superconductor, a developer and manufacturer of products using superconductor technology for the electric power industry. From May 1994 to February 1998, Mr. Piekos was the Chief Financial Officer for Brooks Automation, a supplier of automation solutions for the semiconductor industry. From June 1985 to May 1994, Mr. Piekos worked for Helix Technology Corporation, a manufacturer of products based on cryogenic and vacuum technology, serving as Vice President and Chief Financial Officer since 1991. He also held financial and general management positions with W.R. Grace & Co.

David L. Klenk joined us in April 1993 and has served as our President since July 2001 and Chief Operating Officer since April 1999. Mr. Klenk served on our Board of Directors from 1994 to March 2000. Mr. Klenk oversees the engineering, manufacturing, sales, customer service and employee services groups. Prior to becoming our Chief Operating Officer, Mr. Klenk served as our Director of Operations.

Scott A. Gabbard became our Vice President of Finance in July 2002. Mr. Gabbard also currently serves as our Chief Accounting Officer. Prior to becoming Chief Accounting Officer and Vice President of Finance, Mr. Gabbard served as our Corporate Controller since joining us in February 2000 and as Acting Chief Financial Officer from May 2002 to April 2003. From September 1995 through January 2000, Mr. Gabbard was Assistant Controller with U.S. Office Products, an international supplier of office products and business services. From August 1993 to September 1995, Mr. Gabbard was an auditor with Price Waterhouse, LLP. Mr. Gabbard is a Certified Public Accountant.

Cory M. Watkins recently became our Chief Technology Officer in February 2004. Mr. Watkins joined us in October 1997 and served as Director of Advanced Technology Development from January 2002 until February 2004. Mr. Watkins has been responsible for the development of automated wafer inspection including the NSX, 3Di and AXi product lines, and is the primary or secondary inventor on numerous patent filings. From June 1990 to October 1997, Mr. Watkins was employed by Loram Maintenance of Way, a railroad maintenance company. He served in various capacities with Loram Maintenance of Way, most recently as Chief Engineer of the Advanced Technology Group, developing rail and wheel inspection technologies.

D. Mayson Brooks became our Vice President of Global Sales and Field Operations in February 2002. Prior to becoming Vice President of Global Sales and Field Operations, Mr. Brooks served as our Vice President of Sales and Marketing since July 1999. Prior to joining us, from June 1987 through June 1999, Mr. Brooks worked in various managerial capacities for Air Products and Chemicals, Inc., most recently as Commercial Manager, European electronics division. Mr. Brooks served from June 1981 to May 1987 in the United States Navy and was awarded two achievement medals.

Wayne J. Hubin has been our Vice President of Manufacturing since November 1999. Before joining us, Mr. Hubin was Manufacturing Operations Manager for BOC Edwards, Inc. from August 1999 to November 1999. From 1984 to August 1999, Mr. Hubin worked in various managerial capacities for FSI International, Inc., a supplier of micro-lithography, surface conditioning and chemical dispense equipment used in the fabrication of microelectronics, most recently as Manufacturing Operations Manager.

PART II

Item 5. Market for Registrant s Common Stock and Related Shareholder Matters

Market Information

Our common stock, no par value (the Common Stock), has traded under the symbol AUGT on the NASDAQ National Market since our initial public offering on June 14, 2000. There was no market for our Common Stock prior to that date.

The following table sets forth the reported high and low closing sale prices for shares of our Common Stock on the NASDAQ National Market during the indicated quarters.

	2003		2002	
	High	Low	High	Low
First	$ 5.38	$ 2.20	$ 14.59	$ 8.05
Second	6.23	3.45	16.35	9.35
Third	14.40	6.73	9.23	3.47
Fourth	20.69	13.82	7.40	3.89

Holders

As of February 23, 2004, there were approximately 192 holders of record of our Common Stock. In addition, based on information obtained from our transfer agent, there are approximately 1,802 holders whose stock is held in nominee name and/or street name brokerage accounts.

15

Dividends

We have not declared or paid cash dividends on our Common Stock to date and do not anticipate paying cash dividends for the foreseeable future. We currently intend to retain earnings, if any, to support the development of our business. Payment of future dividends, if any, will be at the discretion of our board of directors after taking into account various factors, including our financial condition, operating results and current and anticipated cash needs. In addition, our current credit facility limits our ability to pay cash dividends without our lender s consent.

Item 6. Selected Financial Data

The consolidated statement of operations data set forth below for each of the years ended December 31, 2003, 2002 and 2001 and the consolidated balance sheet data as of December 31, 2003 and 2002 are derived from the audited consolidated financial statements, included elsewhere in this Form 10-K. The consolidated statement of operations data set forth below for the years ended December 31, 2000 and 1999 and the balance sheet data as of December 31, 2001, 2000 and 1999 are derived from audited consolidated financial statements, which are not included in this Form 10-K. You should read the data set forth below in conjunction with the audited consolidated financial statements and notes thereto and Management s Discussion and Analysis of Financial Condition and Results of Operations appearing elsewhere in this Form 10-K.

	Years Ended December 31,				
	2003(1)	2002	2001	2000	1999
	(In thousands, except per share data)				
Consolidated Statement of Operations Data:					
Net revenues	$ 40,323	$ 25,058	$ 29,784	$ 31,666	$ 12,058
Cost of revenues	18,290	11,068	12,039	12,594	5,110
Gross profit	22,033	13,990	17,745	19,072	6,948
Selling, general and administrative expenses(2)	14,359	13,013	12,379	10,426	4,737
Research and development expenses	10,430	9,847	7,940	6,945	2,318
Operating income (loss)	(2,756)	(8,870)	(2,574)	1,701	(107)
Interest income (expense), net	407	624	1,427	978	(42)
Other expense			(17)		
Income (loss) before provision for (benefit from) income taxes	(2,349)	(8,246)	(1,164)	2,679	(149)
Provision for (benefit from) income taxes(3)		687	(813)	807	(17)
Net income (loss)	$ (2,349)	$ (8,933)	$ (351)	$ 1,872	$ (132)
Net income (loss) per share:					
Basic	$ (0.16)	$ (0.69)	$ (0.03)	$ 0.17	$ (0.02)
Diluted	$ (0.16)	$ (0.69)	$ (0.03)	$ 0.16	$ (0.02)
Weighted average common shares:					
Basic	14,381	13,033	12,723	11,049	8,688
Diluted	14,381	13,033	12,723	11,770	8,688

	December 31, 2003	2002	2001	2000	1999
	(In thousands)				
Consolidated Balance Sheet Data:					
Cash, cash equivalents and marketable securities	$ 63,850	$ 18,777	$ 25,857	$ 29,193	$
Working capital	62,818	29,376	37,171	36,872	2,494
Total assets	88,947	39,510	47,155	47,897	6,676
Total debt					1,224
Total shareholders equity	78,477	34,867	42,523	41,685	3,347

(1) On April 15, 2003 we acquired all of the outstanding capital stock of STI. On July 3, 2003 we acquired substantially all of the assets of CSI. STI and CSI's results of operations have been included with our results of operations since the date of acquisition.

(2) Selling, general and administrative expenses for the years ended December 31, 2003, 2002, 2001 and 2000 include restructuring related expenses of $254, $1,244, $579, and $326, respectively.

(3) We recorded a full valuation allowance against our deferred tax assets in the second quarter of 2002. The recording of the valuation allowance resulted in a provision for income taxes, rather than the recording of a tax benefit on the pre-tax loss. We have subsequently continued to record a full valuation allowance against our deferred tax assets.

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

The following discussion of our financial condition and results of operations should be read in conjunction with the audited consolidated financial statements and the notes thereto and with the Cautionary Statements section included elsewhere in this Form 10-K.

In preparing the consolidated financial statements in conformity with accounting principles generally accepted in the United States of America, we must make decisions which impact the reported amounts and the related disclosures. Such decisions include the selection of the appropriate accounting principles to be applied and the assumptions on which to base accounting estimates. In reaching such decisions, we apply judgment based on our understanding and analysis of the relevant circumstances. Note 1 to the consolidated financial statements provides a summary of the significant accounting policies followed in the preparation of the consolidated financial statements.

Overview

Since our founding in 1992, we have become recognized as a world-class provider of automated defect detection and product characterization systems for microelectronic device manufacturers. Our systems provide manufacturers with information that enables process-enhancing decisions, ultimately lowering manufacturing costs, improving time-to-market and enhancing the performance of their products. We combine our core competencies in machine vision technology, optics, lighting and precision motion control with our proprietary software and extensive microelectronic-specific applications experience to deliver scalable, modular systems that excel at the automated detection of advanced macro defects, which we define to be defects greater in size than 0.5 micron. We sell our systems to many of the leading microelectronic device manufacturers throughout the world for inspecting semiconductors, advanced packaging applications, optoelectronics devices, MEMS, data storage devices and micro displays.

We have traditionally provided systems to address the automated inspection needs of the early stages of the final manufacturing or back-end of the microelectronic device manufacturing process. These needs were met primarily with our NSX Series and 3Di Series of products. We recently introduced the AXi Series and EXi Series systems for advanced macro detection in the front-end of the wafer manufacturing process. When used in conjunction with the B20 back-side inspection option these systems allow a manufacturer to inspect the top, edge and back of a wafer s

surface. We believe we will be the first to offer all surface wafer inspection. We complement this broad inspection capability with an expanding suite of software tools designed to enhance the speed and effectiveness of the process by which device manufacturers analyze defects, and make decisions regarding their manufacturing process to reduce or eliminate such defects. We refer to this process as the detection-to-decision process.

In addition to internal development, we look to expand through strategic acquisitions of complementary products and technologies. In April 2003 we completed the acquisition of STI, adding the WAV Series for high speed wafer probe mark inspection and metrology. In July 2003 we acquired the assets of CSI, including the design for a recently introduced defect review system for advanced microscope-based imaging and analysis. The VersaScope provides us the ability to serve our customers earlier in their device development process and to more quickly analyze defects and understand their manufacturing process once they initiate high volume production.

Our business is subject to the cyclical nature of the microelectronic device manufacturing markets we serve. These cycles are caused by significant fluctuations in the supply and demand of microelectronic devices driven by such factors as changes in technology and global economic conditions. As a result of these fluctuations, our quarterly orders and sales have fluctuated dramatically. We anticipate that future quarterly and annual results will continue to be impacted by fluctuations in supply and demand of microelectronic devices, the timing of new product announcements and releases by us or our competitors, market acceptance of new or enhanced versions of our products, changes in the pricing of our products and the timing and level of our research and development expenditures.

During the second quarter of 2001, in response to an industry downturn, we began to implement components of a series of cost management programs. The programs included, at various times, raw material cost reductions, reductions in temporary and contract staffs, work force reductions, mandatory time-off, decreases in discretionary spending and reductions in executive compensation and overtime. Although we continued to maintain various components of our cost management programs during 2002 and 2003, these savings were offset by our decision to invest in developing our worldwide sales and service organization and in the continued development of new and existing products to better serve our customers and maintain our technology leadership. During the second half of 2003 we began to experience signs of an industry recovery. This has resulted in a significant increase in the level of orders and sales during this period, and resulted in a record level of backlog of $19.1 million at December 31, 2003. Although management does not believe backlog is always a meaningful or accurate indication of future revenues and performance, since only a portion of our revenues for any quarter represents systems in backlog, we do closely monitor the level of orders both geographically and by product line and in relation to the level of revenues, referred to as the book-to-bill ratio. During both 2003 and 2002 our book-to-bill ratio was 1.2. A book-to-bill ratio greater than 1.0 indicates a growing level of backlog. In response to the current increase in activity we have added and continue to recruit additional staff in all functional areas and increased our manufacturing levels to meet the increased demand. However, we cannot predict the sustainability of a recovery, if any, and/or the industry s rate of growth in such a recovery. If we are unable to effectively manage our resources and production capacity during an industry upturn, there could be a material adverse effect on our business, financial condition and results of operations.

In addition to monitoring our level of orders and backlog, we focus on several key financial metrics in evaluating our financial condition and operating performance, most importantly revenues by product family compared to prior-period revenue performance and current-year plans, revenues generated by

products introduced in the last two years, year-over-year revenue growth compared to the overall semiconductor equipment industry, operating profit or loss performance compared with prior-period and current-year plans and the level of operating cash flow.

We anticipate that future quarterly and annual results will continue to be impacted by fluctuations in supply and demand of microelectronic devices, the timing of new product announcements and releases by us or our competitors, market acceptance of new or enhanced versions of our products, changes in the pricing of our products and the timing and level of our research and development expenditures.

Results of Operations

The following table presents the consolidated statements of operations as a percentage of net revenues.

	Years Ended December 31,		
	2003	2002	2001
Net revenues	100.0 %	100.0 %	100.0 %
Cost of revenues	45.4	44.2	40.4
Gross profit	54.6	55.8	59.6
Selling, general and administrative expenses	35.6	52.0	41.5
Research and development expenses	25.8	39.3	26.7
Operating loss	(6.8)	(35.5)	(8.6)
Interest income	1.0	2.5	4.8
Other expense			(0.1)
Loss before provision for (benefit from) income taxes	(5.8)	(33.0)	(3.9)
Provision for (benefit from) income taxes		2.7	(2.7)
Net loss	(5.8)%	(35.7)%	(1.2)%

Year ended December 31, 2003 compared to the year ended December 31, 2002

Net Revenues. Net revenues increased $15.2 million, or 60.9%, to $40.3 million in 2003, from $25.1 million in 2002. The increase in net revenues was primarily the result of higher sales of new models within the NSX Series which were introduced in the middle of 2002 and revenues from the AXi Series, which was introduced in the first quarter of 2003. Although the AXi Series initially shipped in the first quarter of 2003, we did not begin to recognize revenue until the second half of 2003. Revenues in 2003 from the NSX Series and AXi Series were $20.0 million and $4.7 million, of total revenues, respectively, as compared to $11.2 million and none, respectively, in 2002. Overall, revenues from products introduced in the last two years increased to $19.0 million, or 47%, in 2003 as compared to $12.1 million, or 48%, in 2002. Revenues also increased due to sales of products acquired in the STI and CSI acquisitions. The increase was partially offset by lower revenues from the 3Di Series. Net revenues derived from international sales represented 76% and 52% of total net revenues in 2003 and 2002, respectively. International net revenues were primarily the result of sales to Taiwan and the rest of Asia, which comprised 64% and 45% of total net revenues in 2003 and 2002, respectively.

Gross Margin. Gross margin decreased to 54.6% of net revenues in 2003 as compared to 55.8% of net revenues in 2002. The decrease in gross margin percentage was primarily due to (i) a higher level of write-offs of obsolete and excess inventory; (ii) an increase in the number of NSX Series systems that included subsystem options manufactured by third parties, which have lower gross margins than our core inspection systems; and (iii) lower margins on the AXi Series systems sold under our joint development program with a leading device manufacturer.

Selling, General and Administrative. Selling, general and administrative expenses increased $1.4 million, or 10.3%, to $14.4 million, or 35.6% of net revenues, in 2003, from $13.0 million, or 52.0% of net revenues in 2002. The expense dollars in 2003 increased due to higher variable costs, such as sales commissions and variable employee compensation costs associated with the increased level of revenues, recruiting and relocation costs associated with hiring new employees, costs associated with the ongoing operations and amortization of purchased technology from the STI and CSI acquisitions, and costs associated with an increase in the number of systems being evaluated by customers. The increase was partially offset by the fact that the prior year included the write-off of costs related to potential acquisitions, the modification of our distributor agreement with Metron Technology B.V and higher employee severance costs. We expect selling, general and administrative expense dollars to increase in future quarters, primarily as a result of variable expenses associated with the expected higher level of revenues and higher recruiting, relocation and compensation costs related to the hiring of additional employees. However, selling, general and administrative expenses as a percentage of revenues are expected to decrease, as revenues are expected to increase at a higher rate than the increase in selling, general and administrative expenses.

Research and Development. Research and development expenses increased $583,000, or 5.9%, to $10.4 million, or 25.8% of net revenues, in 2003, from $9.8 million, or 39.3% of net revenues, in 2002. The expense dollars increased primarily due to depreciation and amortization expense related to assets and software capitalized subsequent to the beginning of 2002, employee salaries and related benefits associated with the employees of STI and CSI and higher travel costs related to visiting customer locations. These increases were partially offset by a decrease in the use of outside services and contractors in the development of new and existing products. We believe our future operating results will depend significantly on our ability to produce products and provide services that have a competitive advantage in our marketplace. To do this, we believe that we must continue to make substantial investments in our research and development efforts. Our investments in new technology and existing product enhancements are intended to enable our customers to achieve a higher return on their capital investments and higher productivity through cost-effective, leading edge technology solutions. As a result, we anticipate that research and development expense dollars will increase in future quarters due to ongoing development projects. However, research and development expenses as a percentage of revenues are expected to decrease, as revenues are expected to increase at a higher rate than the increase in research and development expenses.

Interest income, net. Net interest income decreased $217,000 to $407,000 in 2003 from $624,000 in 2002. The decrease in interest income was due to lower rates of return earned on investment balances in 2003 as compared to 2002 and lower average investment balances in 2003. We expect interest income to increase in 2004 due to an increase in overall investment balances, as a result of the proceeds received from the follow-on public offering of our Common Stock that was completed on September 23, 2003 and the underwriters exercise of the over-allotment option on October 21, 2003 (the Offering).

Income Taxes. There was no benefit for income taxes in 2003 compared to a provision for income taxes of $687,000, or an effective tax rate of 8.3%, in 2002. The provision for income taxes in 2002, rather than a benefit from income taxes related to the pretax loss, is due to the recording of a full valuation allowance against deferred tax assets, in the second quarter of 2002. SFAS No. 109 Accounting for Income Taxes, requires the establishment of a valuation allowance to reflect the likelihood of the realization of deferred tax assets. As a result of our taxable earnings history and uncertainty as to the extent and timing of profitability in future periods, we have recorded a full valuation allowance of $7.5 million against deferred tax assets at December 31, 2003.

Year ended December 31, 2002 compared to the year ended December 31, 2001

Net Revenues. Net revenues decreased $4.7 million, or 15.9%, to $25.1 million in 2002 from $29.8 million in 2001. The decrease in net revenues was the result of lower NSX revenues, partially offset by revenues from our 3Di Series, which was introduced in the fourth quarter of 2001. The decrease in NSX revenues was due to the continued downturn in the microelectronic industries. Net revenues derived from international sales represented 52% and 44% of net revenues in 2002 and 2001 respectively. International net revenues were primarily the result of sales to Asia, which comprised 45% and 34% of net revenues in 2002 and 2001, respectively.

Gross Profit. Gross profit decreased to $14.0 million, or 55.8% of net revenues, in 2002 from $17.7 million, or 59.6% of net revenues, in 2001. The decrease in gross margin percentage was primarily due to a decrease in the number of systems manufactured, which resulted in lower manufacturing utilization and increased labor and overhead costs per system manufactured, and was also impacted by sales of models within the 3Di Series that had lower margins than our other products.

Selling, General and Administrative. Selling, general and administrative expenses increased $634,000 or 5.1%, to $13.0 million, or 52.0% of net revenues, in 2002, from $12.4 million, or 41.5% of net revenues in 2001. The expense dollars in 2002 primarily increased due to the write-off of costs related to potential acquisitions, the modification of our distributor agreement with Metron Technology B.V, to focus Metron s activities entirely on South Korea, and employee severance costs. The increase was offset by the fact that the prior year included costs related to the modification of our distributor agreement with Metron, as a result of our decision to sell directly to customers in Taiwan, and employee severance costs.

Research and Development. Research and development expenses increased $1.9 million, or 24.0%, to $9.8 million, or 39.3% of net revenues, in 2002 from $7.9 million, or 26.7% of net revenues, in 2001. The increase was primarily due to: (i) our focus on advancing the development of new and existing products in each of our product lines, which led to the hiring of additional engineers and the use of additional outside contractors; (ii) depreciation and amortization expense related to assets and software capitalized subsequent to the beginning of 2001; and (iii) travel costs related to visiting customer locations. These increases were partially offset by various components of the Cost Cutting Program.

Interest income, net. Net interest income decreased $803,000 to $624,000 in 2002 from $1.4 million in 2001. The decrease is due to lower overall investment balances in 2002, due to the use of cash to fund operations and acquire property and equipment, and lower rates of return earned on investment balances.

Income Taxes. The provision for income taxes in 2002 was $687,000, or an effective tax rate of 8.3%, compared to a benefit of $813,000, or an effective tax rate of 69.8%, in 2001. The provision for income taxes in 2002 is due to the recording of a full valuation allowance against deferred tax assets, in the second quarter of 2002. SFAS No. 109 Accounting for Income Taxes, requires the establishment of a valuation allowance to reflect the likelihood of the realization of deferred tax assets. As a result of our taxable earnings history and uncertainty as to the extent and timing of profitability in future periods, we have recorded a full valuation allowance of $5.4 million against deferred tax assets at December 31, 2002. The high effective income tax rate in 2001, compared to the federal statutory rate of 34% plus state and local taxes, was primarily due to the impact of federal and state general business and extraterritorial income credits and tax exempt interest income that could not be utilized until future years due to our net loss.

Liquidity and Capital Resources

As of December 31, 2003 we had working capital of $62.8 million as compared to $29.4 million at December 31, 2002. Working capital increased primarily due to an increase in cash and marketable securities due to the sale of 3.0 million shares of our Common Stock at a price of $13.00 per share in the Offering. In conjunction with the Offering, on October 21, 2003, the underwriters exercised their option to

21

acquire an additional 490,238 shares of Common Stock to cover over-allotments. The net proceeds received from the Offering, after deducting the underwriting discounts and offering expenses, were $42.0 million. In 2003, we also generated cash from operating activities of $3.8 million compared with a net use of cash in operating activities of $6.5 million during 2002.

At December 31, 2003, our principal sources of liquidity consisted of cash, cash equivalents and marketable securities of $63.9 million and our revolving credit line, which expires in April 2004. The credit line agreement allows for borrowings of up to $5.0 million subject to availability based on accounts receivable and inventory balances. We have no outstanding debt at December 31, 2003.

Accounts Receivable. Accounts receivable decreased $3.0 million to $4.1 million in 2003, from $7.1 million in 2002, representing 50 days sales outstanding (DSO) during 2003. This compares to a DSO of 86 days in 2002. The decrease in accounts receivable DSO was primarily due to the timely collection of our accounts receivable in 2003. Due to the high mix of international revenues during a given quarter, which generally require a longer time for collection, we believe our DSO could increase in future quarters.

Inventories. Inventories increased $5.5 million to $13.9 million in 2003, from $8.4 million in 2002, primarily due to (i) an increase in inventory at customer sites under purchase orders and as demonstration; (ii) an increase in raw material, work in process and finished goods inventory to support new product introductions and increased backlog; and (iii) inventory acquired with STI. The increase in inventory at customer sites under purchase orders is primarily related to shipments of our NSX-105 Series and AXi Series. We anticipate that a portion of the inventory at customer sites will be recognized as revenue during the first quarter of 2004. We expect inventory at customer sites under purchase orders and demonstration will increase as shipments of newly introduced products increase.

Capital Expenditures. Our capital expenditures were $981,000 in 2003 and our total capital expenditures are expected to be between $−2.5 and $3.0 million in 2004. Capital expenditures consist primarily of the capitalization of finished goods used to support our engineering, sales and service efforts and enhancing our enterprise resource planning system.

Acquisitions. As a result of the acquisition of STI, we entered into a two year lease for 10,600 square feet of space in Plano, Texas at an annual rental cost of $106,000. As a result of the acquisition of CSI, we entered into a lease for 1,208 square feet in Thornwood, New York at a monthly rental cost of $2,200. The lease may be terminated at any time with a six month notice.

Our liquidity is affected by many factors, some of which are based on the normal ongoing operations of our business, the most significant of which includes the timing of the collection of receivables, the level of inventories, capital expenditures and acquisitions. Our liquidity is also affected by factors beyond our control related to the uncertainties of global economies and the cyclical nature of the semiconductor and microelectronic industries. Although liquidity requirements will fluctuate based on the timing and extent of all of these factors and others, management believes that existing cash and investment balances along with our line of credit will be adequate to satisfy our existing liquidity requirements for at least the next twelve months.

The following table summarizes our future cash payments due under contractual obligations as of December 31, 2003:

	Operating Leases	Purchase Obligations	Total
	(In thousands)		
2004	$ 885	$ 4,843	$ 5,728
2005	768		768
2006	236		236
2007	4		4
Total	$ 1,893	$ 4,843	$ 6,736

Cash Flows. During 2003, net cash provided by operating activities was $3.8 million, which resulted primarily from the decrease in accounts receivable and increases in accounts payable and depreciation and amortization, partially offset by the increase in inventories. Net cash used in investing activities was $39.5 million, due to $37.0 million of net purchases of marketable securities, $1.5 million paid to acquire STI and CSI and $981,000 of additions to property and equipment and other assets. Net cash provided by financing activities was $43.8 million, including $42.0 million of net proceeds received from the Offering and underwriters exercise of their over-allotment option.

During 2002, net cash used in operating activities was $6.5 million, which resulted primarily from our net loss and an increase in accounts receivable, partially offset by non-cash charges, decreased prepaid expenses and other current assets and inventories. Net cash provided by investing activities was $5.7 million, due to $7.5 million of net proceeds from the redemption and purchases of securities, partially offset by $1.8 million of additions to property and equipment and other assets. Net cash provided by financing activities was $1.2 million from the proceeds of issuances of common stock in conjunction with the exercise of stock options by employees and purchases under our employee stock purchase plan.

During 2001, net cash used in operating activities was $1.4 million, which resulted primarily from increased inventories, prepaid and other current assets and decreased accounts payable, partially offset by decreased accounts receivable and an increase in customer deposits. Net cash used in investing activities was $737,000, due to $2.5 million of additions to property and equipment and other assets, partially offset by $1.8 million of net proceeds from the redemption and purchases of securities held to maturity. Net cash provided by financing activities was $596,000 from the proceeds of issuances of common stock in conjunction with the exercise of stock options by employees and purchases under our employee stock purchase plan.

Critical Accounting Policies, Significant Judgments and Estimates

The preparation of consolidated financial statements and related disclosures in conformity with accounting principles generally accepted in the United States of America requires management to make judgments, assumptions and estimates that affect the amounts reported. Note 1 of Notes to Consolidated Financial Statements describes the significant accounting policies used in the preparation of the consolidated financial statements. Certain of these significant accounting policies are considered to be critical accounting policies, as defined below.

A critical accounting policy is defined as one that is material to the presentation of our consolidated financial statements and/or requires management to make estimates and assumptions that could have a material effect on our financial condition and results of operations. Specifically, critical accounting estimates have the following attributes: 1) we are required to make assumptions about matters that are highly uncertain at the time of the estimate; and 2) different estimates we could reasonably have used, or changes in the estimate that are reasonably likely to occur, would have a material effect on our financial condition or results of operations.

Estimates and assumptions about future events and their effects cannot be determined with certainty. We base our estimates on historical experience and on various other assumptions believed to be applicable and reasonable under the circumstances. These estimates may change as new events occur, as additional information is obtained and as our operating environment changes. These changes have historically been minor and have been included in the consolidated financial statements as soon as they became known. In addition, management is periodically faced with uncertainties, the outcomes of which are not within its control and will not be known for prolonged periods of time. These uncertainties are discussed in the section below entitled Cautionary Statements.

Management believes that the following are critical accounting policies:

Revenue Recognition. ***We derive revenues from the sale of systems, spare parts, software and services.***

System sales: We require customers, excluding our distributors, that have new inspection applications to complete pre-shipment authorization testing of purchased systems at our facility, prior to shipment. During this testing, the customer verifies that the system meets their specifications and authorizes shipment. For systems that have completed pre-shipment authorization testing, revenue is recognized as follows:

- Revenue from systems that have been demonstrated to meet customer specifications during pre-shipment authorization testing is recognized when the product has shipped, title and risk of loss have transferred to the customer and collection of the resulting receivable is probable.

- Revenue from systems that have not been demonstrated to meet customer specifications during pre-shipment authorization testing is recognized when title and risk of loss have transferred to the customer, installation has occurred and collection of the resulting receivable is probable.

When a customer with a new inspection application declines pre-shipment authorization testing of a purchased system, revenue is deferred until, title and risk of loss have transferred to the customer, installation has occurred and collection of the resulting receivable is probable.

When the customer has already accepted previous systems with the same specifications, for the same application, we do not require pre-shipment authorization testing. Revenue is recognized when the product has shipped, title and risk of loss have transferred to the customer and collection of the resulting receivable is probable.

System sales are accounted for as multiple-element arrangements. In transactions that include multiple products and/or services, we allocate the revenue to each element based on their relative fair value (or in the absence of fair value, the residual method) and recognize the associated revenue when all revenue recognition criteria have been met for each element.

Spare parts revenue: Spare parts revenue is recognized when the parts have been shipped, title and risk of loss have transferred to the customer and collection of the resulting receivable is probable.

Software revenue: Software revenue is recognized ratably over the support period.

Service revenue: Service revenue is recognized after the services are performed and collection of the resulting receivable is probable. Revenue from maintenance contracts is recognized ratably over the period of the contract. Service revenues were insignificant during the years ended December 31, 2003, 2002 and 2001.

Valuation of Accounts Receivable. We review accounts receivable to determine which are doubtful of collection. In making the determination of the appropriate allowance for doubtful accounts, we consider our history of write-offs, relationships with our customers and the overall credit worthiness of our customers. For the three years ended December 31, 2003, we have had accounts receivable write-offs totaling $200,000, which included the write-off of one receivable totaling $164,000. Changes in the credit

worthiness of customers, general economic conditions and other factors may impact the level of future write-offs. Changes in these factors could have a material adverse effect on our business, financial condition and results of operations.

Valuation of Inventory. We review inventory for obsolescence and excess quantities to determine that items deemed obsolete or excess are appropriately reserved. In making the determination, we consider the quantity of inventory at the balance sheet date assessed against each part s historical and future usage rates. In addition, inventories are evaluated for potential obsolescence due to the effect of known and anticipated engineering change orders and new products. For the three years ended December 31, 2003, we have written off inventory totaling $396,000. We have an allowance for obsolete and excess inventory of $525,000 at December 31, 2003, which represents our estimate of obsolete and excess inventory. Changes in factors such as technology, customer demand, competitor product introductions and other matters could affect the level of obsolete and excess inventory in the future and have a material adverse effect on our business, financial condition and results of operations.

Accounting for Income Taxes. The preparation of our consolidated financial statements requires us to estimate our actual current tax exposure together with our temporary differences resulting from differing treatment of tax items for tax and accounting. These temporary differences result in the recognition of deferred tax assets and liabilities, which are included within our consolidated balance sheet. Statement of Financial Accounting Standards (SFAS) No. 109 Accounting for Income Taxes, requires the establishment of a valuation allowance to reflect the likelihood of the realization of deferred tax assets. Significant management judgment is required in determining our provision for income taxes, our deferred tax assets and liabilities and any valuation allowance recorded against our net deferred tax assets. We evaluate the weight of all available evidence to determine whether it is more likely than not that some portion or all of the deferred income tax assets will not be realized. During the second quarter of 2002 we recorded a valuation allowance for the full amount of our deferred tax assets due to uncertainties surrounding our ability to utilize some or all of our deferred tax assets, primarily consisting of certain net operating losses, as well as other temporary differences between book and tax accounting. If the realization of deferred tax assets in the future is considered more likely than not, an adjustment to the deferred tax assets would increase net income in the period such determination is made. In the event that actual results differ from these estimates or we adjust these estimates in future periods, we may need to adjust our valuation allowance, which could materially affect our financial position and results of operations.

Off-Balance Sheet Arrangements. We have not created, and are not party to, any special-purpose or off-balance sheet entities for the purpose of raising capital, incurring debt or operating parts of our business that are not consolidated into our financial statements. We do not have any arrangements or relationships with entities that are not consolidated into our consolidated financial statements that are reasonably likely to materially affect our liquidity or the availability of our capital resources.

Impact of Accounting Standards

In December 2002, the Emerging Issues Task Force (EITF) reached a consensus on EITF 00-21, Revenue Arrangements with Multiple Deliverables . This Issue addresses certain aspects of the accounting by a vendor for arrangements under which it will perform multiple revenue-generating activities. In some arrangements, the different revenue-generating activities (deliverables) are sufficiently separable and there exists sufficient evidence of their fair values to separately account for some or all of the deliverables (that is, there are separate units of accounting). In other arrangements, some or all of the deliverables are not independently functional, or there is not sufficient evidence of their fair values to account for them separately. This Issue addresses when and, if so, how an arrangement involving multiple deliverables should be divided into separate units of accounting. This Issue does not change otherwise applicable revenue recognition criteria. The guidance in this Issue is effective for revenue arrangements

entered into in fiscal periods beginning after June 15, 2003. The adoption of EITF 00-21 did not have an effect on our consolidated financial statements.

In January 2003, the Financial Accounting Standards Board (FASB) issued FASB Interpretation (FIN) No. 46, Consolidation of Variable Interest Entities . This Interpretation of Accounting Research Bulletin (ARB) No. 51, Consolidated Financial Statements , addresses consolidation by business enterprises of variable interest entities that possess certain characteristics. FIN 46 requires that if a business enterprise has a controlling financial interest in a variable interest entity, the assets, liabilities and results of the activities of the variable interest entity must be included in the consolidated financial statements with those of the business enterprise. The consolidation requirements of FIN 46 are effective for the first reporting period ending after December 15, 2003 for entities considered to be special-purpose entities. The consolidation requirements for all other entities subject to FIN 46 are effective for our consolidated financial statements of the first reporting period ending after March 15, 2004. We do not have any ownership in any variable interest entities as of December 31, 2003. We will apply the consolidation requirements of FIN 46 in future periods should an interest in a variable interest entity be acquired.

In April 2003, the FASB issued SFAS No. 149, Amendment of Statement 133 on Derivative Instruments and Hedging , which amends and clarifies financial accounting and reporting for derivative instruments. SFAS 149 became effective for us in July 2003. The adoption of SFAS 149 did not have an effect on our consolidated financial statements.

On May 15, 2003, the FASB issued SFAS No. 150, Accounting for Certain Financial Instruments with Characteristics of Both Liabilities and Equity . The Statement requires issuers to classify as liabilities (or assets in some circumstance) three classes of freestanding financial instruments that embody obligations for the issuer. Generally, the Statement is effective for financial instruments entered into or modified after May 31, 2003 and is otherwise effective at the beginning of the first interim period beginning after June 15, 2003. The adoption of SFAS 150 did not have an effect on our consolidated financial statements.

Cautionary Statements

Certain statements contained in this Form 10-K and other written and oral statements made from time to time by us do not relate strictly to historical or current facts. As such, they are considered forward-looking statements which provide current expectations or forecasts of future events. Such statements can be identified by the use of terminology such as anticipate, believe, estimate, expect, intend, may, could, plan, project, should, will, forecast and similar words or expressions. Our forward-looking statements generally relate to our growth strategi financial results, product development and sales efforts. One must carefully consider forward-looking statements and understand that such statements involve a variety of risks and uncertainties, known and unknown, and may be affected by inaccurate assumptions, including, among others, those discussed below. Consequently, no forward-looking statement can be guaranteed and actual results may vary materially. We undertake no obligation to update any forward-looking statement, but investors are advised to consult any further disclosures by us on this subject in our filings with the Securities and Exchange Commission, especially on Forms 10-K, 10-Q and 8-K (if any), in which we discuss in more detail various important factors that could cause actual results to differ from expected or historic results. We note these factors as permitted by the Private Securities Litigation Reform Act of 1995. It is not possible to foresee or identify all such factors. As such, investors should not consider any list of such factors to be an exhaustive statement of all risks, uncertainties or potentially inaccurate assumptions.

The microelectronic industries that we serve are highly cyclical, causing significant variability in our results of operations.

We primarily serve microelectronic industries and our business depends heavily upon capital expenditures by manufacturers in these industries. Microelectronic industries are highly cyclical, with periods of capacity shortage and periods of excess capacity; this is historically due to sudden changes in demand for microelectronic devices. In periods of excess capacity, there are often drastic changes in the timing and quantity of capital equipment purchases and investments in new technology or capacity needs by our customers, including sharp cuts in purchases of capital equipment, including our products, by customers. The timing, length and volatility of these periods are difficult to predict, resulting in pressure on our revenues, gross margin and net income. In addition to affecting our customers, downturns also challenge our suppliers, vendors, other partners, as well as our management, sales, engineering, manufacturing, customer service and other employees, who are vital to our success.

During downturns in microelectronic industries, customers typically reduce or delay purchases, and/or delay delivery or cancel orders. As a result, it is imperative that we maintain an organization able to quickly and effectively align with market conditions, including bringing our cost structures in line with current industry and overall market conditions. At the same time, it is imperative that we meet the following objectives:

- continue to serve our existing customers,
- provide new and improved solutions for new and existing customers,
- operate effectively with our suppliers and
- motivate and retain key employees.

If we are, for any reason, unable to achieve any one or more of the above objectives in an efficient, effective and timely manner, there could be a material adverse effect on our business, financial condition and results of operations. Furthermore, any delays or reductions in future purchases of capital equipment or delays or cancellations of current orders by microelectronic device manufacturers, for any reason, may have a material adverse effect on our business, financial condition and results of operations.

Our future rate of growth is highly dependent on the development and growth of the market for microelectronic device inspection equipment.

We primarily target our products to address the needs of microelectronic device manufacturers for defect inspection and metrology. If for any reason the market for microelectronic device inspection equipment fails to grow in the long term as we expect, we may be unable to maintain current revenue levels in the short term and return to our historical growth in the long term. Growth in this market is dependent to a large extent upon microelectronic manufacturers replacing manual inspection with automated inspection technology. There is no assurance that manufacturers will undertake this replacement at the rate we expect.

Our sales and operating results can fluctuate significantly from period to period, which may adversely affect the market price of our stock.

Our quarterly and annual operating results are affected by a wide variety of factors that could adversely affect sales or operating results, or lead to significant variability in our operating results. In addition, because a significant portion of our revenue in any particular quarter has historically come from the sale of a relatively small number of systems, the loss of any sale could have a significant negative impact. A variety of factors could cause this variability, including the following:

- order cancellations or delays in orders by customers;

- the long sales cycle of our products;
- decreases in capital spending by our customers;
- new product introductions by our competitors and competitive pricing pressures;
- entrance into, or additional resources focused on, our markets by larger competitors;
- component shortages resulting in manufacturing delays; and
- delays in the development, introduction and manufacture of our products.

We cannot predict the impact of these and other factors on our revenues and operating results in any future period. Results of operations in any period, therefore, should not be considered indicative of the results to be expected for any future period. Because of this difficulty in predicting future performance, our operating results may fall below expectations of securities analysts or investors in some future quarter or quarters. Our failure to meet these expectations would likely adversely affect the market price of our common stock.

Global economic and political environments are important to economic conditions, and long term continued risk or concerns regarding economic and political circumstances could decrease customer demand for our products.

Future political or related events similar or comparable to the September 11, 2001 terrorist attacks, significant military conflicts, or long term reactions of governments and society to such events, may significantly affect the willingness or ability of our customers to visit our facilities or trade shows, review our systems capabilities and/or purchase or take delivery of our products, as well as our abilities to visit our customers, to perform application studies for our customers, to sell and deliver solutions and to service those solutions. Any decline in the willingness or ability of our customers to travel and visit our facilities, or in our ability to travel and visit our customers, could have a material adverse effect on our business, financial condition and results of operations. In addition, such events could have an adverse effect on the economy generally, and microelectronic industries in particular, causing our customers to reduce or delay capital equipment purchases.

The market acceptance of our products is critical to our growth.

Microelectronic device manufacturing equipment and processes are subject to rapid technological changes. We continue to spend a significant amount of time and resources developing new systems, new models to existing system series and improvements or enhancements on current models. Due to the length of the product development cycles in our industries, we must make these significant time and resource expenditures well in advance of any prospect of a revenue stream from such new products. If our customers do not continue to accept our current products and also accept and integrate our new products into their operations, our revenue, cash flow, operating results or stock price could be negatively impacted.

Our growth expectations are dependent on successfully penetrating the front-end of the microelectronic device manufacturing process.

We have recently introduced the AXi Series and EXi Series which address inspection and metrology needs in the front-end of the microelectronic device manufacturing process, a market segment that we have limited experience in serving. We are not a well-recognized supplier to this market, and will need to establish new customer relationships and win the confidence of these customers to compete effectively in this market. The front-end of the microelectronic device manufacturing market is dominated by large, well-established competitors with significantly greater resources and name recognition than we have. In order to compete effectively with these larger competitors, we must develop process and applications

expertise to identify the inspection needs of this market and produce cost-effective, technologically advanced solutions addressing these needs. In addition, we must create and execute programs to effectively service these customers. Failure to successfully penetrate the front-end of the microelectronic device manufacturing market would adversely affect our business.

If we are unable to keep pace with rapid technological changes by developing and introducing successful new products and technologies in a timely manner, our products may become obsolete and our business will be harmed.

The microelectronic capital equipment manufacturing business is a highly competitive business and microelectronic device manufacturing equipment and processes are subject to rapid technological changes. We believe that our future success will depend in part upon our ability to continue to enhance our existing product line to meet customer needs and to develop and introduce new products in a timely manner. We cannot assure you that our product enhancement efforts to improve and advance products, such as the NSX Series and the 3Di Series, or our new product development efforts such as the AXi Series and EXi Series, will be successful or that we will be able to respond effectively to technological change. In addition, we cannot assure that we will choose the most opportunistic new markets and applications.

We continue to make and/or review significant investments in research, development and engineering in new technology and/or businesses with new or complementary products, services and/or technologies, and we are aware of the numerous risks associated therewith, including but not limited to:

- diversion of management s attention from day to day operational matters;
- lack of synergy, or the inability to realize expected synergies;
- failure to commercialize the new technology or business;
- failure to meet the expected performance of the new technology or business;
- lower-than-expected market opportunities or market acceptance of any new products; and
- unexpected reduction of sales of existing products by new products.

If we are unsuccessful at developing new products and technologies, our revenue, operating results or stock price could be negatively impacted.

Our products are complex and any product or process development issues could negatively impact our operations or financial results.

Our products are complex and often the applications of our customers are unique. We believe that our future success will depend in part upon our ability to meet our customers functionality and reliability requirements in a timely manner. We cannot be sure that our product offerings, application assistance, enhancement efforts, or our new product development efforts will fulfill every functionality and reliability requirement. In addition, new product offerings that are highly complex in terms of software or hardware may require application or service work such as bug fixing prior to acceptance, thereby delaying revenue recognition. If we are unsuccessful in these areas, our market share, revenue, operating results or stock price could be negatively impacted.

Our market is highly competitive and we may lose business to larger and better-financed competitors.

The microelectronic defect inspection equipment industry is highly competitive in all areas of the world. We have many domestic and foreign competitors. Our current primary competitors in final manufacturing are Camtek Ltd., Hitachi, Ltd., Robotic Vision Systems, Inc. and Toray Industries, Inc. As we enter the front-end market, we expect to compete with larger competitors, such as KLA-Tencor

Corporation and Rudolph Technologies, Inc., for certain automated macro inspection applications. Most of these competitors, as well as other potential competitors, have substantially greater financial resources and more extensive engineering, manufacturing, marketing and customer support capabilities than we have. Unless we are able to invest significant financial resources in developing products and enhancing customer support worldwide, and are able to gain customer acceptance of our products, we may not be able to compete effectively.

As we continue to diversify into the evolving and emerging microelectronic markets, including semiconductors, advanced packaging, optoelectronics, MEMS, flat panel display, printheads, data storage, disk drives, medical devices and other similar devices, further competitors may enter our markets, or we may enter the markets of other companies.

Our operations could be impaired as a result of disasters, business interruptions beyond our control or similar events, including global or regional outbreaks of infectious diseases such as severe acute respiratory syndrome.

Disasters such as earthquakes, flooding, fire, electricity failure, or accidents that affect our operations, manufacturing facility, or the health of our employees or customers could adversely affect our operating results and financial condition. Continued or future outbreaks of infectious diseases such as severe acute respiratory syndrome (SARS), avian flu, or other similar or comparable outbreaks or fears or concerns of possible outbreaks may significantly affect the willingness or ability of our customers to visit our facilities or trade shows, review our systems capabilities and/or purchase or take delivery of our products, as well as our ability to visit our customers, to perform application studies for our customers, to sell and deliver products, and to service those products. Any government mandated or suggested restrictions on travel, quarantines, or declines in the willingness or ability of our customers to travel and visit our facilities or our ability to travel and visit our customers, could have a material adverse effect on our business, financial condition and results of operations.

Our operating results could be negatively impacted if we are unable to obtain the necessary resources to invest in our growth.

We intend to continue to make investments to support business growth and may require additional funds to respond to business challenges, which include the need to develop new products or enhance existing products, enhance our operating infrastructure, acquire complementary businesses and technologies and satisfy working capital requirements. Accordingly, we may need to engage in equity or debt financing to secure additional funds. Equity and debt financing, however, might not be available when needed or, if available, might not be available on terms satisfactory to us. If we are unable to obtain adequate financing or financing on terms satisfactory to us, our ability to continue to support our business growth and to respond to business challenges could be significantly limited.

Our success depends on attracting and retaining key personnel.

Our future success will depend in large part upon our ability to recruit and retain highly skilled technical, manufacturing, managerial, financial and marketing personnel. The labor market in which we operate is highly competitive and as a result, we may not be able to retain and recruit key personnel. Our failure to hire, retain, or adequately train key personnel could have a negative impact on our performance.

In addition, during the recent microelectronic industry downturn we have had reductions in our work force, reduced or eliminated salary increases and for certain periods implemented pay cuts at the management level, and reduced discretionary spending. Any of the above measures may have long term adverse effects on our ability to retain key personnel.

Our business may be harmed if we fail to obtain and protect our intellectual property rights.

Our success depends in part upon our ability to obtain intellectual property rights and licenses and to preserve other intellectual property rights covering our products and our products under development. To protect these rights, we have obtained four domestic patents and intend to continue to seek patents on our inventions when appropriate. As of December 31, 2003, we have 49 pending patent applications in the United States and additional international applications and expect our portfolio to grow in the future. The process of seeking intellectual property protection can be time-consuming and expensive. We cannot ensure that:

- patents will be issued from currently pending or future applications;

- our existing patents or any new patents will be sufficient in scope or strength to provide meaningful protection or any commercial advantage to us;

- foreign intellectual property laws will protect our intellectual property rights; or

- others will not independently develop similar products, duplicate our products or design around our technology.

If we do not successfully protect and then enforce our intellectual property rights, our competitive position could suffer, which could harm our operating results.

We also rely on trade secrets, proprietary know-how and confidentiality provisions in agreements with employees, consultants, key customers and vendors to protect our intellectual property. Other parties may not comply with the terms of their agreements with us and we may not be able to adequately enforce our rights against these people.

Third parties may claim that we are infringing upon their intellectual property and we could suffer significant litigation costs, licensing expenses or be prevented from selling our products.

Intellectual property rights are uncertain and involve complex legal and factual questions. We may be unknowingly infringing upon the intellectual property rights of others and may be liable for that infringement, which could result in significant liability for us. If we do infringe upon the intellectual property rights of others, we could be forced to either seek a license to those intellectual property rights or to alter our products so that they no longer infringe. A license could be very expensive to obtain or may not be available at all. Similarly, changing our products or processes to avoid infringing upon the rights of others may be costly or impractical.

We may become responsible for patent litigation costs. If we were to become involved in a dispute regarding intellectual property, whether ours or that of another company, we may have to participate in legal proceedings. These types of proceedings may be costly and time-consuming for us, even if we eventually prevail. If we do not prevail, we might be forced to pay significant damages, obtain licenses, modify our products or processes, stop making products or stop using processes.

We have initiated litigation against Rudolph Technologies, Inc. and its subsidiary; we may incur significant legal costs and, if we lose, additional financial obligations.

On September 23, 2003, we filed a complaint in the district court of Dallas County, Texas seeking a declaratory judgment that we have no liability to Rudolph Technologies, Inc. or its subsidiary, ISOA, Inc. (doing business as Yield Metrology Group) with respect to claims they have asserted against us and our subsidiary, STI. In addition, we are seeking a judgment against Rudolph and ISOA for repayment of royalties previously paid by STI to ISOA and costs and attorney s fees incurred in bringing this action. In various letters and conversations with STI and us, Rudolph has asserted that STI owes Rudolph development fees and royalty payments pursuant to a December 24, 1997 development agreement between

STI and ISOA, Inc., which Rudolph later acquired and renamed Yield Metrology Group. Rudolph has also asserted that we may have used ISOA technology in the development of one of our products and owe additional royalties to Rudolph as a result. We may incur significant legal fees and expenses in pursuing this action for a declaratory judgment. In addition, there can be no assurance that we will prevail in such litigation and we may suffer an adverse result requiring us to pay damages or royalties adversely affecting our business.

Our dependence on a few significant customers exposes us to operating risks.

Sales to our ten largest customers accounted for 73%, 66% and 75% of net revenues in 2003, 2002 and 2001, respectively. Our customers are able to cancel orders, prior to shipment, with few or no penalties. If a significant customer reduces orders or delays shipments for any reason, our revenues, operating results and financial condition will be negatively affected. In addition, our ability to increase our sales will depend in part upon our ability to obtain orders from new customers for whom there is intense competition.

Our dependence on subcontractors and sole or limited source suppliers may prevent us from delivering an acceptable product on a timely basis and could result in disruption of our operations.

We rely on subcontractors to manufacture many of the components and subassemblies for our products and we depend on single or limited source suppliers for some of our components. Our reliance on subcontractors reduces the level of control we have over the manufacturing process and exposes us to significant risks such as inadequate capacity, late delivery, substandard quality and high costs.

If a supplier were to become unable to provide parts in the volumes needed or at an acceptable price, we would have to identify and qualify acceptable replacements from alternative sources of supply, or manufacture the components internally. Depending on the part, the process of qualifying subcontractors and suppliers generally takes between 60 and 180 days. We generally do not have written supply agreements with our single or limited source suppliers and purchase our custom components through blanket and individual purchase orders. If we were unable to obtain these components in a timely fashion, we may not be able to meet demands for future shipments. We believe that we would be able to find alternative solutions if supplies were unavailable from any of our sole source suppliers, including the supplier of our image processing component. This may take time and the disruption would adversely affect our results of operations.

We assemble and test all of our products at a single facility, and any disruption in the operations of that facility could adversely impact our business and operating results.

Our processes for manufacturing our automated inspection systems require sophisticated and costly equipment and a specially designed facility. We assemble and test all of our automated inspection systems at one facility located in Bloomington, Minnesota. Any disruption in the operation of that facility, whether due to technical or labor difficulties, destruction or damage from fire or earthquake, infrastructure failures such as power or water shortage or any other reason, could interrupt our manufacturing operations, impair critical systems, disrupt communications with our customers and suppliers and cause us to write off inventory and to lose sales.

Failure to adjust our orders for parts and subcomponents in an accurate and timely manner in response to changing market conditions or customer acceptance of our products could adversely affect our financial position and earnings.

Our earnings could be harmed and our inventory levels could materially increase if we are unable to predict our inventory needs in an accurate and timely manner and adjust our orders for parts and subcomponents should our needs increase or decrease materially due to unexpected increases or decreases in demand for our products. Any material increase in our inventories could result in an adverse effect on

our financial position, while any material decrease in our ability to procure needed inventories could result in an inability to supply customer demand for our products thus adversely affecting our revenues.

Our dependence upon international customers and suppliers may reduce our revenues or impede our ability to supply products.

International sales have accounted for a significant and growing portion of our revenues in recent years and we expect that the percentage of sales from international customers will continue to increase. Sales outside of the United States accounted for 76%, 52% and 44% of our net revenues in 2003, 2002 and 2001, respectively. In addition, we rely on non-U.S. suppliers for several components of the systems we sell. As a result, a major part of our revenues and the ability to manufacture our products are subject to the risks associated with international commerce. International sales and our relationships with suppliers and customers may be hurt by many factors, including:

- changes in law or policy resulting in burdensome government controls, tariffs, restrictions, embargoes or export license requirements;
- political or economic instability in our target international markets;
- instability caused by infectious disease or other like outbreaks, or the threat or concern thereof;
- longer payment cycles common in foreign markets;
- difficulties in staffing and managing our international operations;
- less favorable foreign intellectual property laws making it harder to protect our technology from appropriation by competitors;
- difficulties in collecting our accounts receivable because of the geographic distance and unfavorable creditor laws; and
- currency fluctuations may increase the relative price of our products in foreign markets and thereby adversely affect sales.

We are also subject to risks associated with shipping products outside of the U.S. including shipping delays, varying business conditions, differing business cultures and cultural diversities, among other risks. If our international sales or relationships with international suppliers and customers are adversely affected by any of these factors, our financial condition could be adversely affected.

Our financial performance is highly dependent upon sales to customers in Asia.

Sales to customers in Asia accounted for 64%, 45% and 34% of our net revenues in 2003, 2002 and 2001, respectively. We expect our dependence upon the Asian market to increase. In recent years, Asia has experienced serious economic problems including currency devaluations, debt defaults, lack of liquidity and recessions. Our revenues depend upon the capital expenditures of microelectronic manufacturers, many of whom have operations and customers in Asia. Serious economic problems in Asia would likely result in a significant decrease in the sale of equipment to microelectronic industries. If we are unable to maintain our customer relationships in Asia, our future financial condition, revenues and operating results will be negatively affected.

We will continue to rely upon distributors for a portion of our future sales, and a disruption in our relationships with these distributors could have a negative impact on our international sales.

Sales through our independent distributors represented 14%, 8% and 29% of our net revenues in 2003, 2002 and 2001, respectively. One distributor accounts for a significant portion of these sales. The activities of these distributors are not fully within our control. Although we believe that we maintain good

relations with our independent distributors, the relationships may nevertheless deteriorate in the future. A reduction in the sales or service efforts or financial viability of any of our independent distributors, or a termination of our relationships with them, could harm our sales, our financial results and our ability to support our customers.

We recently acquired STI and CSI and we may make other acquisitions; the acquisitions of STI and CSI and any future acquisitions may not be successful and may adversely affect our business.

We are looking for strategic opportunities to grow and diversify our product offerings through acquisitions. In this regard, we recently completed the acquisitions of STI and CSI. Your evaluation of our business and prospects may be difficult because of our limited operating history with STI and CSI. There can be no assurance that we will be successful in integrating the operations of STI and CSI, identifying other appropriate candidates, or integrating products and operations with any such candidates that we may acquire.

Any such acquisition could involve the dilutive issuance of equity securities and the incurrence of debt. In addition, the acquisitions of STI and CSI and future acquisitions may involve numerous additional risks, including:

- the diversion of the attention of our management team from other business concerns;
- risks of entering into markets or producing products where we have limited or no experience, including difficulties in integrating purchased technologies and products with our technologies and products;
- the potential loss of key customers of an acquired company;
- the potential loss of key personnel of an acquired company;
- exposure to unanticipated liabilities of an acquired company; and
- greater financial requirements for purchase price and added working capital.

Even when an acquired company has already developed and marketed products, there can be no assurance that the products will continue to be successful, that product enhancements will be made in a timely fashion or that pre-acquisition due diligence will have identified all possible issues that might arise with respect to the acquired company or its products.

If a microelectronic device manufacturer is loyal to another microelectronic equipment supplier, we may be unable to sell our products to that potential customer and our sales and market share could suffer as a result.

We believe that once a microelectronic device manufacturer has selected one vendor s capital equipment for a production line application, the manufacturer generally relies upon that capital equipment and, to the extent possible, subsequent generations of the same vendor s equipment, for the life of the application. Once a vendor s equipment has been installed in a production line, a microelectronic device manufacturer must often make substantial technical modifications and may experience production-line downtime in order to switch to another vendor s equipment. Accordingly, unless our systems offer performance or cost advantages that outweigh a customer s expense of switching to our systems, it will be difficult for us to achieve significant sales to that customer once it has selected another vendor s capital equipment for an application.

If we are required to account for stock options as a compensation expense, our net income and earnings per share will be significantly reduced.

Some companies have begun to account for stock options as compensation expense thus resulting in a reduction of their net income and earnings per share. We currently grant all options at fair market value and do not record compensation expense in connection with the grants. It is possible that future laws, regulations or changes in accounting standards will require us to record the fair market value of all stock options as a compensation expense in our consolidated financial statements. If such a change occurs, our net income and earnings per share may be significantly reduced.

If we cannot effectively manage our growth, our business may suffer.

We intend to continue to grow by increasing our sales efforts and completing strategic acquisitions. To effectively manage our growth, we must, among other things:

- engage, train and manage a larger sales force and additional service personnel;
- expand the geographic coverage of our sales force;
- expand our information systems;
- identify and successfully integrate acquired businesses into our operations; and
- administer appropriate financial and administrative control procedures.

Our anticipated growth will likely place a significant strain on our management, financial, operational, technical, sales and administrative resources. Any failure to effectively manage our growth may cause our business to suffer and our stock price to decline.

Increased competition could impair sales of our products or cause us to reduce our prices.

We expect our current competitors and other companies to continue to improve the design and performance of their products and to introduce new products with competitive prices and performance characteristics. Competitive pressures may from time to time require us to selectively reduce prices on our systems in an effort to protect our market share. Even if we reduce prices, our potential customers may choose to purchase competing products developed by our competitors, many of whom have development, production, marketing and distribution resources significantly greater than our own. Price reductions or lost sales as a result of these competitive pressures would reduce our total revenues and adversely impact our financial results.

Item 7A. Qualitative and Quantitative Disclosures about Market Risk

Market Risk

We are exposed to market risk primarily from changes in interest rates and credit risk. We do not have material exposure to market risk from fluctuations in foreign currency exchange rates because all sales are made in U.S. dollars.

Interest Rate Risk

We are exposed to interest rate risk primarily from investments in cash equivalents and short-term and long-term marketable debt securities (the Investment Portfolio). The entire Investment Portfolio is classified as available-for-sale and, accordingly, is recorded on the consolidated balance sheet at fair value based on quoted market prices, with unrealized gains and losses reported in Shareholders Equity under the caption Accumulated other comprehensive income (loss) . The entire Investment Portfolio is denominated in U.S. dollars. We do not use derivative financial instruments in the Investment Portfolio.

Due to the short duration of our investment portfolio, an immediate 10 percent change in interest rates is not expected to have a material adverse effect on our near-term financial condition or results of operations.

Credit Risk

Financial instruments which potentially subject us to credit risk consist principally of securities in the Investment Portfolio and trade receivables. We limit credit risk related to the Investment Portfolio by placing all investments with high credit quality issuers and limit the amount of investment with any one issuer. As of December 31, 2003, 81% of the Investment Portfolio consisted of government securities and corporate commercial paper and bonds with maturities of one year or less. We limit credit risk associated with trade receivables by performing ongoing credit evaluations and believe that there is no additional risk beyond amounts provided for collection losses to be inherent in trade receivables.

Item 8. Financial Statements and Supplementary Data

AUGUST TECHNOLOGY CORPORATION

Index to Consolidated Financial Statements

INDEPENDENT AUDITORS REPORT

The Board of Directors and Shareholders
August Technology Corporation:

We have audited the accompanying consolidated balance sheets of August Technology Corporation and subsidiaries (the Company) as of December 31, 2003 and 2002, and the related consolidated statements of operations, shareholders equity, and cash flows for each of the years in the three-year period ended December 31, 2003. In connection with our audits of the consolidated financial statements, we also audited the financial statement schedule as listed in the accompanying index. These consolidated financial statements and financial statement schedule are the responsibility of the Company s management. Our responsibility is to express an opinion on these consolidated financial statements and financial statement schedule based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the consolidated 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 August Technology Corporation and subsidiaries as of December 31, 2003 and 2002, and the results of their operations and their cash flows for each of the years in the three-year period ended December 31, 2003, in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the related financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein

/s/ KPMG LLP

Minneapolis, Minnesota
February 6, 2004

AUGUST TECHNOLOGY CORPORATION
CONSOLIDATED BALANCE SHEETS
(In thousands, except share amounts)

	December 31, 2003	2002
ASSETS		
Current assets:		
Cash and cash equivalents	$ 10,027	$ 1,895
Short-term marketable securities	43,528	15,438
Accounts receivable, net	4,094	7,054
Inventories	11,651	7,432
Inventories at customers under purchase orders	2,293	1,012
Prepaid expenses and other current assets	1,631	1,091
Total current assets	73,224	33,922
Property and equipment, net	3,141	3,439
Long-term marketable securities	10,295	1,444
Purchased technology, net	1,179	
Goodwill	498	
Other assets	610	705
Total assets	$ 88,947	$ 39,510
LIABILITIES AND SHAREHOLDERS EQUITY		
Current liabilities:		
Accounts payable	$ 5,409	$ 2,273
Accrued compensation	1,146	554
Other accrued liabilities	1,414	451
Customer deposits and deferred revenues	2,436	1,268
Total current liabilities	10,405	4,546
Other non-current liabilities	65	97
Total liabilities	10,470	4,643
Commitments and contingencies (note 13)		
Shareholders equity:		
Common stock, no par value, 42,000,000 shares authorized 17,382,538 and 13,152,304 shares issued and outstanding, respectively	88,086	42,158
Undesignated capital stock, no par value, 3,000,000 shares authorized, no shares issued or outstanding		
Deferred compensation related to stock options	(49)	(105)
Accumulated deficit	(9,578)	(7,229)
Accumulated other comprehensive income	18	43
Total shareholders equity	78,477	34,867
Total liabilities and shareholders equity	$ 88,947	$ 39,510

See accompanying notes to consolidated financial statements.

39

AUGUST TECHNOLOGY CORPORATION
CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands, except per share amounts)

	Years Ended December 31,		
	2003	**2002**	**2001**
Net revenues	$ 40,323	$ 25,058	$ 29,784
Cost of revenues	18,290	11,068	12,039
Gross profit	22,033	13,990	17,745
Selling, general and administrative expenses	14,359	13,013	12,379
Research and development expenses	10,430	9,847	7,940
Operating loss	(2,756)	(8,870)	(2,574)
Interest income	407	624	1,427
Other expense			(17)
Loss before provision for (benefit from) income taxes	(2,349)	(8,246)	(1,164)
Provision for (benefit from) income taxes		687	(813)
Net loss	$ (2,349)	$ (8,933)	$ (351)
Net loss per share:			
Basic and diluted	$ (0.16)	$ (0.69)	$ (0.03)
Weighted average number of shares:			
Basic and diluted	14,381	13,033	12,723

See accompanying notes to consolidated financial statements.

40

AUGUST TECHNOLOGY CORPORATION
CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY
(In thousands, except share amounts)

	Common Stock Shares Issued And Outstanding	**Amount**	**Deferred Compensation Related To Stock Options**	**Retained Earnings (Accumulated Deficit)**	**Accumulated Other Comprehensive Income (Loss)**	**Total Shareholders' Equity**
Balances at December 31, 2000	12,633,058	$ 39,935	$ (305)	$ 2,055	$	$ 41,685
Net loss				(351)		(351)
Other comprehensive loss:						
Foreign currency translation adjustment					(9)	(9)
Comprehensive loss						(360)
Issuances of common stock in conjunction with:						
Exercises of employee stock options	150,946	307				307
Employee stock purchase plan	28,160	289				289
Tax benefit from stock options exercised		501				501
Issuances of stock options to nenemployees		8				8
Amortization of deferred compensation related to stock options		(20)	113			93
Balances at December 31, 2001	12,812,164	41,020	(192)	1,704	(9)	42,523
Net loss				(8,933)		(8,933)
Other comprehensive income (loss):						

Foreign currency translation adjustment					(3)	(3)
Net unrealized gain on securities					55	55
Comprehensive loss						(8,881)
Issuances of common stock in conjunction with:						
Exercises of employee stock options	303,673	942				942
Employee stock purchase plan	36,467	220				220
Amortization of deferred compensation related to stock options		(24)	87			63
Balances at December 31, 2002	13,152,304	42,158	(105)	(7,229)	43	34,867
Net loss				(2,349)		(2,349)
Other comprehensive loss:						
Foreign currency translation adjustment					(8)	(8)
Net unrealized loss on securities					(17)	(17)
Comprehensive loss						(2,374)
Issuances of common stock in conjunction with:						
Follow on public offering, net of expenses	3,490,238	42,049				42,049
Acquisitions	415,385	2,160				2,160
Exercises of employee stock options	282,341	1,498				1,498
Employee stock purchase plan	42,270	219				219
Issuances of stock options to nonemployees		7				7
Amortization of deferred compensation related to stock options		(5)	56			51
Balances at December 31, 2003	17,382,538	$ 88,086	$ (49)	$ (9,578)	$ 18	$ 78,477

See accompanying notes to consolidated financial statements.

AUGUST TECHNOLOGY CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)

	Years Ended December 31, 2003	2002	2001
Cash flows from operating activities:			
Net loss	$ (2,349)	$ (8,933)	$ (351)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:			
Depreciation and amortization	1,951	1,399	934
Provision for doubtful accounts	195	148	157
Amortization of deferred compensation related to stock options	58	63	101
Deferred income taxes		896	(662)
Loss on disposition of assets			17
Changes in operating assets and liabilities, net of effect of acquisitions:			
Accounts receivable	3,171	(2,465)	1,986
Inventories	(3,474)	920	(96)
Inventories at customers under purchase orders	(312)	20	(1,032)
Prepaid expenses and other current assets	(195)	1,427	(1,213)
Accounts payable	3,130	632	(1,127)
Accrued compensation	591	(61)	(641)
Other accrued liabilities	849	(113)	(632)
Customer deposits and deferred revenues	232	(447)	1,123
Net cash provided by (used in) operating activities	3,847	(6,514)	(1,436)

Cash flows from investing activities:			
Proceeds from maturities of marketable securities	246,020	34,738	56,471
Purchases of marketable securities	(282,978)	(27,231)	(54,715)
Cash paid in acquisitions	(1,539)		
Purchases of property and equipment	(981)	(1,209)	(2,245)
Investments in other assets		(571)	(248)
Net cash provided by (used in) investing activities	(39,478)	5,727	(737)
Cash flows from financing activities:			
Net proceeds from issuances of common stock	43,766	1,162	596
Net cash provided by financing activities	43,766	1,162	596
Effect of exchange rates on cash and cash equivalents	(3)	(3)	(3)
Net increase (decrease) in cash and cash equivalents	8,132	372	(1,580)
Cash and cash equivalents at beginning of year	1,895	1,523	3,103
Cash and cash equivalents at end of year	$ 10,027	$ 1,895	$ 1,523
Supplemental cash flow information:			
Cash refunds (payments) of income taxes, net	$ 218	$ 1,747	$ (1,834)
Common stock issued for acquisitions	$ 2,160	$	$

See accompanying notes to consolidated financial statements.

AUGUST TECHNOLOGY CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(In thousands, except per share data)

Note 1 Nature of Business and Summary of Significant Accounting Policies

Nature of Business. August Technology Corporation (collectively with its subsidiaries, the Company) is a worldwide leader in the research, design, development, manufacture, marketing, sales, distribution and service of automated defect detection and review systems used in the manufacture of microelectronic devices including semiconductor devices as well as emerging microelectronic device markets. The Company s systems automate the inspection process, allowing manufacturers to inspect 100% of their wafers or die, while providing powerful information that manufacturers can use to increase yield and productivity. The Company has sold these systems worldwide to major microelectronic device manufacturers.

Principles of Consolidation. The consolidated financial statements include the accounts of August Technology Corporation and its wholly owned subsidiaries. All significant intercompany balances and transactions are eliminated in consolidation.

Use of Estimates. Management uses estimates and assumptions in preparing consolidated financial statements in accordance with generally accepted accounting principles. Those estimates and assumptions affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported revenues and expenses during the reporting periods. Estimates are used for, but not limited to: allocation of revenues in multiple element arrangements, allowance for doubtful accounts, inventory valuation, useful lives of depreciable and intangible assets, warranty provisions and income taxes. Future events and their effects cannot be perceived with certainty. As a result, the estimates used in preparation of the consolidated financial statements will change as new events occur, as additional information is obtained and as the Company s operating environment changes. Actual results could differ from those estimates.

Cash and Cash Equivalents. Cash and cash equivalents include highly liquid securities with original maturities of 90 days or less when purchased.

Investments. Investments consist of marketable securities. The investments are stated at fair value based on quoted market prices and may be used for liquidity or other corporate purposes. The Company s investments are classified as available-for-sale securities. Unrealized gains and losses are reported in shareholders equity under the caption Accumulated other comprehensive income (loss) until maturity or sale of the investment, at which time it is included in interest income. Short-term marketable securities mature in less than one year. Long-term marketable securities have maturities of more than one year.

Fair Value of Financial Instruments. The carrying amount of cash and cash equivalents, accounts receivable, marketable securities and accounts payable approximates fair value as of December 31, 2003 and 2002.

Inventories. Inventories are stated at the lower of cost (first-in, first-out) or market. Demonstration systems are stated at manufacturing cost and reserves are recorded to state the demonstration systems at net realizable value. The Company reviews inventory for obsolescence and excess quantities to determine that items deemed obsolete or excess are appropriately reserved. In making the determination, the Company considers the quantity of inventory at the balance sheet date assessed against each part s past usage rates and future expected usage rates.

AUGUST TECHNOLOGY CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(In thousands, except per share data)

Note 1 Nature of Business and Summary of Significant Accounting Policies (Continued)

Inventories at customers under purchase orders represents systems that have shipped under the terms of a customer purchase order, but have not yet qualified for revenue recognition as the systems had not met customer specifications as of December 31, 2003 or 2002.

Property and Equipment. Property and equipment are recorded at cost and depreciated over the estimated useful lives of the respective assets. The estimated useful lives range from two to seven years. Leasehold improvements are amortized using the straight-line method over the lesser of the estimated useful lives or lease terms.

Capitalized Software Development Costs. Software development costs incurred subsequent to the establishment of technological feasibility, which is demonstrated by the completion of a working model, through general release of the products are capitalized. Capitalized costs are amortized over the lesser of the estimated sales of the product or the straight-line method over a period of three years. The Company reviews the carrying value of software development costs regularly and a loss is recognized when the net realizable value falls below the unamortized cost. Net capitalized software development costs at December 31, 2003 and 2002 were $65 and $160, respectively. Amortization expense for the years ended December 31, 2003, 2002 and 2001 was $95, $88 and $37, respectively.

Purchased Technology and Goodwill. Purchased technology is amortized over the estimated useful lives using the straight-line method and presented at cost, net of accumulated amortization in the consolidated balance sheet. In accordance with the provisions of Statement of Financial Accounting Standard (SFAS) No. 142, Goodwill and Intangible Assets, goodwill is periodically tested for impairment rather than ratably amortized over a period of time. To test for potential impairment, it was first determined that the Company consisted of a single reporting unit. Secondly, fair value of the reporting unit was determined based upon the quoted market price of the Company s common stock at December 31, 2003. The fair value of the Company was then compared with the carrying value of net assets. Based on this comparison, it was determined that no impairment existed. Accordingly, the Company did not perform step two of the impairment analysis, in which the exact amount of an impairment would have been determined. In step two of the impairment analysis, the Company would have been required to compare the implied fair value of goodwill, determined by allocating the reporting unit s fair value to all of its assets and liabilities, to its carrying amount.

Impairment of Long Lived Assets. The Company reviews long-lived assets for impairment annually or more frequently if the occurrence of events or changes in circumstances indicate that the carrying amount of the assets may not be fully recoverable or the useful lives of these assets are no longer appropriate. Each impairment test is based on a comparison of the carrying amount of an asset to future net undiscounted cash flows. If an impairment is indicated, the asset is written down to its estimated fair value on a discounted cash flow basis.

Concentrations of Credit Risk. Financial instruments that potentially subject the Company to credit risk consist principally of investments in cash equivalents and short-term and long-term marketable securities and trade receivables. The Company limits credit risk by placing all investments with high credit quality issuers and limits the amount of investment with any one issuer. The Company limits credit risk associated with trade receivables by performing ongoing credit evaluations and maintains a reserve for potential collection losses based upon collectibility of all accounts receivable. The Company believes that

AUGUST TECHNOLOGY CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(In thousands, except per share data)

Note 1 Nature of Business and Summary of Significant Accounting Policies (Continued)

there is no additional risk, beyond amounts provided for collection losses, to be inherent in trade receivables.

Income Taxes. Income taxes are accounted for under the asset and liability method. Deferred income taxes are recognized for the difference between the financial statement carrying amounts and the tax basis of existing assets and liabilities. Deferred income taxes are recorded at the tax rates expected to be in effect when amounts are to be included in future taxable income. The Company regularly assesses the recoverability of deferred tax assets and records a valuation allowance to reduce the deferred tax assets to the amounts believed to be realizable, considering whether it is more likely than not that some portion or all of the deferred tax assets will be realized. The ultimate realization of deferred tax assets is dependent upon carry back to prior periods, tax planning strategies, the scheduled reversal of deferred tax liabilities and the generation of future taxable income during the periods in which those temporary differences become deductible. Based upon the Company s level of historical taxable losses in recent years and the uncertainty of future taxable income, the Company concluded during the second quarter of 2002, and continues to believe, that a full valuation allowance against the deferred tax assets is appropriate. The valuation allowance at December 31, 2003 was $7,529.

Comprehensive Income (Loss). Comprehensive income (loss) represents the change in equity during a period from transactions and other events and circumstances excluding transactions resulting from investment by shareholders and distribution to shareholders.

Foreign Currency Translation. Assets and liabilities of the Company s Taiwan and United Kingdom subsidiaries are translated at current period end exchange rates, and equity accounts are translated at historical rates. Income and expense accounts are translated at the average exchange rate in effect during the period. The resulting translation adjustment is excluded from operations and accumulated as a separate component of shareholders equity.

Stock-based Compensation. The Company measures compensation expense for its stock-based employee compensation plans using the intrinsic value method. As the exercise price of options granted under these plans is equal to the fair market price of the underlying common stock on the grant date, no stock-based employee compensation cost is recognized in the consolidated statements of operations.

AUGUST TECHNOLOGY CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(In thousands, except per share data)

Note 1 Nature of Business and Summary of Significant Accounting Policies (Continued)

In December 2002, the Financial Accounting Standards Board (FASB) issued SFAS No. 148, Accounting for Stock-Based Compensation Transition and Disclosure. This Statement amends SFAS No. 123, Accounting for Stock-Based Compensation. To comply with SFAS 148, the Company is presenting the following table to illustrate the effect on net loss and net loss per share as if it had applied the fair value recognition provisions of SFAS 123, as amended, to options granted under the stock-based employee compensation plans.

	Years ended December 31,		
	2003	2002	2001
Net loss, as reported	$ (2,349)	$ (8,933)	$ (351)
Stock compensation expense, net of tax	(1,598)	(2,491)	(916)
Pro forma net loss	$ (3,947)	$ (11,424)	$ (1,267)
Basic and diluted net loss per share:			
As reported	$ (0.16)	$ (0.69)	$ (0.03)
Pro forma	(0.27)	(0.88)	(0.10)

The Company determined the pro forma compensation expense under the provisions of SFAS No. 123 using the Black-Scholes pricing model and the following assumptions:

	Years Ended December 31,		
	2003	2002	2001
Expected life	5.6 years	4.4 years	5.7 years
Risk free interest rate	3.0 %	3.4 %	4.8 %
Volatility	75.1 %	74.2 %	69.9 %
Dividend yield			

The estimated per share weighted average fair value of all stock options granted during the years ended December 31, 2003, 2002 and 2001 was $4.75, $3.82 and $7.48, respectively.

Stock-based Payments to Nonemployees. The Company recognizes expense for stock options issued to nonemployees based upon the fair value of the consideration received or the fair value of the equity instruments issued in accordance with SFAS No. 123.

Revenue Recognition. The Company derives revenues from the sale of systems, spare parts, software and services.

System sales: The Company requires customers, excluding the Company s distributors, that have new inspection applications to complete pre-shipment authorization testing of purchased systems at the Company s facility, prior to shipment. During this testing, the customer verifies that the system meets their specifications and authorizes shipment. For systems that have completed pre-shipment authorization testing, revenue is recognized as follows:

- Revenue from systems that have been demonstrated to meet customer specifications during pre-shipment authorization testing is recognized when the product has shipped, title and risk of loss have transferred to the customer and collection of the resulting receivable is probable.

AUGUST TECHNOLOGY CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(In thousands, except per share data)

Note 1 Nature of Business and Summary of Significant Accounting Policies (Continued)

- Revenue from systems that have not been demonstrated to meet customer specifications during pre-shipment authorization testing is recognized when title and risk of loss have transferred to the customer, installation has occurred and collection of the resulting receivable is probable.

When a customer with a new inspection application declines pre-shipment authorization testing of a purchased system, revenue is deferred until, title and risk of loss have transferred to the customer, installation has occurred and collection of the resulting receivable is probable.

When the customer has already accepted previous systems, with the same specifications, for the same application, the Company does not require pre-shipment authorization testing. Revenue is recognized when the product has shipped, title and risk of loss have transferred to the customer and collection of the resulting receivable is probable.

System sales are accounted for as multiple-element arrangements. In transactions that include multiple products and/or services, the Company allocates the revenue to each element based on their relative fair value (or in the absence of fair value, the residual method) and recognizes the associated revenue when all revenue recognition criteria have been met for each element.

Spare parts revenue: Spare parts revenue is recognized when the parts have been shipped, title and risk of loss have transferred to the customer and collection of the resulting receivable is probable.

Software revenue: Software revenue is recognized ratably over the support period.

Service revenue: Service revenue is recognized after the services are performed and collection of the resulting receivable is probable. Revenues from maintenance contracts is recognized ratably over the period of the contract. Service revenues were insignificant during the years ended December 31, 2003, 2002 and 2001.

Warranty. The Company provides warranty coverage for its systems for a period of one year, including parts and labor necessary to repair the systems during the warranty period. A provision for the costs related to warranty expense is recorded as a charge to cost of goods sold when revenue is recognized. The estimated warranty cost is based on our historical experience rate of incurred expenses to corresponding system revenues.

Advertising Costs. Advertising costs are expensed as incurred.

Research and Development. Research and development costs are expensed as incurred.

Net Income (Loss) Per Share. Basic net income (loss) per share excludes dilution and is computed by dividing income (loss) available to common shareholders by the weighted average number of common shares outstanding for the period. Diluted net income per share reflects the potential dilution that could occur if securities or other contracts to issue common stock were exercised or converted into common stock. When there is a net loss, other potentially dilutive securities are not included in the calculation of net loss per share since their inclusion would be anti-dilutive.

Reclassifications. Certain prior year amounts have been reclassified to conform to the 2003 presentation. These reclassifications had no impact on previously reported results of operations or shareholders equity.

AUGUST TECHNOLOGY CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(In thousands, except per share data)

Note 1 Nature of Business and Summary of Significant Accounting Policies (Continued)

New Accounting Pronouncements

In December 2002, the Emerging Issues Task Force (EITF) reached a consensus on EITF 00-21, Revenue Arrangements with Multiple Deliverables . This Issue addresses certain aspects of the accounting by a vendor for arrangements under which it will perform multiple revenue-generating activities. In some arrangements, the different revenue-generating activities (deliverables) are sufficiently separable and there exists sufficient evidence of their fair values to separately account for some or all of the deliverables (that is, there are separate units of accounting). In other arrangements, some or all of the deliverables are not independently functional, or there is not sufficient evidence of their fair values to account for them separately. This Issue addresses when and, if so, how an arrangement involving multiple deliverables should be divided into separate units of accounting. This Issue does not change otherwise applicable revenue recognition criteria. The guidance in this Issue is effective for revenue arrangements entered into in fiscal periods beginning after June 15, 2003. The adoption of EITF 00-21 did not have an effect on the Company s consolidated financial statements.

In January 2003, the FASB issued FASB Interpretation (FIN) No. 46, Consolidation of Variable Interest Entities . This Interpretation of Accounting Research Bulletin (ARB) No. 51, Consolidated Financial Statements , addresses consolidation by business enterprises of variable interest entities that possess certain characteristics. FIN 46 requires that if a business enterprise has a controlling financial interest in a variable interest entity, the assets, liabilities, and results of the activities of the variable interest entity must be included in the consolidated financial statements with those of the business enterprise. The consolidation requirements of FIN 46 are effective for the first reporting period ending after December 15, 2003 for entities considered to be special-purpose entities. The consolidation requirements for all other entities subject to FIN 46 are effective for consolidated financial statements of the first reporting period ending after March 15, 2004. The Company does not have any ownership in any variable interest entities as of December 31, 2003. The Company will apply the consolidation requirements of FIN 46 in future periods should an interest in a variable interest entity be acquired.

In April 2003, the FASB issued SFAS No. 149, Amendment of Statement 133 on Derivative Instruments and Hedging , which amends and clarifies financial accounting and reporting for derivative instruments. SFAS 149 became effective for the Company in July 2003. The adoption of SFAS 149 did not have an effect on the Company s consolidated financial statements.

On May 15, 2003, the Financial Accounting Standards Board issued SFAS No. 150, Accounting for Certain Financial Instruments with Characteristics of Both Liabilities and Equity . The Statement requires issuers to classify as liabilities (or assets in some circumstance) three classes of freestanding financial instruments that embody obligations for the issuer. Generally, the Statement is effective for financial instruments entered into or modified after May 31, 2003 and is otherwise effective at the beginning of the first interim period beginning after June 15, 2003. The adoption of SFAS 150 did not have an effect on the Company s consolidated financial statements.

AUGUST TECHNOLOGY CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(In thousands, except per share data)

Note 2 Business Combinations

The Company completed two purchase acquisitions during 2003. The consolidated financial statements include the operating results of each business from the date of acquisition. Pro forma results of operations have been presented for all acquisitions that are material on either an individual or aggregate basis. For a period of up to twelve months from the acquisition date, the Company may change its original purchase price allocation for pre-acquisition uncertainties. After twelve months, the Company records the fair value of such contingencies that can be reasonably estimated.

Semiconductor Technologies & Instruments, Inc.

On April 15, 2003, the Company acquired all of the outstanding capital stock of Semiconductor Technologies & Instruments, Inc., (STI). STI manufactures automated defect inspection and metrology tools that are integrated onto probers, providing microelectronics manufacturers with an automated solution for inspecting probe marks, ink dots and active die regions. The total purchase price, including direct acquisition costs, was $2,184 which consisted of $1,428 in cash and 215 shares of the Company s Common Stock. As discussed in Note 13, in connection with the acquisition of STI, the Company had placed 180 shares of its Common Stock issued in the transaction in escrow as part of the Company s indemnification protection against damages related to a dispute between STI and Rudolph Technologies, Inc. and its subsidiary ISOA, Inc.

The allocation of the purchase price to the assets acquired and liabilities assumed, based upon their estimated fair market values, was as follows:

Accounts receivable	$ 346
Inventories	1,527
Prepaid expenses and other current assets	71
Property and equipment	338
Purchased technology	370
Accrued liabilities	(78)
Deferred revenue	(330)
Customer deposits	(60)
	$ 2,184

AUGUST TECHNOLOGY CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(In thousands, except per share data)

Note 2 Business Combinations (Continued)

The following unaudited pro forma consolidated financial information presents the combined results of operations of the Company and STI as if the acquisition occurred at the beginning of the periods presented, after giving effect to certain adjustments, including amortization expense. The unaudited pro forma consolidated financial information does not necessarily reflect the results of operations that would have occurred had the acquisition been completed as of the dates indicated or of the results that may be obtained in the future.

	Years Ended December 31,			
	2003		2002	
	As reported	Pro forma	As reported	Pro forma
Revenues	$ 40,323	$ 40,593	$ 25,058	$ 28,269
Net loss	(2,349)	(3,150)	(8,933)	(12,643)
Net loss per share:				
Basic and diluted	$ (0.16)	$ (0.22)	$ (0.69)	$ (0.95)

Counterpoint Solutions, Inc.

On July 3, 2003, the Company purchased substantially all of the assets of Counterpoint Solutions, Inc. (CSI). CSI develops wafer inspection, review and failure analysis solutions. The total purchase price, including direct acquisition costs, was $1,515, which consisted of 200 shares of the Company s Common Stock and $111 in cash. The allocation of the purchase price resulted in the Company recording $17 of net assets, $498 of goodwill and $1,000 of purchased technology. During the year ended December 31, 2002, CSI had unaudited revenues of $885 and unaudited net income of $104.

Note 3 Marketable Securities

The amortized cost and estimated fair value of available-for-sale marketable securities were as follows:

	December 31, 2003			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Corporate bonds	$ 12,484	$ 35	$ (2)	$ 12,517
Municipal bonds	41,301	7	(2)	41,306
	$ 53,785	$ 42	$ (4)	$ 53,823

	December 31, 2002			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Corporate bonds	$ 8,669	$ 38	$	$ 8,707
Municipal bonds	8,158	17		8,175
	$ 16,827	$ 55	$	$ 16,882

AUGUST TECHNOLOGY CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(In thousands, except per share data)

Note 3 Marketable Securities (Continued)

The maturities of available-for-sale marketable securities were as follows:

	December 31, 2003 Amortized Cost	Fair Value	2002 Amortized Cost	Fair Value
Due within one year	$ 43,524	$ 43,528	$ 15,387	$ 15,438
Due after one year through three years	10,261	10,295	1,440	1,444
	$ 53,785	$ 53,823	$ 16,827	$ 16,882

Net realized gains and losses were not material for the years ended December 31, 2003 and 2002.

Note 4 Accounts Receivable

Accounts receivable consisted of the following:

	December 31, 2003	2002
Billed receivables	$ 3,837	$ 7,209
Unbilled revenue	812	395
	4,649	7,604
Allowance for doubtful accounts	(555)	(550)
Accounts receivable, net	$ 4,094	$ 7,054

Unbilled revenue represents revenue that has been earned for equipment shipped but not billed due to the payment terms of the customer order.

Note 5 Inventories and Inventories at Customers under Purchase Orders

Inventories consisted of the following:

	December 31, 2003	2002
Raw materials	$ 4,645	$ 3,053
Work in process	2,305	1,415
Demonstration equipment	1,603	1,374
Finished goods	3,098	1,590
Inventories	$ 11,651	$ 7,432

Note 6 Purchased Technology

As of December 31, 2003, purchased technology was $1,370 and related accumulated amortization of $191. Purchased technology is amortized on a straight-line basis over an estimated useful life of four years. Amortization expense for the year ended December 31, 2003 was $191. Assuming no change in the gross carrying value of purchased technology, the estimated amortization expense for each of the next five years is $342, $342, $343, $152 and none.

AUGUST TECHNOLOGY CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(In thousands, except per share data)

Note 7 Property and Equipment

Property and equipment consisted of the following:

	December 31, 2003	2002
Furniture and equipment	$ 4,076	$ 3,487
Computer equipment	1,335	1,094
Computer software	1,540	1,323
Leasehold improvements	426	393
	7,377	6,297
Less: accumulated depreciation and amortization	(4,236)	(2,858)
Property and equipment, net	$ 3,141	$ 3,439

Depreciation expense for the years ended December 31, 2003, 2002 and 2001 was $1,666, $1,311 and $897, respectively.

Note 8 Other Assets

During May 2002, the Company invested $500 in Excelerate Technologies, Inc. (Excelerate) in the form of a Note Receivable (the Note). The Note was amended in February 2003. The Note bears interest at prime and is secured by certain assets. The Note matures and converts into Excelerate preferred stock upon Excelerate raising $1,500 of additional financing via a sale of Excelerate preferred stock. The Note can be prepaid at anytime by paying the outstanding principal and interest, along with a prepayment fee of 7.5% on the combined outstanding principal and interest. Management determined the note is recoverable based upon the review of Excelerate s financial projections and consideration of the value of the secured assets.

Note 9 Income Taxes

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

	Years Ended December 31, 2003	2002	2001
Current:			
Federal	$	$ (239)	$ (152)
State			1
Foreign		30	
		(209)	(151)
Deferred:			
Federal		679	(468)
State		217	(194)
Foreign			
		896	(662)
Total provision for (benefit from) income taxes	$	$ 687	$ (813)

AUGUST TECHNOLOGY CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(In thousands, except per share data)

Note 9 Income Taxes (Continued)

A reconciliation of the expected federal income taxes at the statutory rate of 34% to the actual provision for (benefit from) income taxes is as follows:

	Years Ended December 31,		
	2003	**2002**	**2001**
Expected federal income tax	$ (799)	$ (3,037)	$ (396)
General business credits	(312)	(283)	(208)
Tax exempt income	(90)	(58)	(81)
Nondeductible expenses	59	100	86
Change in valuation allowance	1,142	3,752	
Extraterritorial income exclusion			(97)
State income tax, net of federal tax effect		144	(127)
Foreign tax		30	
Other		39	
Cost (benefit) of graduated tax rates			10
Actual provision for (benefit from) income taxes	$	$ 687	$ (813)

AUGUST TECHNOLOGY CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(In thousands, except per share data)

Note 9 Income Taxes (Continued)

Deferred taxes consisted of the following:

	December 31, 2003	2002
Current deferred tax assets:		
Allowance for doubtful accounts	$ 209	$ 207
Inventory reserve	198	100
Warranty accrual	90	42
Compensation accrual	48	111
Accrued lease obligation	12	11
Total current deferred tax assets	557	471
Long-term deferred tax assets:		
Net operating loss carryovers	5,886	4,107
General business credits	1,319	1,007
Accrued lease obligation	25	30
Alternative minimum tax credits		
Total gross deferred tax assets	7,787	5,615
Current deferred tax liabilities:		
Prepaid expenses	(51)	(51)
Long-term deferred tax liabilities:		
Depreciation	(207)	(204)
Total gross deferred tax liabilities	(258)	(255)
Valuation allowance	(7,529)	(5,360)
Net deferred tax assets	$	$

The valuation allowance for deferred tax assets as of December 31, 2003 and 2002 was $7,529 and $5,360, respectively. The net change in the total valuation allowance for the years ended December 31, 2003 and 2002 was an increase of $2,169 and $5,360, respectively.

At December 31, 2003, the Company had federal net operating loss carryforwards of approximately $14,721 that will begin to expire in 2022 and state net operating loss carryforwards of approximately $5,372 that will begin to expire in 2016. The net operating losses are available to offset future federal and state taxable income, if any. In addition, the Company has general business tax credits for federal and state tax purposes of approximately $1,060 and $206, respectively, which are available to offset future federal and state regular income taxes, if any, and will begin to expire in 2015.

Subsequently recognized tax benefits relating to the $7,529 valuation allowance for deferred tax assets as of December 31, 2003, would be reported in the consolidated statements of operations as an income tax benefit of $5,590 and in the consolidated statements of shareholders equity as a tax benefit from stock options exercised of $1,939.

AUGUST TECHNOLOGY CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(In thousands, except per share data)

Note 10 Short-Term Debt

On July 26, 2002 the Company entered into a revolving credit line agreement (the Credit Facility) with a bank that expires in April 2004. The Credit Facility allows for borrowings of up to $5.0 million subject to availability based on accounts receivable and inventory balances. Interest is

payable monthly at the 30-day LIBOR rate plus 2.25%. The Credit Facility contains financial covenants, which include certain levels of tangible net worth and capital expenditures. As of December 31, 2003, the Company was in compliance with these covenants and there was no balance outstanding under the agreement.

On June 30, 2002, the Company s previous revolving credit line agreement expired. There was no balance outstanding under the agreement at December 31, 2001.

Note 11 Accumulated Other Comprehensive Income (Loss)

The accumulated balances for each classification of accumulated comprehensive income (loss) are as follows:

	December 31,	
	2003	2002
Currency translation adjustments	$ 38	$ 55
Unrealized losses on marketable securities	(20)	(12)
Accumulated other comprehensive income	$ 18	$ 43

Note 12 Shareholders Equity

Net Loss Per Share

The components of basic and diluted net loss per share were as follows:

	Years Ended December 31,		
	2003	2002	2001
Net loss	$ (2,349)	$ (8,933)	$ (351)
Weighted average common shares:			
Basic	14,381	13,033	12,723
Effect of dilutive stock options and warrants			
Diluted	14,381	13,033	12,723
Net loss per share:			
Basic and diluted	$ (0.16)	$ (0.69)	$ (0.03)

The total weighted average number of stock options and warrants excluded from the calculation of potentially dilutive securities either due to the exercise price exceeding the average market price or the inclusion of such securities in a calculation of net loss per share would have been anti-dilutive for the years ended December 31, 2003, 2002 and 2001 were 1,884, 1,556 and 1,585, respectively.

AUGUST TECHNOLOGY CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(In thousands, except per share data)

Note 12 Shareholders Equity (Continued)

Common Stock

On September 23, 2003, the Company sold 3,000 shares of its Common Stock at a price of $13.00 per share in a follow-on public offering (the Offering). In conjunction with the Offering, on October 21, 2003, the underwriters exercised their over-allotment option to acquire an additional 490 shares of Common Stock at the same price to the public and with the same underwriting discount as the Offering. The net proceeds from the Offering, including the exercise of the underwriters over-allotment option, after deducting the underwriting discount and offering expenses, was $42,049.

Deferred Compensation

In connection with the grant of stock options to employees in 1999, the Company recorded deferred compensation of $428, representing the difference between the estimated deemed value of the Common Stock for accounting purposes and the exercise price of such options at the date of grant. Such amount is presented as a reduction of shareholders equity and will be amortized ratably over the vesting period of the options granted, generally five years. The charge to compensation expense related to this deferred compensation for the years ended December 31, 2003, 2002 and 2001 was $51, $63 and $93, respectively.

Employee Stock Purchase Plan

During 2000, the Board of Directors and shareholders adopted the 2000 Employee Stock Purchase Plan (the 2000 Purchase Plan). The 2000 Purchase Plan allows employees, subject to certain restrictions, to purchase the Company s Common Stock through payroll deductions. Contributions are limited to 10% of an employee s compensation. The purchase price is set at 85% of the lower of the closing market price of the Company s Common Stock at the commencement or termination of a participation phase. Participation phases have a duration of six months and begin on January 1 and July 1 of each year. The Board of Directors has reserved 375 shares of Common Stock for issuance under the 2000 Purchase Plan. As of December 31, 2003, 125 shares of Common Stock had been purchased and 250 shares remain reserved for future issuance under the 2000 Purchase Plan.

Stock-based Compensation

The Board of Directors and shareholders have adopted the 1997 incentive stock option plan (the 1997 Option Plan), which originally provided for 1,125 shares available for issuance primarily to officers, directors and key employees. On April 14, 2000, April 19, 2001 and April 30, 2003, the shareholders authorized increases in the number of shares available for issuance to 2,250, 2,650 and 3,050 shares, respectively. The 1997 Option Plan permits the granting of incentive stock options meeting the requirements of Section 422 of the Internal Revenue Code of 1986, as amended, and also nonqualified stock options which do not meet the requirements of Section 422. The exercise price of incentive stock options may not be less than the fair market value of the stock at the date of grant. The exercise price of nonqualified stock options may not be less than 85% of the fair market value of the stock at the date of grant. The stock options vest over periods that range from immediate to five years and expire seven years from the date of grant. As of December 31, 2003, there were 362 shares available for future grant under the 1997 Option Plan.

AUGUST TECHNOLOGY CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(In thousands, except per share data)

Note 12 Shareholders Equity (Continued)

Information with respect to option activity is as follows:

	Number of Shares	Weighted Average Exercise Price Per Share
Outstanding at December 31, 2000	1,505	$ 5.64
Granted	385	11.55
Exercised	(151)	2.03
Forfeited	(123)	9.90
Outstanding at December 31, 2001	1,616	7.06
Granted	700	6.59
Exercised	(304)	3.10
Forfeited	(217)	9.11
Outstanding at December 31, 2002	1,795	7.30
Granted	448	7.30
Exercised	(282)	5.30
Forfeited	(161)	9.35
Outstanding at December 31, 2003	1,800	$ 7.43

The following table summarizes information about stock options outstanding at December 31, 2003:

Range of Exercise Prices	Outstanding Options	Weighted Average Remaining Contractual Life (years)	Weighted Average Exercise Price	Exercisable Exercisable Options	Exercisable Weighted Average Exercise Price
$ 0.50 - 1.20	168	1.5	$ 0.93	157	$ 0.91
1.21 - 3.96	192	3.6	2.70	110	2.45
3.97 - 4.30	209	6.1	4.19	79	4.30
4.31 - 4.56	175	6.2	4.42	55	4.55
4.57 - 6.15	197	5.2	5.07	91	5.13
6.16 - 9.63	185	5.2	8.69	95	9.45
9.64 - 10.76	203	5.2	10.25	80	10.07
10.77 - 12.00	154	3.9	11.73	84	11.80
12.01 - 13.25	139	4.1	12.96	80	12.92
13.26 - 18.95	178	5.0	15.41	68	14.71
$ 0.50 - 18.95	1,800	4.7	$ 7.43	899	$ 6.90

AUGUST TECHNOLOGY CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(In thousands, except per share data)

Note 13 Commitments and Contingencies

Leases

The Company leases its facilities and certain equipment under noncancelable operating leases. Future minimum lease payments as of December 31, 2003, excluding operating costs, under these leases are as follows:

For the Years Ending December 31,	Amount
2004	$ 885
2005	768
2006	236
2007	4
Total minimum lease payments	$ 1,893

Rent expense for all operating leases for the years ended December 31, 2003, 2002 and 2001 was $757, $646 and $617, respectively.

Guarantees

The Company adopted FIN No. 45, Guarantor s Requirements for Guarantees, including Indirect Indebtedness of Others in the first quarter of 2003. FIN 45 requires disclosures concerning the Company s obligations under certain guarantees.

Pursuant to FIN 45, the Company is required to disclose the changes in the provision for product warranty. The Company provides warranty coverage for its systems for a period of one year, including parts and labor necessary to repair the systems during the warranty period. The estimated warranty cost is based on our historical experience rate of incurred expenses to corresponding system revenues.

Information with respect to changes in the warranty provision, as required by FIN 45, is as follows:

	Changes in Warranty Liability
Accrual at December 31, 2000	$ 126
Warranties issued	173
Costs incurred	(150)
Accrual at December 31, 2001	149
Warranties issued	101
Costs incurred	(139)
Accrual at December 31, 2002	111
Warranties issued	264
Assumption of liability in connection with acquisition	53
Costs incurred	(189)
Accrual at December 31, 2003	$ 239

AUGUST TECHNOLOGY CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(In thousands, except per share data)

Note 13 Commitments and Contingencies (Continued)

Legal Proceedings

From time to time, in the ordinary course of business, the Company is subject to claims, asserted or unasserted, or named as a party to lawsuits or investigations. Except as described below, the Company is not aware of any asserted or unasserted legal proceedings or claims that management believes would have a material adverse effect on the Company s financial condition or results of operations.

On September 23, 2003, the Company filed a complaint in the district court of Dallas County, Texas seeking a declaratory judgment that the Company has no liability to Rudolph Technologies, Inc. or its subsidiary, ISOA, Inc. (doing business as Yield Metrology Group), with respect to claims they have asserted against the Company and its subsidiary, STI. In addition, the Company is seeking a judgment against Rudolph and ISOA for repayment of royalties previously paid by STI to ISOA and costs and attorney s fees incurred in bringing this action. In various letters and conversations with STI and the Company, Rudolph has asserted that STI owes Rudolph development fees and royalty payments pursuant to a December 24, 1997 Development Agreement between STI and ISOA, Inc., which Rudolph later acquired and renamed Yield Metrology Group. Rudolph has also asserted that the Company may have used ISOA technology in the development of one of its products and owe additional royalties to Rudolph as a result. The Company believes STI has no obligations to Rudolph under the December 24, 1997 Development Agreement and that the Company has used no ISOA technology in any of its products.

In connection with the acquisition of STI, the Company placed 180 shares of its common stock issued in the transaction in escrow to secure ASTI s performance of its agreement to indemnify the Company against damages up to a maximum amount of $670 in connection with STI s dispute with Rudolph and to share related outside legal expenses. Of these 180 shares, 110 remain as shares in escrow, while the remaining 70 were sold as part of the Offering, with all of the cash proceeds minus fees returned to the escrow. Shares distributed from the escrow in payment of any indemnification claim will be valued at the market price of the Company s common stock on the date of resolution of the claim. The escrow agreement provides that the escrow would have terminated on October 15, 2003 if a legal proceeding regarding these issues had not been initiated prior to that date. Because the Company initiated this legal proceeding, the escrow remains in effect until the resolution of the claims subject to such legal proceeding.

The Company may incur significant legal fees and expenses in pursuing this action for a declaratory judgment. In addition, there can be no assurance that the Company will prevail in such litigation and the Company may suffer an adverse result requiring the Company to pay damages or royalties adversely affecting its business. Notwithstanding the foregoing, the Company believes the indemnification escrow established in connection with the acquisition of STI is reasonably likely to protect the Company against any losses incurred in connection with Rudolph s claims.

Note 14 Employee Retirement Plan

The Company maintains an employee benefit plan (the Plan) pursuant to Section 401(k) of the Internal Revenue Code. The Plan is available to all employees who have reached the age of 18 and provides employees with tax deferred salary deductions and alternative investment options. Employees may contribute up to 15% of their eligible compensation, subject to certain limitations. The Company matches 50% of the deferrals up to 6% of the employee s compensation. The Company made

AUGUST TECHNOLOGY CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(In thousands, except per share data)

Note 14 Employee Retirement Plan (Continued)

contributions to the Plan for the years ended December 31, 2003, 2002 and 2001 of $251, $259 and $250, respectively.

Note 15 Significant Customer Information

The percentage of net revenues derived from major customers, which include distributors, and accounts receivable related to these customers were as follows:

	Years Ended December 31,		
	2003	2002	2001
Net revenues:			