SPECTRUM CONTROL INC Form 10-K February 20, 2003 Table of Contents

Securities and Exchange Commission

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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 November 30, 2002
OR
TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from to
Commission File Number 0-8796
Creature Control Inc

Spectrum Control, Inc.

(a Pennsylvania Corporation)

(I.R.S. Employer Identification No. 25-1196447)

8031 Avonia Road, Fairview, Pennsylvania 16415

Telephone 814-474-2207

	ant to Section 12(b) of the Act:
N	one
Securities registered pursua	ant to Section 12(g) of the Act:
Title of each class	Name of each exchange on which registered
Common Stock No Par Value	The Nasdaq Stock-Market
Indicate by check mark whether the registrant (1) has filed all reports re of 1934 during the preceding 12 months, and (2) has been subject to suc	equired to be filed by Section 13 or 15(d) of the Securities Exchange Act ch filing requirements for the past 90 days. Yes x No ".
Indicate by check mark if disclosure of delinquent filers pursuant to Iter contained, to the best of the registrant s knowledge, in definitive proxy Form 10-K or any amendment to this Form 10-K ".	
Indicate by check mark whether the registrant is an accelerated filer (as	defined in Rule 12b-2 of the Act). Yes x No ".
At February 3, 2003, the aggregate market value of voting Common Sto \$5.19 was \$28,005,655. Shares of Common Stock held by each officer Common Stock of the Company have been excluded because such personant control of the Company have been excluded because such personant control of the Company have been excluded because such personant control of the Company have been excluded because such personant control of the Company have been excluded because such personant control of the Company have been excluded because such personant control of the Company have been excluded because such personant control of the Company have been excluded because such personant control of the Company have been excluded because such personant control of the Company have been excluded because such personant control of the Company have been excluded because such personant control of the Company have been excluded because such personant control of the Company have been excluded because such personant control of the Company have been excluded because such personant control of the Company have been excluded because such personant control of the Company have been excluded because such personant control of the Company have been excluded because such personant control of the Company have been excluded because such personant control of the Company have been excluded because such personant control of the Company have been excluded by the Company h	and director and by each person who owns 5% or more of the outstanding
As of February 3, 2003, the registrant had outstanding 12,947,377 share	es of Common Stock, no par value.
Documents incorp	porated by reference
Portions of the registrant s Proxy Statement for the annual meeting of s Part III of this Form 10-K.	shareholders to be held April 7, 2003 are incorporated by reference into

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PART I

ITEM 1. BUSINESS

Except for the historical information contained herein, the following discussion contains forward-looking statements that involve risks and uncertainties. The Company intends these forward-looking statements to qualify for the safe harbor from liability established by the Private Securities Litigation Reform Act of 1995. These forward-looking statements include, but are not limited to, descriptions of management s expectations regarding the future markets for the Company s products, future operating performance, and other future plans and objectives. Words such as expect, anticipate, believe, intend, and variations of such words identify forward-looking statements. These forward-looking statements are only predictions and are not guarantees of future performance. Actual results or events may differ materially from historical results or those suggested by these forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those discussed in this section, as well as in the section entitled Management s Discussion and Analysis of Financial Condition and Results of Operations in this report.

GENERAL

Spectrum Control, Inc. and its subsidiaries (hereinafter referred to as we, us, our, or the Company) design, manufacture and market a broad line of control products and systems used to condition, regulate and govern electronic performance. The Company was founded as a solutions-oriented company, designing and manufacturing products to suppress or eliminate electromagnetic interference (EMI). Over the past several years, we have leveraged our core EMI filtering expertise to offer our customers a diverse line of signal and power products. Our Signal Products Group designs and manufactures low pass and surface mount EMI filters, filtered arrays, filtered connectors, specialty ceramic capacitors, and frequency control products (ceramic resonators, bandpass filters, patch antennas, lumped element filters, cavity filters, combiners, duplexers, waveguide filters, and related products and systems). Our Power Technologies Group designs and manufactures power line filters, power entry modules, multisection filters, power terminal blocks, and custom power assemblies. Recently, we developed and introduced an advanced systems product offering to become a provider of more complex power management systems, including a line of digital radio-frequency control equipment for remote and automatic electronic systems management. Our products are used in many different industries including telecommunications, aerospace, military, medical, computer, automotive, and industrial control equipment.

The need for EMI products results from the increasing dependency of our society on electronic equipment of various kinds, including wireless communication systems. This equipment both emits, and is sensitive to, random electromagnetic waves over a broad spectrum of wave lengths, which can interfere with and degrade the performance of other electronic equipment. The Company s EMI products are designed to suppress the emission of unwanted waves or to reduce their strength to an innocuous level, by reflecting them from one component to another in series or by converting their energy into heat which is then dissipated.

Spectrum Control, Inc. (the Parent company) was incorporated in Pennsylvania in 1968. The Parent company currently operates manufacturing facilities in Fairview, Pennsylvania and Wesson, Mississippi. Operations in these facilities include the design and manufacture of advanced systems, as well as certain signal and power products used primarily in military and other non-commercial applications. The Parent company s executive offices are located in Fairview, Pennsylvania.

Spectrum Control Technology, Inc., a wholly-owned subsidiary, maintains a facility in New Orleans, Louisiana, with advanced manufacturing equipment designed for the production of ceramic capacitors, resonators, patch antennas, and specialty ceramic products. Presently, this subsidiary primarily manufactures ceramic discoidal and tubular capacitors used in the Company s EMI filter products.

Spectrum Control, GmbH, a wholly-owned subsidiary of the Company located in Schwabach, Germany, acts as a distributor for the Company s products in the European market.

Spectrum Control de Mexico, a wholly-owned subsidiary of the Company located in Juarez, Mexico, commenced operations in June 2000 as the Company s low-cost manufacturing center for North America. Currently, this subsidiary manufactures various signal and power products for commercial applications.

Spectrum FSY Microwave, Inc. (formerly FSY Microwave, Inc.), a wholly-owned subsidiary located in Columbia, Maryland, designs and manufactures a broad line of RF and microwave filters, and related products and systems.

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RECENT DEVELOPMENTS

The telecommunications equipment industry, our largest and most significant market, continued to suffer from an unprecedented downturn in 2002. Approximately 42% of our total revenue in fiscal year 2002 was derived from sales of products to original equipment manufacturers (OEMs) in the telecommunications industry, compared to 52% in 2001 and 64% in 2000. The severe industry-wide downturn, which began early in 2001, has been driven by several factors, including: (1) the collapse of numerous start-up, competitive service providers and dot coms resulting in excess component inventories, unsold telecom systems, and a secondary market of used equipment throughout the telecommunications industry and (2) reduced spending for infrastructure and network equipment by incumbent telephone service providers as competitive pressures from start-up providers eased, certain technological advances stalled, and economic recessionary pressures grew. In fiscal 2002, we believe this severe downturn demonstrated some signs of moderating. Customer order cancellations and delivery date pushouts, which were prevalent throughout 2001, significantly diminished in fiscal 2002. Although we believe the prolonged market downturn may have bottomed-out in fiscal 2002, overall market demand continues to be volatile with the timing and extent of the market s recovery remaining uncertain. We cannot forecast with any degree of certainty when a full recovery in capital spending may be expected, nor can we forecast what normal customer spending levels may be once this structural market correction is completed.

In response to the severe downturn in the global telecommunications equipment market, and sluggish overall economic conditions in the United States and Europe which negatively impacted our other markets, we spent much of fiscal 2002 downsizing our Company and implementing cost reduction programs. In 2001, as part of our formal plan to consolidate manufacturing facilities and dispose of excess property and equipment, we closed two operating facilities in Elizabethtown, Pennsylvania. Manufacturing in these facilities had consisted of certain wireless products, specialty ceramic capacitors, and other signal products. These operations were consolidated into our manufacturing facilities in Juarez, Mexico and New Orleans, Louisiana. In March 2002, the two Elizabethtown facilities and related excess equipment were sold. In November 2002, we also sold certain land and building in Erie, Pennsylvania. Manufacturing at this site had consisted of various power and advanced systems products. These product lines and operations have been successfully integrated into our Fairview, Pennsylvania manufacturing facility. We believe the sale of these excess assets and related consolidation of operations will lower our manufacturing overhead costs and improve our overall efficiencies. Also, by the end of fiscal 2002, approximately two-thirds of our commercial power products and substantially all of our commercial signal products were being manufactured at our facility in Juarez, Mexico. We expect the increased utilization of this low-cost manufacturing center to reduce our labor costs and enhance our profit margins. As a result of our consolidations and cost reduction efforts, our gross margin in fiscal 2003 is anticipated to be 21% to 22% of net sales, compared to approximately 17% of sales in fiscal 2002.

Despite implementing numerous cost reduction programs in 2002, we continued to invest in new product development. Total research and development expense was \$1.4 million or 2.5% of sales in fiscal 2002, compared to 1.8% of sales in 2001 and 1.1% in 2000. In addition to these internal product development efforts, we also consummated an acquisition which significantly expanded our frequency control product offerings. In July 2002, we acquired all of the outstanding common stock of FSY Microwave, Inc. (FSY). FSY, based in Columbia, Maryland, designs and manufactures RF and microwave filters, combiners, amplifiers, multiplexers, duplexers, and related products and systems. These products and systems are used in numerous industries including military, aerospace, medical, and telecommunications. In 2001, FSY sales were approximately \$8.0 million. We believe FSY s products are a natural complement and extension to our existing ceramic-based wireless products offerings. In addition, we anticipate that our low-cost manufacturing capability and established sales channels will provide additional revenue opportunities for FSY products.

MARKETS

Although our components and systems are used in many industries worldwide, our largest markets are telecommunications equipment and military/aerospace which collectively represented approximately 72% of our fiscal year 2002 sales. In telecommunications, our products are used in numerous systems including wireless base stations, optical networks, broadband switching equipment, Internet servers and global positioning systems. Military/aerospace applications for our products include missile defense systems, smart weapons and munitions, simulation

equipment, and avionic upgrades. Our other primary markets include medical instrumentation, industrial control equipment, computer and office equipment, and automotive/telematics.

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TELECOMMUNICATIONS EQUIPMENT

Beyond the current economic downturn in the telecommunications equipment market, we believe the factors fostering long-term market growth remain in place. Prior to 2001, the telecommunications industry experienced significant worldwide growth. This growth primarily resulted from increased business and consumer demand for wireless communication services and Internet access. Cost reductions and performance improvements in such wireless communication products as cellular, personal communication services (PCS), and satellite-based voice and data systems also contributed to this growth. As demand for wireless communication services continue to grow, and the current industry-wide excess inventory levels are consumed, service providers will need to make substantial investments in new equipment and infrastructure. Wireless communication systems can offer the functional advantages of wired communication systems without the costly and time consuming development of an extensive wired infrastructure. The relative advantages of wireless and wired communication systems with respect to cost, transmission quality, reliability and other factors depend on the specific applications for which such systems are used and the existence of a wired or wireless infrastructure already in place. The factors responsible for the market s long-term growth, coupled with regulatory changes in the United States and abroad as well as advances in wireless communication technology, have led to significant growth in existing wireless telecommunication systems and the emergence of new wireless applications.

The products designed and manufactured by the Company support a wide range of digital wireless communication protocols, systems and standards including PCS, Code Division Multiple Access (CDMA), Global System for Mobile Communications (GSM), Time Division Multiple Access (TDMA), Local Multipoint Distribution System (LMDS), Multi-Channel Multipoint Distribution System (MMDS), and Third Generation Wireless (3G).

Worldwide demand for integrated voice, data and video communications services is also growing rapidly. The volume of high-speed data traffic across global communications networks has grown dramatically as the public Internet and private business intranets have become essential for daily communications and electronic commerce. The number of persons using the Internet to buy and sell goods and services is expected to grow rapidly. Servicing the increasing demand for higher bandwidth content and applications requires cost-effective and high-speed connections, which are often unavailable or inadequate over existing wire-based networks. For many users, wireless communications provide an advantageous access solution for high-speed Internet multimedia services. This is underscored by the increasing number of wireless subscribers worldwide.

A typical mobile or fixed wireless communications system comprises a geographic region containing a number of cells, each of which contains one or more base stations, which are linked in a network to form a service provider s coverage area. Each base station houses the equipment that receives incoming telephone calls from the switching offices of the local wire-based telephone company and broadcasts calls to the wireless users within the cell. A base station can process a fixed number of radio channels through the use of multiple transceivers, power amplifiers and tunable filters, along with an antenna to transmit and receive signals to and from the wireless user. The Company provides discrete EMI filters, filtered arrays, filtered connectors, and power products to OEM s of base station equipment. In addition, the Company s products are used in numerous other telecommunication applications including optical networks and switching equipment, wireless modems and LANs, Internet servers and global positioning systems. Using our solutions-oriented approach, we provide our OEM customers with products tailored to their specific transmission needs, anticipating and solving system architecture and performance.

Approximately 42% of the Company s total revenue during fiscal year 2002 was derived from sales of its products to OEM customers in the telecommunication industry. Most of these products are custom designed not only to conform to the specifications and requirements of the particular customer, but also to meet the performance and quality standards set by the agency or other governmental body whose regulations are applicable to the specific equipment or usage involved. A significant reduction in orders from such customers would have a materially adverse effect on the Company s business.

MILITARY/AEROSPACE

Military forces worldwide are dependent on sophisticated electronic equipment. Military aircraft and naval vessels generally contain extensive communication equipment, electronic countermeasure equipment for defense against enemy weapons, smart weapons and munitions, and radar systems. The Company provides low pass filters and multisection assemblies to major equipment manufacturers for installation into these systems. The Company s customers, in turn, sell their equipment to major aerospace manufacturers or directly to governments. The Company also provides various EMI filtered arrays and filtered connectors to aerospace manufacturers for use in commercial applications such as point to point telemetry and avionic upgrades.

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Military/aerospace sales were approximately \$17.0 million in 2002 or 30% of our total sales, compared to \$25.0 million in 2001 or 28% of total sales. Demand for military/aerospace products may be impacted by numerous economic, technological and political factors. In addition, overall market conditions in the commercial aerospace industry are currently very soft. Accordingly, while the Company has developed and will continue to develop products for military/aerospace programs, there can be no assurance that sales to such customers will not further decrease in the future.

OUR SOLUTION

We believe we are well positioned to capitalize on our long-term market opportunities. We combine engineering expertise, design and testing capabilities and vertically integrated and flexible manufacturing processes to provide custom solutions to our customers control products and systems needs.

We Offer Integrated Design, Development and Testing Services. We provide an integrated approach to problem solving by offering our customers consulting, diagnostic testing and design services. We believe that our testing facilities and capabilities exceed those of our major competitors and, accordingly, may give us a competitive advantage. Our engineers typically work closely with customers to develop a product or system design. Although our customers generally provide the initial engineering guidelines for a particular product, our design engineers are often called upon to work together with a customer s design team to develop a solution. An important part of our solution is ensuring at an early stage, before time and money are spent on manufacturing, that the product design will meet all performance specifications and can be produced efficiently and cost-effectively. Our design engineers include EMI, power and wireless specialists. We believe that by integrating our product design and development efforts with those of our customers, we create increased reliance on us and increased incentives to utilize us as a single source strategic supplier.

We Offer Flexible, Low-Cost Production Capabilities. Once a design is completed, we apply our vertically integrated manufacturing processes to produce a solution that meets our customers—functionality and cost objectives. We maintain a state-of-the-art ceramic production facility with advanced manufacturing equipment designed for the production of ceramic capacitors and resonators. These ceramic products are critical components of our signal and wireless products. Our extensive ceramic capability and expertise enable us to maintain short lead times for our signal product prototyping and production orders. We also maintain a metal fabrication facility with computer numerically controlled (CNC) equipment to manufacture the metal utilized in many of our power product offerings. By performing the metal fabrication in-house, we are able to shorten the lead time for our power product offerings and reduce our overall material costs. Our philosophy of vertical integration, along with utilizing demand flow manufacturing processes, enables us to meet the growing OEM customer demands for flexible production schedules and just-in-time inventories.

We Offer High Quality, High Performance Products. Our customers demand a high level of quality and performance. We believe we meet our customers requirements for high quality products manufactured to increasingly exacting specifications, including performance and quality standards that are set by agencies and other governmental bodies whose regulations may apply to specific telecommunications or other equipment. We emphasize a quality culture, driving continuous product improvement and a company-wide commitment to quality. As part of our commitment to high quality manufacturing, all of our facilities have achieved and maintain ISO 9001 certification, and we have been approved by defense customers under the requirements of the U.S. military quality system.

OUR STRATEGY

Our goal is to increase sales and profits by expanding in our existing markets and by entering new markets where we can apply our design and manufacturing capabilities. Key elements of our strategy for achieving this goal include:

Leveraging Our Status as a Strategic Supplier to our OEM Customers. Our status as a strategic supplier to many of our OEM customers presents us with opportunities to develop and design new products for these customers on a collaborative, solutions-oriented basis giving us an advantage over our competitors. We use our position as a strategic supplier to these OEM customers to accelerate the introduction of new, more complex electronic control products and systems at higher profit margins. We seek to solidify our status as a strategic supplier to our OEM customers by continuing to provide:

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High levels of service;
Custom and collaborative product design and manufacturing capabilities;
Product delivery flexibility and reliability; and
High quality products

Introducing New Signal and Power Product Lines. We are broadening our product lines to include a more comprehensive range of signal and power products. In fiscal 2002, for example, our product development efforts enabled us to offer our customers surface-mount patch antenna elements with extended frequency ranges. This extended frequency range, from 500 MHz to 6 GHz, allows our components to be used in numerous mobile and handheld applications including portable GPS receivers and Bluetooth devices. Bluetooth is an emerging wireless technology which enables links between mobile computers, mobile phones, portable handheld devices, and connectivity to the Internet. Our primary focus is on new higher-margin products to exploit the long-term expected growth in wireless devices and optical networking applications. Our customers increasingly look for greater capability to produce value-added systems integrating our existing signal and power products. To respond to our customers needs, we intend increasingly to design and manufacture more sophisticated electronic control systems and assemblies.

Expanding in Markets for Higher Margin Advanced Systems. We continue to develop and expand our advanced systems product offerings to leverage our core competencies in design, manufacturing and assembly to become a provider of more complex, higher margin power management systems. In fiscal 2002, we successfully launched our SMART start and SMART start Jr. products. These multifunctional units direct and manage power to connected servers and networking equipment, while providing remote operational flexibility and control. We intend to develop and introduce additional higher-margin advanced product offerings in the future.

Pursuing Acquisitions that Enhance Our Product Offerings. We continue to pursue acquisitions complementary to our core business. In fiscal 2002 we acquired FSY, a designer and manufacturer of various microwave products (lumped element filters, cavity filters, combiners, duplexers, waveguide filters, and related products and systems). We believe FSY s products are a natural complement to our existing SPECWAVE line of ceramic-based wireless products. With this acquisition, we can now offer our customers a much broader line of frequency control products and custom engineered wireless solutions. Frequency control products represent a significant growth opportunity for us, with a total world market much larger than our traditional EMI filter market.

With OEM s increasingly demanding higher levels of service and lower overall product costs from their electronic component and systems suppliers, we believe that additional acquisition opportunities will emerge as smaller suppliers with insufficient technical and design expertise and limited access to capital choose to sell to larger organizations with greater technical and financial resources. We also expect to see acquisition opportunities from large manufacturers as they seek to focus their product offerings on those fully utilizing their core competencies.

Remaining a Low-Cost, Efficient Producer. Our customers are under worldwide competitive pressure to reduce their product costs and these pressures are passed along to component and systems manufacturers. We are constantly seeking to reduce our material and labor costs, develop cost-efficient manufacturing equipment and processes, and design our manufacturing plants for efficient production. We have been able to reduce the manufacturing cost of our products by increasing materials utilization efficiency and production yields. In addition, we have taken steps to reduce assembly direct labor costs by locating plants in areas with relatively low-cost labor, such as Juarez, Mexico and Wesson, Mississippi. In fiscal 2003, we expect to establish a manufacturing presence in China. Manufacturing in our new operation, a 16,000 square foot facility located in the Guangdong province of southern China, is anticipated to commence during the second quarter of 2003. In addition to supplying product to our telecom customers in China, we expect this operation to ultimately enable us to participate in new Asian markets and become a low-cost center capable of competing in highly cost competitive industries, such as automotive.

PRODUCTS

The Company s product offerings include various interconnect filter products, microwave/wireless products, specialty ceramic components, power management and conditioning products, and advanced systems.

INTERCONNECT FILTER PRODUCTS

Control of unwanted electromagnetic waves is accomplished through various combinations of EMI suppression devices. The EMI suppression devices produced by the Company include those that are utilized as circuit components and whose function is to permit the desired frequencies to pass through a circuit while rejecting or preventing the unwanted signals. The majority of these products are composed of either reactive (reflecting energy) or loss (dissipating energy) elements or at times, combinations of the two. These products can be utilized as individual components or combined in various configurations to provide the amount of EMI control needed. The Company s interconnect products include discrete EMI filters, filtered arrays, and filtered connectors.

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DISCRETE EMI FILTERS

The Company s discrete EMI filter offerings include hermetically sealed and resin sealed/solder-in filters and capacitors. The Company s hermetically sealed filters are primarily used in military/secure communications, smart weapons and munitions, aerospace, power supplies, signal lines, and certain medical equipment. Resin sealed/solder-in filters are used in a wide range of products including telecommunications equipment, transceivers, and industrial control systems.

FILTERED ARRAYS

The Company s filtered array products consist of various filter plate assemblies. Filter plates are predominantly utilized in telecommunication equipment including wireless base stations, linear power amplifiers, and wireless microcell repeaters. This product offering often provides an economical method of meeting electromagnetic compatibility (EMC) requirements.

FILTERED CONNECTORS

The Company offers a range of custom connectors, datacomm interconnects, and D-Subminiature Connectors. These filtered connectors are used in numerous applications including telecommunications equipment, wireless base stations, secured communications, industrial process equipment, and certain personal computers.

During the year ended November 30, 2002, approximately 71% of the Company s total revenue was generated from the sale of interconnect filter products.

MICROWAVE/WIRELESS PRODUCTS

The Company manufactures and sells coaxial ceramic resonators, bandpass filters, patch antennas, and duplexers. These products primarily serve the communications industry with applications in wireless telephones and base stations, satellite transceivers, global positioning systems, wireless modems and LANS, and CATV. With the acquisition of FSY, the Company also manufactures and sells lumped element filters, cavity filters, combiners, waveguide filters, and related systems. These components and systems are used in wireless base stations and amplifiers, as well as numerous military, aerospace and medical applications.

During the year ended November 30, 2002, approximately 5% of the Company s total revenue was generated from the sale of microwave/wireless products.

SPECIALTY CERAMIC COMPONENTS

Spectrum Control Technology, Inc., a wholly-owned subsidiary of the Company, manufactures and sells a broad range of specialty ceramic capacitors including tubular and discoidal, single-layer microwave, temperature compensating, high voltage, switch-mode, and high Q capacitors. These products are primarily used in testing and measurement instruments, high frequency power supplies, RF amplifiers, and other communications equipment.

During the year ended November 30, 2002, approximately 3% of the Company s total revenue was generated from the sale of specialty ceramic components.

POWER PRODUCTS

The Company s power product offerings currently include commercial custom assemblies, multisection filters, power line filters, power entry modules, and power terminal blocks. The Company s multisection products primarily serve the military/aerospace market with applications in satellite communications, electronic warfare, and ground/air weapon systems. Other power products are principally used in communications equipment, including telecommunication racks, wireless base stations, Internet servers, and networks.

During the year ended November 30, 2002, approximately 18% of the Company s total revenue was generated from the sale of power products.

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ADVANCED SYSTEMS

The Company s advanced systems product offerings currently include power distribution units, fuse and breaker interface panels, and remote power management systems. Our power management systems include a line of digital radio-frequency control equipment designed to monitor various functions and equipment and provide automatic management, as well as remote management, through wireless or external communication links. These remote management systems incorporate highly flexible software that enable our customers to control and monitor their systems from remote locations. The primary markets for these systems include wireless base station infrastructure systems, remote battery back-up or UPS server systems, sonet switching systems, fire and 911 security systems, and LAN/WAN network systems.

During the year ended November 30, 2002, approximately 3% of the Company s total revenue was generated from the sale of advanced systems.

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OPERATING SEGMENTS

The Company was founded as a solutions-oriented company, designing and manufacturing products to suppress or eliminate EMI. In recent years, the Company has broadened its focus and product lines to become a control products and systems company, providing a wide range of components and systems used to condition, regulate, transmit, receive, or govern electronic performance.

The Company s current operations are conducted in two reportable segments: signal products and power products. The Company s Signal Products Group manufactures a broad range of low pass EMI filters, filtered arrays, filtered connectors, specialty ceramic capacitors, ceramic-based wireless products (coaxial ceramic resonators, patch antennas, bandpass filters, and duplexers), RF and microwave filters, and related products and systems. The Power Technologies Group manufactures various power management and conditioning products including power distribution units, power line filters, and power entry devices. In addition, the Company has developed and introduced an advanced systems product offering to become a provider of more complex power management systems, including a line of digital radio-frequency control equipment for remote and automatic electronic systems management. For operating segment reporting purposes, these advanced systems are included in the Power Technologies Group. The reportable segments are each managed separately because they manufacture and sell distinct products with different production processes.

The Company evaluates performance and allocates resources to its operating segments based upon numerous factors, including segment income or loss before income taxes. The accounting policies of the reportable segments are the same as those utilized in the preparation of the Company's consolidated financial statements. However, substantially all of the Company's selling expenses, general and administrative expenses (including amortization of intangible assets), and nonoperating expenses are not allocated to the Company's reportable operating segments and, accordingly, these expenses are not deducted in arriving at segment income or loss. Segment reportable assets are comprised of certain tangible assets (property, plant, equipment, and inventories) and goodwill. Prior period segment asset information, presented herein, has been restated to reflect the allocation of goodwill to the Company's operating segments.

For each period presented, the accounting policies and procedures used to determine segment income or loss have been consistently applied. For the years ended November 30, 2002, 2001, and 2000, reportable segment information is as follows (in thousands):

	Signal	Power	
2002	Products	Products	Total
Revenue from unaffiliated customers	\$ 45,368	\$ 11,845	\$ 57,213
Depreciation expense	3,584	789	4,373
Segment income (loss)	9,102	(127)	8,975
Segment assets			
Tangible assets	22,472	6,150	28,622
Goodwill	14,333	3,686	18,019
Capital expenditures	357	81	438
	Signal	Power	
2001	Products	Products	Total
Revenue from unaffiliated customers	\$ 68,882	\$ 20,378	\$ 89,260

Depreciation expense	4,187	709	4,896
Segment income	11,008	428	11,436
Segment assets			
Tangible assets	26,553	9,475	36,028
Goodwill	10,557	3,686	14,243
Capital expenditures	1,453	1,464	2,917

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	Signal	Power	
2000	Products	Products	Total
			
Revenue from unaffiliated customers	\$ 98,983	\$ 33,656	\$ 132,639
Depreciation expense	3,655	729	4,384
Segment income	27,748	8,840	36,588
Segment assets			
Tangible assets	36,562	8,525	45,087
Goodwill	11,166	3,727	14,893
Capital expenditures	4,846	1,469	6,315

In 2001, reserves for excess and slow-moving inventories of \$3,057,000 and \$2,088,000 were deducted in arriving at segment income for the Signal Products Group and Power Technologies Group, respectively (see Note 15 to the consolidated financial statements).

For the years ended November 30, 2002, 2001, and 2000, reconciliations of reportable segment information to the Company s consolidated financial statements are as follows (in thousands):

Depreciation expense	2002	2001	2000
Total depreciation expense			
for reportable segments	\$ 4,373	\$ 4,896	\$ 4,384
Unallocated amounts:			
Depreciation expense related to selling, general and administrative activities	156	175	373
Consolidated depreciation expense	\$ 4,529	\$ 5,071	\$ 4,757

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Income (loss) before provision

for income taxes	2002	2001	2000
Total income for reportable segments			
Unallocated amounts:	\$ 8,975	\$ 11,436	\$ 36,588
Selling, general and administrative expense	(11,155)	(15,922)	(20,138)
Restructuring charges		(485)	
Interest expense	(140)	(209)	(1,788)
Other income	1,117	473	657
Consolidated income (loss) before provision for income taxes	\$ (1,203)	\$ (4,707)	\$ 15,319
Assets	2002	2001	2000
Total assets for reportable segments	\$ 46,641	\$ 50,271	\$ 59,980
Unallocated amounts:			
Cash and cash equivalents	19,934	12,442	5,977
Accounts receivable	10,035	11,703	23,831
Other assets	5,214	8,935	5,435
Total consolidated assets	\$ 81,824	\$ 83,351	\$ 95,223
Capital expenditures	2002	2001	2000
Total capital expenditures for reportable segments	\$ 438	\$ 2,917	\$ 6,315
Capital expenditures related to selling, general and administrative activities	78	161	590
Total consolidated capital expenditures	\$ 516	\$ 3,078	\$ 6,905

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The Company has operations in the United States, Mexico and Germany. Sales are attributed to individual regions based upon the operating location responsible for the sale. The Company transfers products from one geographic region for resale in another. These transfers are priced to provide both areas with an equitable share of the overall profit. The geographic distribution of sales, operating income (loss), and long-lived assets for 2002, 2001, and 2000 is as follows (in thousands):

2002	North America	Europe	Total
Revenue from unaffiliated customers	\$ 47,451	\$ 9,762	\$ 57,213
Operating income (loss)	(2,167)	(13)	(2,180)
Long-lived assets:			
Property, plant and equipment	15,503	40	15,543
Intangible assets	18,313		18,313
2001	North America	Europe	Total
Revenue from unaffiliated customers	\$ 75,206	\$ 14,054	\$ 89,260
Operating income (loss)	(5,190)	219	(4,971)
Long-lived assets:			
Property, plant and equipment	20,147	61	20,208
Intangible assets	14,596		14,596
2000	North America	Europe	Total
Revenue from unaffiliated customers	\$ 113,585	\$ 19,054	\$ 132,639
Operating income	16,102	348	16,450
Long-lived assets:			
Property, plant and equipment	23,391	99	23,490
Intangible assets	15,290		15,290

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The Company expects that international sales will continue to account for a significant portion of its total sales. There can be no assurance, however, that the Company will be able to maintain or increase international demand for the Company s products or that the Company will be able to effectively meet that demand. The Company s international sales are denominated in several different currencies including U.S. Dollars, British Pounds Sterling, and the Euro. An increase in the value of these currencies relative to other foreign currencies could make the Company s products more expensive and, therefore, potentially less competitive in those markets. Additional risks inherent in the Company s international business activities include potentially adverse tax consequences, repatriation of earnings, and the burdens of complying with a variety of foreign laws. There can be no assurance that such factors will not have an adverse effect on the Company s future results of operations.

In fiscal 2002, the Company s largest single customer (Motorola, Inc.) represented 7% of total consolidated net sales. In fiscal 2001, the Company s largest single customer (Lucent Technologies, Inc.) represented 11% of total consolidated net sales. Sales to each of these customers consisted of various signal and power products.

PRODUCTION

The Company substantially relies on its internal manufacturing capabilities for production of its control products and systems. The Company s Ceramic Components Division in New Orleans, Louisiana, designs and manufactures various ceramic components including tubular capacitors, discoidal capacitors, and resonators. The tubular and discoidal capacitors are primarily utilized in the manufacture of electronic filter products at the Company s facility in Fairview, Pennsylvania and its low-cost manufacturing center in Juarez, Mexico. Coaxial ceramic dielectric resonators are principally used in the manufacture of bandpass filters and duplexers at the Company s facility in Juarez, Mexico. As a result of our acquisition of FSY, we currently design and manufacture most of our frequency control products (lumped element filters, cavity filters, combiners, waveguide filters, and related products and systems) at our facility in Columbia, Maryland. The design of our power products and advanced systems is performed at our facility in Fairview, Pennsylvania, with the manufacturing of these products conducted at our facilities in Juarez, Mexico; Wesson, Mississippi; and Fairview, Pennsylvania. Although the Company produces a standardized line of products for sale from inventory or through distributors, most orders require relatively short production runs of custom designed components.

The Company purchases brass bushings, castings, miniature metal stampings, as well as other hardware used in the assembly and production of its products. These items are available from numerous sources. The principal raw materials used by the Company in the manufacture of ceramic capacitors and resonators are barium titanate ceramic, silver, palladium, and platinum. Precious metals are available from many sources; however, their prices may be subject to significant fluctuations and such fluctuations may have a material and adverse affect on the Company s operating results.

The Company s customers demand a high level of quality. As a result, the Company maintains an extensive quality control system designed to meet the requirements of sophisticated defense and commercial communications products. The Company has been approved by defense customers under the requirements of the U.S. military quality system, which approval is also often accepted by commercial customers. In addition, all of the Company s facilities have achieved and maintain ISO 9001 certification.

In recent years, a majority of the Company s capital investment has been expended to establish new production lines and improve manufacturing processes. There can be no assurance that the Company can continue to make such investments in a timely manner so as to take advantage of market demand.

SALES AND DISTRIBUTION

The Company sells its products primarily through manufacturers representatives, managed by the Company s internal sales force, and distribution. The Company maintains representatives throughout North America and Europe, and portions of South America, Asia and the Middle East. The Company also maintains within its sales organization employees dedicated to new business development as well as additional employees dedicated to distribution sales management. In fiscal 2002, approximately 22% of the Company s consolidated sales was through distribution. Domestic distribution is done through various national and regional distributors. International distribution is done through the Company s wholly-owned German subsidiary, Spectrum Control GmbH.

During fiscal year 2002, the Company sold its products to approximately 1,200 accounts. Sales of products to the Company s top ten customers represented 26% (\$14.6 million) of total consolidated net sales in 2002. The top ten customers primarily consist of original equipment manufacturers of telecommunications equipment and military/aerospace prime contractors. All of the Company s major customers are unaffiliated with Spectrum Control, Inc. and its subsidiaries.

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Shipments are made by common carrier. Most of the Company s signal products are either small or miniaturized and light weight. Accordingly, shipping charges for these products are not significant to the Company s business. However, transportation costs for the Company s power products and advanced systems may be significant. Accordingly, shipping charges and delivery time for these products may affect the Company s ability to compete for business, particularly in international markets.

No material portion of the Company s business is subject to renegotiation of profits or termination of contracts or sub-contracts at the election of the U.S. Government.

BACKLOG

The Company s backlog, which consists of purchase orders by customers, totaled approximately \$24.5 million at November 30, 2002 and \$23.0 million at November 30, 2001. It is anticipated that approximately 90% of the Company s backlog as of November 30, 2002 will be shipped within one year. Annual requirement contracts are taken into backlog only to the extent that orders are actually released thereunder. Although the terms and conditions contained in the Company s quotation forms place certain restrictions on a customer s right to cancel, purchase orders generally provide for cancellation. In practice, the Company negotiates each cancellation and schedule change based on the cost it has incurred prior to such occurrence. The Company expects to continually reduce its average lead time (the length of time from the receipt of a customer order to shipment of finished product to the customer). As a result, the Company s backlog may decrease in the future due to reduced lead times.

EMPLOYEES

As of November 30, 2002, the Company had a total of 860 employees, including 35 in sales, marketing and customer support; 87 in engineering and product development; 713 in manufacturing; and 25 in finance and administration. The Company's future success depends in significant part upon the continued service of its key technical and senior management personnel and its continued ability to attract and retain highly qualified technical and managerial personnel. Competition for such personnel is intense, and there can be no assurance that the Company can retain its key managerial and technical employees or that it can attract, assimilate, or retain other highly qualified technical and managerial personnel in the future. None of the Company's employees is represented by a labor union. The Company has not experienced any work stoppages and considers its relations with its employees to be good.

PROPRIETARY RIGHTS

The Company relies on trade secrets, know-how, and to a lesser extent patents, to establish and protect proprietary rights to technologies and products. Trade secrets and know-how are protected through confidentiality agreements and internal procedures. In connection with the manufacture and sale of control products and systems, the Company owns numerous United States and foreign patents and has certain patents pending. None of these patents and patent applications are critical to the Company s business. The Company s policy is to file patent applications to protect proprietary technology, inventions and improvements. There can be no assurance that patents will issue from any of the Company s pending applications or that any claims allowed from existing or pending patents will be sufficiently broad to protect the Company s technology. While the Company intends to protect its intellectual property rights vigorously, there can be no assurance that any patents held by the Company will not be challenged, invalidated or circumvented, or the rights granted thereunder will provide competitive advantages to the Company.

The Company holds nineteen (19) United States patents and forty-one (41) foreign patents relating to polymer multilayer technology. The Company has entered into several agreements regarding licensing the technology covered by these patents. However, it is not known what commercial value, if any, these patents and related licenses may have.

GOVERNMENT REGULATIONS

The Company s products are incorporated into communications systems which are subject to various FCC regulations. Regulatory changes, including changes in the allocation of available frequency spectrum, could significantly impact the Company s operations by restricting development efforts by the Company s customers, obsoleting current products or increasing the opportunity for additional competition. Changes in, or the failure by the Company to comply with, applicable domestic and international regulations could have an adverse effect on the Company s business, operating results and financial condition. In addition, the increasing demand for wireless communications has exerted pressure on regulatory bodies worldwide to adopt new standards for such products and services, generally following extensive investigation of and deliberation over competing technologies. The delays inherent in this government approval process may cause the cancellation, postponement or rescheduling of the installation of communications systems by the Company s customers, which in turn may have a material adverse effect on the sale of products by the Company to such customers.

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In order to qualify as an approved supplier of EMI products for use in equipment purchased by the military services or aerospace programs, the Company is required to meet the applicable portions of the quality specifications and performance standards designed by the Air Force, the Army, and the Navy. The Company s products must also conform to the specifications of the Defense Electronic Supply Center for replacement parts supplied to the military. To the extent required, the Company meets or exceeds all of these specifications.

The Company is subject to numerous federal, state and local regulations relating to air and water quality, the disposal of hazardous waste materials, safety, and health. Compliance with applicable environmental regulations has not significantly changed the Company s competitive position, capital spending, or earnings in the past and the Company does not presently anticipate that compliance with such regulations will change its competitive position, capital spending, or earnings for the foreseeable future. The Company continuously monitors regulatory matters and believes that it is currently in compliance in all material respects with applicable environmental laws and regulations.

COMPETITION

The markets for the Company s products are intensely competitive and are characterized by price erosion, technological change, and product obsolescence. The principal competitors of our Signal Products Group include Amphenol Corporation, Conec Corporation, ITT Canon, an ITT Industries Company, K & L Microwave, a Dover Company, and Tusonix, Inc. The primary competitors of our Power Technologies Group include Corcom, a division of CII Technologies, Delta Group Electronics, Inc., Schaffner Holder AG and Captor Technology Company Ltd. The major competitors of our advanced systems products include Astec America, Inc., Peco II, Inc., Dataprobe, Inc., Western Telematic, Inc. and Dantel, Inc. Many of the Company s current and potential competitors have significantly greater financial, technical, manufacturing, and marketing resources than the Company. These competitors may be able to engage in sustained price reductions in the Company s primary markets to gain market share. Furthermore, the Company currently supplies control products and systems to large OEM customers that are continuously evaluating whether to manufacture their own products and systems or purchase them from outside sources.

The Company believes that its ability to compete in its current markets depends on factors both within and outside the Company s control, including the timing and success of new product introductions by the Company and its competitors, availability of ceramic and assembly manufacturing capability, the Company s ability to support decreases in selling price through operating cost reductions, adequate sources of raw materials, product quality, and general economic conditions. There can be no assurance that the Company will be able to compete successfully in the future.

RESEARCH AND DEVELOPMENT

The Company s position as a leading designer, developer and manufacturer of signal and power products is largely the result of a long history of technological innovation. The Company s research and development efforts are focused on expanding the Company s materials technology, improving existing product offerings, developing new product offerings such as our advanced systems, and designing specialized production equipment to improve manufacturing efficiencies. As of November 30, 2002 the Company employed 87 individuals in engineering and product development. In addition to their design and development activities, the engineering staff participates with the Company s marketing department in proposal preparation and applications support for customers. Research and development expense was \$1.4 million in 2002, \$1.6 million in 2001, and \$1.5 million in 2000.

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OTHER MATTERS

The business of the Company is not subject to any significant seasonal fluctuations.

The Company does not believe that it has any special practices or special conditions affecting working capital items that are significant for an understanding of its business.

ITEM 2. PROPERTIES

The Company s principal manufacturing and office facilities as of November 30, 2002 are as follows:

LOCATION	FUNCTION	APPROXIMATE SQUARE FEET OF FLOOR AREA	OWNERSHIP	PRINCIPAL BALANCE OUTSTANDING AT 11/30/02 ON RELATED MORTGAGE
8061 Avonia Road	Manufacturing, EMI			
Fairview, PA	Testing	38,000	Owned	N/A
4100 Michoud Blvd.				
New Orleans, LA	Manufacturing	100,000	Owned	\$1,100,000
6798 Oak Hall Lane				
Columbia, MD	Manufacturing	35,000	Rented	N/A
3053 Hwy. 51N				
Wesson, MS	Manufacturing	50,000	Owned	\$ 910,000
Boulevard Zaragoza 2910				
Ciudad Juarez, Mexico	Manufacturing	46,000	Rented	N/A
8031 Avonia Road	<u> </u>			
Fairview, PA	Corporate Offices	10,000	Owned	\$ 666,000

⁽¹⁾ The Company s manufacturing and office space is considered adequate for its existing requirements and its projected business needs.

ITEM 3. LEGAL PROCEEDINGS

The Company is subject to certain legal proceedings and claims arising in the ordinary course of business. In the opinion of management, the amount of any ultimate liability with respect to these actions will not materially affect the Company s consolidated financial position or results of

⁽²⁾ In addition to the facilities described above, the Company leases certain sales office and warehousing space.

operations.

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

No matters were submitted to a vote of security holders during the quarter ended November 30, 2002.

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PART II

ITEM 5. MARKET FOR THE REGISTRANT S COMMON STOCK AND RELATED STOCKHOLDER MATTERS

The Company s Common Stock is traded on the NASDAQ Stock Market under the symbol SPEC. The high and low sales prices for the Common Stock for each quarter during fiscal years 2002 and 2001 are set forth below.

	1	High	l	Low
		_	_	
Fiscal 2002				
First quarter	\$	6.55	\$	5.00
Second quarter		8.35		5.27
Third quarter		6.92		4.95
Fourth quarter		6.23		4.84
]	High	J	Low
		High		Low
Fiscal 2001		High	1	Low
Fiscal 2001 First quarter	\$	High	\$	8.13
	_			
First quarter	_	13.31		8.13

At February 3, 2003, the Company had 12,947,377 shares of Common Stock outstanding, which were held by approximately 1,600 registered stockholders. In recent years, the Company has not paid cash dividends on its Common Stock. While subject to periodic review, the current policy of the Board of Directors is to retain all earnings to provide funds for the future growth of the Company.

The following table sets forth information as of November 30, 2002 with respect to compensation plans under which equity securities of the Company are authorized for issuance.

	(I)	(II)	(III)	
Plan Category	Number of securities to be issued upon exercise of	Weighted-average	Number of securities	
	outstanding options	exercise price of	remaining available	
		outstanding options	for future issuance	
			under plans	
			(excluding securities	

			listed in Column (1))
Equity compensation plans approved by security holders	920,717	\$ 7.22	1,006,639
Equity compensation plans not approved by security holders			
Total	920,717	\$ 7.22	1,006,639

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Item 6. Selected Financial Data

Y	ears	End	ed	N	ovem	ber 30	0

	(Amounts in Thousands, Except Per Share Data)				
	2002	2001	2000	1999	1998
Operations					
Net sales	\$ 57,213	\$ 89,260	\$ 132,639	\$ 97,729	\$ 59,868
Gross margin	9,922	13,415	37,932	27,912	18,284
Income (loss) from operations	(2,180)	(4,971)	16,450	10,164	6,462
Interest expense	140	209	1,788	1,420	228
Income (loss) before provision for income taxes	(1,203)	(4,707)	15,319	8,840	6,319
Net income (loss)	(737)	(2,918)	9,503	5,470	3,934
Earnings (loss) per common share:					
Basic	\$ (0.06)	\$ (0.22)	\$ 0.81	\$ 0.50	\$ 0.36
Diluted	\$ (0.06)	\$ (0.22)	\$ 0.79	\$ 0.49	\$ 0.36
Weighted average common shares outstanding:					
Basic	13,063	13,296	11,694	10,905	10,907
Diluted	13,063	13,296	11,980	11,051	11,016
Financial Position					
Working capital	\$ 42,601	\$ 42,100	\$ 42,962	\$ 23,989	\$ 18,619
Total assets	81,824	83,351	95,223	82,554	44,139
Long-term debt	2,391	2,676	2,107	19,011	2,500
Stockholders equity	70,675	72,087	76,546	39,135	33,774

⁽¹⁾ This table should be read in conjunction with the related consolidated financial statements, notes to consolidated financial statements, and management's discussion and analysis of financial condition and results of operations.

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⁽²⁾ In 2001, the Company recorded restructuring and other charges of \$5,630,000 (see Note 15 to the consolidated financial statements).

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

Overview

We were founded as a solutions-oriented company, designing and manufacturing products to suppress or eliminate electromagnetic interference (EMI). In recent years, we broadened our focus and product lines to become a control products and systems company, providing a wide range of components and systems used to condition, regulate, transmit, receive, or govern electronic performance. Although our components and systems are used in many industries worldwide, our largest markets are telecommunications equipment and military/aerospace which represented 42.0% and 30.0%, respectively, of our fiscal 2002 sales. In telecommunications, our products are used in numerous systems including wireless base stations, optical networks, broadband switching equipment, Internet servers, and global positioning systems. Military/aerospace applications for our products include missile defense systems, smart weapons and munitions, simulation equipment, and avionic upgrades. Other markets for our products include medical instrumentation, industrial equipment, computer, and automotive.

Our operations are primarily conducted in two reportable business segments: signal products and power products. Our Signal Products Group manufactures a broad line of discrete EMI filters, filtered arrays, filtered connectors, specialty ceramic capacitors (single layer, temperature compensating, high voltage, and switch mode), ceramic-based wireless products (coaxial ceramic resonators, patch antennas, bandpass filters, and duplexers), RF and microwave filters, and related products and systems. Our Power Technologies Group currently manufactures various power management and conditioning products including power distribution units, power line filters, and power entry devices. In addition, we have developed and introduced an advanced systems product offering to become a provider of more complex power management systems, including a line of digital radio-frequency control equipment for remote and automatic electronic systems management. For operating segment reporting purposes, these advanced systems are included in our Power Technologies Group.

Adoption of New Accounting Pronouncement

In June 2001, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 142, Goodwill and Other Intangible Assets (SFAS No. 142). Under SFAS No. 142, goodwill and intangible assets deemed to have indefinite lives are no longer amortized, but are instead subject to a periodic impairment test at least annually. Other intangible assets continue to be amortized over their useful lives.

Effective December 1, 2001, we adopted SFAS No. 142. Accordingly, no amortization of goodwill was recognized in the accompanying consolidated statements of operations for the year ended November 30, 2002, compared to \$826,000 and \$782,000 for the years ended November 30, 2001 and 2000, respectively. As required by SFAS No. 142, prior year results have not been restated. If we had discontinued amortization of goodwill at the beginning of fiscal year 2000, net loss for the year ended November 30, 2001 would have decreased \$512,000 or four cents per share, and net income for the year ended November 30, 2000 would have increased \$485,000 or four cents per share.

In accordance with the provisions of SFAS No. 142, we performed the required impairment tests of goodwill and determined that no impairment loss need be recognized in the year ended November 30, 2002.

Acquisition

On July 19, 2002, we acquired all of the outstanding common stock of FSY Microwave, Inc. (FSY). FSY, based in Columbia Maryland, designs and manufactures RF and microwave filters, combiners, amplifiers, multiplexers, duplexers, and related products and systems. These products and systems are used in numerous industries including military, aerospace, medical, and telecommunications. FSY s products are a natural complement and extension to our ceramic-based wireless product offerings. In addition, we believe our low-cost manufacturing capability and established sales channels will provide additional revenue opportunities for FSY products.

The aggregate cash purchase price for FSY was approximately \$6.5 million, including legal fees and other costs directly related to the acquisition. The purchase price was entirely funded through our available cash reserves. The results of operations of the acquired business have been included in the accompanying consolidated financial statements since the date of acquisition. Accordingly, FSY net sales of \$2.5 million have been included in our consolidated net sales for the year ended November 30, 2002 and are reported within the Signal Products Group for operating segment purposes.

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Management s Discussion and Analysis of Financial Condition and Results of Operations (Continued)

Forward-Looking Information

The following discussion includes certain forward-looking statements within the meaning of the federal securities laws, including statements regarding: (1) our belief as to future market conditions and operating margins, (2) our projected capital expenditures, (3) our anticipated research and development expenses, and (4) our expected future operating requirements and financing needs. The words believe , expect , anticipate and similar expressions identify forward-looking statements. These forward-looking statements are subject to certain risks and uncertainties which could cause actual results to differ materially from historical results or those anticipated. Factors that could cause or contribute to such differences include those discussed in Risk Factors That May Affect Future Results , as well as those discussed elsewhere herein. Readers are cautioned not to place undue reliance on these forward-looking statements.

Results of Operations

The following table sets forth certain financial data, as a percentage of net sales, for the years ended November 30, 2002, 2001, and 2000:

	2002	2001	2000
Net sales	100.0%	100.0%	100.0%
Cost of products sold	82.7	85.0	71.4
Gross margin	17.3	15.0	28.6
Selling, general and administrative expense	21.1	20.1	16.2
Restructuring charges		0.5	
Income (loss) from operations	(3.8)	(5.6)	12.4
Other income (expense)			
Interest expense	(0.2)	(0.2)	(1.3)
Other income and expense, net	1.9	0.5	0.5
Income (loss) before provision for income taxes	(2.1)	(5.3)	11.6
Provision for income taxes (benefit)	(0.8)	(2.0)	4.4
Net income (loss)	(1.3%)	(3.3%)	7.2%

The following table sets forth our net sales by operating segments for the years ended November 30, 2002, 2001, and 2000 (in thousands):

	2002	2001	2000
Signal products	\$ 45,368	\$ 68,882	\$ 98,983

Power products	11,845	20,378	33,656
	\$ 57,213	\$ 89,260	\$ 132,639

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Management s Discussion and Analysis of Financial Condition and Results of Operations (Continued)

2002 Compared to 2001

Net Sales

Consolidated 2002 net sales decreased by \$32.0 million or 35.9% from 2001. This decrease, which was reflected throughout all of our major product lines, was primarily driven by an unprecedented slowdown in the telecommunications equipment industry and sluggish overall economic conditions in the United States and Europe. Sales of signal products amounted to \$45.4 million in 2002, including FSY product shipments of \$2.5 million. In 2001, sales of signal products were \$68.9 million. Sales of power products decreased by \$8.6 million in 2002, from \$20.4 million in fiscal 2001 to \$11.8 million in fiscal 2002. Power product sales included shipments of \$1.4 million in 2002 and \$2.8 million in 2001 of our recently introduced advanced systems product offering. Although we believe the long-term market potential for these advanced systems remains strong, their initial market introduction and penetration has been severely hampered by the current telecom market conditions. As a result of competitive pressures, average selling prices declined slightly in 2002 throughout most of our product lines.

Overall demand for our products was very soft in 2002 with total customer orders of \$57.0 million, a decrease of \$9.9 million or 14.8% from 2001. In addition to these customer orders, we assumed approximately \$2.0 million of customer order backlog in connection with the acquisition of FSY. At November 30, 2002, our consolidated sales order backlog was \$24.5 million, up \$1.5 million from the end of fiscal 2001.

Early in 2001, the telecommunications equipment market began to experience a severe industry-wide downturn. This downturn was driven by several factors, including: (1) the collapse of numerous start-up, competitive service providers and dot coms resulting in excess component inventories, unsold telecom systems, and a secondary market of used equipment throughout the telecommunications industry and (2) reduced spending for infrastructure and network equipment by incumbent telephone service providers as competitive pressures from start-up providers eased, certain technological advances stalled, and economic recessionary pressures grew. In fiscal 2002, we believe this severe downturn demonstrated some signs of moderating. Customer order cancellations and delivery date pushouts, which were prevalent throughout 2001, significantly diminished in fiscal 2002. Although we believe the prolonged market downturn may have bottomed-out in fiscal 2002, overall market demand continues to be volatile with the timing and extent of the market s recovery remaining uncertain. We cannot forecast with any degree of certainty when a full recovery in capital spending may be expected, nor can we forecast what normal customer spending levels may be once this structural market correction is completed.

Restructuring Charges

In fiscal 2001, we adopted and implemented a plan to restructure our operations and reduce operating expenses in response to the severe slowdown in the global telecommunications equipment market. The restructuring plan was intended to reduce excess manufacturing capacity, improve efficiencies, and align our operations with current business expectations. The plan included consolidating manufacturing facilities, writing off slow-moving inventories, and disposing of excess property and equipment. In connection with this plan, we recorded restructuring charges of \$485,000 in 2001. These restructuring charges consisted of employee severance costs and losses on the disposal of excess fixed assets. In addition, we increased our inventory reserves for excess and slow-moving items by \$5.1 million. These additional inventory reserves were included in cost of products sold for the fiscal year ended November 30, 2001.

Gross Margin

Gross margin was \$9.9 million or 17.3% of sales in fiscal 2002. In fiscal 2001, gross margin was \$18.6 million or 20.8% of sales, excluding the additional inventory reserves of \$5.1 million previously discussed. The decline in gross margin primarily reflects lower sales volume and manufacturing inefficiencies caused by the abrupt downturn in product demand by our telecommunications customers.

In addition to our formal restructuring plan, we identified and implemented numerous cost reduction programs throughout fiscal year 2002. As a result of these efforts, gross margin in fiscal 2003 is expected to approximate 21% to 22% of net sales. At November 30, 2002, we had a total workforce of 860 employees, including FSY personnel of 89. In light of current business conditions, we will continue to review our organization and cost structure to further reduce operating expenses and improve efficiencies.

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Management s Discussion and Analysis of Financial Condition and Results of Operations (Continued)

Selling, General and Administrative Expense

Selling expense was \$7.1 million or 12.4% of sales in 2002, compared to \$10.7 million or 12.0% of sales in 2001. The increase in selling expense, as a percentage of sales, reflects the impact of lower sales volume and certain fixed selling expenses. This impact was partially offset by lower effective sales commission rates, reduced advertising expenses, and decreased personnel costs. General and administrative expense was \$5.0 million in 2002, compared to \$7.2 million in 2001. The decrease in general and administrative expense primarily reflects lower personnel costs and the reduction of certain variable expenditures for professional services. In addition, \$826,000 of goodwill amortization was recorded and included in general and administrative expense in fiscal 2001. With the adoption of SFAS No. 142, no goodwill amortization was recorded in fiscal year 2002.

Other Income and Expense

Interest expense decreased by \$69,000 during the period, from \$209,000 in 2001 to \$140,000 in 2002. The decrease in interest expense primarily reflects reduced bank indebtedness.

We hold numerous United States and foreign patents relating to polymer multilayer (PML) technology. We realized license fee income of \$921,000 in 2002 and \$29,000 in 2001 upon the granting of PML technology licenses. Although these licenses, as well as other PML licenses that we have previously granted, require certain royalties to be paid to us upon the sale of products utilizing PML technology, it is not known what future commercial value, if any, these patents and related licenses may have.

In fiscal 2001, as part of our formal plan to consolidate manufacturing facilities and dispose of excess property and equipment, we closed two operating facilities in Elizabethtown, Pennsylvania. Manufacturing in these facilities had consisted of certain wireless products, specialty ceramic capacitors, and other signal products. These operations were consolidated into our manufacturing facilities in Juarez, Mexico and New Orleans, Louisiana. In March 2002, the two Elizabethtown facilities and related excess equipment were sold. Net proceeds realized from the sale amounted to approximately \$1.0 million, and a gain of \$23,000 was recorded and included in other nonoperating income in fiscal 2002.

In November 2002, we sold certain land and building in Erie, Pennsylvania. Manufacturing at this site had consisted of various power and advanced systems products. These product lines and operations have been successfully integrated into our Fairview, Pennsylvania manufacturing facility. Net proceeds realized from the sale amounted to \$915,000, with a loss of \$97,000 recognized on the sale and included in nonoperating expense in fiscal 2002.

Our wholly-owned foreign subsidiaries transact business with certain customers and vendors in currencies other than their local currency. As a result, we recognize gains and losses on foreign currency transactions. Foreign currency transaction gains and losses, however, were not material in any of the periods presented herein.

We realized interest income of \$272,000 in 2002 and \$428,000 in 2001 from temporary cash investments.

Income Taxes

Our effective income tax rate was 38.7% in 2002 and 38.0% in 2001, compared to an applicable federal and state statutory income tax rate of approximately 40.0%. Differences between the effective tax rate and statutory tax rate primarily arise from state tax provisions and foreign income tax rates.

At November 30, 2002, we had recorded certain deferred tax assets. We have assessed our past earnings history and trends, and expiration dates of tax attribute carryforwards, and have determined that it is more likely than not that these deferred tax assets will be realized to offset future taxable income from ordinary and recurring operations.

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Management s Discussion and Analysis of Financial Condition and Results of Operations (Continued)

2001 Compared to 2000

Net Sales

Throughout 2001, our sales and customer order rates were negatively impacted by the severe downturn in the telecommunications equipment industry. Consolidated 2001 net sales decreased by \$43.4 million or 32.7% from 2000. Sales of signal products decreased by \$30.1 million during the period, amounting to \$68.9 million in 2001 and \$99.0 million in 2000. Sales of power products amounted to \$20.4 million in 2001, a decrease of \$13.3 million from the preceding year. In 2001, power product sales included shipments of \$2.8 million of our advanced systems product offering. Average selling prices declined slightly in 2001 throughout most of our product offerings. Overall demand for our products was very soft in 2001 with total customer orders of \$66.9 million, a decrease of \$84.9 million or 55.9% from 2000. In addition, we reduced our sales order backlog by \$19.7 million in 2001 to reflect previously recorded orders that our customers requested to be postponed or canceled. As a result, our backlog at November 30, 2001, was approximately \$23.0 million, compared to \$65.0 million at November 30, 2000.

Restructuring Charges

During fiscal 2001, in response to the poor overall business climate, we adopted and implemented a plan to consolidate certain manufacturing facilities and dispose of excess property and equipment. In connection with this plan, we recorded restructuring charges of \$485,000 in 2001. In addition, because of the abrupt decline in customer orders, we increased our inventory reserves for excess and slow-moving items by \$5.1 million. These additional inventory reserves were included in cost of products sold for the fiscal year ended November 30, 2001.

Gross Margin

Excluding the additional inventory reserves of \$5.1 million discussed above, gross margin was \$18.6 million, or 20.8% of sales in 2001, compared to \$37.9 million or 28.6% of sales in 2000. With the severe slowdown in the telecommunications industry, our sales in 2001 were significantly below previously planned levels. As a result, gross margin in 2001 was negatively impacted by labor inefficiencies and lower absorption of fixed manufacturing overhead. At November 30, 2001, we had a total workforce of 788 employees, a reduction of 936 or 54.3% from November 30, 2000.

Selling, General and Administrative Expense

Selling expense was \$10.7 million or 12.0% of sales in 2001, compared to \$12.4 million or 9.4% of sales in 2000. The increase in selling expense, as a percentage of sales, principally reflects fixed selling expenses being absorbed over lower sales volume and higher effective commission rates on sales of product through distributors. General and administrative expense was \$7.2 million in 2001, compared to \$9.1 million in 2000. The decrease in general and administrative expense primarily reflects lower personnel costs and the elimination of certain discretionary charges and expenditures.

Other Income and Expense

Interest expense decreased by approximately \$1.6 million during the period, from \$1.8 million in 2000 to \$209,000 in 2001. The decrease in interest expense principally reflects reduced bank indebtedness. As more fully discussed below, all borrowings under our domestic line of credit and a \$17.3 million term loan were repaid in August 2000. Weighted average short-term borrowings under our domestic line of credit were \$4.3 million in 2000, with an average interest rate of approximately 8.6%.

In 2001, other income consists of interest income from short-term investments of \$428,000, PML license fee income of \$29,000, and net gains on foreign currency transactions of \$16,000. In 2000, other income reflects \$452,000 of PML license fee income, \$198,000 of interest income, and \$7,000 of foreign currency transaction gains.

Income Taxes

Our effective income tax rate was 38.0% in 2001 and 2000, compared to an applicable federal and state statutory income tax rate of approximately 40.0%. Differences between the effective tax rate and statutory tax rate primarily arise from state tax provisions and foreign income tax rates.

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Management s Discussion and Analysis of Financial Condition and Results of Operations (Continued)

Risk Factors That May Affect Future Results

In fiscal year 2002, approximately 42.0% of our sales were to customers in the telecommunications industry. Our four largest customers, original equipment manufacturers of telecommunications equipment, represented an aggregate 17.0% of our total consolidated net sales in 2002. Throughout 2002 and 2001, the telecommunications equipment industry has experienced a severe slowdown. If this slowdown continues or intensifies, it will have a material negative impact on our future operating performance. In addition, our results of operations may be negatively affected in the future by a variety of other factors including: competitive pricing pressures, new technologies which decrease the demand for our products, new product offerings by our competitors, product cost changes, changes in the overall economic climate, cancellation of existing customer order backlog, difficulties in successfully integrating our acquisition of FSY, unanticipated impairment of assets, changes in the availability of raw materials, and changes in product mix.

Liquidity, Capital Resources and Financial Condition

We maintain a line of credit with our principal lending institution, PNC Bank, N.A. of Erie, Pennsylvania (the Bank). This revolving credit line is unsecured, with interest rates on borrowings at or below the prevailing prime rate. At November 30, 2002, no borrowings were outstanding under the line of credit. The line of credit agreement contains certain covenants, the most restrictive of which require us to maintain designated minimum levels of net worth and profitability and impose certain restrictions on us regarding additional indebtedness. In February 2002, certain of these covenants were amended or waived by the Bank. At November 30, 2002, we were in compliance with all debt covenants, as amended. Maximum borrowings under the amended agreement may not exceed \$6.0 million. Our ability to borrow in the future under this credit facility is dependent on our ongoing compliance with the restrictive covenants. Whether we continue to comply with these covenants is largely dependent on our ability to attain certain levels of operating performance and profitability in the future, for which there can be no assurance. The amended line of credit agreement expires April 30, 2003.

Our wholly-owned German subsidiary maintains an unsecured Euro line of credit with a German financial institution aggregating \$985,000 (Euro 1.0 million). At November 30, 2002, no borrowings were outstanding under this line of credit. Future borrowings, if any, will bear interest at rates below the prevailing prime rate and will be payable upon demand.

Overall, our net working capital remains stable. At November 30, 2002, we had net working capital of \$42.6 million, compared to \$42.1 million at November 30, 2001 and \$43.0 million at November 30, 2000. Our current ratio is very strong with current assets 9.23 times current liabilities at November 30, 2002, compared to 9.17 at November 30, 2001.

In fiscal 2002, in response to the poor overall market conditions and as part of our related cost containment programs, our capital expenditures were controlled to minimum required amounts. In 2002, our capital expenditures for property, plant and equipment amounted to \$516,000. These capital expenditures were primarily for manufacturing equipment and tooling to enhance efficiencies in our ceramic capacitor operations and our advanced systems product offerings. Our cash expenditures for property, plant and equipment were \$3.1 million in 2001 and \$6.9 million in 2000. In 2001, capital expenditures were primarily incurred during the first half of the year for manufacturing equipment and tooling to enhance operating efficiencies and increase capacity for certain signal and power product lines. Capital expenditures in fiscal year 2000 primarily related to manufacturing equipment for our new Mexican facility and other production capacity expansion. At November 30, 2002, we had not entered into any material commitments for capital expenditures.

In 2002, as part of our efforts to consolidate manufacturing facilities and dispose of excess property and equipment, we sold certain land, building and equipment located in Elizabethtown and Erie, Pennsylvania. Manufacturing previously conducted at these sites has been transferred and successfully integrated into our other production facilities. Net proceeds realized from the sale of these assets was approximately \$2.0 million.

In fiscal year 2000, we completed a 26,000 square foot expansion to our manufacturing facility in Wesson, Mississippi. Financing for this project was substantially provided by the State of Mississippi through general obligation bonds issued in December 2000. Accordingly, we received \$950,000 of bond proceeds in fiscal 2001. The bonds have a term of 15 years and bear interest at an average rate of 5.36%.

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Management s Discussion and Analysis of Financial Condition and Results of Operations (Continued)

As previously indicated, we acquired all of the outstanding common stock of FSY in July, 2002. The aggregate cash purchase price for FSY was approximately \$6.5 million, excluding possible future contingent payments. The amount of contingent payments will be determined based upon the increase in sales of the acquired product lines during the three years subsequent to the acquisition date. The purchase price, net of cash acquired, was approximately \$4.9 million. This net purchase price was entirely funded through available cash reserves.

We have adopted a stock repurchase program. Under this program, we may repurchase up to \$6.0 million of the Company s outstanding Common Stock. Acquired shares are to be purchased in the open market or through privately negotiated transactions at prevailing market prices. Funding for these repurchases is expected to come from available cash reserves and borrowings under our revolving line of credit facility. The amount and timing of the shares repurchased are based on our ongoing assessment of the Company s capital structure, liquidity, and the market price of the Company s Common Stock. The repurchased shares are held as treasury stock. In fiscal 2002, 204,900 shares were repurchased at an aggregate cost of \$1.0 million. In fiscal 2001, 382,700 shares were repurchased at an aggregate cost of \$2.2 million. Since the inception of the stock repurchase program, 657,600 shares have been repurchased at a total cost of \$3.5 million.

Research and development expenditures, which encompass the personnel and related expenses devoted to developing new products and processes, amounted to \$1.4 million in 2002, \$1.6 million in 2001, and \$1.5 million in 2000. We expect to continue our investment in research and development in 2003, as we continuously enhance existing product lines, design new signal and power products, and further develop our FSY and advanced systems product offerings.

Income taxes paid during the fiscal years ended November 30, 2002, 2001 and 2000 amounted to \$95,000, \$3.3 million, and \$3.8 million, respectively. As a result of 2002 and 2001 operating losses, we had prepaid income taxes and income tax refund receivables aggregating \$1.1 million at November 30, 2002. Accordingly, we expect cash outlays for income taxes to be significantly less than income tax expense for fiscal year 2003.

As of November 30, 2002, our obligations and firm commitments are as follows (in thousands):

	rayments Due by Period						
Contractual obligations	Total	2003	2004	2005	2006	The	ereafter
Long-term debt	\$ 2,391	\$ 285	\$ 285	\$ 390	\$ 290	\$	1,141
Operating leases	2,760	832	768	559	377		224

Payments Due by Pariod

Current financial resources, including working capital and existing lines of credit, and anticipated funds from operations are expected to be sufficient to meet operating cash requirements throughout fiscal year 2003, including scheduled long-term debt repayment, lease commitments, planned capital equipment expenditures, research and development expenses, and possible stock repurchases. There can be no assurance, however, that unplanned capital replacement or other future events will not require us to seek additional debt or equity financing and, if so required, that it will be available on terms acceptable to us.

Despite operating losses in 2002 and 2001, our overall cash flow remained strong. Net cash generated by operating activities amounted to \$12.2 million in 2002 and \$11.2 million in 2001. Operating cash flow in fiscal 2002 reflects the refund of \$3.3 million of federal income taxes from prior year net operating loss carrybacks and overpayments. In addition, as a result of improved turnover rates, accounts receivable and inventories decreased by \$2.6 million and \$3.1 million, respectively. In fiscal 2001, operating cash flow was positively impacted by reductions in certain working capital requirements. In particular, as a result of lower sales volume in 2001, accounts receivable decreased by \$12.4 million. Net cash generated by operations was \$11.1 million in fiscal 2000, reflecting strong profitability and limited working capital increases.

In August 2000, we sold 2.3 million shares of our Common Stock in a public offering which resulted in net proceeds of \$27.8 million, after deducting issuance costs. The net proceeds of the offering were used to repay \$7.4 million of revolving line of credit indebtedness and \$17.3 million of term loan debt, with the remaining proceeds added to cash and cash equivalents available for general corporate purposes.

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Management s Discussion and Analysis of Financial Condition and Results of Operations (Continued)

At November 30, 2002, goodwill represented 22.0% of total assets and 25.5% of stockholders equity. In addition to \$3.8 million of goodwill recognized in connection with the acquisition of FSY, a majority of our recorded goodwill was recognized in 1999 in connection with our acquisition of substantially all of the assets of the Signal Conditioning Products Division of AMP Incorporated. With the adoption of SFAS No. 142, effective December 1, 2001, we have performed the required impairment tests of goodwill and determined that no impairment loss need be recognized in the year ended November 30, 2002.

Quantitative and Qualitative Disclosures About Market Risk

Foreign Currency

Certain of our European sales and related selling expenses are denominated in Euros, British Pounds Sterling, and other local currencies. In addition, certain of our operating expenses are denominated in Mexican Pesos. As a result, fluctuations in currency exchange rates may affect our operating results and cash flows. To manage our exposure to the Euro and British Pound Sterling, we occasionally enter into forward currency exchange contracts. At November 30, 2002, we had forward currency exchange contracts with aggregate notional amounts of \$1.2 million expiring at various dates over a nine month period. The fair value of these contracts at November 30, 2002, was a net receivable of \$17,000. For each of the three years ended November 30, 2002, currency exchange rate gains and losses were not material.

Interest Rate Exposure

We have market risk exposure relating to possible fluctuations in interest rates. From time to time, we utilize interest rate swap agreements to minimize the risks and costs associated with variable rate debt. We do not enter into derivative financial instruments for trading or speculative purposes. The interest rate swap agreements are entered into with major financial institutions thereby minimizing the risk of credit loss. At November 30, 2002, no interest rate swap agreements were outstanding.

Environmental Matters

We are subject to various laws and governmental regulations concerning environmental matters and employee safety and health in the United States and other countries. U.S. federal environmental legislation having particular impact on us includes the Toxic Substances Control Act; the Resource Conservation and Recovery Act; the Clean Air Act; the Clean Water Act; and the Safe Drinking Water Act. We also are subject to regulation by the Occupational Safety and Health Administration (OSHA) concerning employee safety and health matters. The United States Environmental Protection Agency (EPA), OSHA, and other federal agencies have the authority to promulgate regulations that have an impact on our operations.

In addition to these federal agencies, various states have been delegated certain authority under the aforementioned federal statutes. Many state and local governments have adopted environmental and employee safety and health laws and regulations, some of which are similar to federal

requirements. State and federal authorities may seek fines and penalties for violation of these laws and regulations. As part of our continuing environmental program, we have been able to comply with such proceedings and orders without any materially adverse effect on our business. We are not currently involved in any legal proceedings involving environmental matters.

Impact of Inflation

In recent years, inflation has not had a significant impact on our operations. However, we continuously monitor operating price increases, particularly in connection with the supply of precious metals used in our manufacturing of certain ceramic capacitors. To the extent permitted by competition, we pass increased costs on to our customers by increasing sales price over time. Sales price increases, however, were not significant in any of the years presented herein.

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Management s Discussion and Analysis of Financial Condition and Results of Operations (Continued)

New Accounting Pronouncements

In June 2001, the Financial Accounting Standards Board (FASB) issued Statement of Financial Accounting Standards No. 143, Accounting for Asset Retirement Obligations (SFAS No. 143). SFAS No. 143 addresses financial accounting and reporting for obligations associated with the retirement of tangible long-lived assets and the related asset retirement costs. SFAS No. 143 is effective for fiscal years beginning after June 15, 2002. We do not expect the adoption of SFAS No. 143 to have a material impact on our financial position or results of operations.

In August 2001, the FASB issued Statement of Financial Accounting Standards No. 144, Accounting for the Impairment or Disposal of Long-Lived Assets (SFAS No. 144). SFAS No. 144 establishes one accounting model for long-lived assets to be disposed of by sale, requiring those assets be measured at the lower of carrying amount or fair value less cost to sell. This accounting model applies to all long-lived assets, including those associated with discontinued operations, and replaces certain prior pronouncements and guidance. The provisions of SFAS No. 144 are generally effective for fiscal years beginning after December 15, 2001. We do not expect the adoption of SFAS No. 144 to have a material impact on our financial position or results of operations.

In April 2002, the FASB issued Statement of Financial Accounting Standards No. 145, Rescission of FASB Statements No. 4, 44, and 64, Amendment of FASB Statement No. 13, and Technical Corrections (SFAS No. 145). Among other items, SFAS No. 145 updates and clarifies existing accounting pronouncements related to reporting gains and losses from the extinguishment of debt and certain lease modifications that have economic effects similar to sale-leaseback transactions. The provisions of SFAS No. 145 are generally effective for fiscal years beginning after May 15, 2002, with earlier adoption of certain provisions encouraged. We do not expect the adoption of SFAS No. 145 to have a material impact on our financial position or results of operations.

In June 2002, the FASB issued Statement of Financial Accounting Standards No. 146, Accounting for Costs Associated with Exit or Disposal Activities (SFAS No. 146). SFAS No. 146 nullifies Emerging Issues Task Force (EITF) Issue No. 94-3, Liability Recognition for Costs to Exit an Activity (Including Certain Costs Incurred in a Restructuring). SFAS No. 146 requires that a liability for a cost associated with an exit or disposal activity be recognized when the liability is incurred. Under EITF Issue 94-3, a liability for an exit cost as defined in EITF Issue 94-3 was recognized at the date of an entity s commitment to an exit plan. The provisions of SFAS No. 146 are effective for exit or disposal activities that are initiated after December 31, 2002, with earlier application encouraged. Under SFAS No. 146, an entity may not restate its previously issued financial statements and the new statement grandfathers the accounting for liabilities that an entity had previously recorded under EITF Issue 94-3. We do not expect the adoption of SFAS No. 146 to have a material impact on our financial position or results of operations.

In December 2002, the FASB issued Statement of Financial Accounting Standards No. 148, Accounting for Stock-Based Compensation Transition and Disclosure (SFAS No. 148). SFAS No. 148 amends FASB Statement No. 123, Accounting for Stock-Based Compensation, to provide alternative methods of transition for a voluntary change to the fair value method of accounting for stock-based employee compensation. In addition, SFAS No. 148 amends the prior disclosure guidance and requires prominent disclosures in both annual and interim financial statements about the method of accounting for stock-based employee compensation and the effect of the method used on reported results. The provisions of SFAS No. 148 are generally effective for fiscal years ending after December 15, 2002. We are currently evaluating the new pronouncement and have not yet determined what effect, if any, the adoption of SFAS No. 148 will have on our financial position and results of operations.

Critical Accounting Policies

The methods, estimates and judgments we use in applying our most critical accounting policies have a significant impact on the results we report in our financial statements. The U.S. Securities and Exchange Commission has defined the most critical accounting policies as the ones that are most important to the portrayal of our financial condition and results, and require us to make our most difficult and subjective judgments, often as a result of the need to make estimates of matters that are inherently uncertain. Based on this definition, we believe our most critical accounting policies relate to the valuation and carrying amounts of accounts receivable, inventories, long-lived assets, and deferred tax assets.

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Management s Discussion and Analysis of Financial Condition and Results of Operations (Continued)

We evaluate the collectibility of our accounts receivable based on a combination of factors including an assessment of the customer s financial condition and the length of time a receivable is past due. At November 30, 2002, our allowance for doubtful accounts was \$896,000, or approximately 8.2% of our aggregate accounts receivable. In determining the adequacy of this allowance, we have assumed that the current severe downturn in the telecommunications industry will stabilize sometime in fiscal 2003. If this stabilization does not occur, or if market conditions deteriorate further, our customers may not be able to meet their financial obligations to us. Accordingly, our estimate of the recoverability of amounts due us could be reduced by a material amount.

At November 30, 2002, we had recorded inventory reserves in the aggregate amount of \$4.0 million for excess and slow-moving items. In determining the adequacy of these reserves, we considered numerous factors including current customer forecasts and estimated usage. Should these forecasts and estimates change due to market, technological or other factors, the net realizable value of our inventories may be materially less than our current carrying values.

With the adoption of SFAS No. 142, we review goodwill for possible impairment at least annually. Impairment losses are recognized when the implied fair value of goodwill is less than its carrying value. The implied fair value of goodwill is contingent upon many factors, including estimates of future discounted operating cash flows. Long-lived assets other than goodwill are reviewed for impairment whenever indicators of possible impairment exist. Impairments are recognized when the expected future operating cash flows derived from such assets are less than their carrying values. No impairment losses have been recognized in any of the periods presented herein. However, our future cash flow expectations assume that the current poor market conditions throughout the telecommunications industry will begin to improve significantly in 2004. If long-term market conditions do not improve significantly, our long-lived assets may become materially impaired.

We record valuation allowances to reduce deferred tax assets when it is more likely than not that some portion of the asset may not be realized. Presently, we believe that all deferred tax assets will more likely than not be realized and a valuation allowance is not required. We evaluate the need for valuation allowances on a regular basis and make adjustments as needed. These adjustments, when made, may have a materially negative impact on our financial statements.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

The information set forth under Quantitative and Qualitative Disclosures About Market Risk in Item 7, page 27, is incorporated herein by reference.

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ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The following consolidated financial statements of Spectrum Control, Inc. and subsidiaries are included herein:

	Page Number
Report of Independent Auditors	31
Consolidated Balance Sheets	
as of November 30, 2002 and 2001	32
Consolidated Statements of Operations	
for the years ended November 30,	
2002, 2001, and 2000	33
Consolidated Statements of Stockholders Equity	
for the years ended November 30, 2002,	
2001, and 2000	34
Consolidated Statements of Cash Flows	
for the years ended November 30, 2002,	
2001, and 2000	35
Notes to Consolidated Financial Statements	36-56

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REPORT OF INDEPENDENT AUDITORS

To the Board of Directors and Shareholders of Spectrum Control, Inc.

We have audited the accompanying consolidated balance sheets of Spectrum Control, Inc. and subsidiaries as of November 30, 2002 and 2001, and the related consolidated statements of operations, stockholders—equity, and cash flows for each of the three years in the period ended November 30, 2002. Our audits also included the financial statement schedule listed in the Index at Item 15(a). These financial statements and schedule are the responsibility of the Company—s management. Our responsibility is to express an opinion on these financial statements and schedule based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Spectrum Control, Inc. and subsidiaries at November 30, 2002 and 2001, and the consolidated results of their operations and their cash flows for each of the three years in the period ended November 30, 2002, in conformity with accounting principles generally accepted in the United States. Also, in our opinion, the related financial statement schedule, when considered in relation to the basic financial statements taken as a whole, presents fairly in all material respects the information set forth therein.

As discussed in Note 2 to the consolidated financial statements, the Company adopted Statement of Financial Accounting Standards No. 142, Goodwill and Other Intangible Assets, effective December 1, 2001.

Ernst & Young LLP

Pittsburgh, Pennsylvania

December 31, 2002

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SPECTRUM CONTROL, INC. AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS

NOVEMBER 30, 2002 AND 2001

(Dollar Amounts in Thousands)

	2002	2001
Assets		
Current assets		
Cash and cash equivalents	\$ 19,934	\$ 12,442
Accounts receivable, less allowances of \$ 896 in 2002 and \$ 765 in 2001	10,035	11,703
Inventories	14,494	17,144
Deferred income taxes	1,869	1,802
Income tax refund receivable	833	1,150
Prepaid expenses and other current assets	614	3,013
Total current assets	47,779	47,254
Property, plant and equipment, net	15,543	20,208
Other assets	,	,
Goodwill, net	18,019	14,243
Other noncurrent assets	483	1,646
Total other assets	18,502	15,889
Total other assets		
Total assets	\$ 81,824	\$ 83,351
Liabilities and Stockholders Equity		
Current liabilities		
Accounts payable	\$ 3,033	\$ 2,767
Income taxes payable	175	151
Accrued liabilities	1,685	1,856
Current portion of long-term debt	285	380
Total current liabilities	5,178	5,154
Long-term debt	2,391	2,676
Deferred income taxes	3,580	3,434
Stockholders equity		
Common stock, no par value, authorized 25,000,000 shares, issued 13,604,977 shares in 2002 and 13,548,513 shares		
in 2000	43,777	43,605
Retained earnings	31,116	31,853
Treasury stock, 657,600 shares in 2002 and 452,700 shares in 2001, at cost	(3,537)	(2,520)
Accumulated other comprehensive loss	(681)	(851)

Total stockholders equity	70,675	72,087
Total liabilities and stockholders equity	\$ 81,824	\$ 83,351

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

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SPECTRUM CONTROL, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF OPERATIONS

FOR THE YEARS ENDED NOVEMBER 30, 2002, 2001 AND 2000

 $(\ Amounts\ in\ Thousands\ Except\ Per\ Share\ Data\)$

	2002	2001	2000
Net sales	\$ 57,213	\$ 89,260	\$ 132,639
Cost of products sold	47,291	75,845	94,707
Gross margin	9,922	13,415	37,932
Operating expenses :			
Selling, general and administrative expense	12,102	17,901	21,482
Restructuring charges		485	
	12,102	18,386	21,482
Income (loss) from operations	(2,180)	(4,971)	16,450
Other income (expense):			
Interest expense	(140)	(209)	(1,788)
Other income and expense, net	1,117	473	657
	977	264	(1,131)
Income (loss) before provision for income taxes	(1,203)	(4,707)	15,319
Provision for income taxes (benefit)	(466)	(1,789)	5,816
Net income (loss)	\$ (737)	\$ (2,918)	\$ 9,503
Earnings (loss) per common share :			
Basic	\$ (0.06)	\$ (0.22)	\$ 0.81
Basic	\$ (0.00)	\$ (0.22)	\$ 0.81
Diluted	\$ (0.06)	\$ (0.22)	\$ 0.79
Weighted average common shares outstanding:			
Basic	13,063	13,296	11,694
Diluted	13,063	13,296	11,980

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

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SPECTRUM CONTROL, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF STOCKHOLDERS EQUITY

FOR THE YEARS ENDED NOVEMBER 30, 2002, 2001 AND 2000 $\,$

(Dollar Amounts in Thousands)

	Common	Common Stock			Accumulated Other	Total
	Shares	Amount	Retained Earnings	Treasury Stock	Comprehensive Loss	Stockholders Equity
Balance November 30, 1999	11,018,703	\$ 14,633	\$ 25,268	\$ (294)	\$ (472)	\$ 39,135
Net income			9,503			9,503
Foreign currency translation adjustments					(634)	(634)
Comprehensive income						8,869
Issuance of common stock upon:						
Exercise of employee stock options	64,801	197				197
Exercise of stock warrants	65,584	410				410
Public stock offering	2,300,000	27,836				27,836
Purchase and retirement of common stock	(1,036)	(18)				(18)
Tax benefits from exercise of stock options		117				117
Balance November 30, 2000	13,448,052	43,175	34,771	(294)	(1,106)	76,546
Net loss			(2,918)	, ,	` ` `	(2,918)
Foreign currency translation adjustments					180	180
Cumulative effect of change in accounting						
for derivative financial instruments					78	78
Change in fair value of derivatives					(3)	(3)
Comprehensive loss						(2,663)
Issuance of common stock upon:						
Exercise of employee stock options	103,040	390				390
Exercise of stock warrants	3,000	19				19
Purchase and retirement of common stock	(5,579)	(54)				(54)
Purchase of treasury stock				(2,226)		(2,226)
Tax benefits from exercise of stock options		75				75
Balance November 30, 2001	13,548,513	43,605	31,853	(2,520)	(851)	72,087
Net loss			(737)			(737)
Foreign currency translation adjustments					228	228
Change in fair value of derivatives					(58)	(58)
Comprehensive loss						(567)
Issuance of common stock upon						
exercise of employee stock options	79,167	330				330

Purchase and retirement of common stock	(22,703)	(183)				(183)
Purchase of treasury stock				(1,017)		(1,017)
Tax benefits from exercise of stock options		25				25
Balance November 30, 2002	13,604,977	\$ 43,777	\$ 31,116	\$ (3,537)	\$ (681)	\$ 70,675

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

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SPECTRUM CONTROL, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS

FOR THE YEARS ENDED NOVEMBER 30, 2002, 2001 AND 2000

(Dollar Amounts in Thousands)

	2002	2001	2000
Cash Flows From Operating Activities :			
Net income (loss)	\$ (737)	\$ (2,918)	\$ 9,503
Adjustments to reconcile net income (loss) to net cash provided by operating activities:	4,529	5,071	4,757
Depreciation	1,323	3,071	1,757
Amortization	60	890	1.124
Deferred income taxes	79	(1,002)	687
Restructuring and other charges	,,	5,495	007
Tax benefits from exercise of stock options	25	75	117
Loss on sale of property, plant and equipment	74	, 3	117
Changes in assets and liabilities, excluding effects of business acquisitions:	, ,		
Accounts receivable	2,593	12,373	(4,803)
Inventories	3,057	3,020	(886)
Prepaid expenses and other assets	2,840	(3,882)	355
Accounts payable and accrued liabilities	(287)	(7,878)	296
Accounts payable and accruce nabilities		(7,070)	
Net cash provided by operating activities	12,233	11,244	11,150
	<u> </u>		
Cash Flows From Investing Activities :			
Proceeds from sale of property, plant and equipment	1,961		
Purchase of property, plant and equipment	(516)	(3,078)	(6,905)
Payments for acquired businesses, net of cash received	(4,945)	(175)	(1,450)
Net cash used in investing activities	(3,500)	(3,253)	(8,355)
Cash Flows From Financing Activities :			
Net repayment of short-term debt			(5,089)
Borrowings of long-term debt		950	(3,069)
Repayment of long-term debt	(380)	(541)	(20,640)
Purchase of common stock	(1,017)	(2,226)	(20,040)
Net proceeds from issuance of common stock :	(1,017)	(2,220)	
Exercise of employee stock options	147	336	179
Exercise of stock warrants	17/	19	410
Public stock offering		1)	27,836
Tuble stock offering			27,030
Net cash provided by (used in) financing activities	(1,250)	(1,462)	2,696
Effect of exchange rate changes on cash	9	(64)	(52)
Not increase in each and each equivalents	7.402	6 165	£ 420
Net increase in cash and cash equivalents	7,492	6,465	5,439
Cash and cash equivalents, beginning of year	12,442	5,977	538

\$ 19,934

\$ 12,442

\$ 5,977

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

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Table of Contents SPECTRUM CONTROL, INC. AND SUBSIDIARIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS 1. Summary of Significant Accounting Policies Principles of Consolidation The consolidated financial statements include the accounts of Spectrum Control, Inc. and its subsidiaries (the Company). The fiscal year of the Company s German subsidiary, Spectrum Control GmbH, ends October 31 to facilitate timely reporting. All significant intercompany accounts are eliminated upon consolidation. Nature of Operations The Company designs and manufactures electronic control components and systems and has operations in the United States, Mexico and Germany. The Company offers a broad line of signal and power products which are used to condition, regulate, transmit, receive, or govern electronic performance. Although its products are used in many industries worldwide, the Company s largest markets are telecommunications equipment and military/aerospace. Cash Equivalents The Company considers all highly liquid money market instruments with original maturities of three months or less to be cash equivalents. **Derivative Financial Instruments** The Company enters into forward currency exchange contracts in the regular course of business to manage its exposure against foreign currency

Effective December 1, 2000, the Company adopted Statement of Financial Accounting Standards No. 133, Accounting for Derivative Instruments and Hedging Activities (SFAS No. 133). SFAS No. 133 requires all derivatives to be recognized on the balance sheet at fair value. Derivatives that are not hedges must be adjusted to fair value through income. If the derivative is a hedge, depending on the nature of the hedge, changes in the fair value of the derivative are either offset against the change in fair value of assets, liabilities, or firm commitments through earnings or recognized in other comprehensive income or loss until the hedged item is recognized in earnings.

fluctuations on sales denominated in foreign currencies. The terms of these contracts are generally nine months or less.

Prior to December 1, 2000, gains and losses related to forward currency exchange contracts were recorded when the related transaction occurred. Unrealized gains or losses on these hedging contracts were not recognized in income.

Inventories

Inventories are valued at the lower of cost or market, with cost for raw materials, work-in-process and finished goods at standard cost, which approximates the first-in, first-out basis.

Property, Plant and Equipment

Property, plant and equipment are stated at cost. Depreciation is computed over the estimated useful lives of the assets using the straight-line method. Estimated useful lives are generally 20 years for land improvements, 15 to 30 years for buildings and improvements, and 3 to 8 years for machinery and equipment. Expenditures for maintenance and repairs are charged against earnings in the year incurred; major replacements, renewals and betterments are capitalized and depreciated over their estimated useful lives. The cost and accumulated depreciation of assets sold or retired are removed from the respective accounts and any gain or loss is reflected in earnings.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Goodwill

Goodwill represents the excess of cost over the fair value of net tangible and identifiable intangible assets of acquired businesses. Effective December 1, 2001, the Company adopted Statement of Financial Accounting Standards No. 142, Goodwill and Other Intangible Assets (SFAS No. 142). Under SFAS No. 142, goodwill is no longer amortized to expense, but is instead subjected to a periodic impairment test at least annually. The impairment test is conducted at the reporting unit level by comparing the fair value of the reporting unit with its carrying value. Fair value is primarily determined by computing the future discounted cash flows expected to be generated by the reporting unit. If the carrying value exceeds the fair value, goodwill may be impaired. If this occurs, the fair value of the reporting unit is then allocated to its assets and liabilities in a manner similar to a purchase price allocation in order to determine the implied fair value of the reporting unit goodwill. This implied fair value is then compared with the carrying amount of the reporting unit goodwill, and if it is less, the Company would then recognize an impairment loss.

Prior to December 1, 2001, goodwill was amortized to expense on a straight-line basis over a period of 20 years. The carrying value of goodwill was reviewed for possible impairment whenever events or changes in circumstances indicated that an impairment might exist.

No goodwill impairment losses have been recognized in any of the periods presented herein.

Other Assets

Patents and patent rights are amortized to expense on a straight-line basis over periods not exceeding 17 years. The carrying value of patents and patent rights is periodically reviewed by the Company and impairments are recognized when the expected future operating cash flows derived from such intangible assets is less than their carrying value. No impairment losses have been recognized in any of the periods presented herein.

Debt issuance costs are amortized to expense on a straight-line basis over the term of the related indebtedness, which does not differ materially from the interest method.

Income Taxes

The Company uses the liability method in accounting for income taxes. Deferred tax assets and liabilities are recorded for temporary differences between the tax basis of assets and liabilities and their reported amounts in the financial statements, using statutory tax rates in effect for the year in which the differences are expected to reverse. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in the results of operations in the period that includes the enactment date. A valuation allowance is recorded to reduce the carrying amounts of deferred tax assets unless it is more likely than not that such assets will be realized.

Foreign Currency Translation

The assets and liabilities of the Company s foreign operations are translated into U.S. dollars at year-end exchange rates. Revenue and expense accounts of these operations are translated at average exchange rates prevailing during the year. These translation adjustments are accumulated in a separate component of stockholders equity and other comprehensive income or loss.

Foreign currency transaction gains and losses are included in determining net income or loss for the year in which the exchange rate changes.

Revenue Recognition

Product sales are generally recorded at the time of shipment and when title passes. Sales of consigned inventories are recorded when the customer has taken title and assumed the risks and rewards of ownership as specified in the customer spurchase order or sales agreement. Service revenues are recorded when the related services are performed. Patent licensing fees are recorded when the related technology rights are transferred.

Shipping and Handling Costs

Shipping and handling costs are included in cost of products sold.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Advertising and Promotion

Advertising and promotion costs are expensed as incurred. Advertising and promotion expense amounted to \$719,000 in 2002, \$1,062,000 in 2001, and \$1,060,000 in 2000.

Research and Development

Research and development costs are expensed as incurred. Research and development expense amounted to \$1,417,000 in 2002, \$1,625,000 in 2001, and \$1,535,000 in 2000.

Stock-Based Compensation

Stock options granted by the Company are accounted for in accordance with Accounting Principles Board Opinion No. 25, Accounting for Stock Issued to Employees (APB 25) and related Interpretations. The exercise price of employee stock options equals the market price of the underlying stock on the date of option grant. Once granted, an option s exercise price and number of shares to be issued remain fixed throughout the option term. Accordingly, in accordance with APB 25, no stock-based compensation expense has been recognized in the accompanying financial statements.

Earnings (Loss) Per Common Share

Basic earnings (loss) per common share is computed by dividing net income or loss by the weighted average number of common shares outstanding during the period. Diluted earnings (loss) per common share is computed by dividing net income or loss by the weighted average number of common shared outstanding during the period and the effect of all dilutive common stock equivalents, such as stock options and warrants.

Estimates

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

New Accounting Pronouncements

In June 2001, the Financial Accounting Standards Board (FASB) issued Statement of Financial Accounting Standards No. 143, Accounting for Asset Retirement Obligations (SFAS No. 143). SFAS No. 143 addresses financial accounting and reporting for obligations associated with the retirement of tangible long-lived assets and the related asset retirement costs. SFAS No. 143 is effective for fiscal years beginning after June 15, 2002. The Company does not expect the adoption of SFAS No. 143 to have a material impact on its financial position or results of operations.

In August 2001, the FASB issued Statement of Financial Accounting Standards No. 144, Accounting for the Impairment or Disposal of Long-Lived Assets (SFAS No. 144). SFAS No. 144 establishes one accounting model for long-lived assets to be disposed of by sale, requiring those assets to be measured at the lower of carrying amount or fair value less cost to sell. This accounting model applies to all long-lived assets, including those associated with discontinued operations, and replaces certain prior pronouncements and guidance. The provisions of SFAS No. 144 are generally effective for fiscal years beginning after December 15, 2001. The Company does not expect the adoption of SFAS No. 144 to have a material impact on its financial position or results of operations.

In April 2002, the FASB issued Statement of Financial Accounting Standards No. 145, Rescission of FASB Statements No. 4, 44, and 64, Amendment of FASB Statement No. 13, and Technical Corrections (SFAS No. 145). Among other items, SFAS No. 145 updates and clarifies existing accounting pronouncements related to reporting gains and losses from the extinguishment of debt and certain lease modifications that have economic effects similar to sale-leaseback transactions. The provisions of SFAS No. 145 are generally effective for fiscal years beginning after May 15, 2002, with earlier adoption of certain provisions encouraged. The Company does not expect the adoption of SFAS No. 145 to have a material impact on its financial position or results of operations.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

In June 2002, the FASB issued Statement of Financial Accounting Standards No. 146, Accounting for Costs Associated with Exit or Disposal Activities (SFAS No. 146). SFAS No. 146 nullifies Emerging Issues Task Force (EITF) Issue No. 94-3, Liability Recognition for Costs to Exit an Activity (Including Certain Costs Incurred in a Restructuring). SFAS No. 146 requires that a liability for a cost associated with an exit or disposal activity be recognized when the liability is incurred. Under EITF Issue 94-3, a liability for an exit cost as defined in EITF Issue 94-3 was recognized at the date of an entity s commitment to an exit plan. The provisions of SFAS No. 146 are effective for exit or disposal activities that are initiated after December 31, 2002, with earlier application encouraged. Under SFAS No. 146, an entity may not restate its previously issued financial statements and the new statement grandfathers the accounting for liabilities that an entity had previously recorded under EITF Issue 94-3. The Company does not expect the adoption of SFAS No. 146 to have a material impact on its financial position or results of operations.

In December 2002, the FASB issued Statement of Financial Accounting Standards No. 148, Accounting for Stock-Based Compensation Transition and Disclosure (SFAS No. 148). SFAS No. 148 amends FASB Statement No. 123, Accounting for Stock-Based Compensation, to provide alternative methods of transition for a voluntary change to the fair value method of accounting for stock-based employee compensation. In addition, SFAS No. 148 amends the prior disclosure guidance and requires prominent disclosures in both annual and interim financial statements about the method of accounting for stock-based employee compensation and the effect of the method used on reported results. The provisions of SFAS No. 148 are generally effective for fiscal years ending after December 15, 2002. The Company is currently evaluating the new pronouncement and has not yet determined what effect, if any, the adoption of SFAS No. 148 will have on its financial position and results of operations.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

2. Adoption of New Accounting Pronouncement

In June 2001, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 142, Goodwill and Other Intangible Assets (SFAS No. 142). Under SFAS No. 142, goodwill and intangible assets deemed to have indefinite lives are no longer amortized, but are instead subject to a periodic impairment test at least annually. Other intangible assets continue to be amortized over their useful lives.

Effective December 1, 2001, the Company adopted SFAS No. 142. Accordingly, no amortization of goodwill was recognized in the accompanying consolidated statements of operations for the year ended November 30, 2002, compared to \$826,000 and \$782,000 for the years ended November 30, 2001 and 2000, respectively. In accordance with the provisions of SFAS No. 142, the Company has performed the required transitional impairment test of goodwill and has determined that no impairment loss need be recognized in the year ended November 30, 2002.

As required by SFAS No. 142, prior year results have not been restated. A reconciliation of the previously reported net income (loss) and earnings (loss) per common share for the years ended November 30, 2001 and 2000, as if SFAS No. 142 had been adopted as of December 1, 1999, is as follows (in thousands except per share data):

		2001		2000
Reported net income (loss)	\$	(2,918)	\$	9,503
Add back: Goodwill amortization, net of related tax effect		512		485
Adjusted net income (loss)	\$	(2,406)	\$	9,988
Earnings (loss) per common share:				
Basic earnings (loss) per share, as reported	\$	(0.22)	\$	0.81
Impact of goodwill amortization		0.04		0.04
	_			
Adjusted basic earnings (loss) per share	\$	(0.18)	\$	0.85
	_		_	
Diluted earnings (loss) per share, as reported	\$	(0.22)	\$	0.79
Impact of goodwill amortization		0.04		0.04
			_	
Adjusted diluted earnings (loss) per share	\$	(0.18)	\$	0.83
	_			

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

3. Acquisition

On July 19, 2002, the Company acquired all of the outstanding common stock of FSY Microwave, Inc. (FSY). FSY, based in Columbia, Maryland, designs and manufactures RF and microwave filters, combiners, amplifiers, multiplexers, duplexers, and related products and systems. These products and systems are used in numerous industries including military, aerospace, medical, and telecommunications. FSY s products are a natural complement and extension to the Company s existing ceramic-based wireless product offerings. In addition, the Company believes that its low-cost manufacturing capability and established sales channels will provide additional revenue opportunities for FSY products.

The aggregate cash purchase price for FSY was \$6,462,000, excluding possible future contingent payments. The amount of contingent payments will be determined based upon the increase in sales of the acquired product lines during the three years subsequent to the acquisition date. The purchase price has been allocated to the assets acquired and liabilities assumed based upon their respective fair market values. The fair market values of machinery and equipment were primarily determined by reference to published market quotations. Apart from goodwill, there were no identifiable intangible assets acquired. The excess of the aggregate purchase price over the fair values of the net assets acquired was recognized as goodwill. The amount of future contingent payments, if any, will also be allocated to goodwill when the amount of the contingent payments is determinable. The aggregate cash purchase price, which includes \$62,000 of legal fees and other costs directly related to the acquisition, was funded through available cash reserves.

The allocation of the purchase price to the assets acquired and liabilities assumed is as follows (in thousands):

Cash and cash equivalents	\$ 1,517
Accounts receivable	731
Inventories	358
Prepaid expenses and other assets	40
Machinery and equipment	446
Accounts payable	(140)
Accrued liabilities	(266)
Goodwill	3,776
	\$ 6,462

The goodwill acquired has been assigned to the Company s Signal Products operating segment.

The results of operations of the acquired business have been included in the accompanying consolidated financial statements since the date of acquisition. The following unaudited pro forma consolidated financial information for each of the three years in the period ended November 30, 2002, has been prepared as if the acquisition had occurred on December 1, 1999 (in thousands except per share data):

	2002	2001	2000
Net sales	\$ 61,133	\$ 97,732	\$ 140,704
Net income (loss)	(605)	(2,070)	9,746
Earnings (loss) per common share:			
Basic	(0.05)	(0.16)	0.83
Diluted	(0.05)	(0.16)	0.81

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The pro forma information reflects no goodwill amortization for the year ended November 30, 2002, due to the adoption of SFAS No. 142 by the Company effective December 1, 2001. The pro forma information does reflect goodwill amortization of \$826,000 and \$782,000 for the years ended November 30, 2001 and 2000, respectively, related to acquisitions which occurred prior to the adoption of SFAS No. 142.

Pro forma amounts are based upon certain assumptions and estimates, and do not reflect any benefits from economies which might be achieved from combined operations. The pro forma information does not necessarily represent results which would have occurred if the acquisition had taken place on the basis assumed above, nor are they necessarily indicative of the results of future combined operations.

4. Inventories

Inventories by major classification are as follows:

		Novem	ber 30
	_	2002	2001
	_	(in tho	ısands)
S	\$	2,510	\$ 1,796
		4,803	8,416
3		7,181	6,932
	_		
	\$	14,494	\$ 17,144

At November 30, 2002 and 2001, inventories are presented net of inventory reserves of \$3,980,000 and \$7,249,000 respectively

5. Property, Plant and Equipment

Property, plant and equipment consist of the following:

November 30		
2002	2001	

	(in tho	usands)
Land and improvements	\$ 1,127	\$ 1,264
Buildings and improvements	10,879	12,403
Machinery and equipment	26,357	32,075
	38,363	45,742
Less accumulated depreciation	22,820	25,534
	\$ 15,543	\$ 20,208

6. Goodwill

Goodwill consists of the following:

	Nove	mber 30
	2002	2001
	(in the	ousands)
Goodwill	\$ 20,187	\$ 16,411
Less accumulated amortization	2,168	2,168
Goodwill, net	\$ 18,019	\$ 14,243

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Changes in the carrying amount of goodwill for the years ended November 30, 2002 and 2001 are summarized as follows (in thousands):

	2002	2001
Goodwill, beginning of year	\$ 14,243	\$ 14,894
Goodwill acquired	3,776	175
Goodwill amortization		(826)
Goodwill, end of year	\$ 18,019	\$ 14,243

7. Other Noncurrent Assets

Other noncurrent assets consist of the following:

	Nove	ember 30
	2002	2001
	(in th	ousands)
Intangible assets:		
Patents and patent rights	\$ 574	\$ 574
Debt issuance costs	205	393
	779	967
Less accumulated amortization	485	614
	294	353
Other assets:		
Deferred charges	172	263
Forward currency exchange contracts	17	75
Property held for sale		955
	189	1,293
Other noncurrent assets	\$ 483	\$ 1,646

Amortization of intangible assets is expected to be approximately \$60,000 for each of the next five fiscal years.

8. Accrued Liabilities

Accrued liabilities consist of the following:

	November 30	
	2002	2001
	(in tho	usands)
Accrued salaries and wages	\$ 1,337	\$ 1,420
Accrued interest	85	88
Accrued other expenses	263	348
	\$ 1,685	\$ 1,856

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

9. Short-Term Debt

The Company maintains an unsecured line of credit with its principal lending institution (the Bank), with interest rates on borrowings at or below the prevailing prime rate. During 2002 and 2001, no borrowings were outstanding under this line of credit arrangement. The line of credit agreement contains certain covenants, the most restrictive of which require the Company to maintain designated minimum levels of net worth and profitability and impose certain restrictions on the Company regarding additional indebtedness. In 2002, certain of these covenants were amended or waived by the Bank. At November 30, 2002, the Company was in compliance with all debt covenants, as amended. Maximum borrowings under the amended agreement may not exceed \$6,000,000. The amended line of credit agreement expires April 30, 2003.

The Company s wholly-owned German subsidiary maintains unsecured Euro lines of credit with financial institutions aggregating \$985,000 (Euro 1,000,000) at November 30, 2002 and \$1,852,000 (Euro 2,045,000) at November 30, 2001. During 2002 and 2001, no borrowings were outstanding under these lines of credit. Borrowings bear interest at rates below the prevailing prime rate and are payable upon demand.

10. Long-Term Debt

Long-term debt consists of the following:

		November 30	
		2002	2001
		(in tho	usands)
Industrial revenue bonds at variable interest rate (1.60% at November 30, 2002 and 2001)	(1)	\$ 1,100	\$ 1,400
Industrial revenue bonds at an interest rate of 5.36%	(2)	910	950
Mortgage note payable to bank at an interest rate of 8.50%	(3)	666	706
Total		2,676	3,056
Less current portion		285	380
•			
Long-term debt		\$ 2,391	\$ 2,676

⁽¹⁾ The industrial revenue bonds are collateralized by certain land, building and equipment and an irrevocable letter of credit issued by the Company, through its principal lending institution. The bonds bear interest at approximately 40% of the prevailing prime rate and require annual principal payments ranging from \$200,000 to \$300,000 through the year 2007.

(2)

The industrial revenue bonds are collateralized by certain land and building and an irrevocable letter of credit issued by the Company, through its principal lending institution. The bonds require annual principal payments ranging from \$40,000 to \$90,000 through the year 2015.

(3) The mortgage note payable is collateralized by certain land and building and requires monthly principal payments of approximately \$3,000 through July 2009, with a final principal payment of \$400,000 due in August 2009.

The aggregate maturities of all long-term debt during each of the five years ending November 30, 2007, are \$285,000, \$285,000, \$390,000, \$290,000, and \$295,000, respectively.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

11. Fair Value of Financial Instruments

The carrying amounts of cash, cash equivalents, accounts receivable, accounts payable, and accrued liabilities approximate fair value due to the short-term maturities of these assets and liabilities. The carrying amounts of the Company s long-term debt approximate fair value, based on borrowing rates currently available for debt of similar terms and maturities. The Company utilizes letters of credit to collateralize certain long-term borrowings. The letters of credit reflect fair value as a condition of their underlying purpose and are subject to fees competitively determined in the marketplace.

To protect against the reduction in value of forecasted foreign currency cash flows resulting from export sales, the Company maintains a foreign currency cash flow hedging program. The Company hedges portions of its forecasted revenue denominated in foreign currencies with forward contracts. When the dollar strengthens significantly against the foreign currencies (primarily the Euro and British Pound Sterling), the decline in value of future foreign currency revenue is offset by gains in the value of the forward contracts designated as hedges. Conversely, when the dollar weakens, the increase in the value of future foreign currency cash flows is offset by losses in the value of the forward contracts. At November 30, 2002, the Company had forward currency exchange contracts with aggregate notional amounts of \$1,200,000, maturing at varying dates over a nine month period. At November 30, 2001, the Company had forward currency exchange contracts with aggregate notional amounts of \$1,062,000, maturing at varying dates over a six month period. The estimated fair value of the forward currency exchange contracts was a net receivable of \$17,000 at November 30, 2002 and \$75,000 at November 30, 2001, based on the amounts the Company would receive upon termination of the contracts. Hedging ineffectiveness during the years ended November 30, 2002 and 2001 was not material.

12. Common Stock Offering

On August 16, 2000, the Company sold 2,300,000 shares of its Common Stock in a public offering which resulted in net proceeds of \$27,836,000, after deducting issuance costs. The net proceeds of the offering were used to repay \$7,400,000 of revolving credit indebtedness and \$17,273,000 of term loan debt, with the remaining proceeds added to cash and cash equivalents available for general corporate purposes.

13. Treasury Stock

The Board of Directors has authorized the Company to repurchase up to \$6,000,000 of the Company s Common Stock at market prices. The amount and timing of the shares to be repurchased are at the discretion of management. Through November 30, 2002, the Company had repurchased 657,600 shares at an aggregate cost of \$3,537,000. The repurchased shares are held as treasury stock.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

14. Accumulated Other Comprehensive Loss

The components of accumulated other comprehensive loss are as follows (in thousands):

	Cu Tra	oreign arrency nslation astments	Derivative Financial Instrument Gain (Loss	s	Total
Balance November 30, 1999	\$	(472)	\$		\$ (472)
Foreign currency translation adjustments		(634)		_	(634)
Balance November 30, 2000		(1,106)			(1,106)
Foreign currency translation adjustments		180			180
Cumulative effect of change in accounting for derivative financial			7	o	70
instruments			7	-	78
Change in fair value of derivatives				3) -	(3)
Balance November 30, 2001		(926)	7.	5	(851)
Foreign currency translation adjustments		228			228
Change in fair value of derivatives			(5	8)	(58)
Balance November 30, 2002	\$	(698)	\$ 1	7	\$ (681)
				_	

15. Restructuring and Other Charges

In 2001, the Company adopted and implemented a plan to restructure its operations and reduce operating expenses in response to a severe slowdown in the global telecommunications equipment market. The restructuring plan was designed to reduce excess manufacturing capacity, improve efficiencies, and align the Company s operations with current business expectations. The plan included consolidating manufacturing facilities, writing off slow -moving inventories, and disposing of excess property and equipment. As a result of consolidating operations, the Company realized losses of \$350,000 on the disposal of excess property, plant and equipment and incurred employee severance costs of \$135,000 associated with the elimination of 38 salaried positions. In addition, with the overall business slowdown and related customer order cancellations, the Company increased its reserves for excess and slow-moving inventories by \$5,145,000.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

A summary of the restructuring and other charges for the year ended November 30, 2001 is as follows (in thousands):

		Restructuring and
Classification	Description	Other Charges
Cost of products sold	Inventory reserves	\$5,145
Restructuring charges	Employee severance costs	135
Restructuring charges	Loss on disposal of property, plant and equipment	350
		\$5,630

16. Other Income and Expense

Other income and expense for the years ended November 30, 2002, 2001, and 2000 consist of the

following (in thousands):

	2002	2001	2000
Patent licensing fees	\$ 921	\$ 29	\$ 452
Investment income	272	428	198
Gain (loss) on foreign currency transactions	(2)	16	7
Loss on sale of property, plant and equipment	(74)		
	\$ 1,117	\$ 473	\$ 657

17. Income Taxes

For the years ended November 30, 2002, 2001, and 2000, income (loss) before income taxes consists of the following (in thousands):

2002	2001	2000

U.S. operations Foreign operations	\$ (1,215)	\$ (5,433)	\$ 14,936
	12	726	383
	\$ (1,203)	\$ (4,707)	\$ 15,319

For the years ended November 30, 2002, 2001, and 2000, the provision for income taxes (benefit) consists of the following (in thousands):

	2002	2001	2000
Current			
U.S. Federal	\$ (714)	\$ (1,100)	\$ 4,460
Foreign	169	297	46
State		16	623
Deferred			
U.S. Federal	123	(645)	400
State	(44)	(357)	287
	\$ (466)	\$ (1,789)	\$ 5,816

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The difference between the provision for income taxes (benefit) and the amount computed by applying the U.S. federal income tax rate in effect for the years ended November 30, 2002, 2001, and 2000 consists of the following (in thousands):

	2002	2001	2000
Statutory federal income tax (benefit)	\$ (409)	\$ (1,600)	\$ 5,208
State income taxes, net of federal tax effect	(29)	(225)	411
Foreign tax rates	(6)	50	50
Other items	(22)	(14)	147
	\$ (466)	\$ (1,789)	\$ 5,816

Significant components of the Company s net deferred tax assets and liabilities are as follows:

	Novem	November 30	
	2002	2001	
	(in tho	(in thousands)	
Deferred tax assets:			
Inventory valuation	\$ 1,235	\$ 1,214	
Accrued compensation	321	335	
Allowance for doubtful accounts	317	253	
Amortization of intangible assets	266	327	