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MERRIMAC INDUSTRIES INC

Form 10KSB

April 22, 2003

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

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FORM 10-KSB

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

For the fiscal year ended DECEMBER 28, 2002      Commission file number 0-11201  
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MERRIMAC INDUSTRIES, INC.

-----  
(Name of Small Business Issuer as specified in Its Charter)

DELAWARE

22-1642321

-----  
(State or other jurisdiction of  
incorporation or organization)

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

41 FAIRFIELD PLACE  
WEST CALDWELL, NEW JERSEY 07006

-----  
(Address of principal executive offices)

973-575-1300

-----  
(Issuer's telephone number)

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

COMMON STOCK  
COMMON STOCK PURCHASE RIGHTS

AMERICAN STOCK EXCHANGE  
AMERICAN STOCK EXCHANGE

-----  
(Title of each Class)

-----  
(Name of each Exchange on which registered)

Securities registered pursuant to Section 12(g) of the Exchange Act: NONE

Check whether registrant (1) has filed all reports required to be filed  
by Section 13 or 15 (d) of the Exchange Act during the 12 months (or for such  
shorter period that registrant was required to file such reports), and (2) has  
been subject to such filing requirements for the past 90 days.

Yes    X

No

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Check if there is no disclosure of delinquent filers in response to  
Item 405 of Regulation S-B contained in this form, and no disclosure will be

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contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-KSB or any amendment to this Form 10-KSB. [X]

State registrant's revenues for its most recent fiscal year: \$24,570,332

The aggregate market value of voting stock held by non-affiliates based upon the average price of such stock as quoted on The American Stock Exchange on April 17, 2003, was \$5,300,000.

The number of shares of registrant's Common Stock outstanding as of April 17, 2003, was 3,120,591 shares.

Transitional Small Business Disclosure Format (check one): YES \_\_\_\_\_ NO ☒ X \_\_\_\_\_

### DOCUMENTS INCORPORATED BY REFERENCE

Portions of Registrant's Proxy Statement for the 2003 Annual Meeting of Stockholders are incorporated into Part III of this Form 10-KSB.

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### FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-KSB contains statements relating to future results of Merrimac Industries, Inc. ("Merrimac" and together with its subsidiaries, the "Company"), including certain projections and business trends, that are "forward-looking statements" as defined in the Private Securities Litigation Reform Act of 1995. Actual results may differ materially from those projected as a result of certain risks and uncertainties. These risks and uncertainties include, but are not limited to: general economic and industry conditions; slower than anticipated penetration into the satellite communications, defense and wireless markets; the ability to protect proprietary information and technology; competitive products and pricing pressures; the risk that Merrimac will not be able to continue to raise sufficient capital to expand its operations as currently contemplated by its business strategy; risks relating to governmental regulatory actions in communications and defense programs; risks associated with demand for and market acceptance of existing and newly developed products; inventory risks due to technological innovation and product obsolescence; and the risk that the benefits expected from the acquisition of Filtran Microcircuits Inc. are not realized, as well as other risks and uncertainties, including but not limited to those detailed from time to time in Merrimac's Securities and Exchange Commission filings. These forward-looking statements are made only as of the date of the filing of this Form 10-KSB, and Merrimac undertakes no obligation to update or revise the forward-looking statements, whether as a result of new information, future events or otherwise.

### PART I

#### ITEM 1. DESCRIPTION OF BUSINESS

##### GENERAL

Merrimac is a leader in the design and manufacture of passive RF and microwave components for industry, government and science. Merrimac components are today found in applications as diverse as satellites, military and commercial aircraft, cellular radio systems, magnetic resonance medical diagnostic instruments, personal communications systems ("PCS") and wireless Internet connectivity.

Merrimac has become a versatile technologically oriented company specializing in miniature radio frequency lumped-element components, integrated networks, microstrip and stripline microwave components, subsystems and ferrite attenuators. Of special significance has been the combination of two or more of these technologies into single components to achieve superior performance and reliability while minimizing package size and weight.

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Merrimac was originally incorporated as Merrimac Research and Development, a New York corporation, in 1954. Merrimac was reincorporated as a New Jersey corporation in 1994 and subsequently reincorporated as a Delaware corporation in 2001.

### ELECTRONIC COMPONENTS PRODUCTS

In 1998, Merrimac introduced Multi-Mix(R) Microtechnology capabilities, an innovative process for microwave, multilayer integrated circuits and micro-multifunction module (MMFM(R)) technology and subsystems. This process is based on fluoropolymer composite substrates, which are bonded together into a multilayer structure using a fusion bonding process. The fusion process provides a homogeneous dielectric medium for superior electrical performance at microwave frequencies. This 3-dimensional Multi-Mix(R) design consisting of stacked circuit layers permits the manufacture of components and subsystems that are a fraction of the size and weight of conventional microstrip and stripline products.

In July 2001, Merrimac introduced its Multi-Mix PICO(TM) Microtechnology. Through Multi-Mix PICO(TM) technology, Merrimac offers a group of products at a greatly reduced size, weight and cost that includes hybrid junctions, directional couplers, quadrature hybrids, power dividers and inline couplers, filters and vector modulators along with 802.11a, 802.11b, and 802.11g Wireless LAN (Local Area Network) modules. When compared to conventional multilayer quadrature hybrids and directional coupler products, Multi-Mix PICO(TM) is smaller in size, by more than 84% without the loss of power or performance. Merrimac has completed the development of integrated inline multi-couplers and is introducing these Multi-Mix PICO(TM) products to major basestation customers.

In December 2001, Merrimac received and started to ship its first 3G production order for a Multi-Mix PICO(TM) integrated solution to be used by one of the world's largest suppliers of wireless power amplifiers in the design of new third-generation broadband basestations.

In addition to wireless communications, Multi-Mix PICO(TM) products are currently under evaluation for applications in airborne electronic countermeasures, radar systems, smart antennas, satellite communications receiver modules and security equipment.

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In the area of broadband communications, Merrimac continues to work on solutions that will bring dual-way Internet access to homes and offices through a multimedia broadband interactive satellite system.

Merrimac manufactures and sells approximately 1,500 components and subsystems used in signal processing systems (the extraction of useable information from radio signals) in the frequency spectrum of D.C. to 65 GHz. Merrimac's products are designed to process signals having wide bandwidths and are of relatively small size and lightweight. When integrated into subsystems, advantages of lower cost and smaller size are realized due to the reduced number of connectors, cases and headers. Merrimac's components range in price from \$20 to \$10,000 and its subsystems range from \$500 to more than \$100,000.

Merrimac has traditionally developed and offered for sale products built to specific customer needs, as well as standard catalog items. Approximately 35% of 2002 revenues were derived from initial orders for products custom designed for specific customer applications, 50% from repeat orders for such products and 15% from catalog sales.

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Merrimac maintains a current electronic catalog on its Internet website. The Merrimac catalog includes hundreds of standard components, and provides a selection of passive signal processing components. These components often form the platform-basis for customization of designs in which the size, package, finish, electrical parameters, environmental performance, reliability and other features are tailored for a specific customer application.

Merrimac's strategy is to be a reliable supplier of high quality, technically innovative signal processing products. Merrimac coordinates its marketing, research and development, and manufacturing operations to develop new products and expand its markets. Merrimac's marketing and development activities focus on identifying and producing prototypes for new military and commercial programs and applications in aerospace, navigational systems, telecommunications and cellular analog and digital wireless telecommunications electronics. Merrimac's research and development efforts are targeted towards providing customers with more complex, reliable, and compact products at lower costs.

The major aerospace companies purchase from Merrimac components and subsystems that include many complex I&Q networks (I&Q networks are integrated networks that produce two quadrature phased, equal amplitude signals when fed RF and LO signals), quadrature modulators and antenna beamformers. Merrimac design engineers work to develop solutions to customer requirements that are unique or require special performance. Merrimac is committed to continuously enhancing its leading position in high-performance electronic signal processing components for communications, defense and aerospace applications.

Improved production efficiencies coupled with the capacity of the Company's low-cost manufacturing facility in Costa Rica and more extensive use of automated test equipment such as Agilent network analyzers have resulted in a considerable reduction of the set-up time to take measurements, calibrate test equipment and print out hard copy of data. In addition, computerized cost controls such as closed job history and up-to-date work in process costs are also enhancing Merrimac's competitive position. Laser marking continues to be incorporated into the process of metal packages, providing totally permanent marking, greater flexibility and lower costs.

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### PRODUCTS

Merrimac's major product categories are:

- o power dividers/combiners that equally divide input signals or combine coherent signals for nearly lossless power combinations;
- o I&Q networks (a subassembly of circuits which allows two information signals (incident and quadrature) to be carried on a single radio signal for use in digital communication and navigational positioning);
- o directional couplers that allow for signal sampling along transmission lines;
- o phase shifters that accurately and repeatedly alter a signal's phase transmission to achieve desired signal processing or demodulation;
- o hybrid junctions that serve to split input signals into two output signals with 0 degree phase difference or 180 degrees out of phase with respect to each other;

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- o balanced mixers that convert input frequencies to another frequency;
- o variable attenuators that serve to control or reduce power flow without distortion;
- o beamformers that permit an antenna to electronically track or transmit a signal; and
- o quadrature couplers that serve to split input signals into two output signals 90 degrees out of phase with respect to each other or combine equal amplitude quadrature signals.

Merrimac's other product categories include single side band modulators, image reject mixers, vector modulators and a wide variety of specialized integrated Micro-Multifunction Modules (MMFM(R)) assemblies. In the last fiscal year, no one product accounted for more than ten percent of total net sales.

Approximately 54% of Merrimac's sales in 2002 were derived from the sales of products for use in high-reliability aerospace, satellite, and missile applications. These products are designed to withstand severe environments without failure or maintenance over prolonged periods of time (from 5 to 20 years). Merrimac provides facilities dedicated to the design, development, manufacture, and testing of these products along with special program management and documentation personnel.

Merrimac's products are also used in a broad range of other defense and commercial applications, including radar, navigation, missiles, satellites, electronic warfare and counter-measures, cellular analog and digital wireless telecommunications electronics and communications equipment. Merrimac's products are also utilized in systems to receive and distribute television signals from satellites and through other microwave networks including cellular radio.

FILTRAN MICROCIRCUITS INC.

### GENERAL

Established in 1983, and acquired by Merrimac in February 1999, Filtran Microcircuits Inc. ("FMI") is a leading manufacturer of microwave micro-circuitry for the high frequency communications industry. FMI produces microstrip, bonded stripline, and thick metal-backed Teflon(R) (PTFE) microcircuits for wireless telecommunications, including satellite, aerospace, PCS, fiber optic telecommunications, automotive, navigational and defense applications worldwide. FMI participates in

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the market for millimeter-wave applications. Merrimac believes that FMI's technical capability and ability to provide the reliable processing required by customers enable it to address this market. FMI also supplies mixed dielectric multilayer and high speed interconnect circuitry to meet customer demand for high performance and cost-effective packaging.

FMI's strong technical team, proprietary processes and equipment allow FMI to manufacture precise circuits, with edge resolution of .0005 inch or better. The accuracy provided by FMI is particularly valued by customers in high-end applications who require microwave circuitry with significant reliability.

FMI, through its innovative processing, has developed a proprietary

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sodium etch formulation for plated through hole ("PTH") and edge plating which gives tight control of processing, thereby easing the difficult process of achieving reliable plated through holes. FMI has also successfully pioneered sputtering techniques for PTH applications on thick-metal backed PTFE circuitry that offer superior reliability, performance and mechanical strength.

FMI has also achieved significant results in the area of accuracy of circuit board imaging. FMI employs specially developed processes using liquid photo-resists and high-intensity, collimated UV exposure techniques in fine line processing for single, double-sided and multilayer PTH boards.

### PRODUCTS

FMI produces precision microwave circuitry, having operating frequencies that typically range from 500 MHz to 100 GHz, through the processing of microstrip, bonded stripline, thick metal-backed PTFE and mixed dielectric multilayer. FMI also produces aluminum, copper and brass backed circuits. Although FMI generally purchases pre-bonded materials, it also has the capability to bond substrates to thick metal carriers when requested by customers. FMI also processes thin film circuits on hard substrates such as ceramic, ferrite and glass.

FMI has developed innovative processing that provides customers with reliable and high performance circuitry. FMI has the capability to process:

- o 1 mil lines and spaces with +/- .2 mil tolerance;
- o embedded resistors;
- o proprietary sodium etch formulation for reliable PTH and edge plating;
- o proprietary sputtering techniques for blind holes in thick metal-backed PTFE;
- o proprietary copper Thin Film metallization on ceramic;
- o high purity, wire-bondable gold;
- o plated through hole aspect ratios up to 10:1; and
- o multilayer bonding.

FMI has machining capabilities in computer numerically controlled routing, drilling, milling and laser machining. Machining tolerance ranges from +/- .005 inch to +/- .001 inch.

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FMI maintains a quality assurance program which involves a stringent program of in-house inspection to assure that, when customers request specified standards based on certain needs, such as MIL-P-5510, IPC-RB-276 and IPC-HF-318, FMI meets such standards.

Worldwide applications include: millimeter wave (PCS backhaul, local and multipoint distribution systems, automotive radar, sensors and point to multipoint), satellite, aerospace, automotive and defense.

### MARKETING

Merrimac markets its products in the United States and Canada directly to customers through a sales and marketing staff comprised of 15 employees,

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including three employees located at FMI in Ottawa, Canada, and through 16 independent domestic sales organizations. Merrimac relies on 19 independent sales organizations to market its products elsewhere in the world. Merrimac's marketing program focuses on identifying new programs and applications for which Merrimac can develop prototypes leading to volume production orders.

Merrimac's customers are primarily major industrial corporations that integrate Merrimac's products into a wide variety of defense and commercial systems. Merrimac's customers include The Boeing Company, Raytheon Company, Northrop Grumman Corporation, Lockheed Martin Corporation, Loral Space & Communications Ltd., Andrew Corporation, Alenia, Astrium, BAE Systems, Ericsson, and General Dynamics Corporation. Sales to Europe were 11.2% and 14.7% of net sales in 2002 and 2001, respectively. Sales to Lockheed Martin Corporation were 14.7%, 13.8%, and 12.2% of net sales in 2002, 2001 and 2000, respectively. Sales to The Boeing Company (which acquired the space and communications business from Hughes Electronics Corporation, a former customer of the Company) were 11.0%, 15.0%, and 9.1% of net sales in 2002, 2001 and 2000, respectively.

FMI's key customers include M/A-Com, Inc., Raytheon Systems Limited, Filtronic Broadband Ltd., Trak Microwave Corporation, Thales Air Defence SA and Signal Technology Corporation.

Both Merrimac ([www.merrimacind.com](http://www.merrimacind.com) or [www.multi-mix.com](http://www.multi-mix.com)) and FMI ([www.filtranmicro.com](http://www.filtranmicro.com)) have Internet addresses. Merrimac's product catalog is available on its website.

### EXPORT CONTROLS

The Company's products are subject to the Export Administration Regulations ("EAR") administered by the U.S. Department of Commerce and may, in certain instances, be subject to the International Traffic in Arms Regulations ("ITAR") administered by the U.S. Department of State. EAR restricts the export of dual-use products and technical data to certain countries, while ITAR restricts the export of defense products, technical data and defense services. Merrimac believes that it has implemented internal export procedures and controls in order to achieve compliance with the applicable U.S. export control regulations. However, the U.S. government agencies responsible for administering EAR and ITAR have significant discretion in the interpretation and enforcement of these regulations, and it is possible that these regulations could adversely affect the Company's ability to sell its products to non-U.S. customers.

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### RESEARCH AND DEVELOPMENT

During fiscal 2002, 2001 and 2000, research and development expenditures amounted to \$2,729,000, \$3,382,000 and \$1,871,000, respectively. With the exception of \$488,000 of expenses at FMI, substantially all of the research and development funds in fiscal 2002 were expended for new Multi-Mix(R) Microtechnology products. Merrimac plans to commit research and development funds at reduced levels in fiscal 2003, and will focus its efforts on new product development for specific customer applications requiring integration of circuitry and further miniaturization, precision and volume applications.

Merrimac's research and development activities include the development of prototypes for new programs and applications and the implementation of new technologies to enhance Merrimac's competitive position. Projects focusing on surface mounted devices, multilayer, and micro-electronic assemblies are directed toward development of more circuitry in smaller, lower cost, and more reliable packaging that is easier for customers to integrate into their products. Merrimac continues to expand its use of computer aided design and



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manufacturing (CAD/CAM) in order to reduce design and manufacturing costs as well as development time. Current research and development programs at FMI include: laser machining, resistors on organic materials, high-resolution circuit techniques, resistor trimming, electroless nickel on aluminum housings, and filled via holes.

### ENVIRONMENTAL REGULATION

Federal, state and local requirements relating to the discharge of substances into the environment, the disposal of hazardous waste and other activities affecting the environment have had and will continue to have an impact on Merrimac's manufacturing operations. Thus far, compliance with current environmental requirements has been accomplished without material effect on Merrimac's liquidity and capital resources, competitive position or financial statements, and management believes that such compliance will not have a material adverse effect on Merrimac's liquidity and capital resources, competitive position or financial statements in the future. Management cannot assess the possible effect of compliance with future requirements.

### BACKLOG

Merrimac manufactures specialized components and subsystems pursuant to firm orders from customers and standard components for inventory. As of December 28, 2002, Merrimac had a firm backlog of orders of approximately \$10,044,000. Merrimac estimates that approximately 90% of the orders in its backlog as of December 28, 2002 will be shipped within one year. Merrimac does not consider its business to be seasonal.

### COMPETITION

Merrimac encounters competition in all aspects of its business. Merrimac competes both domestically and internationally in the military and commercial markets, specifically within the aerospace and telecommunications areas. Merrimac's competitors consist of entities of all sizes. Occasionally, smaller companies offer lower prices due to lower overhead expenses, and generally, larger companies have greater financial and operating resources than Merrimac and well-recognized brand names. Merrimac competes with all such corporations on a basis of technological performance, quality, reliability and dependability in meeting shipping schedules as well as on the basis of price. Merrimac believes that its performance with respect to the above factors have served it well in earning the respect and loyalty of many customers in the industry. These factors have enabled Merrimac over the years to successfully maintain a stable customer base and have directly contributed to Merrimac's ability to attract new customers.

### MANUFACTURING, ASSEMBLY AND SOURCE OF SUPPLY

Manufacturing operations consist principally of design, assembly and testing of components and subsystems built from purchased electronic materials and components, fabricated parts, and printed circuits. Manual and semi-automatic methods are utilized depending principally upon production volumes. Merrimac has its own machine shop employing CAD/CAM techniques and etching facilities to handle soft and hard substrate materials. In addition, Merrimac maintains testing and inspection procedures intended to minimize production errors and enhance product reliability.

Merrimac began manufacturing in Costa Rica in the second half of 1996. In January 1998, these operations were moved to a larger facility. In February 2001, the Company entered into a five-year lease in Costa Rica for a 36,200

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square-foot facility for manufacturing new Multi-Mix(R) Microtechnology products. The leasehold improvements and capital equipment for this manufacturing facility were recently completed at a cost of approximately \$5,600,000 and this facility was opened for production in August 2002. The Company has an agreement in principle with its co-tenant to relinquish the 8,200 square feet of space it still occupies in the old facility on April 1, 2003 and to move its currently conducted operations into the new facility.

FMI's manufacturing facility consists of CAD/CAM, chemical and mechanical processes, quality systems and R&D of bare circuit board materials specifically selected for high frequency applications. Manual and automatic methods are utilized depending upon the circuit volumes, complexity and existing technologies available to the printed wiring board industry.

Microwave materials used in FMI's products are available from Rogers and Arlon. Laminate materials are available from a small number of qualified suppliers. The suppliers that provide materials to FMI specialize in the manufacture of microwave materials. Customers often direct FMI to use a particular vendor for laminates based upon particular design specifications.

Merrimac continues to establish and refine procedures and supporting documentation to enable the expedited transfer of product manufacture from prototype engineering to operational manufacturing. In October 1999, Factory Mutual Research awarded ISO 9001 certification to Merrimac's Multi-Mix(R) Microtechnology Group manufacturing facility. In December 2000, they extended this award to the Company's RF/Microwave Products Group manufacturing facility. In April 2001, Factory Mutual Research awarded ISO 9002 certification to the Company's FMI manufacturing facility in Ottawa, Canada. In October 2001, Factory Mutual recertified the Company's manufacturing subsidiary located in Costa Rica to ISO 9002. This location had obtained certification under a different Registrar prior to fiscal 1999.

In October 2002, the Multi-Mix(R) operations in West Caldwell achieved certification to ISO 9001:2000. In December 2002, the Multi-Mix(R) facility in Costa Rica achieved certification to ISO 9001:2000. The Company's FMI manufacturing facility in Ottawa, the RF/Microwave Products Group in West Caldwell and in Costa Rica are currently certified to the 1994 version of ISO 9000. FMI and the RF/Microwave Group in Costa Rica are certified to ISO 9002. RF/Microwave in West Caldwell is ISO 9001. These three locations will be certified to ISO 9001:2000 by the end of 2003.

Electronic components and raw materials used in Merrimac's products are generally available from a sufficient number of qualified suppliers. Some materials are standard items. Subcontractors

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manufacture certain materials to Merrimac's specifications. Merrimac is not dependent upon any single supplier for any of its components or materials.

### EMPLOYEE RELATIONS

As of December 28, 2002, Merrimac employed approximately 220 full time employees, including 60 employees at FMI and 55 employees at Merrimac's Costa Rica facilities. None of Merrimac's employees are represented by a labor organization. Management believes that relations with its employees are satisfactory.

### PATENTS

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As of March 21, 2003, Merrimac owns 10 patents with respect to certain inventions it developed. No assurance can be given that the protection that Merrimac has acquired through patents is sufficient to deter others, legally or otherwise, from developing or marketing competitive products. There can be no assurance that any of the patents will be found valid, if validity is challenged. Although Merrimac has from time to time filed patent applications in connection with the inventions which it believes are patentable, there can be no assurance that these applications will receive patents.

### ITEM 2. DESCRIPTION OF PROPERTY

Merrimac's administrative offices, research and principal production facilities are located in West Caldwell, New Jersey, on a five-acre parcel owned by Merrimac. A 12,000 square-foot plant was built in November 1966; a 13,500 square-foot addition was completed in December 1971; and a 26,500 square-foot addition was completed in July 1980. In February 2001, Merrimac began construction of an additional 19,200 square-foot addition, which was completed in the spring of 2002. Accordingly, the West Caldwell plant now comprises 71,200 square feet.

Merrimac owns all of its land, buildings, laboratories, production and office equipment, as well as its furniture and fixtures in West Caldwell, New Jersey. Merrimac believes that its plant and facilities are well suited for Merrimac's business and are properly utilized, suitably located and in good condition.

In February 1999, Merrimac entered into a seven-year lease for a 20,000 square-foot manufacturing facility in Ottawa, Ontario, Canada in connection with Merrimac's acquisition of FMI.

The Company currently leases a 36,200 square-foot facility in San Jose, Costa Rica under a five-year lease which expires February 2006 (with a five-year renewal option). This facility, which opened for production in August 2002, is used for manufacturing the Company's products.

### ITEM 3. LEGAL PROCEEDINGS

Merrimac is a party to lawsuits, both as a plaintiff and a defendant, arising in the normal course of business. It is the opinion of Merrimac's management that the disposition of these various lawsuits will not individually or in the aggregate have a material adverse effect on the consolidated financial position or the results of operations of Merrimac.

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

No matters were submitted to a vote of Merrimac's stockholders during the fourth quarter of 2002.

## PART II

## ITEM 5. MARKET FOR COMMON EQUITY AND RELATED STOCKHOLDER MATTERS

Merrimac's Common Stock has been listed and traded on The American Stock Exchange since July 11, 1988, under the symbol MRM. As of April 8, 2003, Merrimac had approximately 200 holders of record. Merrimac believes there are approximately 1,500 additional holders in "street name" through broker nominees.

The following table sets forth the range of the high and low closing sales prices as reported by the AMEX for the period from January 1, 2001 to December 28, 2002.

Fiscal Year Ended December 28, 2002		-----	
		High	Low
		----	---
First Quarter.....		\$14.30	\$11.35
Second Quarter.....		\$12.45	\$8.00
Third Quarter.....		\$8.10	\$6.00
Fourth Quarter.....		\$6.45	\$4.50

## Fiscal Year Ended December 29, 2001

-----			
First Quarter .....		\$22.20	\$12.00
Second Quarter.....		\$15.25	\$11.90
Third Quarter.....		\$14.00	\$8.30
Fourth Quarter.....		\$11.70	\$7.90

Merrimac has not paid any cash dividends to its stockholders since the third quarter of 1997.

## ITEM 6. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

On April 17, 2003, Fleet Bank amended the Company's loan agreements reducing its revolving credit facility from \$3,780,000 to \$1,000,000, extending the maturity date of the revolving credit facility from June 30, 2003 to January 31, 2004 and shortening the maturity date on each of its first mortgage loan from March 2007, and term loan from December 2009, to January 31, 2004. The Company is treating these loans as current at December 28, 2002. Please see "LIQUIDITY AND CAPITAL RESOURCES".

## CRITICAL ACCOUNTING ESTIMATES AND POLICIES

The Company's management makes certain assumptions and estimates that impact the reported amounts of assets, liabilities and stockholders' equity, and revenues and expenses. These assumptions and estimates are inherently uncertain. The management judgments that are currently the most critical are related to the accounting for the Company's investments in Multi-Mix(R) Microtechnology, contract revenue recognition, inventory valuation, valuation of goodwill and valuation of deferred tax assets. Below we describe these policies further as well as the estimates and policies involved.

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The following is a summary of the carrying amounts of the Multi-Mix(R) Microtechnology net assets included in the Company's consolidated financial statements at December 28, 2002 and the related future planned purchases and lease obligation commitments through January 2006.

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Net assets:	
Property, plant and equipment, at cost	\$12,869,000
Less accumulated depreciation and amortization	2,396,000
	-----
Property, plant and equipment, net	10,473,000
Inventories	822,000
Other assets, net	373,000
	-----
 Total net assets at December 28, 2002	 \$11,668,000
	-----
 Commitments:	
Planned equipment purchases for 2003	\$700,000
Lease obligations through January 2006	940,000
	-----
Total commitments	\$1,640,000
	-----
 Total net assets and commitments	 \$13,308,000
	=====

Due to economic and market conditions in the wireless telecommunications industry, the system service providers have significantly reduced their capital equipment purchases from our customers. These circumstances have caused the Company's customers to delay or cancel Multi-Mix(R) Microtechnology product purchases that had been anticipated for 2002. While the Company continues to pursue new business opportunities, a continued delay or reduction from anticipated levels in new orders for these products would require the Company to reassess the carrying value of such assets or pursue alternatives (including a potential write-off) related to the utilization or realization of these assets and commitments, the result of which could be materially adverse to the financial results and position of the Company. The Company has determined no provision is required at this time.

The Company's planned equipment purchases and other commitments are expected to be funded through a \$1,000,000 revolving credit facility, which has been extended to January 31, 2004, and supplemented by cash resources and cash flows that are expected to be provided by operations.

Contract revenue and related costs on fixed-price contracts that require customization of products to customer specifications are recorded when title transfers to the customer, which is generally on the date of shipment. Prior to shipment, manufacturing costs incurred on such contracts are recorded as work-in-process inventory. Anticipated losses on contracts are charged to operations when identified. Revenue related to non-recurring engineering charges is generally recognized upon shipment of the initial units produced or based upon contractually established stages of completion.

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Inventories are valued at the lower of average cost or market. Inventories are periodically reviewed for their projected manufacturing usage utilization and, when slow-moving or obsolete inventories are identified, a provision for a potential loss is made and charged to operations. As of December 28, 2002, the Company held inventories valued at \$4,015,000 which is net of a \$1,422,000 valuation allowance for obsolescence, which is based upon valuation methodology consistently applied.

With the adoption of SFAS No. 142 by the Company on December 30, 2001, goodwill is no longer subject to amortization over its estimated useful life. However, goodwill will be subject to at least an annual assessment for impairment and more frequently if circumstances indicate a possible impairment. The Company has performed the required initial assessment as of the beginning of the 2002 fiscal year as well as the annual assessment during the fourth quarter of 2002 and there was no impairment of goodwill.

The Company currently has significant deferred tax assets resulting from net operating loss carryforwards, tax credit carryforwards and deductible temporary differences, which will reduce taxable income in future periods. A valuation allowance (or write-down) is required when it is more likely than not that all or a portion of a deferred tax asset will not be realized. The Company's 2002 net loss weighed heavily in the overall assessment. As a result of our assessment, the Company established a full valuation allowance for its remaining net domestic deferred tax assets at December 28, 2002.

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### 2002 COMPARED TO 2001

Consolidated results of operations for 2002 reflect a decrease in net sales from the prior year of \$1,223,000 or 4.7% to \$24,570,000. This decrease was primarily attributable to a decrease in net sales of microwave micro-circuitry products of \$1,254,000 from the Company's wholly-owned subsidiary Filtran Microcircuits Inc. ("FMI"), offset by an small increase of \$32,000 in net sales of electronic components. The decrease in 2002 FMI sales was due to softness in the telecommunications sector that FMI serves, principally millimeter-wave applications for wireless broadband solutions.

Orders of \$22,757,000 were received during 2002, a decrease of \$4,252,000 or 15.7%, compared to \$27,009,000 in orders received during 2001. As a result, backlog decreased by \$1,812,000 or 15.3% to \$10,044,000 at the end of 2002, compared to \$11,856,000 at year-end 2001. The reductions in orders and backlog reflect significant weakness in certain communications markets that are served by the Company.

The Company believes that the current economic downturn, resulting in reduced spending by wireless service providers, has caused many wireless companies to delay or forego purchases of the Company's products. This is reflected in the decrease in the Company's backlog. However, the Company expects that its satellite and defense customers should continue to maintain their approximate current levels of orders during 2003, although there are no assurances they will do so. The Company also anticipates increasing levels of orders during 2003 and for fiscal year 2004 for its Multi-Mix(R) Microtechnology products, for which the Company has made a significant capital investment and incurred substantial research and development costs. The Company expects that weakness in the telecommunications sector that FMI serves will continue into 2003.

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Consolidated cost of sales increased \$1,591,000 or 12.7%, and as a percentage of net sales increased 8.9 percentage points to 57.4%, for 2002. Cost of sales increased \$2,374,000 (which includes increased intersegment purchases from FMI of \$534,000) for 2002 in the electronic components segment, resulting from higher manufacturing costs that were attributable to increases in insurance expense, depreciation, rent and other occupancy expenses, inventory reserves and underabsorbed manufacturing overhead expenses related to the expansions of the Company's West Caldwell, New Jersey and Costa Rica manufacturing production facilities. Cost of sales declined \$249,000 during 2002 in the microwave micro-circuitry segment, resulting from the approximately 15.4% decline in segment sales in 2002 compared to 2001. As a result of changes in the specifications of certain products and the development of those products during the fourth quarter of 2002, the Company wrote down the value of its inventory by approximately \$400,000.

Depreciation expense included in 2002 consolidated cost of sales was \$2,247,000, an increase of \$334,000 compared to 2001. For 2002, approximately \$868,000 of depreciation expense was associated with Multi-Mix(R) Microtechnology capital assets. Other increases in depreciation expense were a result of higher capital equipment purchases in the current and prior years and the commencement of depreciation expense associated with the West Caldwell, New Jersey 19,200 square-foot building expansion, which was placed into service during the first quarter of 2002. During the third quarter of 2002, depreciation and amortization expense commenced on the recently completed 36,200 square-foot Multi-Mix(R) manufacturing facility in San Jose, Costa Rica.

Consolidated gross profit for 2002 was impacted by the items referred to in the above discussion of consolidated cost of sales. Consolidated gross profit for 2002 was \$10,466,000 or 42.6% of net sales compared to consolidated gross profit of \$13,279,000 or 51.5% of net sales for 2001. Gross profit for 2002 for the electronic components segment decreased by \$2,343,000 or 20.8% to \$8,896,000 which represented

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41.5% of segment net sales of \$21,415,000, compared to a gross profit of \$11,238,000 or 52.6% of segment net sales of \$21,383,000 in 2001. Gross profit for 2002 for the microwave micro-circuitry segment decreased by \$471,000 to \$1,570,000 which represented 39.6% of segment net sales of \$3,966,000, compared to \$2,041,000 or 43.5% of segment net sales of \$4,686,000 in 2001. FMI sales include intersegment sales of \$810,000 and \$276,000 in 2002 and 2001, respectively.

Consolidated selling, general and administrative expenses of \$8,950,000 for 2002 decreased by \$581,000 or 6.1%, and when expressed as a percentage of net sales, decreased by 0.6 percentage points to 36.4% compared to 2001. The dollar decreases resulted from decreases in sales commission expenses, personnel recruitment costs, marketing expenses, goodwill amortization and other administrative expenses for 2002. The fourth quarter and fiscal year 2002 operating losses were primarily attributable to reduced sales resulting from the continuing economic slowdown especially in the areas served by the Company, and were further impacted because selling, general and administrative expenses and research and development expenses did not decrease proportionally in relation to the reduced sales.

Depreciation and amortization included in selling, general and administrative expense was \$648,000 for 2002, which included approximately \$272,000 of depreciation expense associated with the new Multi-Mix(R) production facility in Costa Rica that went into service in August 2002.

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Research and development expenses for new products were \$2,729,000 for 2002, a planned decrease of \$653,000 or 19.3% compared to 2001. Except for \$488,000 of research and development expenses at FMI, an increase of \$56,000 over the 2001 levels, substantially all of the research and development expenses were related to Multi-Mix(R) Microtechnology and Multi-Mix PICO(TM) products.

Consolidated operating loss for 2002 was \$1,723,000. As a result of a decline in orders received from its customers during 2002, the Company reduced head count by 28 persons, principally involved in production, manufacturing support and sales. The Company recorded personnel restructuring charges of \$240,000 and \$270,000 consisting of severance and certain other personnel costs, during the second and fourth quarters of 2002 which increased the Company's net loss by \$510,000 or \$.17 per share. The Company has paid approximately \$331,000 of these restructuring charges in 2002. Substantially all of the remaining restructuring charges will be paid during 2003. The Company reported a consolidated operating loss of \$113,000 for 2001, which included the effect of charges associated with the reincorporation in Delaware of \$330,000 recorded in the first quarter of 2001.

Operating loss for the electronic components segment for 2002 was \$1,793,000, which included the effect of charges associated with the personnel restructuring charges of \$198,000 and \$270,000 in the second and fourth quarters. Operating loss for the electronic components segment for 2001 was \$319,000, after the \$330,000 reincorporation charge in the first quarter of 2001. Operating income for the microwave micro-circuitry segment was \$70,000 in 2002, after inclusion of the \$42,000 second quarter personnel restructuring charge, compared to operating income of \$206,000 for 2001.

Net interest expense was \$176,000 for 2002, which compares to net interest income of \$17,000 for 2001. Interest expense of \$222,000 was capitalized to property, plant and equipment during 2001. Interest expense for 2002 was principally incurred on borrowings under the Company's revolving credit facility and a mortgage loan in connection with capital equipment purchases and the building expansion constructed during fiscal year 2001 and placed in service during 2002.

An income tax provision of \$237,000 was recorded for 2002 related to recording a partial income tax benefit of \$282,000 on the current year operating loss and tax credits of \$132,000 associated with research and development expenditures offset by the impact of providing a net valuation allowance against domestic net deferred tax assets.

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Due to the uncertainties related to, among other things, the extent and timing of its future taxable income, the Company increased its domestic deferred tax asset valuation allowance by \$1,050,000 to \$1,350,000 in fiscal year 2002. As a result of this provision, the Company's domestic net deferred tax assets have been fully reserved as of December 28, 2002.

During the year ended December 28, 2002, the Company completed the first of the required impairment tests required under SFAS No. 142, which was adopted effective December 30, 2001, related to goodwill. Under the new rules, goodwill is no longer subject to amortization but it is reviewed for potential impairment upon adoption and thereafter annually or upon the occurrence of an impairment indicator. The annual amortization of goodwill, which would have approximated \$150,000, is no longer required. Goodwill of approximately \$3,100,000, which arose from the acquisition of FMI in 1999, was previously being amortized on a straight-line basis over twenty years. Amortization of goodwill of \$149,000 was recorded for 2001.



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The Company recorded a net loss for 2002 of \$2,135,000 compared to net income of \$24,000 for 2001. On a per share basis, the Company recorded a net loss of \$.69 per share for 2002 compared to net income of \$.01 per share reported for 2001.

The weighted average number of basic shares outstanding increased by approximately 450,000 shares or 17.2% for 2002 compared to 2001. The increase in shares outstanding was primarily due to the issuance of 528,413 shares to DuPont Electronic Technologies during the first quarter of 2002.

### 2001 COMPARED TO 2000

Consolidated results of operations for 2001 reflect an increase in net sales from the prior year of \$2,757,000 or 12.0% to \$25,793,000. This increase was primarily attributable to an increase in net sales of electronic components of \$4,265,000, which was partially offset by a decrease in sales of microwave micro-circuitry products of \$1,508,000 from FMI.

Orders of \$27,009,000 were received during 2001, a decrease of \$549,000 or 2.0% compared to \$27,558,000 in orders received during 2000. Orders received during 2001 exceeded the 2001 sales level by approximately 4.7%. Backlog increased by \$1,216,000 or 11.4% to \$11,856,000 at the end of 2001 compared to \$10,640,000 at year-end 2000.

Cost of sales increased \$664,000 or 5.6%, and as a percentage of net sales decreased 2.9% to 48.5% for 2001. Percentage cost reductions for cost of sales were achieved in the electronic components segment from manufacturing efficiencies attributable to a reduction in direct labor and manufacturing overhead costs, related in part to the transfer of certain additional production to the Company's Costa Rica manufacturing facility, and other manufacturing cost reductions resulting from the personnel restructuring in the first quarter of 2000. Partially offsetting these cost reductions were manufacturing overhead costs underabsorbed in the microwave micro-circuitry segment, resulting from a decline in this year's segment sales of approximately 25.5% compared to the prior year.

Depreciation expense included in cost of sales was \$1,913,000, an increase of \$409,000. For 2001, approximately \$491,000 of depreciation expense was associated with Multi-Mix(R) Microtechnology capital assets. The increase in depreciation expense was a result of higher capital equipment purchases in the current and prior years.

Gross profit in 2001 for the electronic components segment increased by \$2,936,000 to \$11,238,000 or 52.6% of segment net sales of \$21,383,000, compared to gross profit of \$8,302,000 or 48.5% of segment net sales of \$17,118,000 in 2000. Gross profit in 2001 for the microwave micro-circuitry segment decreased by \$843,000 to \$2,041,000 or 43.6% of segment net sales of \$4,686,000, compared to \$2,884,000 or 47.9% of segment net sales of \$6,018,000 in 2000. FMI segment net sales include intersegment sales of \$276,000 and \$100,000 in 2001 and 2000, respectively.

Selling, general and administrative expenses of \$9,532,000 for 2001 increased by \$1,130,000 or 13.5%, and when expressed as a percentage of net sales, increased by 0.5% to 37.0%. Increases resulted

from employment termination costs for senior level personnel of approximately \$208,000, higher sales commission expenses, increased selling and marketing

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expenses in connection with the Company's Multi-Mix(R) Microtechnology product line, and higher engineering and technology personnel compensation, recruitment and training costs, and patent-associated and other professional fees.

Amortization expense of \$149,000 for 2001 is attributable to goodwill of approximately \$3,100,000 arising from the acquisition of FMI, which is being amortized on a straight-line basis over a life of twenty years, compared to amortization expense of \$154,000 for 2000. The difference in amortization expense is related to lower average Canadian exchange conversion rates in 2001.

Research and development expenses for new products were \$3,382,000 in 2001, an increase of \$1,511,000 or 80.8% compared to 2000. Except for \$432,000 of expenses at FMI, an increase of \$140,000 over 2000, substantially all of the research and development expenses in 2001 were related to Multi-Mix(R) Microtechnology products. In the third quarter of 2001 the Company launched its Multi-Mix PICO(TM) technology products, which reduce the physical dimensions of certain microwave components by more than 84%.

Consolidated operating income for 2001 was \$217,000, before the effect of charges associated with the reincorporation in Delaware of \$330,000 in the first quarter of 2001, compared to \$759,000 of consolidated operating income for 2000, before the first quarter 2000 personnel restructuring charge of \$315,000. The consolidated operating loss for 2001, after the inclusion of the reincorporation charge of \$330,000, was \$113,000, compared to consolidated operating income of \$444,000 for 2000 after the personnel restructuring charge of \$315,000.

Operating loss for the electronic components segment was \$319,000 in 2001, after the \$330,000 reincorporation charge in first quarter 2001, compared to a \$893,000 operating loss in 2000 after the restructuring charge of \$296,000 in the first quarter of 2000. Operating income for the microwave micro-circuitry segment was \$206,000 or 4.7% of segment net sales in 2001 compared to operating income of \$1,337,000 or 22.6% in 2000 after this segment's restructuring charge of \$19,000 in first quarter 2000.

Interest income, net was \$17,000 for 2001 compared to net interest expense of \$59,000 for 2000. Interest expense of \$222,000 was capitalized to in-process construction property, plant and equipment in 2001. Interest income was primarily due to the proceeds received from the issuance of common stock in private placements in 2000 that offset interest expense. Interest expense in 2000 was principally incurred on borrowings under a term loan and revolving credit facility in connection with the acquisition of FMI in 1999.

An income tax benefit of \$120,000 was recorded for 2001 with an effective tax benefit rate of 125% compared to a tax provision of \$70,000 for 2000 with an effective tax rate of 18.2%. The principal adjustments to the statutory Federal income tax rate of 34% for 2001 relates to \$139,000 in tax credits associated with research and development expenditures and foreign sales corporation tax benefits of \$40,000, partially reduced by a \$50,000 cost due to non-deductible amortization of goodwill.

Net income for 2001 was \$24,000, after the net effects of the first quarter 2001 reincorporation charge of \$198,000. For 2000, net income of \$315,000 was reported, after the net effects of the first quarter 2000 restructuring charge of \$189,000. Net income per share for 2001 was \$.01, after the net effects of the \$.07 per share reincorporation charge reported in the first quarter of 2001. For 2000, net income of \$.14 per diluted share was reported, after the net effects of the \$.08 per share restructuring charge recorded for 2000 that occurred in the first quarter of 2000.

The weighted average number of diluted shares outstanding increased by approximately 426,000 shares or 18.4% for 2001 compared to the prior year. The

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increase resulted from the issuance in private placements of 375,000 shares in the second quarter 2000 and 360,000 shares in the fourth quarter 2000, as well as stock option exercises and higher average stock prices during the prior year.

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### LIQUIDITY AND CAPITAL RESOURCES

The Company had liquid resources comprised of cash and cash equivalents totaling approximately \$3,600,000 at the end of 2002 compared to approximately \$1,800,000 at the end of 2001. The Company's working capital was approximately \$3,600,000 and its current ratio was 1.4 to 1 at the end of 2002 compared to \$3,900,000 and 1.4 to 1, respectively, at the end of 2001.

Our operating activities provided net positive cash flows of \$1,484,000 during 2002 compared to positive cash flows of \$1,241,000 during 2001. The primary reason for the positive operating cash flows in 2002 resulted from depreciation and amortization charges of \$2,909,000 and decreases in accounts receivable, inventories and other current assets. These positive cash flows were offset primarily by payments made during 2002 that reduced year-end 2001 accounts payable and accrued liabilities.

The Company made net capital investments in property, plant and equipment of \$2,858,000 during 2002 (which excludes unpaid invoices for additional capital investments of \$354,000 at December 28, 2002), compared to net capital investments made in property, plant and equipment of \$10,853,000 during 2001. These capital expenditures are related to new production facilities and processing equipment capabilities in connection with the manufacturing of new products and enhancements to existing products. The depreciated cost of capital equipment associated with Multi-Mix(R) Microtechnology was \$10,473,000 at the end of 2002, a decrease of \$879,000 compared to \$11,352,000 at the end of fiscal year 2001.

In April 2001, the Company commenced borrowing under a \$7,500,000 revolving credit facility with Fleet Bank, at an interest rate of one-half percent below the bank's floating prime rate. During fiscal year 2001, the Company borrowed an aggregate amount of \$7,500,000 under this facility. The weighted average interest rate on the borrowings under this facility during 2002 was 4.22%, and the current interest rate is 3.75% at December 28, 2002.

During the first quarter of 2002, the Company obtained an increase of \$2,500,000 in the Company's lines of credit with Fleet Bank to a total of \$10,000,000, \$3,500,000 of which consisted of a first mortgage callable in March 2007 on the Company's West Caldwell, New Jersey manufacturing facility. The \$6,500,000 revolving line of credit was subsequently extended for one year to June 30, 2003. The Company completed a private placement of 528,400 shares of common stock on February 28, 2002 that raised \$5,284,000 before offering expenses. The Company repaid \$5,000,000, all of its then outstanding revolving borrowings, to Fleet Bank from the proceeds of that offering. The Company repaid \$500,000 borrowed earlier in 2002 under its line of credit and during December 2002 borrowed \$2,720,000 under a seven-year term loan with Fleet Bank, which reduced the amount available under its revolving line of credit to \$3,780,000. The revolving credit facility, mortgage loan and term loan are secured by substantially all of the Company's assets located within the United States and the pledge of 65% of the stock of the Company's subsidiaries located in Costa Rica. The provisions of the revolving credit and term loan agreements require the Company to maintain certain financial ratios. At December 28, 2002, the Company was not in compliance with certain of these covenants.

On April 17, 2003, the Company and Fleet Bank entered into bank

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modification agreements, that waived compliance with certain covenants and further amended the applicable terms of the agreements and covenants. The Company is in compliance with the amended covenants. Under the amended loan agreements, Fleet Bank reduced the amount available under its revolving credit facility to \$1,000,000 based upon the availability under a borrowing base calculation (70% of eligible accounts receivable, as defined in the modified loan agreements), and changed the maturity date of the Company's \$3,500,000 first mortgage loan and \$2,720,000 term loan to January 31, 2004, while extending the maturity date of the revolving credit facility to January 31, 2004.

As indicated in Note 6 to the financial statements, the loan agreements contain a material adverse change clause, under which Fleet Bank, in its good faith opinion, can determine that the Company is in default under the agreements. The Company believes that this clause is a Subjective Acceleration Clause as indicated in FASB Technical Bulletin 79-3, and, based upon the Company's assessment under those guidelines, among other factors, has classified the amounts as a current liability at December 28, 2002.

Management of the Company is contemplating additional cost and capital expenditure reductions as a means to improve cash flow. Management also believes that the potential exists for various financing alternatives, including but not limited to a sale and lease-back of certain property and/or obtaining secured financing from an asset based lender. While management believes any one of these financing alternatives, combined with current liquid resources and the expected cash flows from operations should be sufficient to meet the obligations to Fleet Bank and currently contemplated operations during the next twelve months, there can be no assurance that any alternative financings can be obtained by the Company.

Depreciation and amortization expenses exceeded capital expenditures for new projects and production equipment during 2002 by approximately \$51,000, and we anticipate that depreciation and amortization expenses will exceed capital expenditures in fiscal year 2003. The Company intends to issue up to \$1,000,000 of purchase order commitments for building modifications and for capital equipment from

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various vendors. The Company anticipates that such equipment will be purchased and become operational and building modifications will be completed during fiscal year 2003.

In February 2001, the Company entered into a new five-year lease in Costa Rica for a 36,200 square-foot facility for manufacturing new Multi-Mix(R) Microtechnology products. The leasehold improvements and capital equipment for this manufacturing facility were recently completed at a cost of approximately \$5,600,000 and this facility was opened for production in August 2002. The Company also leases an 8,200 square-foot facility in Costa Rica and the lease ends December 2004. The Company has an agreement in principle with its co-tenant to relinquish the 8,200 square feet of space it presently occupies on April 1, 2003 and to move its currently conducted operations into the larger facility.

The Company has been authorized by its Board of Directors to repurchase shares of its Common Stock, from time to time, depending on market conditions and availability of resources. During 2002, the Company repurchased 82,100 shares of Common Stock at a cost of approximately \$574,000. At the end of 2002, the Board of Directors placed future share repurchases on hold. No shares were repurchased during fiscal 2001 or fiscal 2000.

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### RELATED PARTY TRANSACTIONS

In May 1998, the Company sold 22,000 shares of Common Stock to Mason N. Carter, Chairman, President and Chief Executive Officer of the Company, at a price of \$11.60 per share, which approximated the average closing price of the Company's Common Stock during the first quarter of 1998. The Company lent Mr. Carter \$255,000 in connection with the purchase of these shares and combined that loan with a prior loan to Mr. Carter in the amount of \$105,000. The resulting total principal amount of \$360,000 was payable May 4, 2003 and bore interest at a variable interest rate based on the prime rate of the Company's lending bank. This loan was further amended on July 29, 2002. Accrued interest of \$40,000 was added to the principal, bringing the new principal amount of the loan to \$400,000, the due date was extended to May 4, 2006, and interest (at the same rate as was previously applicable) is now payable monthly. Mr. Carter has pledged 33,000 shares of Common Stock as security for this loan, which is a full-recourse loan.

On August 31, 2000, in connection with an amendment of Mr. Carter's employment agreement, the Company loaned Mr. Carter an additional \$280,000. Interest on the loan varies and is based on the prime rate of the Company's lending bank, payable in accordance with Mr. Carter's employment agreement. Each year the Company is required to forgive 20% of the amount due under this loan and the accrued interest thereon. During 2002, the Company forgave \$56,000 of principal and \$12,000 of accrued interest and projects that \$56,000 of principal and \$8,000 of accrued interest will be forgiven in fiscal year 2003.

The Company is a party to a stockholder's agreement, dated as of October 30, 1998, with a former director and Chairman of the Company. Pursuant to the stockholder's agreement, this former director is required to vote his shares of Common Stock as directed by the Board of Directors or the Chief Executive Officer of the Company. There are no other obligations of the Company pursuant to this agreement.

During 2002, the Company's General Counsel, KMZ Rosenman, was paid \$372,000 for providing legal services to the Company. A director of the Company is Counsel to the firm of KMZ Rosenman but does not share in any fees paid by the Company to the law firm.

During 2002, the Company retained Career Consultants, Inc. and SK Associates to perform executive searches and to provide outplacement services to the Company. The Company paid an aggregate of \$24,000 to these companies during 2002. A director of the Company is the Chairman and Chief Executive Officer of each of these companies.

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During 2002, a director of the Company was paid \$36,000 for providing financial-related consulting services to the Company.

During 2002, a director of the Company was paid \$36,000 for providing technology-related consulting services to the Company.

During 2002, DuPont Electronic Technologies, a stockholder, was paid \$36,000 for providing technological and marketing related services on a cost-sharing basis to the Company.

Each director who is not an employee of the Company receives a monthly director's fee of \$1,500, plus an additional \$500 for each meeting of the Board and of any Committees of the Board attended. The directors are also reimbursed for reasonable travel expenses incurred in attending Board and Committee

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meetings. In addition, pursuant to the 2001 Stock Option Plan, each non-employee director is granted an immediately exercisable option to purchase 2,500 shares of the Common Stock of the Company on the date of each Annual Meeting of Stockholders. Each such grant is priced at the fair market value of the Common Stock on the date of such grant. On June 12, 2002, non-qualified stock options to purchase an aggregate of 17,500 shares were issued to seven directors at an exercise price of \$9.90 per share.

On April 7, 2000, the Company entered into a stock purchase and exclusivity agreement with Ericsson Microelectronics, A.B. ("Ericsson") and Ericsson Holding International, B.V. ("EHI") pursuant to which the Company sold to EHI 375,000 shares of Common Stock, representing approximately 17.5% of the Company's outstanding Common Stock after giving effect to the sale, for an aggregate purchase price of \$3,375,000. The stock purchase and exclusivity agreement also provides that the Company will design, develop and produce exclusively for Ericsson Multi-Mix(R) products that incorporate active RF power transistors for use in wireless basestation applications, television transmitters and certain other applications that are intended for Bluetooth transceivers.

On October 26, 2000, the Company entered into subscription agreements for Common Stock and three-year warrants to purchase shares of Common Stock ("Warrants") with a group of investors led by Adam Smith Investment Partners, L.P. and certain of its affiliates (the "Adam Smith Investors"), EHI and Messrs. E. Cohen, Goldberg and Fuller, members of the Board (the "Director Investors"). The Company sold to the investors units at a price of \$12.80 per unit, each unit consisting of one share of Common Stock and one Warrant with an exercise price of \$21.25 which expire on October 26, 2003 ("Units"). The Adam Smith Investors purchased 240,000 Units, EHI purchased 100,000 Units and Messrs. E. Cohen, Goldberg and Fuller purchased 5,000, 11,000 and 4,000 Units, respectively, for an aggregate purchase price of \$4,608,000. The Common Stock portion of the Units represented an aggregate of approximately 14% of the outstanding Common Stock of the Company after giving effect to the sales. The Warrants contain certain anti-dilution provisions.

On February 28, 2002, the Company sold to DuPont Electronic Technologies 528,413 shares of Common Stock, representing approximately 16.6% of the Company's outstanding Common Stock after giving effect to the sale, for an aggregate purchase price of \$5,284,000. The Company and DuPont Electronic Technologies have also agreed to work together to better understand the dynamics of the markets for high-frequency electronic components and modules. David B. Miller, Vice President and General Manager of DuPont Electronic Technologies, was appointed to the Company's Board of Directors. As a result of this sale, pursuant to the anti-dilution provisions of the Warrants issued in October 2000, the exercise price of the Warrants was reduced to \$17.80 and the number of shares subject to the Warrants was increased to 429,775.

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On October 1, 2002, EHI completed the sale of most of its microelectronics to Infineon Technologies AG ("Infineon"). As part of this transaction, EHI transferred to Infineon 475,000 shares of the Company and the right to acquire 119,380 shares of the Company's Common Stock pursuant to the Warrants, and EHI assigned to Infineon its rights in the various agreements between EHI and the Company, which were modified in certain respects pursuant to an agreement with Infineon.

Infineon, Adam Smith Investors and DuPont hold registration rights which give them the right to register certain shares of Common Stock of the Company.

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### RECENT ACCOUNTING PRONOUNCEMENTS

SFAS No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets," was effective for fiscal periods beginning after December 15, 2001, establishes an accounting model for impairment or disposal of long-lived assets to be disposed of by sale. The adoption of SFAS No. 144 did not have a material impact on the Company's financial position or results of operations.

SFAS No. 145, "Rescission of FASB Statements No. 4, 44 and 64, Amendment of FASB Statement No. 13 and Technical Corrections", requires gains and losses on extinguishments of debt to be classified as income or loss from continuing operations rather than as extraordinary items as previously required under SFAS No. 4. Extraordinary treatment is required for certain extinguishments as provided in APB Opinion No. 30. The statement also amended SFAS No. 13 for certain sale-leaseback and sublease accounting. The Company is required to adopt the provisions of SFAS No. 145, effective December 29, 2002. The Company is currently evaluating the impact of adoption of this statement, however, the Company does not expect that the adoption of SFAS No. 145 will have a material impact on the Company's financial position or results of operations.

SFAS No. 146, "Accounting for Costs Associated with Exit or Disposal Activities" nullifies EITF Issue No. 94-3. SFAS No. 146 requires that a liability for a cost associated with an exit or disposal activity be recognized when the liability is incurred, whereas EITF No. 94-3 had recognized the liability at the commitment date to an exit plan. The Company is required to adopt the provisions of SFAS No. 146 effective for exit or disposal activities initiated after December 28, 2002. The Company is currently evaluating the impact of adoption of this statement to determine if the adoption of SFAS No. 146 will have a material impact on the Company's financial position or results of operations.

SFAS No. 148, "Accounting for Stock-Based Compensation-Transition and Disclosure," is an amendment of SFAS No. 123, "Accounting for Stock-Based Compensation." The Company is required to adopt the provisions of SFAS No. 148 in its financial statements for the fiscal year ending January 3, 2004. SFAS No. 148 provides alternative methods of transition for a voluntary change to the fair value method of accounting for stock-based employee compensation. In addition, this statement amends the disclosure requirements of SFAS No. 123 to require more prominent disclosures about the method of accounting for stock-based employee compensation and the effect of the method used on reported results in both annual and interim financial statements. As permitted by SFAS No. 148, the Company will continue to apply the provisions of APB Opinion No. 25 "Accounting for Stock-Based Compensation," for all employee stock option grants and has elected to disclose pro-forma net income and earnings per share amounts as if the fair-value based method had been applied in measuring compensation costs. In addition, the Company is awaiting further guidance and clarity that may result from current FASB and International Accounting Standards Board stock compensation projects and will continue to evaluate any developments concerning mandated, as opposed to optional, fair-value based expense recognition.

In November 2002, the FASB issued Interpretation No. 45, ("FIN 45") "Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others," which elaborates on the disclosures to be made by a guarantor about its obligations under certain guarantees issued. It also clarifies that a guarantor is required to recognize, at the inception of a guarantee, a liability for the fair value of the obligation undertaken in issuing the guarantee. FIN 45 expands on the accounting guidance of SFAS No. 5 "Accounting for Contingencies," SFAS No. 57 "Related Party Disclosures," and SFAS No. 107, "Disclosures about Fair Value of Financial Instruments." It also incorporates without change the provisions of FASB

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Interpretation No. 34, "Disclosure of Indirect Guarantees of the Indebtedness of Others," which is superseded. The initial recognition requirements in this Interpretation are effective for periods ending after December 15, 2002. The Company is currently evaluating the impact of the adoption of this interpretation to determine if the adoption of FIN 45 will have a material impact on the Company's financial position or results of operations.

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### ITEM 7. FINANCIAL STATEMENTS

#### REPORT OF INDEPENDENT AUDITORS

To the Board of Directors and Stockholders of Merrimac Industries, Inc.:

We have audited the consolidated balance sheet of Merrimac Industries, Inc. as of December 28, 2002, and the related consolidated statements of operations and comprehensive income (loss), stockholders' equity and cash flows for the year then ended. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audit. The consolidated financial statements of Merrimac Industries, Inc. as of December 29, 2001 and for the years ended December 29, 2001 and December 30, 2000, were audited by other auditors who have ceased operations. Those auditors expressed an unqualified opinion on those financial statements in their report dated March 1, 2002, before the revisions and disclosures described below.

We conducted our audit 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 audit provides a reasonable basis for our opinion.

In our opinion, the 2002 consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of Merrimac Industries, Inc. as of December 28, 2002, and the consolidated results of their operations and their cash flows for the year then ended in conformity with accounting principles generally accepted in the United States.

As described in Note 1 to the consolidated financial statements, the Company adopted Statement of Financial Accounting Standards ("Statement") No. 142, Goodwill and Other Intangible Assets, effective December 30, 2001.

As discussed above, the consolidated financial statements of Merrimac Industries, Inc. as of December 29, 2001 and for the years ended December 29, 2001 and December 30, 2000 were audited by other auditors who have ceased operations. As described in Note 1, these consolidated financial statements have been revised to include the transitional disclosures required by Statement No. 142 which was adopted by the Company on December 30, 2001. Our audit procedures with respect to the disclosures in Note 1 relating to 2001 and 2000 included (a) agreeing the previously reported net income (loss) to the previously issued financial statements and the adjustments to reported net income (loss) representing amortization expense recognized in these periods related to goodwill to the Company's underlying records obtained from management, and (b) testing the mathematical accuracy of the reconciliation of adjusted net income



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(loss) to reported net income (loss) and the related net income (loss) per share amounts. In our opinion, the disclosures for 2001 and 2000 in Note 1 are appropriate. However, we were not engaged to audit, review, or apply any procedures to the Company's consolidated financial statements for 2001 and 2000 other than with respect to such disclosures, and accordingly, we do not express an opinion or any other form of assurance on the Company's 2001 and 2000 consolidated financial statements taken as a whole.

/s/ Ernst & Young LLP

Ernst & Young LLP  
MetroPark, New Jersey  
March 7, 2003, except for Notes 1 and 6 as to  
which the date is April 17, 2003

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## CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME (LOSS)

Years Ended December 28, 2002, December 29, 2001 and December 30, 2000

	2002	2001
	-----	-----
OPERATIONS		
Net sales .....	\$24,570,332	\$25,792,631
	-----	-----
Costs and expenses:		
Cost of sales .....	14,104,256	12,513,621
Selling, general and administrative .....	8,950,284	9,531,583
Research and development .....	2,728,556	3,381,746
Amortization of goodwill .....	-	148,669
Reincorporation charge.....	-	330,000
Restructuring charges.....	510,000	-
	-----	-----
	26,293,096	25,905,619
	-----	-----
Operating income (loss).....	(1,722,764)	(112,988)
Interest and other expense (income), net .....	175,703	(17,067)
	-----	-----
Income (loss) before income taxes .....	(1,898,467)	(95,921)
Provision (benefit) for income taxes .....	237,000	(120,000)
	-----	-----
Net income (loss).....	\$ (2,135,467)	\$ 24,079
	=====	=====
Net income (loss) per common share-basic .....	\$ (.69)	\$.01
Net income (loss) per common share-diluted .....	\$ (.69)	\$.01
	-----	-----
Weighted average number of shares outstanding-basic.....	3,073,703	2,623,924

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Weighted average number of shares outstanding-diluted.....	3,073,703	2,735,789
	-----	-----
COMPREHENSIVE INCOME (LOSS)		
Net income (loss).....	\$ (2,135,467)	\$ 24,079
Comprehensive income (loss):		
Foreign currency translation adjustment.....	63,873	(276,091)
	-----	-----
Comprehensive income (loss).....	\$ (2,071,594)	\$ (252,012)
	=====	=====

See accompanying notes.

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## CONSOLIDATED BALANCE SHEETS

December 28, 2002 and December 29, 2001

	2002	
	-----	
Assets		
Current assets:		
Cash and cash equivalents .....	\$ 3,610,798	\$
Accounts receivable, net of allowance of \$40,000 and \$12,000,		
respectively .....	3,801,198	
Income tax refunds receivable.....	300,914	
Inventories, net.....	4,015,331	
Other current assets .....	318,141	
Deferred tax assets .....	945,000	
	-----	
Total current assets .....	12,991,382	
	-----	
Property, plant and equipment, at cost .....	36,420,776	
Less accumulated depreciation and amortization .....	17,138,713	
	-----	
Property, plant and equipment, net.....	19,282,063	
Other assets .....	817,305	
Deferred tax assets .....	905,000	
Goodwill, net of accumulated amortization of \$434,603 .....	2,491,146	
	-----	
Total Assets .....	\$36,486,896	\$
	=====	
Liabilities and Stockholders' Equity		
Current liabilities:		
Current portion of long-term debt .....	\$ 6,239,758	\$
Accounts payable .....	1,554,517	
Accrued liabilities .....	1,541,309	
Income taxes payable.....	37,857	
	-----	

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Total current liabilities .....	9,373,441
Long-term debt, net of current portion .....	429,420
Deferred compensation .....	123,452
Deferred liabilities.....	155,483
Deferred tax liabilities .....	1,703,000
	-----
Total liabilities.....	11,784,796
	-----
Commitments and contingencies	
Stockholders' equity:	
Preferred stock, par value \$.01 per share:	
Authorized: 1,000,000 shares	
No shares issued	
Common stock, par value \$.01 per share:	
Authorized: 20,000,000 shares	
Issued: 3,201,069 shares in 2002 and 2,859,249 shares in 2001.....	32,011
Common stock warrants.....	837,200
Additional paid-in capital .....	17,841,970
Retained earnings .....	7,395,978
Accumulated other comprehensive loss .....	(263,193)
	-----
	25,843,966
Less treasury stock, at cost - 82,100 shares in 2002 and 208,904 shares	
in 2001 .....	(573,866)
Less loan to officer-stockholder .....	(568,000)
	-----
Total stockholders' equity .....	24,702,100
	-----
Total Liabilities and Stockholders' Equity .....	\$36,486,896
	=====

See accompanying notes.

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### CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

Years Ended December 28, 2002, December 29, 2001 and December 30, 2000

	Common Shares	Stock Amount	Common Stock Warrants (A)	Additional Paid-in Capital (B)	Retained Earnings	Accumulated Other Comprehensive Income (Loss)
	-----	-----	-----	-----	-----	-----
Balance, January 1, 2000	2,698,309	\$26,983	\$ -	\$12,578,703	\$9,192,310	\$142,589

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Net income.....					315,056	
Exercise of options.....	107,064	1,071		945,831		
Sale of common stock.....				458,245		
Sale of common stock warrants			837,200			
Loan to officer-stockholder.						
Foreign currency translation						(193,564)
Balance, December 30, 2000...	2,805,373	28,054	837,200	13,982,779	9,507,366	(50,975)
Net income.....					24,079	
Exercise of options.....	53,876	539		344,807		
Forgiveness of loan						
to officer-stockholder...						
Foreign currency translation						(276,091)
Balance, December 29, 2001..	2,859,249	28,593	837,200	14,327,586	9,531,445	(327,066)
Net loss.....					(2,135,467)	
Exercise of options.....	10,975	110		105,440		
Stock Purchase Plan sales...	11,336	113		61,923		
Sale of common stock .....	319,509	3,195		3,347,021		
Purchase of common stock ...						
Loan to officer-stockholder.						
Forgiveness of loan						
to officer-stockholder...						
Foreign currency translation						63,873
Balance, December 28, 2002	3,201,069	\$32,011	\$837,200	\$17,841,970	\$7,395,978	\$(263,193)

(A) Common stock warrants for 429,775 shares of common stock are exercisable at \$17.80 per share and expire October 26, 2003.

(B) Tax benefits associated with the exercise of employee stock options are recorded to additional paid-in capital, when such benefits are realized.

See accompanying notes.

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## CONSOLIDATED STATEMENTS OF CASH FLOWS

Years Ended December 28, 2002, December 29, 2001 and December 30, 2000

	2002	2001
Cash flows from operating activities:		
Net income (loss).....	\$ (2,135,467)	\$ 24,079
Adjustments to reconcile net income (loss) to net cash		

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provided by operating activities:		
Depreciation and amortization .....	2,909,363	2,366,194
Amortization of goodwill .....	-	148,669
Amortization of deferred income.....	(87,288)	(87,288)
Deferred and other compensation .....	64,934	66,564
Deferred income taxes .....	507,000	(80,000)
Changes in operating assets and liabilities:		
Accounts receivable .....	1,830,810	(14,923)
Income tax refunds receivable.....	(105,591)	(152,399)
Inventories .....	781,874	(1,169,669)
Other current assets .....	333,571	(307,488)
Deferred tax assets .....	130,000	(291,000)
Other assets .....	(141,232)	76,308
Accounts payable .....	(2,377,474)	212,286
Accrued liabilities .....	(78,996)	198,153
Income taxes payable .....	(230,417)	95,736
Deferred compensation .....	(41,250)	(50,178)
Other liabilities.....	124,174	205,885
Loan to officer-stockholder.....	-	-
Net cash provided by operating activities .....	1,484,011	1,240,929
Cash flows from investing activities:		
Purchases of capital assets .....	(2,857,664)	(10,876,662)
Proceeds from sales of capital assets .....	-	24,115
Net cash used in investing activities .....	(2,857,664)	(10,852,547)
Cash flows from financing activities:		
Borrowings under revolving credit facility .....	500,000	7,500,000
Borrowings under mortgage loan .....	3,500,000	-
Borrowings under term loan .....	2,720,000	-
Borrowings under lease facility.....	-	414,907
Repayment of borrowings .....	(8,301,073)	(155,409)
Proceeds from the issuance of common stock and common stock warrants, net.....	5,110,347	-
Proceeds from the exercise of stock options.....	167,587	345,346
Repurchase of common stock .....	(573,866)	-
Net cash provided by financing activities .....	3,122,995	8,104,844
Effect of exchange rate changes.....	17,022	(74,182)
Net increase (decrease) in cash and cash equivalents .....	1,766,364	(1,580,956)
Cash and cash equivalents at beginning of year .....	1,844,434	3,425,390
Cash and cash equivalents at end of year .....	\$ 3,610,798	\$ 1,844,434
Supplemental disclosures of cash flow information:		
Cash paid during the year for:		
Income taxes .....	\$ 45,000	\$ 280,000
Loan interest .....	\$ 269,000	\$ 219,000
Non-cash activities:		
Unpaid purchases of capital assets.....	\$ 354,000	\$ 529,245
Addition to loan to officer-stockholder .....	\$ 40,000	-

See accompanying notes.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Years Ended December 28, 2002, December 29, 2001 and December 30, 2000

1. Summary of significant accounting policies

Nature of business: The Company is involved in the design, manufacture and sale of electronic component devices offering extremely broad frequency coverage and high performance characteristics, and microstrip, bonded stripline and thick metal-backed Teflon(R) (PTFE) and mixed dielectric multilayer circuits for communications, defense and aerospace applications.

The Company's operations are conducted primarily through two business segments: (1) electronic components and (2) microwave micro-circuitry.

Principles of consolidation: The financial statements include the accounts of the Company and its wholly-owned subsidiaries. All significant intercompany accounts have been eliminated in consolidation.

Debt classification and management's plans: As discussed in Note 6, on April 17, 2003, the Company and Fleet Bank entered into bank modification agreements that waived compliance with certain covenants and further amended the applicable terms of the agreement and covenants. Among other things, as the loan agreements contain a material adverse change clause, under which Fleet Bank, in its good faith opinion, can determine that the Company is in default under the agreements. The Company has classified the amounts as a current liability at December 28, 2002.

Management of the Company is contemplating additional cost and capital expenditure reductions as a means to improve cash flow. Management also believes that the potential exists for various financing alternatives, including but not limited to a sale and lease-back of certain property and / or obtaining secured financing from an asset based lender. Management believes any one of these financing alternatives, combined with current liquid resources and the expected cash flows from operations should be sufficient to meet the obligations to Fleet Bank and currently contemplated operations during the next twelve months.

Cash and cash equivalents: The Company considers all highly liquid securities with an original maturity of less than three months to be cash equivalents. The Company maintains cash deposits with banks that at times exceed applicable insurance limits. The Company reduces its exposure to credit risk by maintaining such deposits with high quality financial institutions. Because of their liquidity and short-term maturities, the carrying value of these financial instruments approximates their fair value.

Use of estimates: The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates.

Contract revenues: Contract revenue and related costs on fixed-price contracts that require customization of standard products to customer specifications are recorded as title to these products transfers to the customer, which is generally on the date of shipment. Prior to shipment, manufacturing costs incurred on such contracts are recorded as work in process inventory. Anticipated losses on contracts are charged to operations when identified. Revenue related to non-recurring engineering charges is generally recognized

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upon shipment of the initial units produced or based upon contractually established stages of completion.

**Warranties:** Certain of the Company's long-term contracts have warranty obligations. Estimated warranty costs for each contract are determined based on the contract terms and technology specific issues. The Company accrues estimated warranty costs at the time of sale and any additional amounts are recorded when such costs are probable and can be reasonably estimated. Warranty expense was approximately \$77,000, \$74,000 and \$100,000 for 2002, 2001 and 2000, respectively. The warranty reserve at December 28, 2002 and December 29, 2001 was \$150,000.

**Inventories:** Inventories are valued at the lower of average cost or market. Provision is made for potential losses on slow moving and obsolete inventories when identified.

**Foreign currency translation:** The financial statements of the Company's foreign subsidiaries have been translated into U.S. dollars in accordance with Statement of Financial Accounting Standards No. 52, "Foreign Currency Translation". This statement provides that all balance sheet accounts be translated at year-end rates of exchange, except stockholders' equity accounts which are translated at historical rates. Income and expense accounts are translated at the average of exchange rates in effect during the year. The resulting translation adjustment is reported as a separate component of stockholders' equity and accumulated other comprehensive income (loss). Realized foreign exchange transaction gains and losses, which are not material, are included in income.

**Comprehensive income (loss):** Comprehensive income (loss) includes all changes in stockholders' equity during a period except those resulting from investments by or distributions to stockholders. The Company has determined the component of comprehensive income (loss) impacting the Company is cumulative translation adjustments.

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### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Years Ended December 28, 2002, December 29, 2001 and December 30, 2000

#### 1. Summary of significant accounting policies (continued)

**Depreciation:** Depreciation is computed for financial purposes on the straight-line method, while accelerated methods are used, where applicable, for tax purposes. The following estimated useful lives are used for financial income statement purposes:

Land improvements .....	10 years
Building .....	25 years
Machinery and equipment .....	3 - 10 years
Office equipment, furniture and fixtures.....	5 - 10 years

Assets under construction are not depreciated until the assets are placed into service. Fully depreciated assets included in property, plant and equipment at December 28, 2002 and December 29, 2001 amounted to \$9,436,000 and \$7,967,000, respectively.

**Long-lived assets:** The Company applies Statement of Financial Accounting Standards No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets", which superseded Financial Accounting Standards No. 121. Under Statement No. 144, impairment losses on long-lived assets are recognized when

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events or changes in circumstances indicate that the undiscounted cash flows estimated to be generated by such assets are less than their carrying value. Impairment losses are then measured by comparing the fair value of assets to their carrying amounts.

Goodwill: Goodwill represents the excess of cost over the fair value of net assets of an acquired business. Prior to 2002, the Company amortized this cost over a 20 year life using the straight-line method. With the adoption of SFAS No. 142 "Goodwill and Other Intangible Assets" by the Company on December 30, 2001, goodwill is no longer subject to amortization over its estimated useful life. However, goodwill will be tested for impairment annually under a two-step approach, or more frequently, if events or changes in circumstances indicate that the asset might be impaired. Impairment is assessed at the "reporting unit" level by applying a fair value-based test. A reporting unit is defined as the same as, or one level below the operating segment level as described in SFAS No. 131, "Disclosures about Segments of an Enterprise and Related Information". Under the two-step approach, the carrying amount of the reporting unit is compared with its fair value. If the carrying amount of the reporting unit exceeds its fair value, the "implied" fair value (as defined in SFAS No. 142) of the reporting unit's goodwill is compared with its carrying amount to measure the amount of the impairment loss, if any. When the carrying amount of the reporting unit's goodwill exceeds the implied fair value of the goodwill, an impairment loss is recognized in an amount equal to the excess. In addition, under SFAS No. 142, an acquired intangible asset should be separately recognized if the benefit of the intangible is obtained through contractual or other legal rights, or if the intangible asset can be sold, transferred, licensed, rented, or exchanged. Intangible assets will be amortized over their estimated useful lives.

On an annualized basis, the adoption of this accounting standard reduced the amortization of goodwill by approximately \$150,000 commencing in 2002 for the microwave micro-circuitry segment. In connection with the adoption of SFAS No. 142, the Company has completed both an initial impairment test as of the beginning of the fiscal year and its latest impairment test of goodwill required by the standard, which indicated there was no impairment of goodwill.

The changes in the carrying amount of goodwill for the fiscal years ended December 28, 2002 and December 29, 2001 are as follows:

	2002	2001
	-----	-----
Balance, beginning of year .....	\$2,451,037	\$2,774,248
Goodwill amortized .....	-	(148,669)
Foreign currency adjustment .....	40,109	(174,542)
	-----	-----
Balance, end of year .....	\$2,491,146	\$2,451,037
	=====	=====

The current impact that the adoption of SFAS No. 142 had on net income (loss) and net income (loss) per share for the years presented is as follows:

	2002	2001	2000
	-----	-----	-----
Reported net income (loss) for the period ...	\$(2,135,467)	\$ 24,079	\$315,056
Add back: Amortization of goodwill .....	-	148,669	154,216



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Adjusted net income (loss) for the period ...	----- \$(2,135,467) =====	----- \$172,748 =====	----- \$469,272 =====
Basic net income (loss) per share:			
Reported net income (loss) .....	\$(.69)	\$.01	\$.15
Amortization of goodwill .....	-	.06	.07
	-----	-----	-----
Adjusted net income (loss) .....	\$(.69) =====	\$.07 =====	\$.22 =====
Diluted net income (loss) per share:			
Reported net income (loss) .....	\$(.69)	\$.01	\$.14
Amortization of goodwill .....	-	.05	.06
	-----	-----	-----
Adjusted net income (loss) .....	\$(.69) =====	\$.06 =====	\$.20 =====

Advertising: The Company expenses the cost of advertising and promotion as incurred. Advertising costs charged to operations were \$175,000 in 2002, \$232,000 in 2001 and \$215,000 in 2000.

Income taxes: The Company uses the liability method to account for income taxes. Under this method, deferred tax assets and liabilities are determined based on temporary differences between financial reporting and tax bases of assets and liabilities, and are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. Valuation allowances are established when necessary to reduce deferred tax assets to the amount expected to be realized. Tax benefits associated with the exercise of stock options are recorded to additional paid-in capital in the year the tax benefits are realized.

Savings and Investment Plan: The Company's Savings and Investment Plan is a 401(k) plan (the "Plan") that provides eligible employees with the option to defer and invest up to 16% of their compensation, with 50% of the first 6% of such savings matched by the Company. The Company's contributions to the Plan were \$182,000 in 2002, \$185,000 in 2001 and \$163,000 in 2000. The Board of Directors may also authorize a discretionary amount to be contributed to the Plan and allocated to eligible employees annually. The discretionary amount contributed to the Plan was \$45,000 in 2000. No discretionary contribution amounts were authorized for 2002 and 2001.

Stock-based compensation: Effective December 31, 1995, the Financial Accounting Standards Board issued Statement No. 123, "Accounting for Stock-Based Compensation," which permitted the Company to elect to account for stock-based compensation arising under its stock option and stock subscription plans and key employee incentive plan by using a fair value based method or continuing to measure compensation expense using the intrinsic value method prescribed by Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees". The Company has elected to continue using the intrinsic value method and make the pro forma disclosures required by Statement No. 123 of net income and net income per share as if the fair value based method of accounting had been applied (see Note 8). Since the Company generally grants options and rights to subscribe to purchase shares at or near the market price of the underlying share on the date of grant, it is not required to recognize compensation expense as a result of such grants.

In December 2002, the FASB issued SFAS No. 148, "Accounting for Stock-Based Compensation-Transition and Disclosure," an Amendment of SFAS No. 123, "Accounting for Stock-Based Compensation." The Company adopted the disclosure provisions of SFAS No. 148 during fiscal 2002. SFAS No. 148 provides alternative methods of transition for a voluntary change to the fair value method of accounting for stock-based employee compensation. In addition, this statement

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amends the disclosure requirements of SFAS No. 123 to require more prominent disclosures about the method of accounting for stock-based employee compensation and the effect of the method used on reported results in both annual and interim financial statements. As permitted by SFAS No. 148, the Company will continue to apply the provisions of APB Opinion No. 25 "Accounting for Stock-Based Compensation," for all employee stock option grants and has elected to disclose pro-forma net income and earnings per share amounts as if the fair-value based method had been applied in measuring compensation costs.

The table below sets forth the pro forma net income (loss) and the pro forma net income (loss) per share information as calculated in accordance with Statement No. 123.

	2002 -----	2001 -----	2000 -----
Net income(loss) - as reported .....	\$(2,135,467)	\$ 24,079	\$315,056
Plus: Stock-based compensation expense included in reported net income (loss), net of tax .....	-	-	-
Less: Stock-based compensation expense determined using the fair value method, net of tax .....	(366,000)	(282,000)	(294,000)
Net income(loss) - pro forma .....	\$(2,501,467) =====	\$(257,921) =====	\$ 21,056 =====
Basic earnings (loss) per share:			
As reported .....	\$ (.69)	\$ .01	\$ .15
Pro Forma .....	\$ (.81)	\$ (.09)	\$ .01
Diluted earnings (loss) per share:			
As reported .....	\$ (.69)	\$ .01	\$ .14
Pro forma .....	\$ (.81) =====	\$ (.09) =====	\$ .01 =====

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### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Years Ended December 29, 2002, December 29, 2001 and December 30, 2000

#### 1. Summary of significant accounting policies (continued)

**Research and development:** Research and development expenditures of \$2,729,000 in fiscal 2002, \$3,382,000 in fiscal 2001 and \$1,871,000 in fiscal 2000 were expensed as incurred.

**Deferred financing costs:** During 2002, the Company capitalized \$209,000 of deferred financing costs and is amortizing such amount over the life of the related debt.

**Net income (loss) per share:** Basic net income (loss) per common share is calculated by dividing net income (loss), less dividends on preferred stock, if any, by the weighted average common shares outstanding during the period. The calculation of diluted net income (loss) per common share is similar to that of basic net income (loss) per common share, except that the denominator is increased to include the number of additional common shares that would have been outstanding if all potentially dilutive common shares, principally those

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issuable under stock options and warrants, were issued during the reporting period to the extent they are not anti-dilutive.

Accounting period: The Company's fiscal year is the 52-53 week period ending on the Saturday closest to December 31. The Company has quarterly dates that correspond with the Saturday closest to the last day of each calendar quarter and each quarter consists of 13 weeks in a 52-week year. Periodically, the additional week to make a 53-week year (fiscal year 1997 was the latest and fiscal year 2003 will be the next) is added to the fourth quarter, making such quarter consist of 14 weeks.

Recent Accounting Pronouncements: SFAS No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets" was effective for fiscal periods beginning after December 15, 2001, establishes an accounting model for impairment or disposal of long-lived assets to be disposed of by sale. The adoption of SFAS No. 144 did not have a material impact on the Company's financial position or results of operations.

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### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Years Ended December 28, 2002, December 29, 2001 and December 30, 2000

#### 1. Summary of significant accounting policies (continued)

SFAS No. 145, "Rescission of FASB Statements No. 4, 44 and 64, Amendment of FASB Statement No. 13 and Technical Corrections", will require gains and losses on extinguishments of debt to be classified as income or loss from continuing operations rather than as extraordinary items as previously required under SFAS No. 4. Extraordinary treatment will be required for certain extinguishments as provided in APB Opinion No. 30. The statement also amended SFAS No. 13 for certain sale-leaseback and sublease accounting. The Company is required to adopt the provisions of SFAS No. 145 effective December 29, 2002. The Company is currently evaluating the impact of adoption of this statement, however, the Company does not expect that the adoption of SFAS No. 145 will have a material impact on the Company's financial position or results of operations.

SFAS No. 146, "Accounting for Costs Associated with Exit or Disposal Activities" nullifies EITF Issue No. 94-3. SFAS No. 146 requires that a liability for a cost associated with an exit or disposal activity be recognized when the liability is incurred, whereas EITF No. 94-3 had recognized the liability at the commitment date to an exit plan. The Company is required to adopt the provisions of SFAS No. 146 effective for exit or disposal activities initiated after December 28, 2002. The Company is currently evaluating the impact of adoption of this statement to determine if the adoption of SFAS No. 146 will have a material impact on the Company's financial position or results of operations.

In November 2002, the FASB issued Interpretation No. 45, ("FIN 45") "Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others," which elaborates on the disclosures to be made by a guarantor about its obligations under certain guarantees issued. It also clarifies that a guarantor is required to recognize, at the inception of a guarantee, a liability for the fair value of the obligation undertaken in issuing the guarantee. FIN 45 expands on the accounting guidance of SFAS No. 5 "Accounting for Contingencies," SFAS No. 57 "Related Party Disclosures," and SFAS No. 107, "Disclosures about Fair Value of Financial Instruments." It also

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incorporates without change the provisions of FASB Interpretation No. 34, "Disclosure of Indirect Guarantees of the Indebtedness of Others," which is superceded. The initial recognition requirements in this Interpretation are effective for periods ending after December 15, 2002. The Company is currently evaluating the impact of the adoption of this interpretation to determine if the adoption of FIN 45 will have a material impact on the Company's financial position or results of operations.

### 2. Delaware reincorporation

On February 22, 2001, the Company (previously incorporated in the State of New Jersey) was reincorporated in the State of Delaware. In connection with the reincorporation, each share of Common Stock, par value \$.50 per share, of the Company prior to the reincorporation was converted into one share of Common Stock, par value \$.01 per share, of the Company, as reincorporated in Delaware. As a result of the reincorporation, the authorized capital stock of the Company was increased to 20 million shares of Common Stock, par value \$.01 per share (from 5 million shares of Common Stock prior to the reincorporation), and one million shares of Preferred Stock, par value \$.01 per share.

Common stock and additional paid-in capital for all prior years in the accompanying financial statements were previously restated to give effect to the reincorporation. The Company incurred \$330,000 of costs in connection with the reincorporation in Delaware. Such expense is reflected as a reincorporation charge in the accompanying statement of operations. The reincorporation charge net of tax benefits was \$198,000 or \$.07 per share in 2001.

The Board of Directors has the authority to issue up to one million shares of Preferred Stock and to fix the number of shares constituting any series and the designation of such series, and to determine the preferences, rights and qualifications or limitations of such series of Preferred Stock, without any further vote or action by the Company's stockholders.

### 3. Private Placements of Common Stock and Warrants to Purchase Common Stock

On April 7, 2000, the Company entered into a stock purchase and exclusivity agreement with Ericsson Microelectronics, A.B. ("Ericsson") and Ericsson Holding International, B.V. ("EHI") pursuant to which the Company sold to EHI 375,000 shares of Common Stock, representing approximately 17.5% of the Company's outstanding Common Stock after giving effect to the sale, for an aggregate purchase price of \$3,375,000. The stock purchase and exclusivity agreement also provides that the Company will design, develop and produce exclusively for Ericsson certain Multi-Mix(R) products that incorporate active RF power transistors for use in wireless basestation applications, television transmitters and certain other applications that are intended for Bluetooth transceivers. The Company also agreed that it will generally be the priority supplier for such products.

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In connection with EHI's purchase of the Company's Common Stock, the Company and EHI also entered into a registration rights agreement which provides EHI with two demand registrations at any time following April 7, 2002.

On October 26, 2000, the Company entered into subscription agreements for common stock and three-year warrants to purchase shares of Common Stock ("Warrants") with a group of investors led by Adam Smith Investment Partners, L.P. and certain of its affiliates (the "Adam Smith Investors"), EHI, and three members of the board of directors of the Company (the "Director Investors"). The Company sold to the investors units at a price of \$12.80 per unit, each unit

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consisting of one share of Common Stock and one Warrant with an exercise price of \$21.25, which expire on October 26, 2003 ("Units"). The Adam Smith Investors purchased 240,000 Units, EHI purchased 100,000 Units and the Director Investors purchased 20,000 Units for an aggregate purchase price of \$4,608,000. The Common Stock portion of the Units represented an aggregate of approximately 14% of the outstanding Common Stock of the Company after giving effect to the sales. The Warrants contain certain anti-dilution provisions.

On October 1, 2002, EHI completed the sale of its microelectronics business (excluding optosemiconductors and power modules, but including the RF power business) to Infineon Technologies AG ("Infineon"). As part of this transaction, EHI transferred to Infineon 475,000 shares of the Company and the right to acquire 119,380 shares of the Company's common stock pursuant to the Warrants, and EHI assigned to Infineon its rights in the following agreements between EHI and the Company: (i) the Stock Purchase and Exclusivity Letter Agreement, dated April 7, 2000, as amended by the letter agreement dated February 1, 2002; (ii) the Registration Rights Agreement, dated April 7, 2000; (iii) the Subscription Agreement, dated as of October 26, 2000; and (iv) the Registration Rights Agreement, dated October 26, 2000 (collectively, the "Agreements"). The Company also agreed to make certain modifications to the Agreements and the Warrants. These changes are reflected in the Modification Agreement, dated as of September 27, 2002, between the Company and Infineon.

The Warrants were valued using the Black-Scholes option valuation model with a resulting allocation of the aggregate proceeds from the Units attributable to the Warrants of \$837,200, net of issue costs. The following assumptions were utilized to value the Warrants: price per share of common stock of \$15.25; expected life of three years; expected volatility of 40%; a risk free interest rate of 6%; an expected yield of 0.0%; and a liquidity discount of 33%.

In connection with the purchase by EHI and the Adam Smith Investors of the Company's Common Stock and Warrants, the Company, EHI and the Adam Smith Investors also entered into registration rights agreements which provide EHI and the Adam Smith Investors each with two demand registrations at any time following October 26, 2002.

On February 28, 2002, the Company sold to DuPont Electronic Technologies 528,413 shares of Common Stock, representing approximately 16.6% of the Company's outstanding Common Stock after giving effect to the sale, for an aggregate purchase price of \$5,284,000. The Company and DuPont Electronic Technologies have also agreed to work together to better understand the dynamics of the markets for high-frequency electronic components and modules. David B. Miller, Vice President and General Manager of DuPont Electronic Technologies, was appointed to the Company's Board of Directors. As a result of this sale, certain contractual anti-dilution provisions affected both the Warrant exercise price and the number of shares subject to the Warrants. As a result of this sale, pursuant to the anti-dilution provisions of the Warrants issued in October 2000, the exercise price of the Warrants was reduced to \$17.80 and the number of shares subject to the Warrants was increased to 429,775.

In connection with DuPont's purchase of the Company's Common Stock, the Company and DuPont also entered into a registration rights agreement which provides DuPont with two demand registrations at any time following February 28, 2004 and the right to register shares on Form S-3 up to twice per year at anytime after February 28, 2004.

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Years Ended December 28, 2002, December 29, 2001 and December 30, 2000

## 4. Inventories

Inventories consist of the following:

	2002	2001
	-----	-----
Finished goods .....	\$ 414,233	\$ 490,135
Work in process .....	2,019,779	2,057,036
Raw materials and		
purchased parts .....	1,581,319	2,250,034
	-----	-----
	\$4,015,331	\$4,797,205
	=====	=====

Total inventories are net of valuation allowances for obsolescence of \$1,422,000 in 2002 and \$991,000 in 2001. The Company disposed of \$114,000 and \$212,000 of obsolete inventories in 2002 and 2001, respectively.

## 5. Property, plant and equipment

Property, plant and equipment consists of the following:

	2002	2001
	-----	-----
Land and land improvements .....	\$ 766,694	\$ 666,045
Building .....	6,376,436	6,071,027
Machinery and equipment .....	21,726,180	19,444,756
Office equipment,		
furniture and fixtures .....	7,551,466	7,386,823
	-----	-----
	\$36,420,776	\$33,568,651
	=====	=====

Capital assets of \$10,321,000 included in building and machinery and equipment were placed in service in 2002. Of this amount, \$7,045,000 was included in building and machinery and equipment at December 29, 2001.

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## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Years Ended December 28, 2002, December 29, 2001 and December 30, 2000

## 6. Current and long-term debt

The Company was obligated under the following debt instruments at December 28, 2002 and December 29, 2001:

2002

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### Fleet Bank (A):

Revolving credit facility, interest 1/2% below prime .....	\$ -	\$4,
Mortgage loan, callable January 31, 2004, interest 1/2% below prime .....	3,368,750	3,
Term loan, callable January 31, 2004, interest LIBOR plus 2% .....	2,720,000	

### The Bank of Nova Scotia (B):

Capital leases, interest 6.7%, due October 2004.....	70,553	
Capital leases, interest 8.7%, due June 2005.....	202,420	
Capital leases, interest 7.3%, due April 2006.....	167,435	
Capital leases, interest 7.9%, due June 2006.....	140,020	
	-----	-----
	6,669,178	8,
Less current portion.....	6,239,758	4,
	-----	-----
Long-term portion.....	\$ 429,420	\$3,
	=====	=====

(A) The Company commenced borrowing in April 2001 under its existing revolving credit facility with Fleet Bank, at an interest rate of one-half percent below the bank's floating prime rate, which was 7.0% at that time. During 2001, the Company borrowed an aggregate amount of \$7,500,000 under this facility. The weighted average interest rate on the borrowings under this facility during 2002 and 2001 was 4.22% and 5.70%, respectively, and the year-end interest rate was 3.75% and 4.25%, respectively.

During the first quarter of 2002, the Company obtained an increase of \$2,500,000 in the Company's lines of credit with Fleet Bank to a total of \$10,000,000, \$3,500,000 of which consisted of a first mortgage originally callable in March 2007 on the Company's West Caldwell, New Jersey manufacturing facility. As of December 28, 2002, the Company had \$3,780,000 available under its existing revolving credit facility which was due to expire on June 30, 2003.

In December 2002 the Company borrowed \$2,720,000 under a seven-year term loan with Fleet Bank, which lowered the amount available under its revolving line of credit. The weighted average and year-end interest rate on the borrowings under this facility during 2002 was 3.42%.

The Company successfully completed a private placement of 528,413 shares of Company Common Stock on February 28, 2002 that raised \$5,284,000 before offering expenses. The Company repaid the Fleet Bank revolving credit facility from the proceeds of that offering.

The revolving credit facility, mortgage loan and term loan are secured by substantially all assets located within the United States and the pledge of 65% of the stock of the Company's subsidiaries located in Costa Rica. The provisions of the revolving credit and term loan agreement require the Company to maintain certain financial covenants. At December 28, 2002, the Company was not in compliance with certain of these covenants.

On April 17, 2003, the Company and Fleet Bank entered into bank modification agreements, that waived compliance with certain covenants and further amended the applicable terms of the agreements and covenants. The Company is in compliance with the amended covenants. Under the amended loan agreements, Fleet Bank reduced the amount available under its revolving credit facility to \$1,000,000, based upon availability under a borrowing base calculation (70% of eligible accounts receivable as defined in the modified loan agreements), and changed the maturity date of the Company's \$3,500,000 first mortgage loan and the \$2,720,000 term loan to January 31, 2004, while extending the maturity date of the revolving credit facility to January 31, 2004. The loan agreements contain a material adverse change clause, under which Fleet Bank, in its good faith opinion, can determine that the Company is in default under the

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agreements. The Company believes that this clause is a Subjective Acceleration Clause as indicated in FASB Technical Bulletin 79-3, and, based upon the Company's assessment under those guidelines, among other factors, has classified the amounts as a current liability at December 28, 2002.

Management's plans in connection with its debt obligations are outlined in Note 1.

(B) Capital leases included in property, plant and equipment, net, have a depreciated cost of approximately \$559,000 at December 28, 2002 and \$632,000 at December 29, 2001.

At December 28, 2002 and December 29, 2001, the fair value of the Company's debt approximates carrying value. The fair value of the Company's long-term debt is estimated based on current interest rates.

The payments now required under the long-term obligations listed above during the years following December 28, 2002 are set forth below:

2004 .....	\$	161,484
2005 .....		162,754
2006 .....		105,182
		-----
	\$	429,420
		=====

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### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Years Ended December 28, 2002, December 29, 2001 and December 30, 2000

#### 7. Accrued liabilities

Accrued liabilities consist of the following:

	2002	2001
	-----	-----
Commissions .....	\$ 357,904	\$ 464,121
Vacation .....	172,144	122,932
Employee compensation .....	217,176	567,679
Warranty reserve .....	150,000	150,000
Deferred compensation .....	39,000	39,000
Restructuring .....	178,648	-
Other .....	426,437	276,573
	-----	-----
	\$1,541,309	\$1,620,305
	=====	=====

#### 8. Stock option and stock purchase plans

Under the Company's 1993 Stock Option Plan, 324,210 shares of common stock were initially reserved for issuance. The 1993 Option Plan provides for issuance of incentive and non-qualified stock options. The incentive options may not be issued at less than 100% of the fair market value of the shares on the date of grant and they may be exercised at any time between one and ten years from the date of grant. The non-qualified options may be granted to employees at an exercise price determined by the Stock Option Committee of the Board of



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Directors which may not be less than fair value. Such options may become exercisable immediately after the grant and/or at any time before the tenth anniversary of the grant. As of December 28, 2002, options for the purchase of a total of 171,360 shares remained outstanding of which 162,860 are exercisable under the 1993 Option Plan, and options for 31,485 shares were available for future grant.

The non-qualified options may also be granted to non-employee directors, provided the option price is at least equal to the closing price on the date the option is granted. Such options are exercisable after the grant or at any time before the fifth anniversary of the grant.

In 1997, the Company's stockholders approved a Long Term Incentive Plan ("LTIP") pursuant to which 275,000 shares of the Company's common stock were initially reserved for grant to eligible employees. The LTIP provides for issuance of Incentive Stock Options, Non-qualified Stock Options, Bonus Stock and Discounted Stock Options. Under this Plan, the Company may grant to employees who hold positions no more senior than mid-level management, discounted stock options for up to 110,000 shares of common stock, with the option price per share of common stock to be at least greater than or equal to 50% of the fair market value of the common stock on the date of grant. As of December 28, 2002, options for the purchase of 160,871 shares remain outstanding of which 144,071 are exercisable under the LTIP.

In 2001, the Company's stockholders approved the 2001 Stock Option Plan pursuant to which 175,000 shares of the Company's common stock were reserved for issuance of incentive and non-qualified stock options. The options may not be issued at less than 100% of the fair market value of the shares on the date of grant and they may be exercised at any time between one and ten years from the date of grant. Such options may become exercisable immediately after the grant and/or at any time before the tenth anniversary of the grant. As of December 28, 2002, options for the purchase of a total of 81,100 shares remained outstanding of which 37,500 are exercisable under the 2001 Stock Option Plan, and options for 93,900 shares were available for future grant.

The non-qualified options may also be granted to non-employee directors, provided the option price is at least equal to the fair market value on the date the option is granted. Annual options granted to non-employee directors are exercisable after the grant or at any time before the fifth anniversary of the grant.

In addition, non-qualified options for the purchase of a total of 33,000 shares remained outstanding and exercisable as a result of grants by the Board of Directors in 1996 to non-employee directors at fair market value on the date of grant.

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### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Years Ended December 28, 2002, December 29, 2001 and December 30, 2000

#### 8. Stock option and stock purchase plans (continued)

A summary of all stock option activity and information related to all options outstanding follows:

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	2002		2001		
	Weighted average exercise price	Shares or price per share	Weighted average exercise price	Shares or price per share	Weighted average exercise price
Outstanding at beginning of year .....	\$10.11	454,834	\$ 9.64	447,194	\$9.5
Granted .....	11.86	76,500	13.60	38,100	7.3
Exercised .....	9.62	(10,975)	6.93	(24,760)	9.3
Cancelled .....	11.17	(74,028)	10.60	(5,700)	8.1
Outstanding at end of year.....	10.29	446,331	10.11	454,834	9.6
Exercisable at end of year.....	\$ 9.90	377,431	\$9.81	399,284	\$9.6
Option price range at end of year	\$4.90-\$17.00		\$6.00-\$17.00		\$
Weighted average estimated fair value of options granted during the year.....		\$3.10		\$2.22	

The following table sets forth information as of December 28, 2002 regarding weighted average exercise prices, weighted average remaining contractual lives and remaining outstanding options under the various stock option plans sorted by range of exercise price:

Options Outstanding				
Options Price Range	Number Outstanding	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life	Number Exercisable
\$4.90-\$8.75	156,466	\$ 7.39	5.5 years	145,
\$9.10-\$13.80	259,215	\$11.06	5.4 years	203,
\$14.00-\$17.00	30,650	\$14.98	8.0 years	27,

In 2001, the Company's stockholders approved a stock purchase plan pursuant to which 250,000 shares of the Company's common stock were initially reserved for sale to eligible employees. Under this plan, the Company may grant employees the right to subscribe to purchase shares of common stock from the Company at 85% of the market value on specified dates and pay for the shares through payroll deductions over a period of up to 27 months.

A summary of stock purchase plan subscription activity follows:

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	2002		2001		
	Weighted average exercise price	Shares or price per share	Weighted average exercise price	Shares or price per share	Weighted average exercise price
Subscribed at beginning of year .....	\$12.50	19,339	\$5.95	28,866	\$ 6.1
Subscribed .....	-	-	12.50	20,969	-
Purchased .....	5.47	(11,336)	5.97	(29,116)	6.4
Cancelled .....	12.50	(4,165)	12.50	(1,380)	5.9
Subscribed at end of year.....	\$12.50	3,838	\$12.50	19,339	\$ 5.9
Subscription price range end of year.....		\$12.50		\$12.50	
Weighted average estimated fair value of rights granted during the year .....		-		\$ 3.07	

The weighted average of the remaining contractual life of the outstanding stock subscriptions at December 28, 2002 was approximately 0.7 years.

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## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Years Ended December 28, 2002, December 29, 2001 and December 30, 2000

### 8. Stock option and stock purchase plans (continued)

#### 2001 Key Employee Incentive Plan:

In June 2001, the stockholders of the Company approved the 2001 Key Employee Incentive Plan, which provides for an award consisting of restricted stock of approximately five percent of the average number of outstanding shares of Company Common Stock during a six-month period upon the attainment of an average market capitalization during the same six-month period of \$50,000,000, and an additional award of approximately five percent of the average number of outstanding shares upon the attainment of an average market capitalization during a subsequent six-month period of \$80,000,000. Any shares of restricted stock awarded vest annually over a three-year period. The previous plan, the 2000 Key Employee Incentive Plan was cancelled in April 2001.

The Company applied Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees" in accounting for its Key Employee Incentive Plan. Under such accounting, compensation expense will begin to be recorded once the target market capitalizations are achieved. Accordingly, for the years ended December 28, 2002 and December 29, 2001, the Company did not record any compensation expense with respect to the Plan.

SFAS No. 123 "Accounting for Stock-Based Compensation" requires the disclosure

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of pro forma net income and net income per share as if the Company adopted the fair value method of accounting for stock-based awards. The Company has determined the fair value of shares which may be awarded to key employees under the 2001 Key Employee Incentive Plan as if the shares were awarded on the date of the approval of the Plan by the stockholders. The Company has estimated the fair value of the restricted stock awards, vesting on a straight-line basis over a three-year period using the Black-Scholes option valuation model utilizing the assumptions as set forth below in 2002.

As explained in Note 1, the Company has adopted the disclosure-only provisions of Statement No. 123. Accordingly, no earned or unearned compensation cost was recognized in the accompanying consolidated financial statements for stock options and stock purchase plan subscription rights granted in 2002, 2001 and 2000.

	2002 -----	2001 -----	2000 -----
Net income(loss) - as reported .....	\$(2,135,467)	\$ 24,079	\$315,056
Net income(loss) - pro forma .....	(2,501,467)	(257,921)	21,056
	=====	=====	=====
Net income(loss) per share - as reported ...	\$ (.69)	\$ .01	\$ .14
Net income(loss) per share - pro forma .....	\$ (.81)	\$ (.09)	\$ .01
	=====	=====	=====

The Statement No. 123 method of accounting has been applied to options granted in periods after December 31, 1994 and the resulting pro forma compensation expense may not be indicative of pro forma expense in future years.

The fair value of each of the options and purchase plan subscription rights granted in 2002, 2001, and 2000 was estimated on the date of grant using the Black-Scholes option valuation model.

The following weighted average assumptions were utilized:

	2002 -----	2001 -----	2000 -----
Expected option life (years).....	2.4	2.9	4.5
Expected volatility.....	45.00%	35.00%	50.00%
Risk-free interest rate.....	3.50%	4.00%	6.00%
Expected dividend yield.....	0.00%	0.00%	0.00%

The Black-Scholes option valuation model was developed for use in estimating the fair value of traded options, which have no vesting restrictions and are fully transferable. In addition, option valuation models require the input of highly subjective assumptions including the expected stock price volatility. Because the Company's employee stock options and subscription rights have characteristics significantly different from those of traded options, and because changes in the subjective input assumptions can materially affect the fair value estimate, in management's opinion, the existing models do not necessarily provide a reliable single measure of the fair value of its employee stock options and subscription rights.

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## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Years Ended December 28, 2002, December 29, 2001 and December 30, 2000

### 9. Income taxes

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

	2002	2001	2000
	-----	-----	-----
Current tax provision (benefit):			
Federal .....	\$ (282,000)	\$ (4,000)	\$ (439,000)
Foreign .....	(10,000)	(14,000)	299,000
State .....	22,000	(22,000)	(120,000)
	-----	-----	-----
	(270,000)	(40,000)	(260,000)
	-----	-----	-----
Deferred tax provision (benefit):			
Federal .....	645,000	(113,000)	240,000
Foreign.....	(138,000)	(52,000)	20,000
State .....	-	85,000	70,000
	-----	-----	-----
	507,000	(80,000)	330,000
	-----	-----	-----
Provision (benefit) for income taxes	\$ 237,000	\$ (120,000)	\$ 70,000
	=====	=====	=====

Temporary differences which gave rise to a significant portion of deferred tax assets and liabilities at December 28, 2002 and December 29, 2001 are as follows:

	2002	2001
	-----	-----
Current deferred tax assets:		
Inventory valuation allowance .....	\$ 570,000	\$ 384,000
Capitalized inventory costs .....	42,000	47,500
Warranty cost .....	64,500	64,500
Deferred compensation .....	17,000	17,000
Other .....	251,500	35,000
	-----	-----
Net current deferred tax assets .....	945,000	548,000
	-----	-----
Non-current deferred tax assets:		
Deferred compensation .....	49,000	67,000
Net operating loss carryforwards.....	1,750,000	1,175,000
Capitalized leases.....	191,000	246,000
Research and development credits.....	160,000	-
Other.....	105,000	6,000
	-----	-----
	2,255,000	1,494,000
Less valuation allowance.....	(1,350,000)	(300,000)
	-----	-----
	905,000	1,194,000
	-----	-----
Non-current deferred tax liabilities:		
Depreciation and amortization .....	(1,676,000)	(936,000)
Research and development credits.....	(13,000)	(22,000)
Other .....	(14,000)	-
	-----	-----
	(1,703,000)	(958,000)
	-----	-----
Net non-current deferred tax assets (liabilities)	(798,000)	236,000

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Net deferred tax assets .....	----- \$ 147,000 =====	----- \$ 784,000 =====
-------------------------------	------------------------------	------------------------------

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## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Years Ended December 28, 2002, December 29, 2001 and December 30, 2000

### 9. Income taxes (continued)

The statutory federal income tax rate is reconciled to the effective tax rate computed by dividing the provision (benefit) for income taxes by income (loss) before income taxes as follows:

	2002 -----	2001 -----	2000 -----
Statutory rate .....	(34.0)%	(34.0)%	34.0%
Effect of:			
State income tax, net of federal income tax effects	0.8	43.3	(8.6)
Foreign sales corporation income .....	-	(41.6)	(5.3)
Research and development credits .....	(7.0)	(145.3)	(30.3)
Change in valuation allowance .....	55.3	-	-
Goodwill amortization .....	-	52.7	13.6
Other .....	(2.6)	(0.2)	14.8
	-----	-----	-----
Effective tax rate .....	12.5% =====	(125.1)% =====	18.2% =====

As of December 28, 2002, the Company had net operating loss carryforwards for both Federal and state income tax purposes of approximately \$4,600,000, which are available to offset future taxable income through 2022 and 2009, respectively. Also, the Company has approximately \$700,000 of future tax deductions related to the exercise of employee stock options. In addition, the Company has Federal income tax credit carryforwards of approximately \$80,000 expiring through 2022.

Due to the uncertainties related to, among other things, the extent and timing of its future taxable income, the Company increased its domestic deferred tax asset valuation allowance by \$1,050,000 to \$1,350,000 in fiscal year 2002. As a result of this provision, the Company's domestic net deferred tax assets have been fully reserved.

The provision (benefit) for foreign income taxes is based upon foreign income or loss before income taxes as follows: a loss of \$117,000 for 2002; a loss of \$20,000 for 2001 and \$1,000,000 of income for 2000.

Deferred Federal and state income taxes are not provided on the undistributed cumulative earnings of foreign subsidiaries because such earnings are considered to be invested permanently in those operations. At December 28, 2002, the cumulative earnings of foreign subsidiaries were approximately \$700,000. The

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amount of unrecognized deferred tax liability on the undistributed cumulative earnings was approximately \$100,000.

### 10. Business segment and geographic data

The Company's operations are conducted primarily through two business segments: (1) electronic components and (2) microwave micro-circuitry. These segments, and the principal operations of each, are as follows:

**Electronic components:** Design, manufacture and sale of electronic component devices offering extremely broad frequency coverage and high performance characteristics for communications, defense and aerospace applications. Of the identifiable assets, 80% are located in the United States and 20% are located in Costa Rica.

**Microwave micro-circuitry:** Design, manufacture and sale of microstrip, bonded stripline and thick metal-backed Teflon(R) (PTFE) and mixed dielectric multilayer circuits for communications, defense and aerospace applications. Identifiable assets are located in Canada.

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### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Years Ended December 28, 2002, December 29, 2001 and December 30, 2000

### 10. Business segment and geographic data (continued)

Information about the Company's operations in different industries and geographic areas follows. Operating income is net sales less operating expenses. Operating expenses exclude interest expense, other income and income taxes. Assets are identified with the appropriate operating segment and are substantially all located in the North America geographic area. Corporate assets consist principally of cash and corporate expenses are immaterial. Intersegment sales and the resulting intersegment assets are principally due to transactions from the microwave micro-circuitry segment to the electronic components segment.

	2002 -----	2001 -----	2000 -----
	(In thousands of dollars)		
Industry segments:			
Sales to unaffiliated customers:			
Electronic components	\$21,414	\$21,383	\$17,118
Microwave micro-circuitry	3,966	4,686	6,018
Intersegment sales	(810)	(276)	(100)
	-----	-----	-----
Consolidated	\$24,570	\$25,793	\$23,036
	=====	=====	=====
Income (loss) before			
provision for income taxes:			
Operating income (loss):			
Electronic components	\$ (1,792)	\$ (319)	\$ (893)
Microwave micro-circuitry	70	206	1,337
Interest and other (expense)			

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income, net	(176)	17	(59)
	-----	-----	-----
Consolidated	\$ (1,898)	\$ (96)	\$ 385
	=====	=====	=====
Identifiable assets:			
Electronic components	\$28,211	\$29,983	\$18,891
Microwave micro-circuitry	4,767	5,426	5,427
Corporate	3,611	1,844	3,425
Intersegment assets	(102)	(260)	(143)
	-----	-----	-----
Consolidated	\$36,487	\$36,993	\$27,600
	=====	=====	=====
Depreciation and amortization:			
Electronic components	\$ 2,681	\$ 2,049	\$ 1,598
Microwave micro-circuitry	228	466	399
	-----	-----	-----
Consolidated	\$ 2,909	\$ 2,515	\$ 1,997
	=====	=====	=====
Capital expenditures, net:			
Electronic components	\$ 2,732	\$10,404	\$ 3,365
Microwave micro-circuitry	126	449	621
	-----	-----	-----
Consolidated	\$ 2,858	\$10,853	\$ 3,986
	=====	=====	=====
Geographic areas:			
Sales to unaffiliated customers:			
North America	\$20,352	\$20,471	\$20,514
Europe	2,742	3,795	1,260
Far East	1,279	1,278	1,208
Other	197	249	54
	-----	-----	-----
Consolidated	\$24,570	\$25,793	\$23,036
	=====	=====	=====

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## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Years Ended December 28, 2002, December 29, 2001 and December 30, 2000

### 10. Business segment and geographic data (continued)

The Company's customers are primarily major industrial corporations that integrate the Company's products into a wide variety of defense and commercial systems. The Company's customers include The Boeing Company, Raytheon Company, Northrop Grumman Corporation, Lockheed Martin Corporation, Loral Space & Communications Ltd. and General Dynamics Corporation. Sales to the foreign geographic area of Europe were 11.2% and 14.7% of net sales in 2002 and 2001, respectively. Sales to any one foreign geographic area did not exceed 10% of net sales for 2000. Sales to Lockheed Martin Corporation were 14.7%, 13.8% and 12.2% of net sales in 2002, 2001 and 2000, respectively. Sales to The Boeing Company (which acquired the space and communications business from Hughes Electronics Corporation, a former customer of the Company, in 2000) were 11.0%, 15.0% and 9.1% of net sales in 2002, 2001 and 2000, respectively.



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Accounts receivable are financial instruments that expose the Company to a concentration of credit risk. A substantial portion of the Company's accounts receivable are from customers in the defense industry, and approximately 59% and 49% of its receivables at December 28, 2002 and December 29, 2001, respectively, were from six and five customers, respectively. Exposure to credit risk is limited by the large number of customers comprising the remainder of the Company's customer base, their geographical dispersion and by ongoing customer credit evaluations performed by the Company.

### 11. Net income per common share

The following table summarizes the calculation of basic and diluted net income per common share for 2002, 2001 and 2000:

	2002	2001
	-----	-----
Numerator:		
Net income(loss) available to common stockholders .....	\$ (2,135,467)	\$ 24,111
	-----	-----
Denominator:		
Weighted average shares outstanding for basic net income(loss) per share ...	3,073,703	2,623,924
Effect of dilutive securities - stock options	-	111,865
	-----	-----
Weighted average shares outstanding for diluted net income(loss) per share..	3,073,703	2,735,789
	-----	-----
Net income(loss) per share - basic .....	\$ (.69)	
Net income(loss) per share - diluted .....	\$ (.69)	
	-----	-----

At December 28, 2002, there were 429,775 common stock warrants outstanding excluded from the calculation of dilutive securities because the warrant exercise price of \$17.80 was greater than the average market value of the common shares. See Note 3.

If the sales of 528,400 shares of Company Common Stock on February 28, 2002 and 375,000 shares of Company Common Stock on April 7, 2000 and 360,000 Units on October 26, 2000 referred to in Note 3 had occurred at the beginning of each of the years, the pro forma basic and diluted weighted average number of common shares outstanding for fiscal years 2002, 2001 and 2000 would have been:

	2002	2001	2000
	-----	-----	-----
Basic:			
Actual.....	3,073,703	2,623,924	2,134,542
Adjustments for sales of:			
Common stock, February, 28, 2002 and April 7, 2000.	88,553	-	98,902
Units, October 26, 2000 .....	-	-	294,725
	-----	-----	-----
Basic - pro forma.....	3,162,256	2,623,924	2,528,169
Effect of dilutive securities-			
stock options.....	-	111,865	175,265

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Diluted - pro forma.....	----- 3,162,256 =====	----- 2,735,789 =====	----- 2,703,434 =====
--------------------------	-----------------------------	-----------------------------	-----------------------------

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## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Years Ended December 28, 2002, December 29, 2001 and December 30, 2000

### 12. Commitments and contingencies

#### Lease commitments:

The Company leases real estate and equipment under operating leases expiring at various dates through February 2006, which includes a 36,200 square-foot manufacturing facility in Costa Rica. The leases include provisions for rent escalation, renewals and purchase options, and the Company is generally responsible for taxes, insurance, repairs and maintenance.

Total rent expense charged to operations amounted to \$471,000 in 2002. Total rental expense charged to operations amounted to \$141,000 in 2001, which is net of \$265,000 of construction period rent capitalized to fixed assets and \$87,000 of amortization of facility sharing prepayments. Total rental expense charged to operations amounted to \$244,000 in 2000. Future minimum lease payments, net of contractual facility sharing cost reductions of \$87,000 per year through March 2003 (see following: Lease modification and facility sharing agreement), under noncancellable operating leases with an initial term exceeding one year are as follows:

2003.....	\$413,000
2004.....	425,000
2005.....	442,000
2006.....	52,000

#### Lease modification and facility sharing agreement:

The Company entered into an agreement effective January 2001, with a customer to relinquish to this customer approximately half of the Company's 17,000 square-foot leased manufacturing facility in Costa Rica. Associated with the transaction, the Company entered into a new four-year lease agreement with a five-year renewal option with its Costa Rica landlord for the reduced space. In addition, the Company transferred certain employees to its customer, agreed to share certain personnel resources and common costs, and committed to provide certain management, administrative and other services to its customer.

In connection with the transaction, the Company received \$350,000 from its customer and will receive a final payment of \$100,000 in January 2003. The Company reduced its facility occupancy expenses by approximately \$87,000 during the prior two years that commenced January 2001.

The Company deferred approximately \$102,000 of costs at December 30, 2000 incurred in connection with entering into this agreement and other incremental costs, for the purpose of providing this customer with trained personnel and certain other services required for their dedicated manufacturing capability. Such costs classified in the balance sheet as other assets at December 30, 2000

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were recovered through the \$200,000 payment received in January 2001 as described above, and at December 28, 2002, the unamortized amount of \$76,000 of the payments received is included in deferred liabilities. The Company has an agreement in principle with its co-tenant to relinquish the space it presently occupies on April 1, 2003 and to move its currently conducted operations into its larger facility.

Capital leases included in property, plant and equipment at December 28, 2002 are as follows:

Machinery and equipment.....	\$905,000
Less accumulated depreciation.....	346,000
	-----
Total.....	\$559,000
	=====

Future minimum lease payments under capital leases and the present value of such payments as of December 28, 2002 is as follows:

2003.....	\$191,000
2004.....	190,000
2005.....	177,000
2006.....	108,000
	-----
Total minimum lease payments.....	666,000
Less amount representing interest..	86,000
	-----
Present value of total minimum lease payments.....	\$580,000
	=====

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### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Years Ended December 28, 2002, December 29, 2001 and December 30, 2000

#### 12. Commitments and contingencies (continued)

##### Purchase obligations:

The Company intends to issue commitments to purchase \$1,000,000 of capital equipment from various vendors. Such equipment will be purchased and become operational during 2003.

##### Consulting and employment agreements; deferred compensation:

The Company has been a party to an employment agreement with its Chairman, President and Chief Executive Officer that provides him with a minimum annual salary of \$240,000 for an initial term and automatically renews for successive twelve-month periods thereafter unless terminated pursuant to the terms of the agreement. On August 31, 2000, in connection with an amendment of Mr. Carter's employment agreement, the Company loaned Mr. Carter \$280,000. Interest on the loan will be calculated at a variable interest rate based on the prime rate of the Company's lending bank, payable in accordance with Mr. Carter's employment agreement. Each year the Company will forgive 20% of the amount due under this loan and the accrued interest thereon. During 2002, the amount of \$56,000

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principal and \$12,000 of accrued interest was forgiven. During 2001, the amount of \$56,000 principal and \$23,000 of accrued interest was forgiven.

A subsidiary of the Company re-entered into an employment agreement with the Founder and President Emeritus of FMI that provides for a minimum annual salary of \$150,000 (Canadian). The term of the agreement ends on August 26, 2004, unless terminated pursuant to the terms of the agreement.

The Company is party to a retirement agreement with its former Vice Chairman and Chief Technology Officer which became effective on December 31, 1998. Pursuant to the retirement agreement, such former officer received an initial payment of \$151,700 in 1998, and received a payment of \$185,500 in January 1999 and a final payment of \$185,500 in January 2000. In addition, the agreement provides for the continuation of health insurance benefits until December 2009.

The Company is party to a consulting agreement with a former Vice President, which initial term ended February 2001 and automatically renewed pursuant to the terms of the agreement for an additional twelve-month period. The agreement will renew for successive twelve-month periods thereafter unless otherwise terminated pursuant to the terms of the agreement. The agreement provides for a minimum payment of \$24,000 per year and includes health insurance and other certain benefits.

The Company entered into a consulting agreement on January 1, 1998 with a director of the Company. The term of the consulting agreement, which initially ended on January 1, 1999, automatically renews for successive twelve-month periods until terminated pursuant to the terms of the agreement. The consulting agreement provides this director with an annual fee of \$36,000 for his services.

The Company is a party to a severance arrangement and consulting agreement effective October 2002, with a former Vice President, that provides for aggregate payments of approximately \$130,000 through March 2005.

The Company is a party to a stockholder's agreement, dated as of October 30, 1998, with a former director and Chairman of the Company. Pursuant to the stockholder's agreement, this former director is required to vote his shares of Common Stock as directed by the Board of Directors or the Chief Executive Officer of the Company, and was paid \$50,000 for ten months of consulting services in 2001. There are no future consulting service commitments and no other obligations of the Company pursuant to such agreement.

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### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Years Ended December 28, 2002, December 29, 2001 and December 30, 2000

#### 12. Commitments and contingencies (continued)

The Company is party to a retirement agreement effective January 1997, with its former Vice President, Secretary and Controller, that provides him with annual payments of \$30,000 for ten years.

In connection with certain of these consulting and retirement agreements described above, the Company is obligated to make the following deferred

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compensation payments:

2003	\$ 39,000
2004	39,000
2005	39,000
2006	39,000
2007	9,000
2008	9,000
2009	9,000
	-----
Total estimated future deferred compensation	183,000
Less amount representing interest	21,000
	-----
Present value of deferred compensation	\$162,000
	=====

Litigation:

The Company is a party to lawsuits, both as a plaintiff and as a defendant, arising from the normal course of business. It is the opinion of management, that the disposition of these various lawsuits will not have a material adverse effect to the consolidated financial position or results of operations of the Company.

### 13. Restructurings and related charges

As a result of a decline in orders received from its customers during 2002, the Company reduced head count by 17 persons, principally involved in production, manufacturing support and sales during the second quarter of 2002. The Company recorded a personnel restructuring charge of \$240,000, which increased the net loss by \$150,000 or \$.05 per share.

In November 2002, the Company reorganized its operations to reflect a more market-driven focus and to better support its customer base by combining all of its technologies into a single cohesive unit. This reorganization allowed the Company to increase the breadth of its product offerings and to offer more integrated solutions. The Company has an agreement in principle with its co-tenant to relinquish the 8,200 square feet of space it presently occupies on April 1, 2003 and to move its currently conducted operations into the larger facility. This restructuring reduced the Company's head count by 11 persons in the management, engineering, production, manufacturing support and sales functions. The Company's net loss for the fourth quarter increased by \$270,000 or \$.09 per share.

The combined restructuring charges increased the net loss for 2002 by \$510,000 or \$.17 per share. The Company paid approximately \$331,000 of these restructuring charges in 2002. Substantially all of the remaining restructuring charges will be paid in 2003.

As a result of accelerating the transfer of increased levels and complexity of production to the Company's Costa Rica manufacturing facility in 2000, the Company implemented a reduction of its workforce and provided severance benefits to certain employees during the first quarter of 2000. The restructuring charge for the first quarter of 2000 was \$315,000, and charges net of tax benefits of \$189,000 or \$.10 per diluted share and \$.08 per diluted share for the year, as a result of increases in common shares from private placements after the first quarter 2000. The reduction in workforce affected fifteen persons, primarily

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electronic components manufacturing labor, and the full amount of the restructuring charge has been paid.

### 14. Transactions with management and loans to officer-stockholder

In May 1998, the Company sold 22,000 shares of Common Stock to Mason N. Carter, Chairman, President and Chief Executive Officer of the Company, at a price of \$11.60 per share, which approximated the average closing price of the Company's Common Stock during the first quarter of 1998. The Company lent Mr. Carter \$255,000 in connection with the purchase of these shares and combined that loan with a prior loan to Mr. Carter in the amount of \$105,000. The resulting total principal amount of \$360,000 was payable May 4, 2003 and bore interest at a variable interest rate based on the prime rate of the Company's lending bank. This loan was further amended on July 29, 2002. Accrued interest of \$40,000 was added to the principal, bringing the new principal amount of the loan to \$400,000, the due date was extended to May 4, 2006, and interest (at the same rate as was previously applicable) is now payable monthly. Mr. Carter has pledged 33,000 shares of Common Stock as security for this loan which is a full-recourse loan.

On August 31, 2000, in connection with an amendment of Mr. Carter's employment agreement, the Company loaned Mr. Carter an additional \$280,000. Interest on the loan will be calculated at a variable interest rate based on the prime rate of the Company's lending bank, payable in accordance with Mr. Carter's employment agreement. Each year the Company will forgive 20% of the amount due under this loan and the accrued interest thereon. \$56,000 of principal and \$12,000 of accrued interest was forgiven in 2002 and \$56,000 of principal and \$23,000 of accrued interest was forgiven in 2001.

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## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Years Ended December 28, 2002, December 29, 2001 and December 30, 2000

### 15. Stockholder Rights Plan

On March 5, 1999, the Board of Directors of the Company approved a stockholder rights plan and declared a dividend of one common share purchase right (a "Right") for each outstanding share of Common Stock of the Company. The dividend was payable on March 19, 1999 (the "Record Date") to stockholders of record as of the close of business on that date. Each Right will entitle the holder to purchase from the Company, upon the occurrence of certain events, one share of Common Stock for \$25.00.

Generally, if any person or group acquires beneficial ownership of 10% or more of the Company's outstanding Common Stock, each Right (other than Rights held by such acquiring person or group) will be exercisable, at the \$25.00 purchase price, for a number of shares of Common Stock having a market value of \$50.00. Upon an acquisition of the Company, each Right (other than Rights held by the acquiror) will generally be exercisable, at the \$25.00 purchase price, for a number of shares of common stock of the acquiror having a market value of \$50.00. In certain circumstances, each Right may be exchanged by the Company for one share of Common Stock. The Rights will expire on March 19, 2009, unless earlier exchanged or redeemed at \$0.01 per Right.

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END OF NOTES TO CONSOLIDATED FINANCIAL STATEMENTS.

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## QUARTERLY FINANCIAL INFORMATION

Summarized quarterly unaudited financial data reported for 2002 and 2001 follows:

2002	March 30	June 29	September 28	December 28
	-----	-----	-----	-----
Net sales .....	\$6,850,587	\$6,462,328	\$5,938,929	\$5,318,929
Gross profit .....	3,194,280	2,985,607	2,615,595	1,670,595
Net income (loss) (A).....	142,837	(54,199)	57,054	(2,281,929)
	-----	-----	-----	-----
Net income (loss) per share - basic ...	\$ .05	\$ (.02)	\$ .02	\$ .02
Net income (loss) per share - diluted..	\$ .05	\$ (.02)	\$ .02	\$ .02
	-----	-----	-----	-----
2001	March 31	June 30	September 29	December 29
	-----	-----	-----	-----
Net sales .....	\$6,090,367	\$6,766,165	\$5,812,301	\$7,123,301
Gross profit .....	3,145,911	3,605,367	2,923,115	3,605,367
Net income (loss) (B).....	(30,696)	136,451	(209,339)	12,339,339
	-----	-----	-----	-----
Net income (loss) per share - basic ...	\$ (.01)	\$ .05	\$ (.08)	\$ (.08)
Net income (loss) per share - diluted..	\$ (.01)	\$ .05	\$ (.08)	\$ (.08)
	-----	-----	-----	-----

(A) Reflects the effects of the second quarter 2002 restructuring charge of \$240,000 which reduced net income by \$150,000 or \$.05 per share for the second quarter of 2002 and reflects the effects of the fourth quarter 2002 restructuring charge which reduced net income by \$270,000 or \$.09 per share for the fourth quarter of 2002 (see Note 13).

(B) Reflects the effects of the first quarter 2001 reincorporation charge of \$330,000 which reduced net income by \$198,000 or \$.07 per share for fiscal year 2001(see Note 2).

## QUARTERLY COMMON STOCK DATA

2002

2001

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Quarter	1st	2nd	3rd	4th	1st	2nd	3rd	4th
Market price per share:								
High .....	\$14.30	\$12.45	\$8.10	\$6.45	\$22.20	\$15.25	\$14.00	\$11.70
Low .....	11.35	8.00	6.00	4.50	12.00	11.90	8.30	7.90

The Common Stock of the Company is listed on The American Stock Exchange and trades under the symbol MRM.

The market price per share information is provided with regard to the high and low bid prices of the Common Stock of the Company on The American Stock Exchange during the periods indicated.

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## ITEM 8. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

As previously reported in the Company's Current Report on Form 8-K, filed April 30, 2002, which is incorporated herein by reference, Arthur Andersen LLP have been dismissed as the Company's independent accountants and Ernst & Young LLP have been engaged as the Company's independent accountants.

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## PART III

Pursuant to General Instruction E3 to Form 10-KSB, portions of information required by Items 9 to 12 and indicated below are hereby incorporated by reference to Merrimac's definitive Proxy Statement for the 2003 Annual Meeting of Stockholders (the "Proxy Statement") which Merrimac will file with the Securities and Exchange Commission not later than 120 days after the



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end of the fiscal year covered by this report.

### ITEM 9. DIRECTORS, EXECUTIVE OFFICERS, PROMOTERS AND CONTROL PERSONS; COMPLIANCE WITH SECTION 16(A) OF THE EXCHANGE ACT

Information under the caption "Election of Directors" contained in the Proxy Statement with respect to the Board of Directors is incorporated herein by reference.

The following is a list of Merrimac's current executive officers, their ages and their positions. Generally, each executive officer is elected for a term of one year at the organizational meeting of the Board of Directors following the Annual Meeting of Stockholders.

NAME ----	AGE ---	POSITION -----
Mason N. Carter	56	Chairman, President and Chief Executive Officer
Robert V. Condon	56	Vice President, Finance, Treasurer, Secretary and Chief Financial Officer
Richard E. Dec	59	Vice President, Corporate Relations
Rocco A. DeLillo	35	Vice President, Engineering
Reynold K. Green	44	Vice President and General Manager
Jayson E. Hahn	35	Vice President, Information Technology and Chief Information Officer
James J. Logothetis	43	Vice President and Chief Technology Officer
Michael Pelenskij	42	Vice President, Manufacturing

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### FAMILY RELATIONSHIPS

There are no family relationships among the officers listed.

### BUSINESS EXPERIENCE OF EXECUTIVE OFFICERS DURING PAST FIVE YEARS

Mr. Carter has served as Chairman of the Board since July 24, 1997, and President and Chief Executive Officer since December 16, 1996. From 1994 to 1996, he was President of the Products and Systems Group of Datatec Industries, Inc., Fairfield, New Jersey, a leading provider of data network implementation services.

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Mr. Condon has been Vice President, Finance and Chief Financial Officer since joining Merrimac in March 1996 and was appointed Secretary and Treasurer in January 1997. Prior to joining Merrimac, he was with Berkeley Educational Services as Vice President, Finance, Treasurer and CFO from 1995 to February 1996.

Mr. Dec has been Vice President, Corporate Relations since November 2002 and was Vice President, Business Development from July 2000. He served as Vice President, Marketing since joining Merrimac in March 1997. Prior to joining Merrimac, he was Vice President of Business Development of Kinley & Manbeck, Inc., a business process re-engineering and systems implementation consulting company, from April 1996 to March 1997. From 1995 to March 1996, he was National Account Manager, Product and Systems Group for Datatec Industries, Inc.

Mr. DeLillo was appointed Vice President, Engineering in November 2002, after serving as Vice President of Research and Development since September 2002. Prior to September 2002 he was Director of Research and Development since 1999. He joined the Company in March 1998 as a Senior Research and Development Engineer.

Mr. Green was appointed Vice President and General Manager in November 2002. He was Vice President and General Manager of the RF Microwave Products Group since January 2000. He was Vice President, Sales from March 1997 to January 2000 and Vice President of Manufacturing from April 1996 to March 1997. He was a member of the Board of Directors from April 1996 to May 1997 and did not seek re-election to the Board. Prior to April 1996, Mr. Green held positions of Director of Manufacturing, National Sales Manager and Director of Quality Control and High-Reliability Services at Merrimac.

Mr. Hahn was appointed Vice President, Information Technology and Chief Information Officer in October 2000, after serving as Director, Network Services since June 1998. He served as Manager, Network Services from June 1997 to June 1998 and was Information Technology Support Specialist from December 1996 to June 1997. Prior to joining the Company, Mr. Hahn was with Berkeley Educational Services, where he held various Information Technology related positions from 1992 to November 1996.

Mr. Logothetis was appointed Vice President and Chief Technology Officer in March 2002. Mr. Logothetis was appointed Vice President, Multi-Mix(R)Engineering in May 1998, after rejoining Merrimac in January 1997 to serve as Director, Advanced Technology. Prior to rejoining Merrimac, he served as a director for Electromagnetic Technologies, Inc. in 1995 and became Vice President of Microwave Engineering at such corporation in 1996. From 1984 through 1994, Mr. Logothetis had various engineering positions with Merrimac including Group Manager, Engineering.

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Mr. Pelenski was appointed Vice President Manufacturing in January 2000 after serving as Director of Manufacturing of the Company from January 1999 to January 2000. Prior to January 1999, Mr. Pelenski held the positions of Manager of Screened Components, RF Design Engineer, and District Sales Manager at the Company since joining the Company in 1993.

Information under the caption "Section 16 (a) Beneficial Ownership Reporting Compliance" contained in the Proxy Statement relating to compliance with Section 16 of the Exchange Act is incorporated herein by reference.

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### ITEM 10. EXECUTIVE COMPENSATION

Information called for by Item 10 is set forth under the heading "Executive Compensation" in the Proxy Statement, which information is incorporated herein by reference.

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### ITEM 11. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Information called for by Item 11 is set forth under the heading "Share Ownership of Directors, Executive Officers and Certain Stockholders" contained in the Proxy Statement, which information is incorporated herein by reference.

### ITEM 12. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

Information called for by Item 12 is set forth under the subheading "Certain relationships and related transactions" under the caption "Executive Compensation" contained in the Proxy Statement, which information is incorporated herein by reference.

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### ITEM 13. EXHIBITS AND REPORTS ON FORM 8-K

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## (a) Exhibits:

EXHIBIT NO. -----	DESCRIPTION -----
3(a)	Certificate of Incorporation of Merrimac is hereby incorporated by reference to Exhibit 3(i)(b) to Post-Effective Amendment No. 2 to the Registration Statement on Form S-8 (No. 33-68862) of Merrimac dated February 23, 2001.
3(b)	By-laws of Merrimac are hereby incorporated by reference to Exhibit 3(ii)(b) to Post-Effective Amendment No. 2 to the Registration Statement on Form S-8 (No. 33-68862) of Merrimac dated February 23, 2001.
4(a)	Stockholder Rights Agreement dated as of March 9, 1999, between Merrimac and ChaseMellon Stockholder Services, L.L.C., as Rights Agent, is hereby incorporated by reference to Exhibit 1 to Merrimac's Current Report on Form 8-K for the period ending March 9, 1999.
4(b)	Amendment No. 1 dated as of June 9, 1999, to the Stockholder Rights Agreement dated as of March 9, 1999, between Merrimac and ChaseMellon Stockholder Services, L.L.C., as Rights Agent, is hereby incorporated by reference to Exhibit 1 to Merrimac's Current Report on Form 8-K for the period ending June 9, 1999.
4(c)	Amendment No. 2 dated as of April 7, 2000, to the Stockholder Rights Agreement dated as of March 9, 1999, between Merrimac and ChaseMellon Stockholder Services, L.L.C., as Rights Agent, is hereby incorporated by reference to Exhibit 2 to Merrimac's Current Report on Form 8-K for the period ending April 10, 2000.
4(d)	Amendment No. 3 dated as of October 26, 2000, to the Stockholder Rights Agreement dated as of March 9, 1999, between Merrimac and ChaseMellon Stockholder Services, L.L.C., as Rights Agent, is hereby incorporated by reference to Exhibit 2 to Merrimac's Current Report on Form 8-K for the period ending October 27, 2000.
4(e)	Amendment No. 4 dated as of February 21, 2001, to the Stockholder Rights Agreement dated as of March 9, 1999, between Merrimac and Mellon Investor Services, L.L.C. (formerly known as ChaseMellon Stockholder Services, L.L.C.), as Rights Agent, is hereby incorporated by reference to Exhibit 1(d) to Merrimac's Current Report on Form 8-K for the period ending February 21, 2001.
4(f)	Amendment No. 5, dated February 28, 2002, to the Rights Agreement, between Merrimac and Mellon Investor Services LLC (f.k.a. ChaseMellon Shareholder Services, L.L.C.), as Rights Agent is hereby incorporated by reference to Exhibit 99.4 to Merrimac's Form 8-K for the period ending March 6, 2002.

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EXHIBIT NO. -----	DESCRIPTION -----
4(g)	Amendment No. 6, dated September 18, 2002, to the Rights Agreement, between Merrimac and Mellon Investor Services LLC, as Rights Agent is hereby incorporated by reference to Exhibit 99.3 to Merrimac's Form 8-K for the period ending September 18, 2002.
10(a)	Stock Purchase and Exclusivity Letter Agreement dated April 7, 2000, among Ericsson Microelectronics, A.B., Ericsson Holdings International, B.V. and Merrimac is hereby incorporated by reference to Exhibit 10(a) to Merrimac's Quarterly Report on Form 10-QSB for the period ending August 15, 2000.
10(b)	Letter Agreement, dated February 1, 2002, among Merrimac, Ericsson Holding International B.V. and Ericsson Microelectronics, A.B., which amends the Stock Purchase and Exclusivity Letter, dated April 7, 2000 is hereby incorporated by reference to Exhibit 99.4 to Merrimac's Form 8-K for the period ending September 18, 2002.
10(c)	Registration Rights Agreement dated as of April 7, 2000, between Merrimac and Ericsson Holding International, B.V. is hereby incorporated by reference to Exhibit 10(b) to Merrimac's Quarterly Report on Form 10-QSB for the period ending August 15, 2000.
10(d)	Subscription Agreement for Common Stock and Warrants dated October 26, 2000, between Merrimac and Ericsson Holding International, B.V. (with a form of Warrant attached) is hereby incorporated by reference to Exhibit 10(t) to Merrimac's Annual Report on Form 10-KSB for the year ending December 30, 2000.
10(e)	Registration Rights Agreement dated October 26, 2000, between Merrimac and Ericsson Holding International, B.V. is hereby incorporated by reference to Exhibit 10(u) to Merrimac's Annual Report on Form 10-KSB dated for the year ending December 30, 2000.
10(f)	Subscription Agreement for Common Stock and Warrants dated October 26, 2000, between Merrimac and certain entities and individuals related to Adam Smith Investment Partners, L.P. (with a form of Warrant attached) is hereby incorporated by reference to Exhibit 10(v) to Merrimac's Annual Report on Form 10-KSB for the year ending December 30, 2000.
10(g)	Registration Rights Agreement dated October 26, 2000, between Merrimac and certain entities and individuals related to Adam Smith Investment Partners, L.P. is hereby incorporated by reference to Exhibit 10(w) to Merrimac's Annual Report on Form 10-KSB for the year ending December 30, 2000.
10(h)	Subscription Agreement for Common Stock and Warrants dated October 26, 2000, among Merrimac, Edward H. Cohen, Joseph B. Fuller and Joel H. Goldberg (with a form of Warrant attached) is hereby incorporated by

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reference to Exhibit 10(x) to Merrimac's

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EXHIBIT NO. -----	DESCRIPTION -----
	Annual Report on Form 10-KSB for the year ending December 30, 2000.
10 (i)	Registration Rights Agreement, dated February 28, 2002 between Merrimac and DuPont Chemical and Energy Operations, Inc., a subsidiary of E.I. DuPont de Nemours and Company is hereby incorporated by reference to Exhibit 99.3 to Merrimac's Form 8-K for the period ending February 28, 2002.
10 (j)	Consent and Waiver, dated as of September 18, 2002, among Merrimac, Ericsson Holding International B.V. and Infineon Technologies AG is hereby incorporated by reference to Exhibit 99.1 to Merrimac's Form 8-K for the period ending September 18, 2002.
10 (k)	Modification Agreement, dated as of September 27, 2002, between Merrimac and Infineon Technologies AG is hereby incorporated by reference to Exhibit 99.2 to Merrimac's Form 8-K for the period ending September 18, 2002.
10 (l)	Profit Sharing Plan of Merrimac is hereby incorporated by reference to Exhibit 10(n) to Merrimac's Registration Statement on Form S-1 (No. 2-79455).*
10 (m)	1983 Key Employees Stock Option Plan of Merrimac effective March 21, 1983, is hereby incorporated by reference to Exhibit 10(m) to Merrimac's Annual Report on Form 10-KSB for the year ending March 31, 1983.*
10 (n)	1993 Stock Option Plan of Merrimac effective March 31, 1993, is hereby incorporated by reference to Exhibit 4(c) to Merrimac's Registration Statement on Form S-8 (No. 33-68862) dated September 14, 1993.*
10 (o)	1997 Long-Term Incentive Plan of Merrimac is hereby incorporated by reference to Exhibit A to Merrimac's Proxy Statement for the period ending April 11, 1997.*
10 (p)	Resolutions of the Stock Option Committee of the Board of Directors of Merrimac adopted June 3, 1998, amending the 1983 Key Employees Stock Option Plan of Merrimac, the 1993 Stock Option Plan of Merrimac and the 1997 Long-Term Incentive Plan of Merrimac and adjusting outstanding awards thereunder to give effect to Merrimac's 10% stock dividend paid June 5, 1998, are hereby incorporated by reference to Exhibit 10(f) to Merrimac's Annual Report on Form 10-KSB for the year ending March 30, 1999.*
10 (q) (1)	1995 Stock Purchase Plan of Merrimac is hereby incorporated by reference to Exhibit A to the Proxy Statement of Merrimac for the period ending December

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31, 1994.\*

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EXHIBIT NO. -----	DESCRIPTION -----
10(q) (2)	Resolutions of the Stock Purchase Plan Committee of the Board of Directors of Merrimac adopted June 3, 1998, amending the 1995 Stock Purchase Plan of Merrimac and adjusting outstanding awards thereunder to give effect to Merrimac's 10% stock dividend paid June 5, 1998, are hereby incorporated by reference to Exhibit 10(g) (2) to Merrimac's Annual Report on Form 10-KSB for the year ending January 2, 1999.*
10(u) (1)	1996 Stock Option Plan for Non-Employee Directors of Merrimac is hereby incorporated by reference to Exhibit 10(d) to Merrimac's Annual Report on Form 10-KSB dated for the year ending December 28, 1996.*
10(i) (2)	Resolutions of the Board of Directors of Merrimac, adopted June 3, 1998, amending the 1996 Stock Option Plan for Non-Employee Directors of Merrimac and adjusting outstanding awards thereunder to give effect to Merrimac's 10% stock dividend paid June 5, 1998, are hereby incorporated by reference to Exhibit 10(h) (2) to Merrimac's Annual Report on Form 10-KSB for the year ending January 2, 1999.*
10(x)	Amended and Restated Employment Agreement dated as of January 1, 1998, between Merrimac and Mason N. Carter is hereby incorporated by reference to Exhibit 10(a) to Merrimac's Quarterly Report on Form 10-QSB for the period ending July 4, 1998.*
10(y)	Amendment dated August 31, 2000 to the Amended and Restated Employment Agreement dated January 1, 1998, between Merrimac and Mason N. Carter is hereby incorporated by reference to Exhibit 10(a) to Merrimac's Quarterly Report on Form 10-QSB for the period ending September 30, 2000.*
10(z)	Amended and Restated Pledge Agreement dated as of May 4, 1998, between Merrimac and Mason N. Carter is hereby incorporated by reference to Exhibit 10(c) to Merrimac's Quarterly Report on Form 10-QSB for the period ending July 4, 1998.*
10(aa)	Amended Promissory Note dated as of May 4, 1998, executed by Mason N. Carter in favor of Merrimac is hereby incorporated by reference to Exhibit 10(l) to Merrimac's Annual Report on Form 10-KSB for the year ending January 2, 1999.*
10(bb) (1)	Registration Rights Agreement dated as of May 4, 1998, between Merrimac and Mason N. Carter is hereby incorporated by reference to Exhibit 10(e) to Merrimac's Quarterly Report on Form 10-QSB for the

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period ending July 4, 1998.\*

10(bb) (2) Form of Severance Agreement entered into with certain officers of Merrimac is hereby incorporated by reference to Exhibit 10(i) to Merrimac's Annual Report on Form 10-KSB for the year ending January 3, 1998.\*

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EXHIBIT NO. -----	DESCRIPTION -----
10(cc)	Schedule of officers with substantially identical agreements to the form filed as Exhibit 10(o)(1) hereto is hereby incorporated by reference to Exhibit 10(j) to Merrimac's Annual Report on Form 10-KSB for the year ending January 3, 1998.*
10(dd)	Consulting Agreement dated as of January 1, 1998, between Merrimac and Arthur A. Oliner is hereby incorporated by reference to Exhibit 10 to Merrimac's Quarterly Report on Form 10-QSB for the period ending April 4, 1998.*
10(ee)	Separation Agreement dated as of December 31, 1998, between Merrimac and Eugene W. Niemiec is hereby incorporated by reference to Exhibit 10(p) to Merrimac's Annual Report on Form 10-KSB for the year ending January 2, 1999.*
10(ff)	Stockholder's Agreement dated as of October 30, 1998, between Merrimac and Charles F. Huber II is hereby incorporated by reference to Exhibit 10 to Merrimac's Quarterly Report on Form 10-QSB for the period ending October 3, 1998.
10(gg)	Shareholder's Agreement dated as of June 3, 1999, among Merrimac, William D. Witter, Inc. and William D. Witter is hereby incorporated by reference to Exhibit 10 to Merrimac's Quarterly Report on Form 10-QSB for the period ending July 3, 1999.
10(hh)	2001 Key Employee Incentive Plan is hereby incorporated by reference to Exhibit 4.01 to Merrimac's Form S-8 (No. 333-63434) dated June 20, 2001.
10(ii)	2001 Stock Option Plan is hereby incorporated by reference to Exhibit 4.01 to Merrimac's Form S-8 (No. 333-63436) dated June 20, 2001.
10(jj)	2001 Stock Purchase Plan is hereby incorporated by reference to Exhibit 4.01 to Merrimac's Form S-8 (No. 333-63438) dated June 20, 2001.
10(kk)	2001 Amended and Restated Stock Option Plan is hereby incorporated by reference to Exhibit 4(i) to Merrimac's Quarterly Report on Form 10-QSB for the period ending June 30, 2001.
10(ll)	Subscription Agreement, dated February 28, 2002 between



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Merrimac and DuPont Chemical and Energy Operations, Inc., a subsidiary of E.I. DuPont de Nemours and Company is hereby incorporated by reference to Exhibit 99.2 to Merrimac's Form 8-K for the period ending February 28, 2002.

10(mm)+	Third Amended and Restated Credit Agreement, dated December 23, 2002, between Merrimac and Fleet National Bank, which amends the Credit and Security Agreement, dated October 7, 1997.
10(nn)+	Revolving Loan Modification Agreement, dated April 17, 2003, between Merrimac and Fleet National Bank, which amends the Third Amended and Restated Credit Agreement, dated December 23, 2002.
10(oo)+	Term Loan and Security Agreement, dated December 23, 2002, between Merrimac and Fleet National Bank.
10(pp)+	Term Loan Modification Agreement, dated April 17, 2003, between Merrimac and Fleet National Bank, which amends the Term Loan and Security Agreement, dated December 23, 2003.
10(qq)+	Term Loan and Security Agreement, dated March 26, 2002, between Merrimac and Fleet National Bank.
10(rr)+	Term Loan Modification Agreement, dated April 17, 2003, which amends the Term Loan and Security Agreement, dated March 26, 2002.
21+	Subsidiaries of Merrimac.
23+	Consent of Independent Auditors

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EXHIBIT NO. -----	DESCRIPTION -----
99.1+	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
99.2+	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

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\* Indicates that exhibit is a management contract or compensatory plan or arrangement.

+ Indicates that exhibit is filed as an exhibit hereto.

(b) Reports on Form 8-K

Merrimac did not file any information under Form 8-K after December 28, 2002.

ITEM 14. CONTROLS AND PROCEDURES

Mason N. Carter, the Company's Chief Executive Officer, and Robert V. Condon, the Company's Chief Financial Officer, have evaluated the effectiveness of the Company's disclosure controls and procedures as of a date within 90 days of the filing of this report. Based on such evaluation, each of Mason Carter and Robert Condon concluded that the Company's disclosure controls and procedures were effective to ensure that the information required to be disclosed by the Company in the reports that it files or submits under the Securities Exchange Act of 1934 is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the SEC. In designing and evaluating the disclosure controls and procedures, the Company's management recognized that any controls and procedures, even when well designed, can provide only reasonable assurances of achieving the desired objectives and management was required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

No significant changes were made in the Company's internal controls or in other factors that could significantly affect these controls subsequent to the date of the evaluation by Mr. Carter and Mr. Condon.

SIGNATURES

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

MERRIMAC INDUSTRIES, INC.  
(Registrant)

Date: April 21, 2003

By: /s/ Mason N. Carter  
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Mason N. Carter  
Chairman, President and  
Chief Executive Officer

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

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Signature	Date	Title
/s/ Mason N. Carter ----- (Mason N. Carter)	April 21, 2003	Chairman, President and Chief Executive Officer (Principal executive officer and Director)
/s/ Robert C. Cargo ----- (Robert C. Cargo)	April 14, 2003	Director
/s/ Albert H. Cohen ----- (Albert H. Cohen)	April 14, 2003	Director
/s/ Edward H. Cohen ----- (Edward H. Cohen)	April 14, 2003	Director

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/s/ Joseph B. Fuller ----- (Joseph B. Fuller)	March 27, 2003	Director
/s/ Joel H. Goldberg ----- (Joel H. Goldberg)	March 27, 2003	Director
/s/ David B. Miller ----- (David B. Miller)	March 27, 2003	Director
/s/ Arthur A. Oliner ----- (Arthur A. Oliner)	March 27, 2003	Director
/s/ Harold J. Raveche ----- (Harold J. Raveche)	March 27, 2003	Director
/s/ Robert V. Condon ----- (Robert V. Condon)	April 21, 2003	Vice President, Finance, Treasurer, Secretary and Chief Financial Officer (principal financial and accounting officer)

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### CERTIFICATIONS

I, Mason N. Carter, certify that:

1. I have reviewed this annual report on Form 10-KSB of Merrimac Industries, Inc.;

2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;

3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;

4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and we have:

a) designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;

b) evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the "Evaluation Date"); and

c) presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;

5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent function):

a) all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and

b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and

6. The registrant's other certifying officers and I have indicated in this annual report whether or not there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

Date: April 21, 2003

/s/ Mason N. Carter

-----  
Chairman, President  
and Chief Executive Officer

CERTIFICATIONS

-----  
I, Robert V. Condon, certify that:

1. I have reviewed this annual report on Form 10-KSB of Merrimac Industries, Inc.;

2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;

3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;

4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and have:

a) designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;

b) evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the "Evaluation Date"); and

c) presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;

5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):

a) all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and

b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and

6. The registrant's other certifying officers and I have indicated in this annual report whether there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with

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regard to significant deficiencies and material weaknesses.

Date: April 21, 2003

/s/ Robert V. Condon

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Vice President, Finance  
and Chief Financial Officer