MERRIMAC INDUSTRIES INC
Form 10-K
March 31, 2006

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, DC 20549

FORM 10-K

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

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2005

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from to

Commission file number 0-11201

MERRIMAC INDUSTRIES, INC.

(Exact Name of Registrant 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)	(Zip Code)

(973) 575-1300

(Registrant's telephone number, including area code)

WEBSITE: www.merrimacind.com

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

Title of Each Class	Name of Exchange on Which Registered

Common Stock	The American Stock Exchange
Common Stock Purchase Rights	The American Stock Exchange

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

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.
Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.
Yes No

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of "accelerated filer and large accelerated filer" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer Accelerated filer Non-accelerated filer

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

As of March 24, 2006, 3,150,796 shares of common stock of the registrant were outstanding. The aggregate market value of common stock held by non-affiliates of the registrant as of July 2, 2005 was approximately $19,539,596.

DOCUMENTS INCORPORATED BY REFERENCE

The registrant’s Proxy Statement for its 2006 Annual Meeting of stockholders is hereby incorporated by reference into Part III of this Form 10-K.

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FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K contains statements relating to future results of 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: risks associated with demand for and market acceptance of existing and newly developed products as to which the Company has made significant investments, particularly its Multi-Mix® products; the possibilities of impairment charges to the carrying value of our Multi-Mix® assets, thereby resulting in charges to our earnings; slower than anticipated penetration into the satellite communications, defense and wireless markets; failure of our Original Equipment Manufacturer, or OEM, customers to successfully incorporate our products into their systems; changes in product mix resulting in unexpected engineering and research and development costs; delays and increased costs in product development, engineering and production; reliance on a small number of significant customers; the emergence of new or stronger competitors as a result of consolidation movements in the market; the timing and market acceptance of our or our OEM customers' new or enhanced products; general economic and industry conditions; the risk that the benefits expected from the Company's acquisition of Filtran Microcircuits Inc. are not realized; the ability to protect proprietary information and technology; competitive products and pricing pressures; our ability and the ability of our OEM customers to keep pace with the rapid technological changes and short product life cycles in our industry and gain market acceptance for new products and technologies; foreign currency fluctuations between the U.S. and Canadian dollars; risks relating to governmental regulatory actions in communications and defense programs; and inventory risks due to technological innovation and product obsolescence, as well as other risks and uncertainties as are detailed from time to time in the Company's Securities and Exchange Commission filings. These forward-looking statements are made only as of the

date of the filing of this Form 10-K, and the Company 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. BUSINESS

GENERAL

Merrimac is a leader in the design and manufacture of passive RF (Radio Frequency) and microwave components for industry, government and science. Merrimac components are today found in applications as diverse as satellites, military and commercial aircraft, radar, cellular radio systems, medical and dental diagnostic instruments, personal communications systems (‘‘PCS’’) and wireless internet connectivity.

Merrimac is 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.

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 AND SUBSYSTEMS PRODUCTS

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 zero to sixty-five GHz. Merrimac's products are designed to process signals having wide bandwidths and are of relatively small size and light weight. 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 $0.50 to more than $10,000 and its subsystems range from $500 to more than $1,000,000.

Merrimac has traditionally developed and offered for sale products built to specific customer needs, as well as standard catalog items. The following table provides a breakdown of electronic components sales as derived from initial orders for products custom designed for specific customer applications, repeat orders for such products and from catalog sales:

	2005	2004	2003
Initial designs	27%	27%	35%
Repeat designs	57%	58%	48%
Catalog sales	16%	15%	17%

Merrimac maintains a current product 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 components and subsystems from Merrimac. 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 provide data electronically. 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. Merrimac is continuing to invest in manufacturing capital equipment in all three of our facilities to provide greater capacity and flexibility and reduce operating costs.

In 1998, Merrimac introduced Multi-Mix® Microtechnology capabilities, an innovative process for microwave, multilayer integrated circuits and micro-multifunction module (MMFM®) 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® 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 2001, Merrimac introduced its Multi-Mix PICO® Microtechnology. Through Multi-Mix PICO® 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 Local Area Network modules. When compared to conventional multilayer quadrature hybrids and directional coupler products, Multi-Mix PICO® is more than 84% smaller in size, without the loss of power or performance. Merrimac continues to add new designs to its Multi-Mix PICO® product line.

In 2001, Merrimac received and started to ship its first 3G production order for a Multi-Mix PICO® 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 2004, Merrimac introduced its Multi-Mix Zapper® product line. The Multi-Mix Zapper® addresses the demands of the wireless market for high quality products manufactured in volume with continued improvement in performance,

power and cost.

In addition to wireless basestation communications, Multi-Mix PICO® products have been or are currently under evaluation for applications in airborne electronic countermeasures, radar systems, smart antennas, satellite communications receiver modules, missiles, commercial Wi-Fi (Wireless Fidelity), WLANs (Wireless Local Area Networks), WiMAX (World Interoperability for Microwave Access), the U.S. Department of Defense's next generation fighter jet JSF (Joint Strike Fighter), FCS (Future Combat Systems) and JTRS (Joint Tactical Radio System).

Merrimac customers prefer our value-added Multi-Mix PICO® approach over traditional solutions because it enables them to minimize considerable costs of design, test and measurement, packaging, and manufacturing, as well as the unpredictable follow-on costs typically associated with factory tuning and optimization. Multi-Mix PICO® enables customers to gain access to integrated solutions that simplify their internal design and manufacturing processes while reducing the time and costs it takes to implement manufacturable and repeatable products.

Multi-Mix PICO® also enables customers to outsource certain ancillary functions, which in turn allows them to maintain focus on their own core business competencies.

In the area of broadband communications, Merrimac continues to work on high frequency solutions that will bring multimedia internet access to homes and offices through broadband systems.

Merrimac's major electronic components and subsystems product categories are:

- power dividers/combiners that equally divide input signals or combine coherent signals for nearly lossless power combinations;

- 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);
- directional couplers that allow for signal sampling along transmission lines;
- phase shifters that accurately and repeatedly alter a signal's phase transmission to achieve desired signal processing or demodulation;
- 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;
- balanced mixers that convert input frequencies to another frequency; variable attenuators that serve to control or reduce power flow without distortion;
- Beamformers that permit an antenna to electronically track or transmit a signal; and
- 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.

These components can be utilized in a variety of applications including satellite communications, radar, digital communication systems, global positioning and navigation systems, electronic warfare, electronic countermeasures and cellular and wireless communications.

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®) assemblies. In the last fiscal year, no one product accounted for more than ten percent of total net sales.

In 2005, Merrimac focused its design and manufacturing efforts on Multi-Mix® multilayer subsystem products for sale to several satcom and military customers during 2005 and 2006.

In addition, in 2005 Merrimac started the design of a high power amplifier for use in basestation infrastructure, military and satcom applications based upon a U.S. Notice of Allowance for a Patent that is expected to be issued shortly. An important part of basestation infrastructure equipment is the high power transmit amplifier, which must provide extremely linear performance in order to boost signals carrying voice, data and video services without distortion.

Approximately 54% of Merrimac's sales in fiscal 2005 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 countermeasures, 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® (PTFE) microcircuits for RF applications including satellite, aerospace, PCS, fiber optic telecommunications, automotive, navigational and defense applications worldwide. FMI participates in the market for millimeter-wave applications. 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 and performance.

FMI has successfully pioneered sputtering techniques for PTH applications on thick-metal backed PTFE circuitry that offer superior reliability, performance and mechanical strength which allows for fabricated integrated three-dimensional shapes ideally suited for aerospace applications.

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:

- 1 mil lines and spaces with +/− .2 mil tolerance;
- embedded resistors;
- proprietary sputtering techniques for blind holes in thick metal-backed PTFE;
- proprietary copper Thin Film metallization on ceramic;
- high purity, wire-bondable gold;
- plated through hole aspect ratios up to 10:1;
- multilayer bonding;
- conductive bonding; and
- conductive and non-conductive filled via holes.

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

FMI maintains an ISO 9001:2000 registered quality assurance program. This quality assurance program along with stringent statistical process control and gate inspections assure that when customers request specified standards based on certain needs, such needs are met. FMI typically works to the standard of IPC 6018 unless otherwise indicated by the customer. FMI can also work in full compliance to MIL-PRF-31032 (preceded by MIL-P-55110) or can adopt the requirements of IPC-HF-318, depending on customer needs.

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

STRATEGIC OVERVIEW

Merrimac seeks to leverage its core competencies in the development of High Power, High Frequency and High Performance products across its three main platforms for growth:

- RF Microwave electronic components and subsystems;

- Microwave micro-circuitry; and
- Multi-Mix®.

Our strategy focuses on:

- Providing unique and cutting-edge customized technology solutions;
- Expanding existing customer relationships and attracting new customers with our smaller, more complex, more reliable, lower cost product offerings;
- Meeting the advanced needs of our defense, satellite and OEM wireless industry customers with innovative specialty applications and products; and

- Improving and integrating our internal development, engineering and production capacities to reduce costs and improve service.

To do this, we coordinate our marketing, research and development, and manufacturing operations to develop new products and expand our markets.

Merrimac's marketing and development activities focus on identifying new design opportunities for new long-term military and commercial production 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 Company intends to continue to focus on customer service, technology innovation and process excellence to further expand its penetration into the defense, satellite communications and wireless markets. Essential components of the Company's strategy include the following.

Products.

Our three platforms for growth: RF Microwave, Multi-Mix® and Microwave micro-circuitry focus on providing unique solutions and delivering profitable value to our key customers. High Power, High Frequency and High Performance are embedded competencies that drive customer value and enable Merrimac to consistently meet and exceed the demanding needs and expectations of our customers.

High Power: Our thermal management design and processes enable Merrimac products to achieve power levels greater than 500 watts. Our process enables the use of low loss dielectrics and metals, so that power dissipation is minimized (i.e. less heat is generated). In addition, thick metal layers and thermal vias are utilized to draw out, spread, and sink away heat generated in the circuits and modules. Further, since thick metal layers are directly bonded to dielectric layers using a high temperature process, the resulting module is robust, and able to withstand subsequent environmental processing temperatures without being adversely affected.

High Frequency: Our products operate efficiently across high frequency bands up to 100 GHz, an ever-growing marketplace requirement. The efficient performance of circuits and modules at millimeter wave frequencies is enabled by our ability to miniaturize the printed circuit elements and integrate them with semiconductor microcircuits (MMICs). Our process allows the fabrication of a homogeneous circuit medium with accurate circuit feature producibility.

High Performance: Our focus on technology innovation and process excellence delivers solutions that perform without failure in all mission-critical environments and under extremely demanding conditions.

Pursue Technological Excellence.

The Company intends to use its technological expertise and leadership in the defense, satellite and wireless markets to extend its competitive advantage. The Company intends to continue to invest in research and development and will focus its efforts on new product development for specific

customer applications requiring integration of circuitry and further miniaturization, precision and volume applications. The Company will seek to advance its leadership in wireless technology by developing next generation products for the mobile and wireless networking markets. In addition, the Company will attempt to build upon its relationships with key original equipment manufacturers in order to develop state-of-the-art products.

Merrimac's research and development activities include the development of new designs for insertion into new programs and applications 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 manufacturing (CAD/CAM) in order to reduce design and manufacturing costs as well as development time.

Strengthen Customer Relationships and Attract New Customers.

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 BAE Systems, The Boeing Company, Celestica, Inc., EADS Astrium, General Dynamics Corporation, ITT, Lockheed Martin Corporation, Loral Space & Communications Ltd., Northrop Grumman Corporation, and Raytheon Company.

Merrimac’s customers want smaller, lighter, more cost effective and highly integrated components, systems and subsystems for future applications. 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 satellite applications, thereby attracting new customers and increasing the reliance of current customers on the Company.

For most customers, Merrimac must be a ‘‘qualified’’ supplier, continually demonstrating our ability to meet their demanding design and manufacturing standards. For defense contractors, we are a mission-critical supplier. For Aerospace companies, our products meet the high reliability standards of space. In wireless communications, our Multi-Mix products are being ‘‘qualified’’ and are supplying solutions to an ever-increasing number of major OEMs.

The qualification process brings with it subtle, yet very important differences. In defense and satellite communications, we must have the technology and process excellence to support custom applications in design, manufacturing and testing. In wireless communications, we must have the technology and process excellence to support large volume production requirements.

Focus on efficiency and value.

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 provide data electronically. 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. Merrimac is continuing to invest in manufacturing capital equipment in all three of our facilities to provide greater capacity and flexibility and reduce operating costs.

Defense and Satellite Communications.

In the defense and satellite communications markets, Merrimac’s components are found in a diverse array of applications ranging from national missile defense systems to fighter jets, electronic warfare, shipboard radar communications and other mission-critical applications. Almost all satellites in orbit today carry aboard some Merrimac technology.

For our prime contractor customers in defense and satellite communications, we deliver highly customized solutions that are designed for specific applications under very specific design criteria and

rigid requirements. Today defense and satellite communications customers seek components and subsystems that meet higher integration and performance standards in smaller, lighter and less costly to produce integrated modules. These products must have exceptional shielding properties and must be able to function without failure in environments with wide temperature changes and high levels of shock and vibration.

The cost rates utilized for cost-reimbursement contracts are subject to review by third parties and can be revised, which can result in additions to or reductions from revenue. Revisions which result in reductions to revenue are recognized in the period that the rates are reviewed and finalized; additions to revenue are recognized in the period that the rates are reviewed, finalized, accepted by the customer, and collectability from the customer is assured. The Company submits financial information regarding the cost rates on cost-reimbursement contracts for each fiscal year in which the Company performed work on cost-reimbursement contracts. The Company does not record any estimates on a regular basis for potential revenue adjustments, as there currently is no reasonable basis on which to estimate such adjustments given the Company's very limited experience with these contracts.

Wireless.

For original equipment manufacturing customers in the wireless communications market, we provide Total Integrated Packaging Solutions® to customers who prefer our value-added Multi-Mix® solutions to conventional approaches because it enables them to:

- Minimize considerable costs of design, test and measurement, packaging, and manufacturing, as well as the unpredictable follow-on costs typically associated with factory tuning and optimization;
- Utilize modules that integrate functionality. We dramatically reduce size, weight, cost, component count and optimize thermal management by providing leading-edge multifunction modules;
- Reduce the time and costs it takes to implement manufacturable and repeatable products; and
- Outsource functions that are not considered their own core competencies, which in turn allow them to maintain focus on their core business competencies.

Pursue New and Existing Markets.

The Company intends to use its core competencies and market position to pursue other wireless opportunities using the component and integration capabilities of our Multi-Mix® technology. The Company plans to offer both custom components and higher orders of integrated assemblies for existing and developing space and defense requirements through the RF Microwave, Microwave micro-circuitry and Multi-Mix® technologies.

Expand Business through Strategic Acquisitions.

The Company intends to pursue opportunistic acquisitions of companies, product lines and technologies that complement its business. The Company will focus on acquisitions that leverage its technical expertise and business development resources and provide a competitive advantage for its targeted markets.

MARKETING

Merrimac markets its products in the United States and Canada directly to customers through a sales and marketing staff comprised of 13 employees, including four employees located at FMI in Ottawa, Canada, and through 13 independent domestic sales organizations. Merrimac relies on 20 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:

BAE System
The Boeing Company
Celestica, Inc.
EADS Astrium.
General Dynamics Corporation
ITT
Lockheed Martin Corporation
Loral Space & Communications Ltd.
Northrop Grumman Corporation
Raytheon Company

The following table presents our key customers and the percentage of net sales made to such customers:

	2005	2004	2003
Israel Aircraft Industries Ltd.	11.2%	6.2%	1.1%
Lockheed Martin Corporation	10.9%	6.6%	7.8%
Raytheon Company	10.5%	13.9%	12.3%
Northrop Grumman Corporation	8.8%	11.9%	12.4%
The Boeing Company	5.9%	7.8%	16.1%

Sales to the foreign geographic area of Europe were 14.8%, 8.9% and 10.3% of net sales in fiscal years 2005, 2004 and 2003, respectively.

FMI's key customers include:

Endwave Corporation
Herley Industries
Israel Aircraft Industries Ltd.
L3 Communications Narda Microwave East
M/A-Com, Inc.
Raytheon Canada Ltd.
Trak Microwave Corporation

Both Merrimac (www.merrimacind.com or www.multi-mix.com) and FMI (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.

RESEARCH AND DEVELOPMENT

During 2005, 2004 and 2003, research and development expenditures amounted to $1,932,000, $1,723,000 and $1,737,000, respectively. With the exception of $154,000 of expenses at FMI, substantially all of the research and development funds in fiscal 2005 were expended for new Multi-Mix® Microtechnology products. Merrimac plans to commit research and development funds at similar levels in fiscal 2006, 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 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 31, 2005, Merrimac had a firm backlog of orders of approximately $13.1 million. Merrimac estimates that over 90% of the orders in its backlog as of December 31, 2005 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, in addition to well-recognized brand names. Merrimac competes on the 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 monitor production controls and enhance product reliability.

Merrimac began manufacturing in Costa Rica in the second half of 1996. In February 2001, the Company entered into a five-year lease in Costa Rica for a 36,200 square-foot facility for manufacturing Multi-Mix® Microtechnology products. The lease was renewed for an additional five years in 2006. The leasehold improvements and capital equipment for this manufacturing facility were completed at a cost of approximately $5,600,000 and this facility was opened for production in August 2002.

FMI's manufacturing facility consists of CAD/CAM, chemical and mechanical processes, quality systems and research and development 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 Corporation and Taconic Advanced Dielectric Division. 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 has developed and implemented a quality system to better satisfy the needs of its customers and provide adequate assurance that its products will meet or exceed specified requirements. Merrimac continues to establish and refine procedures and supporting documentation to enable the fast transition from prototype engineering to operational

manufacturing of products.

In April 2001, FM Approvals (formerly Factory Mutual) granted ISO 9001:2000 Certification to the Company's FMI manufacturing facility in Ottawa, Ontario, Canada. In October 2002, the Multi-Mix® operations in West Caldwell, New Jersey achieved certification to ISO 9001:2000. In December 2002, the Multi-Mix® facility in Costa Rica achieved certification to ISO 9001:2000. In August 2003, Merrimac's quality system was revised to incorporate the Costa Rica facility with the West Caldwell facility. During 2003, FM Approvals performed required audits and issued certificates of Registration to ISO 9001:2000 covering both facilities. In June of 2004, the West Caldwell facility was surveyed for compliance to the Aerospace standard AS9100. In December 2004, RW TUV issued a certificate of registration to the West Caldwell facility for ISO 2001:2000 and AS9100. FM Approvals in Costa Rica and Ottawa, Canada and RW TUV in West Caldwell have maintained these registrations via periodic audits through March of 2006. In September 2006, it is planned to have the Costa Rica facility surveyed for compliance to AS9100.

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 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 31, 2005, Merrimac employed approximately 240 full time employees, including 75 employees at FMI and 55 employees at Merrimac's Costa Rica facility. None of Merrimac's employees are represented by a labor organization. Management believes that relations with its employees are satisfactory.

PATENTS

As of March 24, 2006, Merrimac owns 16 patents with respect to certain inventions it developed and has received a Notice of Allowance from the U.S. Patent and Trademark Office for a new patent that is expected to be issued shortly. 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 1A. RISK FACTORS

You should carefully consider the matters described below before making an investment decision. The risks and uncertainties described below are not the only ones facing our company. Our business operations may be impaired by additional risks and uncertainties of which we are unaware or that we currently consider immaterial.

Our business, results of operations or cash flows may be adversely affected if any of the following risks actually occur. In such case, the trading price of our common stock could decline, and you may lose part or all of your investment.

The market for our products, in particular our Multi-Mix® products, is new and rapidly evolving. If we are not able to develop or enhance our products, or to respond to customer needs, our net sales will suffer.

Our future success depends in large part on our ability to develop and market our new line of Multi-Mix® modules, filters, couplers and delay lines products, particularly to the wireless basestation and defense sectors. We will also need to continually enhance our existing core products (passive RF and microwave component assemblies, power dividers and other micro circuitry products), lower product cost and develop new products that maintain technological competitiveness. Our core products must meet changing customer, regulatory and particular technological requirements and standards, and our Multi-Mix® products especially must respond to the changing needs of our customers, particularly our OEM customers. These customer requirements might or might not be compatible with our current or future product offerings. We might not be successful in modifying our products and services to address these requirements and standards and our business could suffer.

Multi-Mix® Microtechnology and Multi-Mix PICO® Products.

We have made capital investments of approximately $14.2 million in our proprietary line of Multi-Mix® Microtechnology products.

While we have generated revenues and developed a customer base for our Multi-Mix® products, if a competitive product or decreased consumer demand for our Multi-Mix® products resulted in significant decrease in those revenues, our ability to recover our investment in our Multi-Mix® Microtechnology product assets could be negatively impacted and result in a write off of the carrying value of these assets and an impairment charge to our earnings.

In addition, we have invested significant engineering, research and development, personnel and other resources in developing our Multi-Mix Zapper® product line, introduced in June 2004. While revenues to date have not been material, we intend to incur significant additional expenses, including sales and marketing costs, in implementing our strategic plan to commercialize various applications of our Multi-Mix® technologies. These products are direct drop-in replacements for competing technologies used in virtually all wireless basestations. There are competing technologies already in the marketplace, and in order to obtain market share we will have to convince customers to convert to our products from those that are already in use.

We may seek to enter into joint ventures, research and development, distribution and other arrangements with third party OEM's, defense contractors, universities and research institutions and others in order to successfully market our Multi-Mix® products. In fact, we may find it necessary to enter into such arrangements if our own resources are inadequate to develop recurring revenues and a sustained commercial market for these products. There can be no assurance we will be able to enter into such arrangements, or do so on commercially attractive terms, if necessary.

Our business plan anticipates significant future revenues from our Multi-Mix® products. Due to economic and market conditions in the wireless industry over the past several years, telecommunications system service providers substantially reduced their capital equipment purchases from our customers. While these circumstances have resulted in the delay or cancellation of Multi-Mix® Microtechnology product purchases that had been anticipated from certain specific customers or programs, in connection with the improved conditions in the industry, the Company has implemented a strategic plan utilizing product knowledge and customer focus to expand specific sales opportunities. Continued extended delay or reduction from planned levels in new orders expected from customers for these products could require the Company to pursue alternatives related to the utilization or realization of these assets and commitments. If we are unable to generate significant future revenues from these Multi-Mix® products or identify alternative uses, sufficient to recover our investment, we could have to write down the carrying value of these assets, thereby incurring an impairment charge to earnings, which would significantly harm our operations and financial condition.

Our products are intended for use in various sectors of the satellite, defense and telecommunications industries, which produces technologically advanced products with short life cycles.

Factors affecting the satellite, defense and telecommunications industries, in particular the short life cycle of certain products, could seriously harm our customers and reduce the volume of products they purchase from us. These factors include:

- the inability of our customers to adapt to rapidly changing technology and evolving industry standards that result in short product life cycles;
- the inability of our customers to develop and market their products, some of which are new and untested; and
- the potential that our customers' products may become obsolete or the failure of our customers' products to gain widespread commercial acceptance.

The expenses relating to our products might increase, which could reduce our gross margins.

In the past, developing engineering solutions, meeting research and development challenges and overcoming production and manufacturing issues have resulted in additional expenses. These expenses create pressure on our average selling prices and may result in decreased margins of our products. We expect that this will continue. In the future, competition could increase, and we anticipate this may result in additional pressure on our pricing. We also may not be able to increase the price of our products in the event that the cost of components or overhead increase. Changes in exchange rates between the United States and Canadian dollars, and other currencies, might result in further disparity between our costs and selling price and hurt our ability to maintain gross margins.

We carry inventory and there is a risk we may be unable to dispose of certain items.

We procure inventory based on specific customer orders and forecasts. Customers have certain rights of modification with respect to these orders and forecasts. As a result, customer modifications to orders and forecasts affecting inventory previously procured by us and our purchases of inventory beyond customer needs may result in excess and obsolete inventory for the related customers. Although we may be able to use some of these excess components and raw materials in other products we manufacture, a portion of the cost of this excess inventory may not be recoverable from customers, nor may any excess quantities be returned to the vendors. We also may not be able to recover the cost of obsolete inventory from vendors or customers.

Write offs or write downs of inventory generally arise from:

- declines in the market value of inventory;
- changes in customer demand for inventory, such as cancellation of orders; and
- our purchases of inventory beyond customer needs that result in excess quantities on hand and that we are not able to return to the vendor or charge back to the customer.

Our products and therefore our inventories are subject to technological risk. At any time either new products may enter the market or prices of competitive products may be introduced with more attractive features or at lower prices than ours. There is a risk we may be unable to sell our inventory in a timely manner and avoid it becoming obsolete. As of December 31, 2005, our inventories including raw materials, work-in-process and finished goods, were valued at $3.7 million reflecting reductions due to valuation allowances for obsolescence of approximately $1.1 million against these inventories. In the event we are required to substantially discount our inventory or are unable to sell our inventory in a timely manner, we would be required to increase our valuation allowances and our operating results could be substantially adversely affected.

We generally do not obtain long-term volume purchase commitments from customers, and, therefore, cancellations, reductions in production quantities and delays in production by our customers could adversely affect our operating results.

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We generally do not obtain firm, long-term purchase commitments from our customers. Customers may cancel their orders, choose not to exercise options for further product purchases, reduce production quantities or delay production for a number of reasons. In the event our customers experience significant decreases in demand for their products and services, our customers may cancel orders, delay the delivery of some of the products that we manufactured or place purchase orders for fewer products than we previously anticipated. Even when our customers are contractually obligated to purchase products from us, we may be unable or, for other business reasons, choose not to enforce our contractual rights. Cancellations, reductions or delays of orders by customers would:

- adversely affect our operating results by reducing the volumes of products that we manufacture for our customers;
- delay or eliminate recoupment of our expenditures for inventory purchased in preparation for customer orders; and
- lower our asset utilization, which would result in lower gross margins.

Products we manufacture may contain design or manufacturing defects that could result in reduced demand for our services and liability claims against us.

We manufacture products to our customers' specifications that are highly complex and may at times contain design or manufacturing defects. Defects have been discovered in products we manufactured in the past and despite our quality control and quality assurance efforts, defects may occur in the future. Defects in the products we manufacture, whether caused by design, manufacturing or component defects, may result in delayed shipments to customers or reduced or cancelled customer orders. Should these defects occur in large quantities or frequently, our business reputation may also be tarnished. In addition, these defects may result in liability claims against us. Even if customers are responsible for the defects, we may assume responsibility for any costs or payments.

We are subject to risks of currency fluctuations.

A portion of our business is conducted in currencies other than the U.S. dollar. Changes in exchange rates among other currencies and the U.S. dollar will affect our cost of sales, operating margins and revenues. Our Canadian operations were adversely impacted in fiscal 2005 and 2004 as a result of changes in the Canadian and U.S. Dollar exchange rates. We cannot predict the impact of future exchange rate fluctuations. In addition, certain of our subsidiaries that have non-U.S. dollar functional currencies transact business in U.S. dollars.

We rely on a small number of customers for a substantial portion of our net sales, and declines in sales to these customers could adversely affect our operating results.

Sales to our five largest customers accounted for 47.3% of our net sales in the fiscal year ended December 31, 2005 and our three largest customers, Israel Aircraft Industries Ltd., Lockheed Martin Corporation and Raytheon Company, accounted for 11.2%, 10.9% and 10.5%, respectively, of our 2005 sales. For 2004, Raytheon Company and Northrop Grumman Corporation, accounted for 13.9%, and 11.9%, respectively, of our net sales for that period. We depend on the continued growth, viability and financial stability of our customers, substantially all of which operate in an

environment characterized by rapid technological change, short product life cycle, consolidation, and pricing and margin pressures. We expect to continue to depend upon a relatively small number of customers for a significant percentage of our revenue. Consolidation among our customers may further concentrate our business in a limited number of customers and expose us to increased risks relating to dependence on a small number of customers. In addition, a significant reduction in sales to any of our large customers or significant pricing and margin pressures exerted by a key customer would adversely affect our operating results. In the past, some of our large customers have significantly reduced or delayed the volume of products ordered from us as a result of changes in their business, consolidation or divestitures or for other reasons. We cannot be certain that present or future large customers will not terminate their arrangements with us or significantly change, reduce or delay the amount of products ordered from us, any of which would adversely affect our operating results.

A substantial portion of our revenues are related to the defense and military communications sectors. However, in times of armed conflict or war, military spending is concentrated on armaments build up, maintenance and troop support, and not on the research and development and specialty applications that are the Company's core strengths and revenue generators. Accordingly, our defense and military product revenues may decrease, and should not be expected to increase, at times of armed conflicts or war.

Variations in our quarterly operating results could occur due to factors including changes in demand for our products, the timing of shipments and changes in our mix of net revenues.

Our quarterly net revenues, expenses and operating results have varied in the past and might vary significantly from quarter to quarter in the future. Quarter-to-quarter comparisons of our operating results are not a good indication of our future performance, and should not be relied on to predict our future performance. Our short-term expense levels and manufacturing and production facilities infrastructure overhead are relatively fixed and are based on our expectations of future net revenues. If we were to experience a reduction in net revenues in a quarter, we could have difficulty adjusting our short-term expenditures and absorbing our excess capacity expenses. If this were to occur, our operating results for that quarter would be negatively impacted. Other factors that might cause our operating results to fluctuate on a quarterly basis include.

- customer decisions to defer, accelerate or cancel orders;
- timing of shipments of orders for our products;
- changes in the mix of net revenues attributable to higher-margin and lower-margin products;
- changes in product mix which could cause unexpected engineering or research and development costs;
- announcements or introductions of new products by our competitors;
- engineering or production delays due to product defects or quality problems and production yield issues; and
- dynamic defense budgets which could cause military program delays or cancellations.

Recent changes in accounting for equity-related compensation could impact our financial statements.

On December 16, 2004, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 123 (Revised 2004), ''Share-Based Payment'' (''SFAS 123R''). SFAS 123R is a revision of Financial Accounting Standards No. 123, as amended, ''Accounting for Stock-Based Compensation'' (''SFAS 123'') and supercedes Accounting Principles Board Opinion No. 25, ''Accounting for Stock Issued to Employees''. SFAS 123R eliminates the

alternative to use the intrinsic value method of accounting that was provided in SFAS 123, which generally resulted in no compensation expense being recorded in the financial statements related to the issuance of equity awards to employees. SFAS 123R requires the Company to measure all employee stock-based compensation awards using a fair value method and to record such expense in the consolidated financial statements, as opposed to the pro forma note presentation previously used. The Company adopted SFAS 123R at the beginning of its first quarter in fiscal 2006, and will apply the provisions of the statement prospectively for any newly issued, modified or settled award after the date of initial adoption, as well as for any awards that were granted prior to the adoption date for which the requisite service period has not been provided as of the adoption date. We intend to continue to use the Black-Scholes option pricing model to calculate total stock compensation expense. The Company expects the adoption of this statement will have a non-cash material effect on its financial statements, but the Company cannot reasonably estimate the impact of the adoption with respect to future grants because certain assumptions used in the calculation of the value of share-based payments may change. As of December 31, 2005 the total future compensation cost related to vested and non-vested stock options and the employee stock purchase plan not yet recognized in the statement of operations was $185,000. Of that total, $119,000, $57,000 and $9,000 are expected to be recognized in 2006, 2007 and 2008, respectively.

Competition.

The microwave component and subsystems industry continues to be highly competitive. The Company competes against many companies, both foreign and domestic, many of which are larger and have greater financial and other resources. Direct competitors for Merrimac in the commercial market are Anaren, Sirenza, Vari-L, Radiall and Sochen. Major competitors for Merrimac in the military market are Anaren, M/A Com, L-3 Communications (Narda), Sage, TRM and KW Microwave. Major competitors for Filtran in the microwave micro-circuitry market are Labtech, MPC and Precision Instruments. As a direct supplier to OEMs, the Company also faces significant competition from the in-house capabilities of its customers. However, the current trend in the wireless marketplace has been for the OEMs to outsource more design and production work, thereby freeing up their internal resources for other use. Thus, the Company believes that internal customer competition exists predominantly in its defense and satellite businesses.

In the wireless market, increased price pressure from the Company’s customers is a continuing challenge. It is anticipated that this pricing pressure will continue indefinitely.

The principal competitive factors are technical performance, reliability, ability to produce in volume, on-time delivery and price. Based on these factors, the Company believes that it competes favorably in its markets. The Company believes that it is particularly strong in the areas of technical performance and on-time delivery in the wireless marketplace. The Company believes that it competes favorably on price as well.

The RF Microwave components industry is highly competitive and has become more so as defense spending has changed program spending profiles. Furthermore, current Department of Defense efforts are shifting funds to support troops engaged in existing hostilities around the world. We compete against numerous U.S. and foreign providers with global operations, as well as those who operate on a local or regional basis. In addition, current and prospective customers continually evaluate the merits of manufacturing products internally. Changes in the industries and sectors we service could significantly harm our ability to compete, and consolidation trends could result in larger competitors that may have significantly greater resources with which to compete against us.

We may be operating at a cost disadvantage compared to manufacturers who have greater direct buying power from component suppliers, distributors and raw material suppliers or who have lower cost structures. Our manufacturing processes are generally not subject to significant proprietary protection, and companies with greater resources or a greater market presence may enter our market or increase their competition with us. Increased competition could result in price reductions, reduced sales and margins or loss of market share.

Intellectual property.

Substantial litigation regarding intellectual property rights exists in our industry. We do not believe our intellectual properties infringe those of others, and are not aware that any third party is infringing our intellectual property rights. A risk always exists that third parties, including current and potential competitors, could claim that our products, or our customers' products, infringe on their intellectual property rights or that we have misappropriated their intellectual property. We may discover that a third party is infringing upon our intellectual property rights, or has been issued an infringing patent.

Infringement suits are time consuming, complex, and expensive to litigate. Such litigation could cause a delay in the introduction of new products, require us to develop non-infringing technology, require us to enter into royalty or license agreements, if available, or require us to pay substantial damages. We have agreed to indemnify certain customers for infringement of third-party intellectual property rights. We could incur substantial expenses and costs in case of a successful indemnification claim. A significant negative impact would result if a successful claim of infringement were made against us and we could not develop non-infringing technology or license the infringed or similar technology on a timely and cost-effective basis.

The Company's success depends to a significant degree upon the preservation and protection of its product and manufacturing process designs and other proprietary technology. To protect its

proprietary technology, the Company generally limits access to its technology, treats portions of such technology as trade secrets, and obtains confidentiality or non-disclosure agreements from persons with access to the technology. The Company's agreements with its employees prohibits employees from disclosing any confidential information, technology developments and business practices, and from disclosing any confidential information entrusted to the Company by other parties. Consultants engaged by the Company who have access to confidential information generally sign an agreement requiring them to keep confidential and not disclose any non-public confidential information.

The Company currently has 16 active patents and has received a Notice of Allowance from the U.S. Patent and Trademark Office for a new patent that is expected to be issued shortly. The Company plans to pursue intellectual property protection in foreign countries, primarily in the form of international patents, in instances where the technology covered is considered important enough to justify the added expense. By agreement, Company employees who initiate or contribute to a patentable design or process are obligated to assign their interest in any potential patent to the Company.

Our executive officers, engineers, research and development and technical personnel are critical to our business, and without them we might not be able to execute our business strategy.

Our financial performance depends substantially on the performance of our executive officers and key employees. We are dependent in particular on Mason N. Carter, who serves as our Chief Executive Officer, Reynold Green, our Chief Operating Officer, Robert Condon, who serves as our Chief Financial Officer and James Logothetis, our Chief Technology Officer. We are also dependent upon our other highly skilled engineering, research and development and technical personnel, due to the specialized technical nature of our business. If we lose the services of any of our key personnel and are not able to find replacements in a timely manner, our business could be disrupted, other key personnel might decide to leave, and we might incur increased operating expenses associated with finding and compensating replacements.

Government regulation.

The Company’s products are incorporated into telecom and wireless communications systems that are subject to regulation domestically by various government agencies, including the Federal Communications Commission and internationally by other government agencies. In addition, because of its participation in the satellite and defense industry, the Company is subject to audit from time to time for compliance with government regulations by various governmental agencies. The Company is also subject to a variety of local, state and federal government regulations relating to environmental laws, as they relate to toxic or other hazardous substances used to manufacture the Company’s products. The Company believes that it operates its business in material compliance with applicable laws and regulations. However, any failure to comply with existing or future laws or regulations could have a material adverse affect on the Company’s business, financial condition and results of operations.

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. The Company 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.

Risks of international operations.

A significant percentage of the Company’s revenues is derived from the operations of its wholly-owned subsidiaries in Costa Rica and Canada. These revenues are subject to the risks normally

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associated with international operations which include, without limitation, fluctuating currency exchange rates, changing political and economic conditions, difficulties in staffing and managing foreign operations, greater difficulty and expense in administering business abroad, complications in complying with foreign laws and changes in regulatory requirements, and cultural differences in the conduct of business.

While the Company believes that current political and economic conditions in Canada and Costa Rica are relatively stable, such conditions may adversely change so as to effect underlying business assumptions about the current

opportunities which exist for doing business in those countries. In particular, the government in Costa Rica could change, the currency exchange rate between the U.S. and Canadian dollars may change adversely (as occurred in 2005 and 2004), or the cost of labor and/or goods and services necessary to the operations of the Company may increase.

Recently enacted changes in the Securities Laws and Regulations are likely to increase costs.

The Sarbanes-Oxley Act of 2002 (the ‘‘Sarbanes-Oxley Act’’) has required changes in some of our corporate governance, securities disclosure and compliance practice. In response to the requirements of the Sarbanes-Oxley Act, the SEC and the American Stock Exchange have promulgated new rules in a variety of subjects. Compliance with these new rules has increased our legal and accounting costs, and we expect these increased costs to continue indefinitely. These developments may also make it more difficult for us to attract and retain qualified members of our board of directors or qualified executive officers.

If we receive other than an unqualified opinion on the adequacy of our internal control over financial reporting as of December 29, 2007 and future year-ends as required by Section 404 of the Sarbanes-Oxley Act, investors could lose confidence in the reliability of our financial statements, which could result in a decrease in the value of our common stock.

As required by Section 404 of the Sarbanes-Oxley Act, the SEC adopted rules requiring public companies to include a report of management on the company's internal control over financial reporting in their annual reports on Form 10-K or 10-KSB that contains an assessment by management of the effectiveness of the Company's internal control over financial reporting. In addition, the public accounting firm auditing a company's financial statements must attest to and report on both management's assessment as to whether the company maintained effective internal control over financial reporting and on the effectiveness of the company's internal control over financial reporting.

We are currently undergoing a comprehensive effort to comply with Section 404 of the Sarbanes-Oxley Act. If we are unable to complete our assessment in a timely manner or if our independent auditors issue other than an unqualified opinion on the design, operating effectiveness or management’s assessment of internal control over financial reporting, this could result in an adverse reaction in the financial markets due to a loss of confidence in the reliability of our financial statements, which could cause the market price of our shares to decline.

ITEM 2. PROPERTIES.

United States

Merrimac's administrative offices, research and principal production facilities are located in West Caldwell, New Jersey, on a five-acre parcel owned by Merrimac. The West Caldwell plant 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.

Canada

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. Merrimac has the option to extend the lease for an additional three-year term, and exercised such option in February 2006.

Costa Rica

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). The renewal option was exercised in February 2006. 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, 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.

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 fiscal 2005.

PART II

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

Merrimac's Common Stock has been listed and traded on The American Stock Exchange since July 11, 1988, under the symbol MRM. As of March 24, 2006, Merrimac had approximately 200 holders of record. Merrimac believes there are approximately 1,200 additional holders in ''street name'' through broker nominees.

The following table sets forth the range of the high and low trading prices as reported by the AMEX for the period from January 4, 2004 to December 31, 2005.

Fiscal Year Ended December 31, 2005	High	Low
First Quarter	$ 10.25	$ 8.70
Second Quarter	$ 9.40	$ 8.44
Third Quarter	$ 9.32	$ 8.55
Fourth Quarter	$ 9.25	$ 8.80

Fiscal Year Ended January 1, 2005	High	Low
First Quarter	$ 10.59	$ 5.75
Second Quarter	$ 10.69	$ 6.91
Third Quarter	$ 9.35	$ 6.35
Fourth Quarter	$ 9.50	$ 8.50

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

Equity Compensation Plan Information

The following table gives information as of December 31, 2005, about the Company's common stock that may be issued upon the exercise of options, warrants and rights under the Company's existing equity compensation plans:

Plan category	(a) Number of securities to be issued upon exercise of outstanding options, warrants and rights	(b) Weighted-average exercise price of outstanding options, warrants and rights	(c) Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
Equity compensation plans approved by security holders	397,869	$ 9.81	19,300
Equity compensation plans not approved by security holders	33,000[1]	$ 10.00	0
Total	430,869	$ 9.83	19,300

[1] Pursuant to the Company's 1996 Stock Option Plan for Non-Employee Directors, the Chairman of the board of directors was granted 20,000 options and each of the two then non-employee directors was granted 15,000 options. Each option had an exercise price of $11.00 and was exercisable for ten years from the date of grant. 33,000 of such options remain outstanding. All of the outstanding options under such plan expire September 1, 2006.

ITEM 6. SELECTED FINANCIAL DATA

The following selected financial information is qualified by reference to, and should be read in conjunction with, the Company's consolidated financial statements and the notes thereto, and ''Management's Discussion and Analysis of Financial Condition and Results of Operations'' contained elsewhere herein. The selected consolidated statement of operations data for the fiscal years ended December 31, 2005 and January 1, 2005 (both audited by Grant Thornton LLP) and January 3, 2004

(audited by Ernst & Young LLP) and the selected consolidated balance sheet data as of December 31, 2005 and January 1, 2005 are derived from the Company's audited consolidated financial statements which are included elsewhere herein. The selected consolidated statement of operations data for the fiscal year ended December 28, 2002 and the selected consolidated balance sheet data as of January 3, 2004 and December 28, 2002 (audited by Ernst & Young LLP) and the consolidated statement of operations data for the fiscal year ended December 29, 2001 and the selected consolidated balance sheet data as of December 29, 2001 (audited by Arthur Andersen LLP) are derived from the Company's audited consolidated financial statements not included herein.

Fiscal Years Ended

	December 31, 2005 (52 weeks)	January 1, 2005 (52 weeks)	January 3, 2004 (53 weeks)	December 28, 2002 (52 weeks)	December 29, 2001 (52 weeks)
	(In thousands, except per share data)				
Consolidated Statement of Operations Data:					
Net sales	$ 29,719	$ 30,949	$ 27,322	$ 24,570	$ 25,793
Gross profit	12,214	12,909	10,577	10,466	13,279
Selling, general and administrative	9,540	9,820	9,536	8,950	9,531
Research and development	1,932	1,723	1,737	2,729	3,382
Restructuring charges	—	—	160	510	—
Amortization of goodwill	—	—	—	—	148
Reincorporation charges	—	—	—	—	330
Operating income (loss)	742	1,367	(856)	(1,722)	(113)
Interest and other (expense) income, net	(218)	(265)	(271)	(176)	17
(Loss) gain on disposition of assets	(43)	—	104	—	—
Income taxes (benefit)	(280)	(96)	(109)	237	(120)
Net income (loss)	761	1,198	(914)	(2,135)	24
Net income (loss) per common share:					
Basic	.24	.38	(.29)	(.69)	.01
Diluted	.24	.38	(.29)	(.69)	.01
Weighted average number of common shares outstanding:					
Basic	3,142	3,127	3,121	3,074	2,624
Diluted	3,177	3,154	3,121	3,074	2,735
Cash dividends declared per common share	—	—	—	—	—
Consolidated Balance Sheet Data (at year end):					
Working capital	$ 9,854	$ 8,464	$ 6,805	$ 3,615	$ 3,874
Property, plant and equipment, net	13,973	15,584	17,222	19,282	18,963
Total assets	34,422	34,575	34,020	36,487	36,993
Current portion of long-term debt	908	905	954	6,240	4,369
Long-term debt, net of current portion	2,071	2,778	4,208	429	3,872
Stockholders’ equity	27,690	26,598	24,838	24,702	22,053

ITEM 7. MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

OVERVIEW

Merrimac Industries, Inc. 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® (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 subsystems and (2) microwave micro-circuitry (through its subsidiary, Filtran Microcircuits Inc.).

The following table provides a breakdown of our sales between these segments:

	2005		2004	
	$	% of sales	$	% of sales
Electronic components and Subsystems	$ 22,483,000	75.7%	$ 25,141,000	81.2%
Microwave micro-circuitry[1]	$ 7,372,000	24.8%	$ 5,956,000	19.2%
Less intersegment sales	$ (136,000)	(0.5)%	$ (148,000)	(0.4)%
Consolidated	$ 29,719,000	100.0%	$ 30,949,000	100.0%

[1] Substantially all conducted by our Canadian subsidiary, Filtran Microcircuits Inc.

Merrimac is 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. Merrimac components are today found in applications as diverse as satellites, military and commercial aircraft, radar, cellular radio systems, medical and dental diagnostic instruments, personal communications systems (‘‘PCS’’) and wireless internet connectivity. Merrimac's components range in price from $0.50 to more than $10,000 and its subsystems range from $500 to more than $1,000,000.

Multi-Mix®

In 1998, Merrimac introduced Multi-Mix® Microtechnology capabilities, an innovative process for microwave, multilayer integrated circuits and micro-multifunction module (MMFM)® 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® 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.

Multi-Mix PICO®

In July 2001, Merrimac introduced its Multi-Mix PICO® Microtechnology. Through Multi-Mix PICO® 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 Local Area Network modules. When compared to conventional multilayer quadrature hybrids and directional coupler products, Multi-Mix PICO® is more than 84% smaller in size, without the loss of power or performance. Merrimac has completed the development of integrated inline multi-couplers and is supplying these Multi-Mix PICO® products to major basestation customers.

In 2005, Merrimac focused its design and manufacturing efforts on Multi-Mix® multilayer subsystem products for several satcom and military customers.

In addition, Merrimac started the design of a high power amplifier for use in basestation infrastructure, military and satcom applications based upon a U.S. Notice of Allowance for a Patent that is expected to be issued shortly. An important part of basestation infrastructure equipment is the high power transmit amplifier, which must provide extremely linear performance in order to boost signals carrying voice, data and video services without distortion.

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.

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:

BAE Systems
The Boeing Company
Celestica, Inc.
EADS Astrium
ITT
Lockheed Martin Corporation
Loral Space & Communications Ltd.
Northrop Grumman Corporation
Raytheon Company
General Dynamics Corporation

The following table presents our key customers and the percentage of net sales made to such customers:

	2005	2004	2003
Israel Aircraft Industries Ltd.	11.2%	6.2%	1.1%
Lockheed Martin Corporation	10.9%	6.6%	7.8%
Raytheon Company	10.5%	13.9%	12.3%
Northrop Grumman Corporation	8.8%	11.9%	12.4%
The Boeing Company	5.9%	7.8%	16.1%

Sales to the foreign geographic area of Europe were 14.8%, 8.9% and 10.3% of net sales in fiscal years 2005, 2004 and 2003, respectively.

The following table provides a breakdown of the net sales by customer industry segment and geographic area:

	2005				2004			
	North America		Rest of World		North America		Rest of World	
	$	%	$	%	$	%	$	%
Military and commercial satellites	$6,960,000	23.4%	$ 933,000	3.1%	$6,947,000	22.4%	$ 459,000	1.5%
Defense	$7,246,000	24.4%	$3,899,000	13.1%	$9,993,000	32.3%	$2,134,000	6.9%
Commercial	$9,746,000	32.8%	$ 935,000	3.2%	$9,818,000	31.7%	$1,598,000	5.2%

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® (PTFE) microcircuits for RF applications including satellite, aerospace, PCS, fiber optic telecommunications, automotive, navigational and defense applications worldwide. FMI participates in the market for millimeter-wave applications. FMI also supplies mixed dielectric multilayer and high speed interconnect circuitry to meet customer demand for high performance and cost-effective packaging. FMI's key customers include:

- Endwave Corporation
- Herley Industries
- Israel Aircraft Industries Ltd.
- L3 Communications Narda Microwave East
- M/A-Com, Inc.
- Raytheon Canada Ltd.
- Trak Microwave Corporation

For more information regarding our electronics components and subsystems business and the microwave micro-circuitry business done by FMI, please see Note 8 of the Notes to Consolidated Financial Statements.

The Company markets and sells its products domestically and internationally through a direct sales force and manufacturers’ representatives. Merrimac has traditionally developed and offered for sale products built to specific customer needs, as well as standard catalog items. The following table provides a breakdown of electronic components sales as derived from initial orders for products custom designed for specific customer applications, repeat orders for such products and from catalog sales:

	2005	2004	2003
Initial designs	27%	27%	35%
Repeat designs	57%	58%	48%
Catalog sales	16%	15%	17%

The Company believes that while its wireless subscriber base continues to grow, the recent economic downturn, resulting in reduced spending by wireless telecommunications service providers, has caused many wireless telecommunications equipment manufacturers to delay or forego purchases of the Company's products. The Company expects that its defense and satellite customers should continue to maintain their approximate current levels of orders during fiscal year 2006, though there are no assurances they will do so. Nevertheless, in times of armed conflict or war, military spending is concentrated on armaments build up, maintenance and troop support, and not on the research and development and specialty applications that are the Company’s core strengths and revenue generators.

Accordingly, our defense and military product revenues may decrease and should not be expected to increase, at times of armed conflicts or war. The Company also anticipates increased levels of orders during fiscal year 2006 for its Multi-Mix® Microtechnology products, based on inquiries from existing customers, requests to quote from new and existing customers and market research. The improved telecommunications sector and the continued efforts to diversify FMI into wireless basestations, automotive and defense applications has resulted in additional orders for FMI, which the Company anticipates will continue.

Cost of sales for the Company consists of materials, salaries and related expenses, and outside services for manufacturing and certain engineering personnel and manufacturing overhead. Our products are designed and manufactured in the Company's facilities. The Company's manufacturing and production facilities infrastructure overhead are relatively fixed and are based on its expectations of future net revenues. Should the Company experience a reduction in net revenues in a quarter, it could have difficulty adjusting short-term expenditures and absorbing any excess capacity expenses. If this were to occur, the Company's operating results for that quarter would be negatively impacted. In order to remain competitive, the Company must continually reduce its manufacturing costs through design and engineering innovations and increases in manufacturing efficiencies. There can be no assurance that the Company will be able to reduce its manufacturing costs.

Depreciation and amortization expenses exceeded capital expenditures for new projects and production equipment during 2005 by approximately $1,400,000, and the Company anticipates that depreciation and amortization expenses will exceed capital expenditures in fiscal year 2006 by approximately $800,000. The Company intends to issue up to $2,000,000 of purchase order commitments for capital equipment from various vendors. The Company anticipates that such equipment will be purchased and become operational during fiscal year 2006. The Company's planned equipment purchases and other commitments are expected to be funded through cash resources and cash flows expected to be generated from operations, and supplemented by the Company's $5,000,000 revolving credit facility, which expires October 8, 2006. The Company anticipates the revolving credit facility will be renewed.

Selling, general and administrative expenses consist of personnel costs for administrative, selling and marketing groups, sales commissions to employees and manufacturing representatives, travel, product marketing and promotion costs, as well as legal, accounting, information technology and other administrative costs. The Company expects to continue to make significant and increasing

expenditures for selling, general and administrative expenses, especially in connection with implementation of its strategic plan for generating and expanding sales of Multi-Mix® products.

Research and development expenses consist of materials, salaries and related expenses of certain engineering personnel, and outside services related to product development projects. The Company charges all research and development expenses to operations as incurred. The Company believes that continued investment in research and development is critical to the Company's long-term business success. We intend to continue to invest in research and development programs in future periods, and expect that these costs will increase over time, in order to develop new products, enhance performance of existing products and reduce the cost of current or new products.

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® Microtechnology, contract revenue recognition, inventory valuation, valuation of goodwill and valuation of deferred tax assets. Below is a further description of these policies as well as the estimates involved.

Impairment of long-lived assets

The following is a summary of the carrying amounts of the Multi-Mix® Microtechnology net assets included in the Company's consolidated financial statements at December 31, 2005 and the related future planned purchases and lease obligation commitments through January 2011.

Net assets:

Property, plant and equipment, at cost	$	14,153,000
Less accumulated depreciation and amortization		6,707,000
Property, plant and equipment, net		7,446,000
Inventories		583,000
Other assets, net		170,000
Total net assets at December 31, 2005	$	8,199,000
Commitments:		
Planned equipment purchases for 2006	$	1,200,000
Lease obligations through January 2011		925,000
Total commitments	$	2,125,000
Total net assets and commitments	$	10,324,000

Approximately 32% of the property, plant and equipment may be utilized in other areas of our electronic components and subsystems operations.

The Company anticipates receiving additional orders during 2006 for its Multi-Mix® Microtechnology products, based on inquiries from existing customers, requests to quote from new and existing customers and market research, for which substantial research and development costs have also been incurred. Due to economic and market conditions in the wireless industry since 2000, wireless telecommunications system service providers substantially reduced their capital equipment purchases from our customers. While these circumstances have resulted in the delay or cancellation of Multi-Mix® Microtechnology product purchases that had been anticipated from certain specific customers or programs, in connection with the improved conditions in the industry, the Company has implemented a strategic plan utilizing product knowledge and customer focus to expand specific sales opportunities. However, continued extended delay or reduction from planned levels in new orders expected from customers for these products could require the Company to pursue alternatives related to the utilization or realization of these assets and commitments. Should these alternatives not be realized, the Company would have to write down the value of these assets, thereby incurring an impairment charge to earnings, the net result of which would be materially adverse to the financial results and condition of the Company. In accordance with the Company’s evaluation of Multi-Mix® under SFAS No. 144, the Company has determined no provision for impairment is required at this time. Management will continue to monitor the recoverability of the Multi-Mix® assets.

Contract Revenue Recognition

The Company recognizes revenue in accordance with the provisions of Staff Accounting Bulletin No. 104. Contract revenue and related costs on fixed-price and cost-reimbursement 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 related initial units produced or based upon contractually established stages of completion.

The cost rates utilized for cost-reimbursement contracts are subject to review by third parties and can be revised, which can result in additions to or reductions from revenue. Revisions which result in reductions to revenue are recognized in the period that the rates are reviewed and finalized; additions to revenue are recognized in the period that the rates are reviewed, finalized, accepted by the customer, and collectability from the customer is assured. The Company submits financial information regarding the cost rates on cost-reimbursement contracts for each fiscal year in which the Company performed work on cost-reimbursement contracts. The Company does not record any estimates on a regular basis for potential revenue adjustments, as there currently is no reasonable basis on which to estimate such adjustments given the Company's very limited experience with these contracts. During 2003, the Company recognized revenue of $269,000 related to a cost-reimbursement contract. During 2004, the Company recognized a revenue reduction of $12,000 related to a cost-reimbursement contract. The Company recognized revenue of $106,000 related to cost-reimbursement contracts in 2005.

Inventory Valuation

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. Total inventories are net of valuation allowances for obsolescence and cost overruns of $1,084,000 at December 31, 2005 and $1,942,000 at January 1, 2005, of which $50,000 and $901,000, respectively, represented cost overruns.

Procurement of inventory is based on specific customer orders and forecasts. Customers have certain rights of modification with respect to these orders and forecasts. As a result, customer modifications to orders and forecasts affecting inventory previously procured by us and our purchases of inventory beyond customer needs may result in excess and obsolete inventory for the related customers.

Although we may be able to use some of these excess components and raw materials in other products we manufacture, a portion of the cost of this excess inventory may not be recoverable from customers, nor may any excess quantities be returned to the vendors. We also may not be able to recover the cost of obsolete inventory from vendors or customers.

Write offs or write downs of inventory generally arise from:

- declines in the market value of inventory; and
- changes in customer demand for inventory, such as cancellation of orders; and

- our purchases of inventory beyond customer needs that result in excess quantities on hand and that we are not able to return to the vendor or charge back to the customer

Valuation of Goodwill