

MICROCHIP TECHNOLOGY INC  
Form 10-K  
May 28, 2008

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

FORM 10-K

(Mark One)

Annual report pursuant to section 13 or 15(d) of the securities exchange act of 1934  
For the fiscal year ended March 31, 2008

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: 0-21184

MICROCHIP TECHNOLOGY INCORPORATED  
(Exact Name of Registrant as Specified in Its Charter)

Delaware  
(State or Other Jurisdiction of  
Incorporation or Organization)

86-0629024  
(IRS Employer  
Identification No.)

2355 W. Chandler Blvd., Chandler, AZ 85224  
(Address of Principal Executive Offices, Including Zip Code)

(480) 792-7200  
(Registrant's Telephone Number, Including Area Code)

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

Title of Each Class	Name of Each Exchange on Which Registered
Common Stock, \$0.001 Par Value Per Share	Nasdaq Global Market
Preferred Share Purchase Rights	None

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 checkmark 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

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Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) 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 Form 10-K or any amendment to this Form 10-K

Indicate by check mark whether the registrant is large accelerated filer, an accelerated filer, or a non-accelerated filer, or smaller reporting company. See definitions of "large accelerated filer" "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

L a r g e accelerated filer	Accelerated filer	Non-accelerated filer	Smaller reporting company
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Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act): Yes/No

Aggregate market value of the voting and non-voting common equity held by non-affiliates as of September 28, 2007 based upon the closing price of the common stock as reported by The NASDAQ® Global Market on such date was approximately \$7,668,164,565.

Number of shares of Common Stock, \$.001 par value, outstanding as of May 22, 2008: 184,952,497.

Document	Documents Incorporated by Reference	Part of Form 10-K
Proxy Statement for the 2008 Annual Meeting of Stockholders		III

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MICROCHIP TECHNOLOGY INCORPORATED AND SUBSIDIARIES

FORM 10-K

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PART I

This Form 10-K contains certain forward-looking statements that involve risks and uncertainties, including statements regarding our strategy and future financial performance and those statements identified under "Item 7 - Note Regarding Forward-looking Statements." Our actual results could differ materially from the results described in these forward-looking statements as a result of certain factors including those set forth under "Item 1A – Risk Factors," beginning below at page 10, and elsewhere in this Form 10-K. Although we believe that the matters reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements. You should not place undue reliance on these forward-looking statements. We disclaim any obligation to update information contained in any forward-looking statement.

Item 1. BUSINESS

We develop and manufacture specialized semiconductor products used by our customers for a wide variety of embedded control applications. Our product portfolio comprises 8-bit, 16-bit, and 32-bit PIC® microcontrollers and 16-bit dsPIC® digital signal controllers, which feature on-board Flash (reprogrammable) memory technology. In addition, we offer a broad spectrum of high-performance linear, mixed-signal, power management, thermal management, battery management and interface devices. We also make serial EEPROMs. Our synergistic product portfolio targets thousands of applications and a growing demand for high-performance designs in the automotive, communications, computing, consumer and industrial control markets. Our quality systems are ISO/TS16949 (2002 version) certified.

Microchip Technology Incorporated was incorporated in Delaware in 1989. In this Form 10-K, "we," "us," and "our" each refers to Microchip Technology Incorporated and its subsidiaries. Our executive offices are located at 2355 West Chandler Boulevard, Chandler, Arizona 85224-6199 and our telephone number is (480) 792-7200.

Our Internet address is [www.microchip.com](http://www.microchip.com). We post the following filings on our website as soon as reasonably practicable after they are electronically filed with or furnished to the Securities and Exchange Commission:

- our annual report on Form 10-K
- our quarterly reports on Form 10-Q
- our current reports on Form 8-K
- our proxy statement
- any amendments to the above-listed reports filed or furnished pursuant to Sections 13(a) or 15(d) of the Securities Exchange Act of 1934

All SEC filings on our website are available free of charge. The information on our website is not incorporated into this Form 10-K.

Industry Background

Competitive pressures require manufacturers of a wide variety of products to expand product functionality and provide differentiation while maintaining or reducing cost. To address these requirements, manufacturers often use integrated circuit-based embedded control systems that enable them to:

- differentiate their products
- replace less efficient electromechanical control devices
- reduce the number of components in their system
- add product functionality

- decrease time to market for their products
- significantly reduce product cost

Embedded control systems have been incorporated into thousands of products and subassemblies in a wide variety of applications and markets worldwide, including:

- automotive comfort, safety and entertainment applications
  - remote control devices
  - handheld tools
  - home appliances
  - portable computers
  - robotics
  - accessories
- cordless and cellular telephone
  - motor controls
  - security systems
- educational and entertainment devices
  - consumer electronics
  - power supplies

Embedded control systems typically incorporate a microcontroller as the principal active, and sometimes sole, component. A microcontroller is a self-contained computer-on-a-chip consisting of a central processing unit, non-volatile program memory, random access memory for data storage and various input/output peripheral capabilities. In addition to the microcontroller, a complete embedded control system incorporates application-specific software and may include specialized peripheral device controllers, non-volatile memory components such as EEPROMs, and various analog and interface products.

The increasing demand for embedded control has made the market for microcontrollers one of the larger segments of the semiconductor market at approximately \$14 billion in calendar year 2007. Microcontrollers are currently available in 4-bit through 32-bit architectures. 4-bit microcontrollers are relatively inexpensive, but they generally lack the minimum functionality required in most applications and are typically used in relatively simple applications. 8-bit microcontrollers remain very cost-effective for a wide range of high volume embedded control applications and, as a result, continue to represent the largest portion of the overall microcontroller market. 16-bit and 32-bit microcontrollers provide higher performance and functionality, and are generally found in more complex embedded control applications.

Many of the microcontrollers shipped today are ROM-based and must be programmed by the semiconductor supplier during manufacturing, resulting in long lead times, based on market conditions, for delivery of such microcontrollers. In addition to delayed product introduction, these long lead times can result in potential inventory obsolescence and temporary factory shutdowns when changes in the firmware are required. To address these issues, we offer programmable microcontrollers that can be configured by the customer in the customer's manufacturing line, thus significantly reducing lead time and inventory risks when the inevitable firmware changes occur. While these microcontrollers were initially expensive relative to ROM-based microcontrollers, manufacturing technology has evolved over time to the point where reprogrammable microcontrollers are now available for little to no premium over ROM-based microcontrollers, thus providing significant value to microcontroller customers. As a result, reprogrammable microcontrollers are the fastest growing segment of the microcontroller market.

## Our Products

Our strategic focus is on embedded control solutions, including:

- microcontrollers
- development tools
- analog and interface products
- memory products

We provide highly cost-effective embedded control solutions that also offer the advantages of small size, high performance, low voltage/power operation and ease of development, enabling timely and cost-effective embedded control product integration by our customers.

## Microcontrollers

We offer a broad family of microcontroller products featuring our unique, proprietary architecture marketed under the PIC® brand name. We believe that our PIC product family is a price/performance leader in the worldwide microcontroller market. We have shipped over 6 billion PIC microcontrollers to customers worldwide since their introduction in 1990. Our PIC products are designed for applications requiring field-programmability, high performance, low power and cost effectiveness. They feature a variety of memory technology configurations, low voltage and power, small footprint and ease of use. Our performance results from a product architecture which features dual data and instruction pathways, referred to as a Harvard dual-bus architecture; a Reduced Instruction Set Computer, referred to as RISC; and variable length instructions; all of which provide significant speed advantages

over alternative single-bus, Complex Instruction Set Computer architectures, referred to as CISC. With over 550 microcontrollers in our product portfolio, we target the 8-bit, 16-bit, and 32-bit microcontroller markets.

Digital Signal Controllers (DSC) are a subset of our 16-bit microcontroller offering. Our dsPIC® Digital Signal Controller families integrate the control features of high-performance 16-bit microcontrollers with the computation capabilities of Digital Signal Processors (DSPs), along with a wide variety of peripheral functions making them suitable for a large number of embedded control applications. Our dsPIC product family offers a broad suite of hardware and software development tools, software application libraries, development boards and reference designs to ease and expedite the customer application development cycle. With its field-re-programmability, large selection of peripheral functions, small footprint and ease of use, we believe that our dsPIC Digital Signal Controllers enlarge our addressable market.



We have used our manufacturing experience and design and process technology to bring additional enhancements and manufacturing efficiencies to the development and production of our PIC family of microcontroller products. Our extensive experience base has enabled us to develop our advanced, low cost user programmability feature by incorporating non-volatile memory, such as Flash, EEPROM and EPROM Memory, into the microcontroller, and to be a leader in reprogrammable microcontroller product offerings.

#### Development Tools

We offer a comprehensive set of low-cost and easy-to-learn application development tools. These tools enable system designers to quickly and easily program a PIC microcontroller and dsPIC Digital Signal Controllers for specific applications and, we believe are a key factor for obtaining design wins.

Our family of development tools operates in the standard Windows® environment on standard PC hardware. These tools range from entry-level systems, which include an assembler and programmer or in-circuit debugging hardware, to fully configured systems that provide in-circuit emulation hardware. Customers moving from entry-level designs to those requiring real-time emulation are able to preserve their investment in learning and tools as they migrate to future PIC devices since all of our systems share the same integrated development environment.

Many independent companies also develop and market application development tools that support our standard microcontroller product architecture. Currently, there are more than 190 third-party tool suppliers worldwide whose products support our proprietary microcontroller architecture.

We believe that familiarity with and adoption of both our and third-party development tools by an increasing number of product designers will be an important factor in the future selection of our embedded control products. These development tools allow design engineers to develop thousands of application-specific products from our standard microcontrollers. To date, we have shipped more than 600,000 development tools.

#### Analog and Interface Products

Our analog and interface products consist of several families with over 500 power management, linear, mixed-signal, thermal management and interface products. At the end of fiscal 2008, our mixed-signal analog and interface products were being shipped to more than 13,400 end customers.

We continue marketing and selling our analog and interface products into our existing microcontroller customer base, which we refer to as our analog “attach” strategy, as well as to new customers. In addition to our “attach” strategy, we market and sell other products that may not fit our traditional PIC microcontroller and memory products customer base. We market these, and all of our products, based on an application segment approach targeted to provide customers with application solutions.

#### Memory Products

Our memory products consist primarily of serial electrically erasable programmable read only memory, referred to as Serial EEPROMs. We sell these devices primarily into the embedded control market, and we are one of the largest suppliers of such devices worldwide. Serial EEPROM products are used for non-volatile program and data storage in systems where such data must be either modified frequently or retained for long periods. Serial EEPROMs have a very low I/O pin requirement, permitting production of very small devices.

#### Manufacturing

Our manufacturing operations include wafer fabrication and assembly and test. The ownership of our manufacturing resources is an important component of our business strategy, enabling us to maintain a high level of manufacturing control resulting in us being one of the lowest cost producers in the embedded control industry. By owning our wafer fabrication facilities and much of our assembly and test operations, and by employing statistical techniques (statistical process control, designed experiments and wafer level monitoring), we have been able to achieve and maintain high production yields. Direct control over manufacturing resources allows us to shorten our design and production cycles. This control also allows us to capture the wafer manufacturing and a portion of the assembly and testing profit margin.

Our manufacturing facilities are located in:

- Tempe, Arizona (Fab 2)
- Chandler, Arizona (probe operations)
- Gresham, Oregon (Fab 4)
- Bangkok, Thailand (assembly, probe and test)

## Wafer Fabrication

Fab 2 currently produces 8-inch wafers and supports manufacturing processes from 0.35 to 5.0 microns. During fiscal 2008 and fiscal 2007, Fab 2 operated at approximately 99% of its capacity. Operating at higher percentages of capacity has a positive impact on our operating results due to the relatively high fixed costs inherent in wafer fabrication manufacturing.

We acquired Fab 4 in August 2002 and began production on October 31, 2003. Fab 4 currently produces 8-inch wafers using predominantly 0.35 to 0.5 micron manufacturing processes and is capable of supporting technologies below 0.18 microns. A significant amount of clean room capacity and equipment acquired with Fab 4 can be brought on line in the future to support incremental wafer fabrication capacity needs. We believe the combined capacity of Fab 2 and Fab 4 will provide sufficient capacity to allow us to respond to increases in future demand.

In September 2007, we received an unsolicited offer on our Fab 3 facility located in Puyallup, Washington. We assessed our available capacity in our current facilities, along with our capacity available from outside foundries and determined the capacity of Fab 3 would not be required in the near term. As a result of this assessment, we accepted the purchase offer to sell Fab 3 on September 21, 2007 and the transaction closed on October 19, 2007. We received \$27.5 million in cash net of expenses associated with the sale and recognized an impairment charge of \$26.8 million on the sale of Fab 3, representing the difference between the carrying value of the assets at September 30, 2007 and the amounts realized subsequent to September 30, 2007.

We continue to transition products to more advanced process technologies to reduce future manufacturing costs. We believe that our ability to successfully transition to more advanced process technologies is important for us to remain competitive.

We outsource a small percentage of our wafer production requirements to third-party wafer foundries to augment our internal manufacturing capabilities.

## Assembly and Test

We perform product assembly and testing at our facilities located near Bangkok, Thailand. As of March 31, 2008, approximately 67% of our assembly requirements were being performed in our Thailand facility. As of March 31, 2008, our Thailand facility was testing substantially all of our wafer production. We use third-party assembly and test contractors in several Asian countries for the balance of our assembly and test requirements.

## General Matters Impacting Our Manufacturing Operations

We employ proprietary design and manufacturing processes in developing our microcontroller and memory products. We believe our processes afford us both cost-effective designs in existing and derivative products and greater functionality in new product designs. While many of our competitors develop and optimize separate processes for their logic and memory product lines, we use a common process technology for both microcontroller and non-volatile memory products. This allows us to more fully absorb our process research and development costs and to deliver new products to market more rapidly. Our engineers utilize advanced Computer Aided Design tools and software to perform circuit design, simulation and layout, and our in-house photomask and wafer fabrication facilities enable us to rapidly verify design techniques by processing test wafers quickly and efficiently.

Due to the high fixed costs inherent in semiconductor manufacturing, consistently high manufacturing yields have significant positive effects on our gross profit and overall operating results. Our continuous focus on manufacturing productivity has allowed us to maintain excellent manufacturing yields at our facilities. Our manufacturing yields are primarily driven by a comprehensive implementation of statistical process control, extensive employee training and

our effective use of our manufacturing facilities and equipment. Maintenance of manufacturing productivity and yields are important factors in the achievement of our operating results. The manufacture of integrated circuits, particularly non-volatile, erasable CMOS memory and logic devices, such as those that we produce, are complex processes. These processes are sensitive to a wide variety of factors, including the level of contaminants in the manufacturing environment, impurities in the materials used and the performance of our manufacturing personnel and equipment. As is typical in the semiconductor industry, we have from time to time experienced lower than anticipated manufacturing yields. Our operating results will suffer if we are unable to maintain yields at approximately the current levels.

At the end of fiscal 2008, we owned long-lived assets (consisting of property, plant and equipment) in the United States amounting to \$400.6 million and \$121.7 million in other countries, including \$113.1 million in Thailand. At the end of fiscal 2007, we owned long-lived assets in the United States amounting to \$488.7 million and \$117.0 million in other countries, including \$114.6 million in Thailand.

## Research and Development (R&D)

We are committed to continuing our investment in new and enhanced products, including development systems, and in our design and manufacturing process technologies. We believe these investments are significant factors in maintaining our competitive position. Our current R&D activities focus on the design of new microcontrollers, digital signal controllers, Serial EEPROM memory, analog and interface products, new development systems, software and application-specific software libraries. We are also developing new design and process technologies to enable new products and innovative features as well as achieve further cost reductions and performance improvements in existing products.

In fiscal 2008, our R&D expenses were \$120.9 million, compared to \$113.7 million in fiscal 2007 and \$94.9 million in fiscal 2006. R&D expenses included \$10.7 million in fiscal 2008 and \$9.6 million in fiscal 2007 of share-based compensation as a result of the adoption of FASB Statement of Financial Accounting Standard (SFAS) No. 123 (revised 2004) Share-Based Payment (SFAS No. 123R).

## Sales and Distribution

### General

We market our products worldwide primarily through a network of direct sales personnel and distributors.

Our direct sales force focuses on a wide variety of strategic accounts in three geographical markets: the Americas, Europe and Asia. We currently maintain sales and technical support centers in major metropolitan areas in all three geographic markets. We believe that a strong technical service presence is essential to the continued development of the embedded control market. Many of our field sales engineers (FSEs), field application engineers (FAEs), and sales management have technical degrees or backgrounds and have been previously employed in high technology environments. We believe that the technical knowledge of our sales force is a key competitive advantage in the sale of our products. The primary mission of our FAE team is to provide technical assistance to customers and to conduct periodic training sessions for the balance of our sales team. FAEs also frequently conduct technical seminars and workshops in major cities around the world.

### Distribution

Our distributors focus primarily on servicing the product requirements of a broad base of diverse customers. We believe that distributors provide an effective means of reaching this broad and diverse customer base. We believe that customers recognize Microchip for its products and brand name and use distributors as an effective supply channel.

In fiscal 2008, we derived 64% of our net sales through distributors and 36% of our net sales from customers serviced directly by Microchip. In fiscal 2007 and 2006, we derived 65% of our net sales through distributors and 35% of our net sales from customers serviced directly by Microchip. Our largest distributor accounted for approximately 12% of our net sales in fiscal 2008, 11% of our net sales in fiscal 2007 and 13% of our net sales in fiscal 2006. Our second largest distributor accounted for approximately 7% of our net sales in fiscal 2008, 10% of our net sales in fiscal 2007 and 11% of our net sales in fiscal 2006. No other distributor or end customer accounted for more than 10% of our net sales in fiscal 2008, 2007 or 2006. In February 2008, we terminated our relationship with Arrow Electronics in North America and Europe. Arrow Electronics in Australia and New Zealand remain as our only Arrow Electronics franchised distributor locations worldwide. In February 2008, we also entered into a new demand creation relationship with Avnet/Memec in North America, Avnet/Silica in Europe, and an expanded demand creation relationship with Future Electronics worldwide.

We do not have long-term agreements with our distributors and we, or our distributors, may each terminate our relationship with little or no advanced notice. The loss of, or the disruption in the operations of, one or more of our distributors could reduce our future net sales in a given quarter and could result in an increase in inventory returns.

Sales by Geography

Sales by geography for fiscal 2008, 2007 and 2006 were as follows (dollars in thousands):

	Year Ended March 31,					
	2008		2007		2006	
Americas	\$ 273,363	26.4%	\$ 287,371	27.6%	\$ 266,353	28.7%
Europe	308,171	29.8	302,708	29.1	255,367	27.5
Asia	454,203	43.8	449,592	43.3	406,173	43.8
<b>Total Sales</b>	<b>\$ 1,035,737</b>	<b>100.0%</b>	<b>\$ 1,039,671</b>	<b>100.0%</b>	<b>\$ 927,893</b>	<b>100.0%</b>

Sales to foreign customers accounted for approximately 75% of our net sales in fiscal 2008, 74% of our net sales in fiscal 2007 and 74% of our net sales in fiscal 2006. Our sales to foreign customers have been predominately in Asia and Europe, which we attribute to the manufacturing strength in those areas for automotive, communications, computing, consumer and industrial control products. Americas sales include sales to customers in the United States, Canada, Central America and South America.

Sales to customers in China, including Hong Kong, accounted for approximately 20% of our net sales in fiscal 2008, 18% of our net sales in fiscal 2007 and 17% of our net sales in fiscal 2006. In each of fiscal 2008, 2007 and 2006, sales to customers in Taiwan accounted for approximately 10% of our net sales. We did not have sales into any other foreign countries that exceeded 10% of our net sales during fiscal 2008, 2007 or 2006.

Our international sales are predominately U.S. dollar denominated. Although foreign sales are subject to certain government export restrictions, we have not experienced any material difficulties to date as a result of export restrictions.

The semiconductor industry is characterized by seasonality and wide fluctuations of supply and demand. Since a significant portion of our revenue is from consumer markets and international sales, our business may be subject to seasonally lower revenues in the third and fourth quarters of our fiscal year. In recent periods, weakness in the U.S. housing market and general economic conditions have had a more significant impact on our results than seasonality, and has made it difficult to assess the impact of seasonal factors on our business.

#### Backlog

As of April 30, 2008, our backlog was approximately \$225.7 million, compared to \$185.4 million as of April 30, 2007. Our backlog includes all purchase orders scheduled for delivery within the subsequent 12 months.

We primarily produce standard products that can be shipped from inventory within a short time after we receive an order. Our business and, to a large extent, that of the entire semiconductor industry, is characterized by short-term orders and shipment schedules. Orders constituting our current backlog are subject to changes in delivery schedules, or to cancellation at the customer's option without significant penalty. Thus, while backlog is useful for scheduling production, backlog as of any particular date may not be a reliable measure of sales for any future period.

#### Competition

The semiconductor industry is intensely competitive and has been characterized by price erosion and rapid technological change. We compete with major domestic and international semiconductor companies, many of which have greater market recognition and greater financial, technical, marketing, distribution and other resources than we have with which to pursue engineering, manufacturing, marketing and distribution of their products. Furthermore, capacity in the semiconductor industry is generally increasing over time and such increased capacity or improved product availability could adversely affect our competitive position.

We currently compete principally on the basis of the technical innovation and performance of our embedded control products, including the following product characteristics:

- speed
- functionality
- density
- power consumption
- reliability

- packaging alternatives

We believe that other important competitive factors in the embedded control market include:

- ease of use
- functionality of application development systems
- dependable delivery, quality and availability
- technical service and support
- price

We believe that we compete favorably with other companies on all of these factors, but we may be unable to compete successfully in the future, which could harm our business.

#### Patents, Licenses and Trademarks

We maintain a portfolio of United States and foreign patents, expiring on various dates between 2008 and 2026. We also have numerous additional United States and foreign patent applications pending. We do not expect that the expiration of any particular patent will have a material impact on our business. While we intend to continue to seek patents on our inventions and manufacturing processes, we believe that our continued success depends primarily on the technological skills and innovative capabilities of our personnel and our ability to rapidly commercialize product developments, rather than on our patents. Our existing patents and any new patents that are issued may not be of sufficient scope or strength to provide meaningful protection or any commercial advantage to us. In addition, the laws of certain foreign countries do not protect our intellectual property rights to the same extent as the laws of the United States.



We have entered into certain intellectual property licenses and cross-licenses with other companies related to semiconductor products and manufacturing processes. As is typical in the semiconductor industry, we and our customers have from time to time received, and may in the future receive, communications from third parties asserting patent or other intellectual property rights on certain of our products or technologies. We investigate all such notices and respond as we believe is appropriate. Based on industry practice, we believe that in most cases we can obtain any necessary licenses or other rights on commercially reasonable terms, but we cannot assure that all licenses would be on acceptable terms, that litigation would not ensue or that damages for any past infringement would not be assessed. Litigation, which could result in substantial cost to us and require significant attention from management, may be necessary to enforce our patents or other intellectual property rights, or to defend us against claimed infringement of the rights of others. The failure to obtain necessary licenses or other rights, or litigation arising out of infringement claims, could harm our business.

#### Environmental Regulation

We must comply with many different federal, state, local and foreign governmental regulations related to the use, storage, discharge and disposal of certain chemicals and gases used in our manufacturing processes. Our facilities have been designed to comply with these regulations and we believe that our activities are conducted in compliance with such regulations. Any changes in such regulations or in their enforcement could require us to acquire costly equipment or to incur other significant expenses to comply with environmental regulations. Any failure by us to adequately control the storage, use and disposal of regulated substances could result in future liabilities.

Increasing public attention has been focused on the environmental impact of electronic manufacturing operations. While we have not experienced any materially adverse effects on our operations from environmental regulations, our business and results of operations could suffer if for any reason we fail to control the use of, or to adequately restrict the discharge of, hazardous substances under present or future environmental regulations.

#### Employees

As of March 31, 2008, we had 4,811 employees. None of our employees are represented by a labor organization. We have never had a work stoppage and believe that our employee relations are good.

#### Executive Officers

The following sets forth certain information regarding our executive officers as of April 30, 2008:

Name	Age	Position
Steve Sanghi	52	Chairman of the Board, President and Chief Executive Officer
Ganesh Moorthy	48	Executive Vice President
Stephen V. Drehobl	46	Vice President, Security, Microcontroller and Technology Division
David S. Lambert	56	Vice President, Fab Operations
Mitchell R. Little	55	Vice President, Worldwide Sales and Applications
Gordon W. Parnell	58	Vice President, Chief Financial Officer
Richard J. Simoncic	44	Vice President, Analog and Interface Products Division

Mr. Sanghi has been President since August 1990, CEO since October 1991, and Chairman of the Board since October 1993. He has served as a director since August 1990. Mr. Sanghi holds an M.S. degree in Electrical and Computer Engineering from the University of Massachusetts and a B.S. degree in Electronics and Communication from Punjab University, India. Since May 2004, he has been a member of the Board of Directors of Xyratex Ltd., a storage and network technology company. Since May 2007, he has been a member of the Board of Directors of FIRST (For Inspiration and Recognition of Science and Technology).

Mr. Moorthy has served as Executive Vice President since October 2006 and served as a Vice President in various roles since he joined the Company in 2001. Prior to this time, he served in various executive capacities with other semiconductor companies. Mr. Moorthy holds an M.B.A. in Marketing from National University, a B.S. degree in Electrical Engineering from the University of Washington and a B.S. degree in Physics from the University of Bombay.

Mr. Drehobl has served as Vice President of the Security, Microcontroller, and Technology Division since July 2001. He has been employed by Microchip since August 1989 and has served as a Vice President in various roles since February 1997. Mr. Drehobl holds a Bachelor of Technology degree from the University of Dayton.

Mr. Lambert has served as Vice President, Fab Operations since November 1993. From 1991 to November 1993, he served as Director of Manufacturing Engineering, and from 1989 to 1991, he served as Engineering Manager of Fab Operations. Mr. Lambert holds a B.S. degree in Chemical Engineering from the University of Cincinnati.

Mr. Little has served as Vice President, Worldwide Sales and Applications since July 2000. He has been employed by Microchip since 1989 and has served as a Vice President in various roles since September 1993. Mr. Little holds a B.S. degree in Engineering Technology from United Electronics Institute.

Mr. Parnell has served as Vice President and Chief Financial Officer since May 2000. He served as Vice President, Controller and Treasurer from April 1993 to May 2000. Mr. Parnell holds a finance/accounting qualification with the Association of Certified Accountants from Edinburgh College, Scotland. Since January 2008, he has been a member of the Board of Directors of Integrated Device Technology, Inc.

Mr. Simoncic has served as Vice President, Analog and Interface Products Division since September 1999. From October 1995 to September 1999 he served as Vice President in various roles. Joining Microchip in 1990, Mr. Simoncic held various roles in Design, Device/Yield Engineering and Quality Systems. Mr. Simoncic holds a B.S. degree in Electrical Engineering Technology from DeVry Institute of Technology.

#### Item 1A.

#### RISK FACTORS

When evaluating Microchip and its business, you should give careful consideration to the factors listed below, in addition to the information provided elsewhere in this Form 10-K and in other documents that we file with the Securities and Exchange Commission.

Our quarterly operating results may fluctuate due to factors that could reduce our net sales and profitability.

Our quarterly operating results are affected by a wide variety of factors that could reduce our net sales and profitability, many of which are beyond our control. Some of the factors that may affect our quarterly operating results include:

- changes in demand or market acceptance of our products and products of our customers;
  - levels of inventories at our customers;
- the mix of inventory we hold and our ability to satisfy orders from our inventory;
- changes in utilization of our manufacturing capacity and fluctuations in manufacturing yields;
  - our ability to secure sufficient assembly and testing capacity;
  - availability of raw materials and equipment;
  - competitive developments including pricing pressures;
  - the level of orders that are received and can be shipped in a quarter;
  - the level of sell-through of our products through distribution;
  - fluctuations in the mix of products;
  - changes or fluctuations in customer order patterns and seasonality;
- constrained availability from other electronic suppliers impacting our customers' ability to ship their products, which in turn may adversely impact our sales to those customers;
- costs and outcomes of any current or future tax audits or any litigation involving intellectual property, customers or other issues;

- disruptions in our business or our customers' businesses due to terrorist activity, armed conflict, war, worldwide oil prices and supply, public health concerns or disruptions in the transportation system;
  - property damage or other losses, whether or not covered by insurance; and
  - general economic, industry or political conditions in the United States or internationally.

We believe that period-to-period comparisons of our operating results are not necessarily meaningful and that you should not rely upon any such comparisons as indications of future performance. In future periods our operating results may fall below our public guidance or the expectations of public market analysts and investors, which would likely have a negative effect on the price of our common stock.

Our operating results will suffer if we ineffectively utilize our manufacturing capacity or fail to maintain manufacturing yields.

The manufacture and assembly of integrated circuits, particularly non-volatile, erasable CMOS memory and logic devices such as those that we produce, are complex processes. These processes are sensitive to a wide variety of factors, including the level of contaminants in the manufacturing environment, impurities in the materials used, the performance of our wafer fabrication personnel and equipment, and other quality issues. As is typical in the semiconductor industry, we have from time to time experienced lower than anticipated manufacturing yields. Our operating results will suffer if we are unable to maintain yields at approximately the current levels. This could include delays in the recognition of revenue, loss of revenue or future orders, and customer-imposed penalties for failure to meet contractual shipment deadlines. Our operating results are also adversely affected when we operate at less than optimal capacity. Lower capacity utilization results in certain costs being charged directly to expense and lower gross margins.

We are dependent on orders that are received and shipped in the same quarter and are therefore limited in our visibility of future product shipments.

Our net sales in any given quarter depend upon a combination of shipments from backlog and orders received in that quarter for shipment in that quarter, which we refer to as turns orders. We measure turns orders at the beginning of a quarter based on the orders needed to meet the shipment targets that we set entering the quarter. Historically, we have relied on our ability to respond quickly to customer orders as part of our competitive strategy, resulting in customers placing orders with relatively short delivery schedules. Shorter lead times generally mean that turns orders as a percentage of our business are relatively high in any particular quarter and reduces our backlog visibility on future product shipments. Turns orders correlate to overall semiconductor industry conditions and product lead times. Because turns orders are difficult to predict, varying levels of turns orders make our net sales more difficult to forecast. If we do not achieve a sufficient level of turns orders in a particular quarter relative to our revenue targets, our revenue and operating results may suffer.

Intense competition in the markets we serve may lead to pricing pressures, reduced sales of our products or reduced market share.

The semiconductor industry is intensely competitive and has been characterized by price erosion and rapid technological change. We compete with major domestic and international semiconductor companies, many of which have greater market recognition and substantially greater financial, technical, marketing, distribution and other resources than we do with which to pursue engineering, manufacturing, marketing and distribution of their products. We may be unable to compete successfully in the future, which could harm our business. Our ability to compete successfully depends on a number of factors both within and outside our control, including, but not limited to:

- the quality, performance, reliability, features, ease of use, pricing and diversity of our products;
- our success in designing and manufacturing new products including those implementing new technologies;
  - the rate at which customers incorporate our products into their own applications;
  - product introductions by our competitors;
  - the number, nature and success of our competitors in a given market;
- our ability to obtain adequate supplies of raw materials and other supplies at acceptable prices;
- our ability to protect our products and processes by effective utilization of intellectual property rights;
- the quality of our customer service and our ability to address the needs of our customers; and
  - general market and economic conditions.

Historically, average selling prices in the semiconductor industry decrease over the life of any particular product. The overall average selling prices of our microcontroller and proprietary analog and interface products have remained relatively constant, while average selling prices of our Serial EEPROM and non-proprietary analog and interface products have declined over time.

We have experienced, and expect to continue to experience, modest pricing declines in certain of our more mature proprietary product lines, due primarily to competitive conditions. We have been able to moderate average selling price declines in many of our proprietary product lines by continuing to introduce new products with more features and higher prices. However, there can be no assurance that we will be able to do so in the future. We have experienced in the past and expect to continue to experience in the future varying degrees of competitive pricing pressures in our Serial EEPROM and non-proprietary analog products.

We may be unable to maintain average selling prices for our products as a result of increased pricing pressure in the future, which could adversely impact our operating results.

Our business is dependent on selling through distributors.

Sales through distributors accounted for approximately 64% of our net sales in fiscal 2008 and 65% of our net sales in each of fiscal 2007 and 2006. Our largest distributor accounted for approximately 12% of our net sales in fiscal 2008, 11% of our net sales in fiscal 2007 and 13% of our net sales in fiscal 2006. Our two largest distributors accounted for approximately 19% of our net sales in fiscal 2008, 21% of our net sales in fiscal 2007 and 24% of our net sales in fiscal 2006. We do not have long-term agreements with our distributors and we and our distributors may each terminate our relationship with little or no advance notice.

On February 4, 2008, we terminated our distributor Arrow Electronics and announced that we had partnered with Avnet Electronics Marketing and Future Electronics to provide our global distribution services. We believe that these two global distributors combined with our regional and specialty distributor partners will have a positive long-term impact in supporting the technical and commercial support needs of our customers. Our net sales of product sold by Arrow Electronics in the year ended March 31, 2008 represented approximately 7% of our net sales. Although we do not believe the termination of Arrow Electronics will have a material adverse impact on our net sales, there can be no assurance as to what the long-term or short-term impact on us will be as a result of these recent actions.

During fiscal 2006, we reduced the gross margin that certain of our distributors earn when they sell our products. We reduced these distributors' gross margins because we believed these distributors did not have sufficient technical sales resources to properly address the marketplace for our products. Since fiscal 2006, we have added over 150 technical sales employees and added new regional distributors throughout our worldwide sales organization to address the support requirements for both our OEM and distribution customers. Although these actions have not had a material adverse impact on the overall effectiveness of our distribution channel, there can be no assurance that there will not be an adverse impact in the future.

During an industry and/or economic downturn, it is possible there will be an oversupply of products, and a decrease in sell-through by our distributors. The decline in sell-through of our products by, loss of, or a disruption in the operations of, one or more of our distributors could reduce our net sales in a given period and could result in an increase in inventory returns.

Our success depends on our ability to introduce new products on a timely basis.

Our future operating results will depend on our ability to develop and introduce new products on a timely basis that can compete effectively on the basis of price and performance and which address customer requirements. The success of our new product introductions depends on various factors, including, but not limited to:

- proper new product selection;
- timely completion and introduction of new product designs;
- availability of development and support tools and collateral literature that make complex new products easy for engineers to understand and use; and
- market acceptance of our customers' end products.

Because our products are complex, we have experienced delays from time to time in completing development of new products. In addition, our new products may not receive or maintain substantial market acceptance. We may be unable to design, develop and introduce competitive products on a timely basis, which could adversely impact our future operating results.

Our success also depends upon our ability to develop and implement new design and process technologies. Semiconductor design and process technologies are subject to rapid technological change and require significant R&D

expenditures. We and other companies in the industry have, from time to time, experienced difficulties in effecting transitions to advanced process technologies and, consequently, have suffered reduced manufacturing yields or delays in product deliveries. Our future operating results could be adversely affected if any transition to future process technologies is substantially delayed or inefficiently implemented.

We must attract and retain qualified personnel to be successful, and competition for qualified personnel is intense in our market.

Our success depends upon the efforts and abilities of our senior management, engineering and other personnel. The competition for qualified engineering and management personnel is intense.

We may be unsuccessful in retaining our existing key personnel or in attracting and retaining additional key personnel that we require. The loss of the services of one or more of our key personnel or the inability to add key personnel could harm our business. We have no employment agreements with any member of our senior management team. As a result of the anticipated impact that the adoption of SFAS No. 123R in our first fiscal quarter of 2007 would have on our results of operations, we changed our equity compensation program during fiscal 2006. We now grant fewer equity-based shares per employee and the type of equity instrument is generally restricted stock units rather than stock options. This change in our equity compensation program may make it more difficult for us to attract or retain qualified management and engineering personnel, which could have an adverse effect on our business.



We are dependent on several contractors to perform key manufacturing functions for us.

We use several contractors located in Asia for a portion of the assembly and testing of our products. We also rely on outside wafer foundries for a portion of our wafer fabrication. Although we own the majority of our manufacturing resources, the disruption or termination of any of our contractors could harm our business and operating results.

Our use of third parties involves some reduction in our level of control over the portions of our business that we subcontract. Our future operating results could suffer if any contractor were to experience financial, operations or production difficulties or situations when demand exceeds capacity, or if they were unable to maintain manufacturing yields, assembly and test yields and costs at approximately their current levels, or if due to their locations in foreign countries they were to experience political upheaval or infrastructure disruption. Further, procurement of required products and services from third parties is done by purchase order and contracts. If these third parties are unable or unwilling to timely deliver products or services conforming to our quality standards, we may not be able to qualify additional manufacturing sources for our products in a timely manner or at all, and such arrangements, if any, may not be on favorable terms to us. In such event, we could experience an interruption in production, an increase in manufacturing and production costs, decline in product reliability, and our business and operating results could be adversely affected.

We may lose sales if our suppliers of raw materials and equipment fail to meet our needs.

Our semiconductor manufacturing operations require raw materials and equipment that must meet exacting standards. We generally have more than one source for these supplies, but there are only a limited number of suppliers capable of delivering various raw materials and equipment that meet our standards. The raw materials and equipment necessary for our business could become more difficult to obtain as worldwide use of semiconductors in product applications increases. We have experienced supply shortages from time to time in the past, and on occasion our suppliers have told us they need more time than expected to fill our orders or that they will no longer support certain equipment with updates or spare and replacements parts. An interruption of any raw materials or equipment sources, or the lack of supplier support for a particular piece of equipment, could harm our business.

Our operating results may be impacted by both seasonality and the wide fluctuations of supply and demand in the semiconductor industry.

The semiconductor industry is characterized by seasonality and wide fluctuations of supply and demand. Since a significant portion of our revenue is from consumer markets and international sales, our business may be subject to seasonally lower revenues in the third and fourth quarters of our fiscal year. However, fluctuations in our overall business in certain recent periods and semiconductor industry conditions have had a more significant impact on our results than seasonality, and has made it difficult to assess the impact of seasonal factors on our business. The industry has also experienced significant economic downturns, characterized by diminished product demand and production over-capacity. We have sought to reduce our exposure to this industry cyclically by selling proprietary products that cannot be easily or quickly replaced, to a geographically diverse base of customers across a broad range of market segments. However, we have experienced substantial period-to-period fluctuations in operating results and expect, in the future, to experience period-to-period fluctuations in operating results due to general industry or economic conditions.

We are exposed to various risks related to legal proceedings or claims.

We are currently, and in the future may be, involved in legal proceedings or claims regarding patent infringement, intellectual property rights, contracts and other matters. As is typical in the semiconductor industry, we receive notifications from customers from time to time who believe that we owe them indemnification or other obligations related to infringement claims made against the customers by third parties. These legal proceedings and claims,

whether with or without merit, could result in substantial cost to us and divert our resources. If we are not able to resolve a claim, negotiate a settlement of a matter, obtain necessary licenses on commercially reasonable terms, reengineer our products or processes to avoid infringement, and/or successfully prosecute or defend our position, we could incur uninsured liability in any of them, be required to take an appropriate charge to operations, be enjoined from selling a material portion of our product line or using certain processes, suffer a reduction or elimination in value of inventories, and our business, financial condition or results of operations could be harmed.

It is also possible that from time to time we may be subject to claims related to the performance or use of our products. These claims may be due to products nonconformance to our specifications, or specifications agreed upon with the customer, changes in our manufacturing processes, and unexpected end customer system issues due to the interaction with our products or insufficient design or testing by our customers. We could incur significant expenses related to such matters, including costs related to writing off the value of inventory of defective products; recalling defective products; providing support services, product replacements, or modification to products; the defense of such claims; diversion of resources from other projects; lost revenue or delay in recognition of revenue due to cancellation of orders and unpaid receivables; customer imposed fines or penalties for failure to meet contractual requirements; and a requirement to pay damages.

Because the systems into which our products are integrated have a higher cost of goods than the products we sell, these expenses and damages may be significantly higher than the sales and profits we received from the products involved. While we specifically exclude consequential damages in our standard terms and conditions, our ability to avoid such liabilities may be limited by applicable law. We do have product liability insurance, but we do not expect that insurance will cover all claims or be of a sufficient amount to fully protect against such claims. Costs or payments we may make in connection with these customer claims may adversely affect the results of our operations.

Further, we sell to customers in industries such as automotive, aerospace, and medical, where failure of their systems could cause damage to property or persons. We may be subject to customer claims if our products, or interactions with our products, cause the system failures. We will face increased exposure to customer claims if there are substantial increases in either the volume of our sales into these applications or the frequency of system failures caused by our products.

Failure to adequately protect our intellectual property could result in lost revenue or market opportunities.

Our ability to obtain patents, licenses and other intellectual property rights covering our products and manufacturing processes is important for our success. To that end, we have acquired certain patents and patent licenses and intend to continue to seek patents on our inventions and manufacturing processes. The process of seeking patent protection can be long and expensive, and patents may not be issued from currently pending or future applications. In addition, our existing patents and any new patents that are issued may not be of sufficient scope or strength to provide meaningful protection or any commercial advantage to us. We may be subject to or may ourselves initiate interference proceedings in the U.S. Patent and Trademark Office, which can require significant financial and management resources. In addition, the laws of certain foreign countries do not protect our intellectual property rights to the same extent as the laws of the United States. Infringement of our intellectual property rights by a third party could result in uncompensated lost market and revenue opportunities for us.

We do not typically have long-term contracts with our customers.

We do not typically enter into long-term contracts with our customers and we cannot be certain about future order levels from our customers. When we do enter into customer contracts, the contract is generally cancelable at the convenience of the customer. Even though we have approximately 60,000 end customers and our ten largest customers made up approximately 9% of our total revenue for the year ended March 31, 2008, cancellation of customer contracts could have an adverse financial impact on our revenue and profits.

Further, as the practice has become more commonplace in the industry, we have entered into contracts with certain customers that differ from our standard terms of sale. Under these contracts we commit to supply quantities of products on scheduled delivery dates. If we become unable to supply the customer as required under the contract, the customer may incur additional production costs, lost revenues due to subsequent delays in their own manufacturing schedule, or quality related issues. Under these contracts, we may be liable for the costs the customer has incurred. While we try to limit such liabilities, if they should arise, there may be a material adverse impact on our results of operation and financial condition.

Business interruptions could harm our business.

Operations at any of our manufacturing facilities, or at any of our wafer fabrication or test and assembly subcontractors, may be disrupted for reasons beyond our control, including work stoppages, power loss, incidents of terrorism or security risk, political instability, public health issues, telecommunications, transportation or other infrastructure failure, fire, earthquake, floods, or other natural disasters. If operations at any of our facilities, or our subcontractors' facilities are interrupted, we may not be able to shift production to other facilities on a timely basis. If this occurs, we would likely experience delays in shipments of products to our customers and alternate sources for

production may be unavailable on acceptable terms. This could result in reduced revenues and profits and the cancellation of orders or loss of customers. In addition, business interruption insurance will likely not be enough to compensate us for any losses that may occur and any losses or damages incurred by us as a result of business interruptions could significantly harm our business.

We are highly dependent on foreign sales and operations, which exposes us to foreign political and economic risks.

Sales to foreign customers account for a substantial portion of our net sales. During fiscal 2008, approximately 75% of our net sales were made to foreign customers. During fiscal 2007, approximately 74% of our net sales were made to foreign customers. We purchase a substantial portion of our raw materials and equipment from foreign suppliers. In addition, we own product assembly and testing facilities located near Bangkok, Thailand, which has experienced periods of political uncertainty in the past. We also use various foreign contractors for a portion of our assembly and testing and for a portion of our wafer fabrication requirements. Substantially all of our finished goods inventory is maintained in Thailand.

Fluctuations in foreign currency could impact our operating results. We use forward currency exchange contracts to reduce the adverse earnings impact from the effect of exchange rate fluctuations on our non-U.S. dollar net balance sheet exposures. Nevertheless, in periods when the U.S. dollar significantly fluctuates in relation to the non-U.S. currencies in which we transact business, the remeasurement of non-U.S. dollar transactions can have an adverse effect on our results of operations and financial condition.

Our reliance on foreign operations, foreign suppliers, maintenance of substantially all of our finished goods in inventory at foreign locations and significant foreign sales exposes us to foreign political and economic risks, including, but not limited to:

- political, social and economic instability;