Microchip

Microchip’s goal is to be a worldwide leader in providing specialized semiconductor products for a wide variety of embedded control applications. Our strategic focus is on embedded control solutions, including general-purpose and specialized microcontrollers, development tools and related software, analog, interface, mixed-signal and timing products, wired and wireless connectivity products, memory products and technology licensing. We provide highly cost-effective embedded control solutions that also offer the advantages of small size, high performance, extreme low power usage, wide voltage range operation, mixed-signal integration and ease of development, thus enabling timely and cost-effective integration of our solutions by our customers in their end products.
Our Long-Term Operating Model

Microchip has consistently produced excellent financial results with high gross margins and operating margins compared to our industry peers. In May 2017 we updated our long-term non-GAAP operating model to target 62.5% gross margins and 22.5% operating expenses, which drives 40% non-GAAP operating margins. Our recent operating margins put us in the top tier of companies in the semiconductor industry with room for further improvement as we continue to make operational improvements to drive us to our long-term operating margin target of 40%.

Elements of Sustainability

- Low-cost manufacturing footprint
- Focused and efficient R&D driving technological innovation
- One of the industry’s broadest product portfolios of embedded control products
- The only non-commissioned sales force among industry leaders
- Significant sales channel reach with over 115 distribution partners
- Over 115,000 worldwide customers with approximately 60% of our revenue in the industrial and automotive markets, which tend to have very long product life cycles

Broad Product Portfolio

We offer a broad family of proprietary general-purpose microcontroller products marketed under our well-known brand names. We believe that our microcontroller product families provide leading functionality and performance characteristics in the worldwide microcontroller market. We have shipped over 20 billion microcontrollers to customers worldwide since 1990. We also offer specialized microcontrollers for automotive networking, computing, lighting, power supplies, motor control, human machine interface, security, wired connectivity and wireless connectivity. With more than 2,900 microcontrollers in our product portfolio, we target the 8-bit, 16-bit and 32-bit microcontroller markets. Our extensive experience base has enabled us to develop microcontrollers with rich analog and digital peripherals that have a small footprint, extreme low power consumption and are re-programmable, enabling us to be a leader in microcontroller product offerings.

Manufacturing/Technology

Microchip’s manufacturing operations include wafer fabrication, wafer probe, assembly and test. We own a substantial portion of our manufacturing resources, enabling us to maintain a high level of control, resulting in us being one of the lowest cost producers in the embedded control industry. Our manufacturing strategy employs older-generation equipment and maximizes its potential output via continuous improvement activities, rather than using next-generation technology, equipment and fabs that require billions of dollars of investment. We regularly transition products to more advanced process technologies to reduce future manufacturing costs. We do outsource a significant portion of our manufacturing requirements to third parties, primarily due to acquisitions of companies that outsourced all or substantial portions of their manufacturing. 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 products. Wise investments in our wafer probe, product assembly and testing facilities including process improvements, upgrading existing equipment, and adding equipment have increased efficiencies and allowed our facilities to support more technologies. While we do use third-party assembly and test contractors in several Asian countries (again due primarily to acquisitions), we intend to migrate a portion of the outsourced assembly and test facilities to our owned facilities in Thailand and the Philippines.
Sales Channels
We market and sell our products worldwide primarily through a network of non-commissioned direct sales personnel and over 115 distribution partners. Our direct sales personnel combined with our distributors provide an effective means of reaching our diverse customer base.

Our direct sales force focuses on a wide variety of strategic accounts. We currently maintain sales and technical support centers in major metropolitan areas of the Americas, Europe and Asia. We believe that a strong technical service presence is essential to the continued development of the embedded control market. Many of our client engagement managers, embedded system engineers, and sales management have technical degrees or backgrounds, and have been previously employed in high technology environments. The technical knowledge of our sales force is a key competitive advantage in the sale of our products.

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 us for our products and brand name, and use distributors as an effective supply channel. In fiscal 2017, we derived 55% of our net sales through distributors, and 45% of our net sales from customers serviced directly by us. No distributor or end customer accounted for more than 10% of our net sales in fiscal 2017, 2016 or 2015.

End Market Mix
Our end market mix is diversified, as identified in the chart below:

While it is diversified, our end market mix is leveraged towards the industrial and automotive segments, making up 60% of our business. These two end markets are fast growing and are important for our sustained highly profitable growth. Industrial and automotive applications tend to be what we refer to as “sticky sockets”, meaning once Microchip parts have been designed in, it is difficult and expensive for the end customer to change designs. These markets also afford us high margins.

Microchip is in a broad range of automotive applications including infotainment, networking inside the vehicle, access control applications, as well as in touch control in a range of both touch screen and touch buttons. Microchip products are also in the garage door openers inside the vehicle.

Microchip is a supplier of industrial-grade Internet of Things (IoT) solutions to remotely identify, monitor and control every individual device on a network. Our products significantly reduce the complexity and overhead of deploying IoT across a variety of industrial applications, including factory automation, smart grid, building control and transportation.
The Evolution from Microchip 1.0 to Microchip 2.0

Microchip has recently transitioned from what we refer to as Microchip 1.0 to Microchip 2.0.

Microchip 1.0 consisted of the following attributes:

- **Consistent revenue growth** – We have grown from a $90 million revenue company in fiscal 1993 to $3.4 billion in fiscal 2017.
- **Perennial market share gains** – We have consistently grown our market share in our strategic product lines of microcontrollers and analog products. Based on Gartner’s published market information, we are now the third largest supplier of microcontroller products. Our analog business has produced outstanding revenue growth over the past 10 years, growing from $82.6 million in fiscal 2007 to $888.9 million in fiscal year 2017.
- **High-margin business model** – We have consistently produced high gross margins and operating margins driven by our focus on continuous improvement throughout our business.
- **Stockholder friendly with consistently increasing dividends and free cash flow** – We were one of the first companies in the semiconductor industry to implement a consistent quarterly dividend program and we have increased our dividend over 50 times since its inception in 2002. The free cash flow generation (defined as cash flow from operations less capital expenditures) from our business is consistently high. As a point of reference, in the first quarter of fiscal 2018 our free cash generation as a percentage of revenue was 33.2%.
- **Successful acquisition strategy** - In 2008 we began a new journey in our quest to return value to stockholders with our acquisition strategy. At that time we realized that the semiconductor industry needed to consolidate. The industry was maturing and we wanted to add another growth driver for revenue and earnings expansion. Since 2008 we have completed 17 acquisitions of both public and private companies that add to our portfolio of products and technology that we can offer to our customers. We are excellent operators of businesses and have found ways to transform acquired companies operating models from relatively poor performance to high performance by applying our systems, processes and culture to the acquired businesses. Acquisitions are now a core competency within Microchip today and we expect to continue to be active in acquisitions while being price disciplined and patient in our approach.
- The chart below shows the acquisitions we have completed since 2008:

**Expanding Our Solutions Through Acquisitions**

- **2008**
  - **Hampshire**
    - Touch Screen Controllers
  - **2009**
    - **HI-TECH**
      - Development Tools Compiler
    - **R&I**
      - Security & Life Safety ASICs
  - **2010**
    - **SMSC**
      - High-Speed ADCs
    - **LSS**
      - Assembly and Test Capacity Expansion
  - **2011**
    - **ZeroG**
      - Low-Power Embedded Wi-Fi®
    - **SST**
      - High-Density Flash and IP
    - **Roving Networks**
      - Bluetooth® and Embedded Wi-Fi®
  - **2012**
    - **Ident**
      - 3D Gesture Capture and Proximity Detect
    - **EqcoLogic**
      - Equalizer and Coaxial Transceiver Products
  - **2013**
    - **Novocell**
      - Non-Volatile Memory IP
    - **Supertex**
      - High-Voltage Analog and Mixed-Signal Products
  - **2014**
    - **Micrel**
      - Analog, Mixed-Signal, Timing and Power Management
    - **SMSC**
      - MOST®, USB, Ethernet, Wireless Audio and PC Controllers
  - **2015**
    - **Atmel**
      - Microcontrollers, Wireless, Touch, Automotive, Security and Memory
  - **2016**
    - **ISSC**
      - Bluetooth®
    - **Roving Networks**
      - Bluetooth® and Embedded Wi-Fi®
    - **Ident**
      - 3D Gesture Capture and Proximity Detect
    - **EqcoLogic**
      - Equalizer and Coaxial Transceiver Products
Microchip 2.0 builds on the existing characteristics of Microchip 1.0 and has added the following:

- Total system solution in embedded control – Our many acquisitions combined with our internal product development has helped us build a powerful, diversified product line through which we are able to provide total system solutions to our customers. With over 115,000 customers that we sell to today, we believe there is a significant opportunity to take our large product portfolio to our customers to help them choose the appropriate products to drive the electronic functions in their end applications. Our sales channels have been trained and are welcoming the opportunity to sell multiple products to our customers on the same board. As a result, our customers are responding by giving us incremental design wins with multiple products going into their applications.

- Leading customer preference to design with our microcontroller products – We are experiencing a growing trend of customers preferring to design with our microcontroller solutions. This was recently demonstrated by the EETimes customer preference surveys that show tremendous increases in customer preference to design with our 8-bit, 16-bit and 32-bit microcontroller solutions. These surveys by EETimes also indicate that Microchip has the best ecosystem (software, tools, support, etc.) in the industry. These surveys are great forward looking indicators for the growth opportunity for our business.

- Multiple growth drivers including:
  - Microcontroller market growth and market share gains
  - Analog growth and the opportunity to “attach” our products to more customer applications
  - Wireless and wired connectivity solutions/Internet of Things – We have a broad portfolio of products allowing our customers the opportunity to provide connectivity in their end applications
  - Security – We have outstanding security products and security is becoming a more critical requirement in many of our customer’s products
  - Automotive market growth opportunities including networking, human machine interface, access control, lighting and body electronics
  - Technology licensing – We have a growing and very profitable technology licensing business whose technology is the most popular Flash memory cell in the industry and used by all of the major wafer foundries as well as many of our competitors in the manufacture of microcontrollers and smartcards
  - New long term operating model with industry leading operating profits (40% non-GAAP target)
  - A favorable end market mix skewed towards the industrial and automotive markets–Embedded control applications are all around us in our everyday lives and because of this our products are sold into thousands of applications in a variety of end markets including industrial, automotive, consumer, computing, communications, defense and aerospace. The majority of our revenue is in industrial and automotive applications that tend to have very long product life cycles. We see the industrial and automotive markets presenting very attractive long-term growth opportunities for our business as semiconductor penetration into these markets continues to proliferate. As indicated in the previous pie chart, industrial (35%) and automotive (25%) are our largest end markets.

Microchip 2.0 is the next phase in Microchip’s lifecycle. We have a very large design win funnel and we feel very optimistic that in Microchip 2.0 we will continue to see acceleration in the organic growth of Microchip.
Stockholder Return Strategy

From the date that Microchip went public in 1993 until now we have consistently produced outstanding returns for our stockholders through stock price appreciation as well as our dividend program. Our stock price has appreciated from $0.57 per share (split adjusted) on the date we went public in 1993 to $80.04 on July 31, 2017, providing a return on investment of over 13,900% (not including dividends paid over this time period). We were one of the first companies in the semiconductor industry to pay a dividend to its stockholders. Since the inception of our dividend in 2002, we have paid out over $3.20 billion to our stockholders. During this same time frame we have bought back $1.77 billion of our common stock from the market. Our total return to stockholders through our dividend and stock repurchase efforts is almost $5 billion over this time frame. Our Board of Directors is committed to the dividend as a way of returning value to our stockholders, and has increased the dividend paid per share over 50 times since 2002.

Our operating model and relatively low capital intensity drives significant cash generation from our business. Our free cash flow (defined as cash flow from operations less capital expenditures) as a percentage of revenue was 28.9% in fiscal 2017 and grew to 33.2% in the first quarter of fiscal 2018 as our operating model continued to improve. Free cash flow at these levels allows us to make the appropriate investments in our business, pay a significant dividend to our stockholders and continue to look for complimentary acquisition opportunities.

The combination of a business that has consistently outgrown the industry on an organic basis, our high margin business model, our acquisition efforts and our dividend program has driven consistently outstanding returns for our stockholders over many years.

Our Culture is a Competitive Advantage

Microchip's positive, progressive company culture is not accidental. It was consciously designed by the company's leaders to enable all employees to understand and practice a common set of guiding values. Employees are encouraged to work in unison to achieve our goals of quality, profits and technological advancement. Microchip designs jobs and provides opportunities that promote employee teamwork, productivity, creativity, trust and pride. Recognition, advancement and compensation are based on an employee’s achievement of excellence in both team and individual performance.

Microchip is unlike many corporations throughout the world. Organizational charts are upside-down. The management staff works for employees, and the overall focus is on serving customers—both internal and external. Microchip believes that key management contributions are made when obstacles are removed from employees’ paths. Beyond the strengths of Microchip’s technological advancements are its never-ending commitment to employee development and empowerment, and its pledge to foster a positive employee environment. At Microchip, individual empowerment is not just a “buzzword” – it’s a way of life.

Our culture attracts and retains talented employees. Our executive management team is living proof of this, where the individual with the least amount of tenure has been with Microchip for sixteen years. We have an extensive training and leadership development program that provides us with a well trained team of employees throughout the organization that is eager to take on new challenges and work within our culture to produce consistently outstanding results.

Summary

Microchip’s vision is to be the very best embedded control solutions company ever. We are relentlessly pursuing our vision by focusing on ways to improve our business. These efforts including outgrowing the industry on an organic basis, making incremental improvements to our operations as we drive towards our target long-term operating model and executing the various strategies of Microchip 2.0 that will allow us to provide outstanding service to our customers and drive industry leading returns for our stockholders. We believe that our company culture and operational excellence will continue to drive innovation with our solutions that are Smart, Connected and Secure.