

PART I

Item 1. *Business*

Business Overview

ON Semiconductor Corporation and its subsidiaries (“we,” “us,” “our,” “ON Semiconductor,” or the “Company”) is driving innovation in energy efficient electronics. Our extensive portfolio of power and signal management, logic, discrete and custom devices helps customers efficiently solve their design challenges in advanced electronic systems and products. Our power management and motor driver semiconductor components control, convert, protect and monitor the supply of power to the different elements within a wide variety of electronic devices. Our custom ASICs use analog, DSP, mixed-signal and advanced logic capabilities to act as the brain behind many of our automotive, medical, military/aerospace, consumer and industrial customers’ products. Our data management semiconductor components provide high-performance clock management and data flow management for precision computing, communications and industrial systems. Our image sensors, optical image stabilization and auto focus devices provide advanced imaging solutions for optical systems. Our standard semiconductor components serve as “building blocks” within virtually all types of electronic devices. These various products fall into the logic, analog, discrete, image sensors and memory categories used by the WSTS group.

We serve a broad base of end-user markets, including automotive, communications, computing, consumer electronics, medical, industrial, smart grid and military/aerospace. Our devices are found in a wide variety of end-products including automotive electronics, smartphones, media tablets, wearable electronics, computers, servers, industrial building and home automation systems, consumer white goods, LED lighting, power supplies, networking and telecom equipment, medical diagnostics, imaging and hearing health, and sensor networks.

Our portfolio of devices enables us to offer advanced ICs and the “building block” components that deliver system level functionality and design solutions. Our extensive product portfolio consisted of approximately 46,000 products in 2013 and we shipped approximately 42.4 billion units in 2013 as compared to 37.1 billion units in 2012. We offer micro packages, which provide increased performance characteristics while reducing the critical board space inside today’s ever shrinking electronic devices and power modules, delivering improved energy efficiency and reliability for a wide variety of high power applications. We believe that our ability to offer a broad range of products, combined with our global manufacturing and logistics network, provides our customers with single source purchasing on a cost-effective and timely basis.

We are currently organized into three operating segments, which also represent three reporting segments: Application Products Group, Standard Products Group, and System Solutions Group (formerly referred to as the “SANYO Semiconductor Products Group”). Our System Solutions Group was acquired on January 1, 2011 from SANYO Electric, and designs, manufactures and sells discrete components, hybrid ICs, radio frequency and power related products as well as custom ICs. Many of these devices fall into the existing product categories described above. However, the addition of our System Solutions Group operating segment expanded our capability in microcontrollers and optical imaging (including auto-focus and image stabilization for smartphones and media tablets), and extended our custom ASICs to integrated power modules and motor control devices for the consumer, automotive and industrial end-markets. Each of our major product lines has been assigned to a segment, as illustrated in the table below, based on our operating strategy. From time to time we reassess the alignment of our product families and devices to our operating segments and may move product families or individual devices from one operating segment to another.

[Table of Contents](#)

<u>Application Products Group</u>	<u>Standard Products Group</u>	<u>System Solutions Group</u>
Automotive ASSPs	Bipolar Power	Power MOSFETs
Analog Automotive	Thyristor	IGBTs
Automotive Power Switching	Small Signal	Power and Signal Discretes
Automotive Mixed-Signal solutions	Zener	Intelligent Power Modules
Medical ASICs & ASSPs	Protection	Motor Driver ICs
Linear Light Sensors	Rectifier	Display Drivers
CMOS Image Sensors	Filters	ASICs
Mixed Signal ASICs	MOSFETs	Microcontrollers
Industrial ASSPs	Signal & Interface	Flash Memory
High Frequency / Timing	Standard Logic	Touch Sensor
IPDs	LDO's & VREGs	Power Supply IC
Foundry and Manufacturing Services	EE Memory and Programmable Analog	Audio DSP
Hearing Components	IGBTs	Audio Tuners
DC-DC Conversion		Image Stabilizer ICs
Analog Switches		Auto Focus ICs
AC-DC Conversion		
Low Voltage Power Management		
Power Switching		
RF Antenna Tuning Solutions		

We currently have domestic design operations in Arizona, California, Colorado, Idaho, Montana, Oregon, Pennsylvania, Rhode Island, Texas and Utah. We also have foreign design operations in Belgium, Canada, China, Czech Republic, France, Germany, India, Ireland, Japan, Korea, Philippines, Romania, Slovakia, Switzerland and Taiwan. Additionally, we currently operate domestic manufacturing facilities in Idaho and Oregon and have foreign manufacturing facilities in Belgium, Canada, China, Czech Republic, Japan, Malaysia, Philippines and Vietnam.

Company Highlights for the year ended December 31, 2013

- Total revenues of approximately \$2,782.7 million
- Gross margin of approximately 33.7%
- Net income of \$0.33 per diluted share
- Cash, cash equivalents and short-term investments of \$625.7 million
- Retired \$72.6 million of our 2.625% Notes and \$73.4 million of our 1.875% Notes
- Extended our senior revolving credit facility through October 2018 and increased the borrowing capacity pursuant to the senior revolving credit facility to \$800 million
- Completed the repurchase of approximately 13.9 million shares of common stock under our previously announced share repurchase program

Company History and Capital Structure

Prior to August 1999, we were a wholly-owned subsidiary of Motorola and operated as the Semiconductor Components Group of Motorola's Semiconductor Products Sector. On August 4, 1999, we were recapitalized (the "recapitalization") and certain related transactions were effected pursuant to an agreement among us, our principal domestic operating subsidiary, SCI LLC, Motorola and affiliates of Texas Pacific Group ("TPG"). During 2007, TPG sold all of its remaining shares of our common stock to multiple buyers and ceased being our principal stockholder.

[Table of Contents](#)

Recent Company Mergers and Acquisitions

We have historically pursued strategic acquisitions to leverage our existing capabilities and further build our business.

On January 1, 2011, we paid SANYO Electric \$142.1 million in cash and issued a \$377.5 million note payable to SANYO Electric, through SCI LLC, in exchange for a 100% interest in SANYO Semiconductor and certain other semiconductor related assets held by SANYO Electric. In the second quarter of 2011, we received approximately \$39.7 million in cash from SANYO Electric for working capital and pension adjustments as determined in accordance with the purchase agreement, which resulted in a net purchase price of \$479.9 million.

The acquisition of SANYO Semiconductor provided us with a stronger market presence in Japan, with many leading Japan-based customers, some of which were previously our customers. We believe that this acquisition has provided and will continue to provide us with access to market-leading Japanese and Asian customers, while providing our System Solutions Group's customers with access to advanced front-end mixed-signal and analog manufacturing, and ultra high volume back-end facilities. Since acquiring SANYO Semiconductor in 2011, we have incurred material restructuring expenses to achieve cost savings in order to align the System Solutions Group's cost structure with expected revenue levels as the System Solutions Group experienced revenue and financial performance declines which were greater than our expectations and greater than cyclical declines in our other operating segments. These revenue declines were at least partially attributable to the impact from the October 2011 Thailand flood, a softening of the Japanese consumer market and, to a lesser extent, political tensions between Japan and China. See Part II, Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations—Results of Operations" under the heading "Restructuring, Asset Impairments and Other, Net" included elsewhere in this report for additional information on our System Solutions Group restructuring activities. On a long-term basis, we expect our System Solutions Group to benefit from access to ON Semiconductor's market leading customers not previously doing business with SANYO Semiconductor in North America, Europe and China.

On February 27, 2011, we acquired 100% of the CMOS ISBU from Cypress Semiconductor for \$34.1 million in cash. The ISBU includes a broad portfolio of high-performance custom and standard image sensors used in multi-megapixel machine vision, linear and two dimensional (2D) bar code imaging, medical x-ray imaging, biometrics, digital photography and cinematography, and aerospace applications. The acquired products include the VITA, LUPA, STAR, and IBIS families, which are all well known throughout the industry.

During 2010, we acquired 100% of SDT and CMD in all cash transactions. During 2009, we acquired 100% of PulseCore in an all cash transaction. Among other benefits, these acquisitions improved our position as a leader of certain technologies, expanded our product offerings in certain end-markets, allowed us to reach more customers and enhanced our existing product portfolio.

See Note 4: "Acquisitions" of the notes to our audited consolidated financial statements included elsewhere in this report for further discussion of certain of these acquisitions.

Products and Technology

The following provides certain information regarding our operating segments. See "Business Overview" above and Note 18: "Segment Information" of the notes to our audited consolidated financial statements included elsewhere in this report for other information regarding our segments and their revenues and property, plant and equipment and the income derived therefrom.

Application Products Group

The Application Products Group designs and develops analog, mixed-signal and advanced logic ASIC and ASSP solutions for a broad base of end-users in the automotive, consumer electronics, computing, industrial, communications, medical and military / aerospace markets. Our product solutions enable industry leading active

[Table of Contents](#)

mode and standby mode efficiency now being demanded by regulatory agencies around the world. Additionally, the Application Products Group offers foundry and manufacturing services, including IPD technology, which leverages the Company's broad range of manufacturing, IC design, packaging and silicon technology offerings to provide flexible turn-key solutions for our customers. Certain of the Application Products Group's broad portfolio of products and solutions are summarized below:

<u>End-Market</u>	<u>Certain Focused Products and Solutions</u>
<i>Automotive electronics</i>	Energy efficient solutions that reduce emissions, improve fuel economy and safety, enhance lighting, and make possible an improved driving experience.
<i>Computing</i>	Solutions for a wide range of voltage and current options ranging from multi-phase 30 volt power for VCORE processors to single cell battery point of load. Thermal and battery charging solutions are also supported.
<i>Industrial electronics</i>	Power efficient communication and sensor interface products. Power line communication and power monitoring and switching solutions for high voltage lines down to residential applications. CMOS image sensors for high speed machine vision, space, and cinematography applications.
<i>Communications</i>	Power management products that allow lowest possible current consumption at high efficiency, RF tuning to enhance radio performance, ambient light and proximity sensing devices.

Standard Products Group

The Standard Products Group serves a broad base of end-user markets, including consumer electronics, computing, wireless and wired communications, automotive electronics, industrial electronics and medical via six major discrete semiconductor technology categories: diodes and transistors, analog products, LED drivers, EEPROMs, power MOSFETs and Standard Logic.

The wide array of discrete and integrated semiconductor products that we offer within these categories perform multiple application functions, including power switching, signal conditioning, circuit protection, signal amplification and voltage reference functions. The trends driving growth within our end-user markets are primarily the demand for greater functionality in small hand-held devices, faster data transmission rates in all communications applications and higher efficiency in all power applications. The proliferation of electronic content in automobiles has induced tremendous stress on the existing 12 volt electrical infrastructure. Power efficiency and exceptionally low power drain modes have now become a critical automotive issue as more and more electronic features exist. The new technologies being developed to support these market trends include lower capacitance protection and integrated signal conditioning products to support faster data transmission rates, micro packages for multiple hand-held applications and switching and rectification technologies that allow for high efficiency energy usage and conversion.

System Solutions Group

Our System Solutions Group is a global supplier of analog and mixed signal ICs, microcontrollers, DSPs, analog and digital tuners, intelligent power modules, memory and discrete semiconductors to the automotive, communications, consumer and industrial end-markets. Our diverse product portfolio includes analog power management ICs; motor drive ICs; intelligent modules for power inversion, motor control, and automotive electronics; 8,16 and 32-bit microcontrollers; audio and video tuners; DSPs and image enhancement products supporting a broad range of applications, including automotive infotainment and motor control systems, consumer white goods, wireless communications devices (including smartphones and media tablets), LCD TVs, and digital still cameras and camcorders. The continuing transformation to make all electronics systems "smart", connected and more power efficient presents a substantial opportunity to draw on our diverse product portfolio and applications expertise to provide customers with comprehensive systems solutions for their applications. We further possess unique micro-packaging capabilities that help customers meet their need to reduce device size

[Table of Contents](#)

and weight as more semiconductor content is incorporated into electronics systems and device dimensions shrink to increase portability. Moreover, for home appliance and industrial power applications, we possess unique power assembly packaging and composite material IP, which allows our customers to improve power efficiency in their end products. These advanced packaging capabilities allow us to provide complete, fully tested solutions resulting in faster time to market for our customers.

Customers

In general, we have maintained long-term relationships with our key customers. Sales agreements with customers are renewable periodically and contain certain terms and conditions with respect to payment, delivery, warranty and supply, but typically do not require minimum purchase commitments. Most of our OEM customers negotiate pricing terms with us on an annual basis near the end of the calendar year, while our other customers, including electronic manufacturer service providers and distributors, generally negotiate pricing terms with us on a quarterly basis. Our products are ultimately purchased for use in a variety of end-markets, including computing, automotive electronics, consumer electronics, industrial electronics, wireless communications, networking, military aerospace and medical. For the years ended December 31, 2013, December 31, 2012, and December 31, 2011, we had no sales to individual customers, including distributors, that accounted for 10% or more of our total consolidated revenues. Prior to 2011, sales to one of our distributors, Avnet, represented 10% or more of total consolidated revenues as follows: 13% and 11% for the years ended December 31, 2010 and December 31, 2009, respectively. Revenues for our Application Products Group and Standard Products Group include distributor sales to Avnet.

For the year ended December 31, 2013, aggregate revenue from our five largest customers by revenue, including distributors, for our Application Products Group, Standard Products Group, and System Solutions Group comprised approximately 30%, 41% and 48% of total revenue for each respective operating segment. The loss of certain of these customers or distributors may have a material adverse effect on the operations of the respective segment.

We generally warrant that products sold to our customers will, at the time of shipment, be free from defects in workmanship and materials and conform to our approved specifications. Subject to certain exceptions, our standard warranty extends for a period of two years. Generally, our customers may cancel orders 30 days prior to shipment for standard products and 90 days prior to shipment for custom products without incurring a significant penalty. For additional information regarding agreements with our customers, see “Backlog” below.

[Table of Contents](#)

End-Markets for Our Products

The following table sets forth our principal end-markets, the estimated percentage (based in part on information provided by our distributors and electronic manufacturing service providers) of our revenues generated from each end-market during 2013, sample applications for our products and representative OEM customers and end-users.

	Computing	Consumer Electronics	Automotive Electronics	Industrial Electronics	Communications	Networking	Mil-Aero	Medical
Approximate percentage of 2013 Revenue	16%	19%	27%	16%	15%	3%	1%	3%
<i>Sample applications</i>	Notebooks, Ultrabooks, & 2-in-1s Desktop PCs & All-in-Ones Graphics Servers & Workstations Internal & External Power Supplies	Music Players & Camera Modules Flat TVs & Set-Top Boxes Gaming & Home Entertainment Systems White Goods Power Supplies	Fuel Economy & Emission Reduction Active Safety Body Electronics & Lighting Infotainment & Connectivity Power Supplies	Smart Grid & Metering Monitoring & Surveillance Motor Controls General LED Lighting Power Supplies	Tablets Smart Phone Wearables Torch and Backlighting Power Supplies	Switches Routers Base Stations Network Cards Power Supplies	Cockpit Displays Guidance Systems Infrared Imaging Image Sensors	Hearing Devices Imaging Diagnostic, Therapy, & Monitoring Implantable Devices
<i>Representative OEM customers and end-users</i>	Apple Inc. Asus Dell Computer Delta Electronics Emerson Electric Co Foxconn Gigabyte Hewlett Packard Co Lenovo Seagate Technology	Canon Inc. Echostar LG Electronics Microsoft Midea Panasonic Corporation Philips Samsung Electronics Sony Corp Whirlpool Corp	Bosch GMBH Continental Automotive Systems Delphi Fujitsu Ten LTD Hella KG Magnetit Marelli Panasonic Corporation TRW Inc Valeo Visteon	Delta Electronics Emerson Electric Co Flir Systems Honeywell Inc. Kionix INC Landis + GYR AG Schneider Electric Siemens Industrial Tyco International	Apple Inc. Huawei Tech Co., Ltd. Lenovo LG Electronics Samsung Electronics Sony Mobile Xiaomi Inc. ZTE Hong Kong Ltd	Alcatel Lucent Cisco Delta Electronics Ericsson Huawei Nokia Solutions and Networks ZTE Hong Kong LTD	Aeroflex British Aerospace General Electric Co. Honeywell ITT Corporation L-3 Communications Lockheed Martin Raytheon Co Rockwell Collins Sofradir	Abbot Labs Boston Scientific ELA Medical General Electric Co Intricon Corp Medtronic Mindray Philips St. Jude Medical Starkey Laboratories

OEMs Direct sales to OEMs accounted for approximately 48% of our revenues in 2013, 55% of our revenues in 2012 and 56% of our revenues in 2011. OEM customers include a variety of companies in the electronics industry such as Continental Automotive Systems, Delta Electronics, Hella, Panasonic Corporation and Samsung Electronics. We focus on three types of OEMs: multi-nationals, selected regional accounts and target market customers. Large multi-nationals and selected regional accounts, which are significant in specific markets, are our core OEM customers. The target market customers for our end-markets are OEMs that are on the leading edge of specific technologies and provide direction for technology and new product development. Generally, our OEM customers do not have the right to return our products following a sale other than pursuant to the provisions of our standard warranty.

[Table of Contents](#)

Distributors Sales to distributors accounted for approximately 44% of our revenues in 2013, 38% of our revenues in 2012 and 37% of our revenues in 2011. Our distributors, which include Arrow, Avnet, OS Electronics, World Peace and WT Microelectronics, resell to mid-sized and smaller OEMs and to electronic manufacturing service providers and other companies. Sales to distributors are typically made pursuant to agreements that provide return rights with respect to discontinued or slow-moving products. Under certain agreements, distributors are allowed to return any product that we have removed from our price book. In addition, agreements with certain of our distributors contain stock rotation provisions permitting limited levels of product returns. Due to current limitations on the feasibility of estimating the up front effect of returns and allowances with these distributors, we defer recognition of revenue and gross profit on sales to these distributors until these distributors resell the product. As a result, sales returns have minimal impact on our results of operations.

Electronic Manufacturing Service Providers Direct sales to electronic manufacturing service providers accounted for approximately 8% of our revenues in 2013, 7% of our revenues in 2012 and 7% of our revenues in 2011. Among our largest electronic manufacturing service customers are Benchmark Electronic, Flextronics, HK Towada Electronics, Jabil and Sanmina. These customers are manufacturers who typically provide contract manufacturing services for OEMs. Originally, these companies were involved primarily in the assembly of printed circuit boards, but they now typically provide design, supply management and manufacturing solutions as well. Many OEMs now outsource a large part of their manufacturing to electronic manufacturing service providers in order to focus on their core competencies. We are pursuing a number of strategies to penetrate this increasingly important marketplace. Generally, our electronic manufacturing service customers do not have the right to return our products following a sale other than pursuant to the provisions of our standard warranty.

See Part II, Item 7 “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and Note 18: “Segment Information” of the notes to our audited consolidated financial statements included elsewhere in this report for revenues by geographic locations.

Manufacturing Operations

We operate front-end wafer site facilities located in Belgium, Canada, Czech Republic, Japan, Malaysia, and the United States, and back-end assembly and test site facilities located in Canada, China, Japan, Malaysia, Philippines and Vietnam. In addition to these front-end and back-end manufacturing operations, our facility in Roznov, Czech Republic manufactures silicon wafers that are used by a number of our facilities.

[Table of Contents](#)

The table below sets forth information with respect to the manufacturing facilities we operate either directly or through our joint venture, as well as the reporting segments that use these facilities, along with the approximate gross square footage of each site's building which includes, among other things, manufacturing, laboratory, warehousing, office, utility, support and unused areas.

Location	Reporting Segment	Size (sq. ft.)
Front-end Facilities:		
Burlington, Canada (1) (2)	Application Products Group	95,400
Gresham, Oregon	Application Products Group, Standard Products Group and System Solutions Group	518,000
Pocatello, Idaho	Application Products Group and Standard Products Group	443,000
Roznov, Czech Republic	Application Products Group, Standard Products Group and System Solutions Group	237,000
Oudenaarde, Belgium	Application Products Group and Standard Products Group	167,900
Seremban, Malaysia (Site-2)	Application Products Group, Standard Products Group and System Solutions Group	81,200
Niigata, Japan	Standard Products Group and System Solutions Group	1,724,600
Back-end Facilities:		
Burlington, Canada (1) (2)	Application Products Group	95,400
Leshan, China	Application Products Group and Standard Products Group	363,000
Seremban, Malaysia (Site-1)	Application Products Group, Standard Products Group and System Solutions Group	309,300
Carmona, Philippines	Application Products Group, Standard Products Group and System Solutions Group	222,500
Saitama, Japan (3)	System Solutions Group	377,000
Tarlac City, Philippines	Application Products Group, Standard Products Group and System Solutions Group	861,100
Shenzhen, China	System Solutions Group	208,000
Bien Hoa, Vietnam	Standard Products Group and System Solutions Group	247,572
Gunma, Japan (1)	Application Products Group and System Solutions Group	59,043
Other Facilities:		
Roznov, Czech Republic	Application Products Group, Standard Products Group and System Solutions Group	405,300
Thuan An District, Vietnam	System Solutions Group	29,063

- (1) These facilities are leased.
- (2) This facility is used for both front-end and back-end operations with a total square footage of 95,400.
- (3) We have committed to a plan to close this facility during 2014. See Part II, Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations—Results of Operations" under the heading "Restructuring, Asset Impairments and Other, Net" included elsewhere in this report for additional information on certain of our facility closures.

We operate all of our manufacturing facilities directly, with the exception of our assembly and test operations facility located in Leshan, China, which is owned by a joint venture company, Leshan-Phoenix Semiconductor Company Limited ("Leshan"), of which we own a majority of the outstanding equity interests. Our investment in Leshan has been consolidated in our financial statements. Our joint venture partner, Leshan

[Table of Contents](#)

Radio Company Ltd., is formerly a state-owned enterprise. Pursuant to the joint venture agreement, requests for production capacity are made to the board of directors of Leshan by each shareholder of the joint venture. Each request represents a purchase commitment by the requesting shareholder, provided that the shareholder may elect to pay the cost associated with the unused capacity (which is generally equal to the fixed cost of the capacity) in lieu of satisfying the commitment. We committed to purchase 70% of Leshan's production capacity in 2013, 70% in 2012, 70% in 2011 and are currently committed to purchase approximately 70% of Leshan's expected production capacity in 2014.

We use third-party contractors for some of our manufacturing activities, primarily for wafer fabrication and the assembly and testing of finished goods. Our agreements with these contract manufacturers typically require us to forecast product needs and commit to purchase services consistent with these forecasts. In some cases, longer-term commitments are required in the early stages of the relationship. These contract manufacturers, including Amkor, ASE, GRACE/HHNEC, UMC and UTAC, accounted for approximately 26%, 23% and 23% of our manufacturing costs in 2013, 2012 and 2011, respectively.

For information regarding risks associated with our foreign operations, see Part I, Item 1A "Risk Factors" under the heading "Trends, Risks and Uncertainties Related to Our Business" included elsewhere in this report.

Raw Materials

Our manufacturing processes use many raw materials, including silicon wafers, gold, copper, and lead frames, mold compound, ceramic packages and various chemicals and gases. We obtain our raw materials and supplies from a large number of sources generally on a just-in-time basis, and material agreements with our suppliers that impose minimum or continuing supply obligations are reflected in our table which shows commitments, contingencies and indemnities in Part II, Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources" under the heading "Contractual Obligations" included elsewhere in this report. From time to time, suppliers may extend lead times, limit supplies or increase prices due to capacity constraints or other factors. Although we believe that supplies of the raw materials we use are currently and will continue to be available, shortages could occur in various essential materials due to interruption of supply, increased demand in the industry or certain other factors.

Sales, Marketing and Distribution

As of December 31, 2013, our global sales and marketing organization consisted of approximately 1,100 professionals, servicing customers in approximately 70 countries. We support our customers through logistics organizations and just-in-time warehouses. Global and regional distribution channels further support our customers' needs for quick response and service. We offer efficient, cost-effective global applications support from our Technical Information Centers and Solution Engineering Centers, allowing for applications which are developed in one region of the world to be instantaneously available throughout all other regions.

Patents, Trademarks, Copyrights and Other Intellectual Property Rights

We market our products under our registered trademark ON Semiconductor® and our ON logo. We own rights to a number of patents, trademarks, copyrights, trade secrets and other IP directly related to and important to our business. In connection with our 1999 recapitalization, Motorola assigned, licensed or sublicensed to us, as the case may be, certain IP to support and continue the operation of our business. We also acquired or were licensed or sublicensed to a significant amount of IP, including patents and patent applications, in connection with our acquisition of SANYO Semiconductor. In connection with the IP received from the SANYO Semiconductor transaction, we received a limited indemnity umbrella to protect us from general unknown and certain known infringement claims from third parties. As of December 31, 2013, we had approximately 6,200 U.S. and foreign patents and approximately 1,600 patent applications pending worldwide. Our patents have expiration dates ranging from 2014 to 2033. None of our patents that expire in the near future materially affect

[Table of Contents](#)

our business. Additionally, we have rights to more than 293 registered and common law trademarks. Our policy is to protect our products and processes by asserting our IP rights where appropriate and prudent and by obtaining patents, copyrights and other IP rights used in connection with our business when practicable and appropriate.

Seasonality

Historically, our revenues have been affected by the cyclical nature of the semiconductor industry and the seasonal trends of related end-markets consisting of a stronger second half of the year as compared to the first half of the year. We have, in the past, experienced substantial quarter-to-quarter fluctuations in revenues and operating results and, in the future, could continue to experience short-term period-to-period fluctuations in operating results due to general industry or economic conditions.

Backlog

Our trade sales are made primarily pursuant to orders that are predominantly booked as far as 26 weeks in advance of delivery. Generally, prices and quantities are fixed at the time of booking. Backlog as of a given date consists of existing orders and forecasted demand from our Electronic Data Interface customers, in each case scheduled to be shipped over the 13-week period following such date. Backlog is influenced by several factors, including market demand, pricing and customer order patterns in reaction to product lead times. For those shipments to distributors who are allowed sales return rights and allowances, we record revenues on a “sell-through” basis. Thus, backlog comprised of orders from these distributors will not result in revenues until these distributors sell the products ordered. During 2013, our backlog at the beginning of each quarter represented between 82% and 87% of actual revenues during such quarter, which is consistent with backlog levels in recent prior periods. As manufacturing capacity utilization in the industry increases, customers tend to order products further in advance and, as a result, backlog at the beginning of a period as a percentage of revenues during such period is likely to increase.

In the semiconductor industry, backlog quantities and shipment schedules under outstanding purchase orders are frequently revised to reflect changes in customer needs. Agreements calling for the sale of specific quantities are either contractually subject to quantity revisions or, as a matter of industry practice, are often not enforced. Therefore, a significant portion of our order backlog may be cancelable. For these reasons, the amount of backlog as of any particular date may not be an accurate indicator of future results.

We sell products to key customers pursuant to contracts that allow us to schedule production capacity in advance and allow the customers to manage their inventory levels consistent with just-in-time principles while shortening the cycle times required for producing ordered products. However, these contracts are typically amended to reflect changes in customer demands and periodic price renegotiations.

Competition

The semiconductor industry, particularly the market for general-purpose semiconductor products like ours, is highly competitive. Although only a few companies compete with us in all of our product lines, we face significant competition within each of our product lines from major international semiconductor companies, as well as smaller companies focused on specific market niches. Because our components are often building block semiconductors that, in some cases, can be integrated into more complex ICs, we also face competition from manufacturers of ICs, ASICs and fully customized ICs, as well as customers who develop their own IC products. See Part I, Item 1A “Risk Factors—Trends, Risks and Uncertainties Related to Our Business” located elsewhere in this report for additional information.

In comparison, several competitors noted below are larger in scale and size, have substantially greater financial and other resources with which to pursue development, engineering, manufacturing, marketing and

[Table of Contents](#)

distribution of their products and may generally be better situated to withstand adverse economic or market conditions. The following discusses the effects of competition on our three operating segments:

Application Products Group

The principal methods of competition in the Application Products Group are with other custom semiconductor vendors based on design experience, manufacturing capability, depth and quality of IP, ability to service customer needs from the design phase to the shipping of a completed product, length of design cycle, longevity of technology support and experience of sales and technical support personnel.

Our ability to compete successfully depends on internal and external variables, both inside and outside of our control. These variables include, but are not limited to, the timeliness with which we can develop new products and technologies, product performance and quality, manufacturing yields and availability, customer service, pricing, industry trends and general economic trends. Select competitors for certain of our products and solutions include: Elmos Semiconductor AG; Intersil Corporation; Maxim Integrated Products, Inc.; Melexis N.V.; STMicroelectronics N.V.; and Texas Instruments Inc.

Standard Products Group

The Standard Products Group's competitive strengths are in our market leading protection and filtering products, the breadth of our portfolio, technical performance, micro-packaging expertise, our high quality, low cost structure, and supply chain management which ensures supply to key customers. In addition, our strengths include our strong IP portfolio and our ability to leverage IP blocks across the Company to develop high value-added ASSPs.

The principal methods of competing in our discrete semiconductor products are through new product and package innovations with enhanced performance over existing products. Of particular importance are our transient voltage protection and filtering portfolios (ESD Protection and Common Mode Filters), power switching and rectification products, where we believe we enjoy significant performance advantages over our competition. Select competitors for certain of our products include: Diodes Incorporated; Fairchild Semiconductor International, Inc.; Infineon Technologies AG; KEC Corporation; NXP B.V.; Rohm Co., Ltd.; Semtech Corporation; STMicroelectronics N.V.; and Vishay Intertechnology, Inc.

System Solutions Group

The principal methods of competition for the System Solutions Group are technical performance, quality, service and price. Our competitive strengths are strong technology and design capability, breadth of product portfolio, systems design expertise and long-standing supply relationships with leading OEM customers. Select competitors for certain of our products include: Fairchild Semiconductor International, Inc.; International Rectifier Corporation; Mitsubishi Electric; NXP B.V.; Renesas Electronics Corporation; Rohm Co. Ltd.; Sanken Electric; STMicroelectronics N.V.; Texas Instruments Incorporated; and Toshiba Corporation.

[Table of Contents](#)

Research and Development

Company-sponsored research and development costs in 2013, 2012 and 2011 were \$334.2 million (12.0% of revenue), \$367.5 million (12.7% of revenue) and \$362.5 million (10.5% of revenue), respectively. Our new product development efforts continue to be focused on building solutions in power management that appeal to customers in focused market segments and across multiple high growth applications. During 2013, research and development costs decreased as a result of restructuring activities in our System Solutions Group.

Government Regulation

Our manufacturing operations are subject to environmental and worker health and safety laws and regulations. These laws and regulations include those relating to emissions and discharges into the air and water, the management and disposal of hazardous substances, the release of hazardous substances into the environment at or from our facilities and at other sites, and the investigation and remediation of resulting contamination.

Our headquarters in Phoenix, Arizona is located on property that is a "Superfund" site, a property listed on the National Priorities List and subject to clean-up activities under the Comprehensive Environmental Response, Compensation, and Liability Act. Motorola and now Freescale Semiconductor, Inc. ("Freescale") have been actively involved in the cleanup of on-site solvent contaminated soil and groundwater and off-site contaminated groundwater pursuant to consent decrees with the State of Arizona. As part of our 1999 recapitalization, Motorola retained responsibility for this contamination and Motorola and Freescale have agreed to indemnify us with respect to remediation costs and other costs or liabilities related to this matter.

Our former manufacturing location in Aizu, Japan is located on property where soil and ground water contamination has been detected. We believe that the contamination originally occurred during a time when the facility was operated by a prior owner. We have been working with local authorities to implement remediation actions and expect all remaining remediation costs to be covered by insurance. Based on information available, any net costs to us in connection with this matter are not expected to be material.

Our manufacturing facility in the Czech Republic has ongoing remediation projects to respond to releases of hazardous substances that occurred during the years that this facility was operated by government-owned entities. The remediation project consists primarily of monitoring groundwater wells located on-site and off-site, with additional action plans developed to respond in the event activity levels are exceeded. The government of the Czech Republic has agreed to indemnify us and the respective subsidiaries, subject to specified limitations, for remediation costs associated with this historical contamination. Based upon the information available, we do not believe that total future remediation costs to us will be material.

Our design center in East Greenwich, Rhode Island is located on property that has localized soil contamination. When we purchased the East Greenwich facility, we entered into a Settlement Agreement and Covenant Not To Sue with the State of Rhode Island. This agreement requires that remedial actions be undertaken and a quarterly groundwater monitoring program be initiated by the former owners of the property. Based on the information available, we do not believe that any costs to us in connection with this matter will be material.

As a result of the acquisition of AMIS in 2008, we are a "primary responsible party" to an environmental remediation and cleanup at AMIS's former corporate headquarters in Santa Clara, California. Costs incurred by AMIS include implementation of the clean-up plan, operations and maintenance of remediation systems, and other project management costs. However, AMIS's former parent company, a subsidiary of Nippon Mining contractually agreed to indemnify AMIS and us for any obligation relating to environmental remediation and cleanup at this location. Based on the information available, we do not believe that any future costs to us in connection with this matter will be material.

We believe that our operations are in material compliance with applicable environmental and health and safety laws and regulations. We do not expect the cost of compliance with existing environmental and health and safety laws and regulations, and liability for currently known environmental conditions, to have a material

[Table of Contents](#)

adverse effect on our business or prospects. It is possible, however, that future developments, including changes in laws and regulations, government policies, customer specification, personnel and physical property conditions, including currently undiscovered contamination, could lead to material costs.

Employees

As of December 31, 2013, we had approximately 22,000 employees worldwide, of which approximately 2,300 employees were in the United States. None of our employees in the United States are covered by collective bargaining agreements. Certain of our foreign employees are covered by collective bargaining arrangements (i.e., Japan and Belgium) or similar arrangements or are represented by workers councils. For information regarding employee risk associated with our international operations, see Part I, Item 1A “Risk Factors—Trends, Risks and Uncertainties Related to Our Business” elsewhere in this report. Of the total number of our employees as of December 31, 2013, approximately 18,100 were engaged in manufacturing, approximately 1,100 were engaged in our sales and marketing organization which includes customer service, approximately 700 were engaged in administration and approximately 2,100 were engaged in research and development.

Executive Officers of the Registrant

Certain information concerning our executive officers as of February 18, 2014 is set forth below.

<u>Name</u>	<u>Age</u>	<u>Position</u>
Keith D. Jackson	58	President, Chief Executive Officer and Director*
Bernard Gutmann	54	Executive Vice President, Chief Financial Officer and Treasurer*
Paul E. Rolls	51	Executive Vice President, Sales and Marketing*
George H. Cave	56	Senior Vice President, General Counsel, Chief Compliance and Ethics Officer and Corporate Secretary*
William M. Hall	58	Senior Vice President and General Manager, Standard Products Group*
Robert A. Klosterboer	53	Senior Vice President and General Manager, Application Products Group*
Mamoon Rashid	54	Senior Vice President and General Manager, System Solutions Group*

* Executive Officers of both ON Semiconductor and SCI LLC.

The present term of office for the officers named above will generally expire on the earliest of their retirement, resignation or removal. There is no family relationship among such officers.

Keith D. Jackson. Mr. Jackson was elected as a Director of ON Semiconductor and appointed as President and Chief Executive Officer of ON Semiconductor and SCI LLC in November 2002. Mr. Jackson has over 31 years of semiconductor industry experience. Before joining ON Semiconductor, he was with Fairchild Semiconductor Corporation, serving as Executive Vice President and General Manager, Analog, Mixed Signal, and Configurable Products Groups, beginning in 1998, and, more recently, was head of its Integrated Circuits Group. From 1996 to 1998, he served as President and a member of the board of directors of Tritech Microelectronics in Singapore, a manufacturer of analog and mixed signal products. From 1986 to 1996, Mr. Jackson worked for National Semiconductor Corporation, most recently as Vice President and General Manager of the Analog and Mixed Signal division. He also held various positions at Texas Instruments Incorporated, including engineering and management positions, from 1973 to 1986. Mr. Jackson joined the board of directors of Veeco Instruments, Inc. in February 2012, and has served on the board of directors of the Semiconductor Industry Association since 2008.

[Table of Contents](#)

Bernard Gutmann. Mr. Gutmann was promoted and appointed Executive Vice President and Chief Financial Officer of ON Semiconductor and SCI LLC in September 2012 and has served as ON Semiconductor's and SCI LLC's Treasurer since January 2013. Before his promotion, he worked with the corporation as Vice President, Corporate Analysis & Strategy of SCI LLC, serving in that position from April 2006 to September 2012. Mr. Gutmann also served and continues to serve as the Chief Financial Officer of SANYO Semiconductor (now known as the System Solutions Group), a position he has held since March 2011. In these roles, his responsibilities have included finance integration, financial reporting, restructuring, tax, treasury, and financial planning and analysis. From November 2002 to April 2006, Mr. Gutmann served as Vice President, Financial Planning & Analysis and Treasury of SCI LLC. From September 1999 to November 2002, he held the position of Director, Financial Planning & Analysis of SCI LLC. Prior to joining ON Semiconductor, Gutmann served in various financial positions with Motorola, Inc. from 1982 to 1999, including controller of various divisions and an off-shore wafer and backend factory, finance and accounting manager, financial planning manager and financial analyst. He holds a Bachelor of Science in Management Engineering from Worcester Polytechnic Institute in Massachusetts (U.S.). Additionally, he is fluent in English, French, Spanish, and conversant in German.

Paul E. Rolls. Mr. Rolls was promoted and appointed Executive Vice President, Sales and Marketing of ON Semiconductor and SCI LLC in July 2013 to replace his retiring predecessor. Before his promotion, he served as Senior Vice President Japan Sales and Marketing and Senior Vice President of Global Sales Operations, serving in that position from October 2012 to July 2013. Mr. Rolls has more than 25 years of technology sales, and sales management and operations experience, with more than 18 years of sales and sales management experience in the semiconductor industry. Before joining the company, Mr. Rolls was the Senior Vice President, Worldwide Sales and Marketing at Integrated Device Technology, Inc. from January 2010 to April 2012. From August 1996 to December 2009, he held multiple sales positions at International Rectifier Corp., most recently as Senior Vice President, Global Sales. During his career, he has also held management roles at Compaq Computer Corporation.

George H. Cave. Mr. Cave has served as the General Counsel of ON Semiconductor and SCI LLC since August 1999. He also currently serves as a Senior Vice President, Corporate Secretary and Chief Compliance & Ethics Officer for the Company. Mr. Cave's professional career spans over 28 years of broad legal and business experience, including working for over 21 years in the semiconductor industry. Before his tenure with ON Semiconductor and SCI LLC, he served for two years as the Regulatory Affairs Director for Motorola's Semiconductor Components Group in Geneva, Switzerland. Prior to that position, Mr. Cave was Senior Counsel in the Corporate Law Department of Motorola in Phoenix, Arizona for five years. Mr. Cave also serves as the Vice Chairman of the Board of Directors of the American Medical College of Homeopathy.

William M. Hall. Mr. Hall joined the Company in May 2006 as Senior Vice President and General Manager of the Standard Products Group of ON Semiconductor and SCI LLC. During his career, Mr. Hall has held various marketing and product line management positions. Before joining the Company, he served as Vice President and General Manager of the Standard Products Group at Fairchild Semiconductor Corp. Between March 1997 and May 2006, Mr. Hall served at different times as Vice President of Business Development, Analog Products Group, Standard Products Group, and Interface and Logic Group, as well as serving as Vice President of Corporate Marketing at Fairchild. He has also held management positions with National Semiconductor Corp. and was a RADAR design engineer with RCA.

Robert A. Klosterboer. Mr. Klosterboer joined the Company in March 2008 and currently serves as Senior Vice President and General Manager of the Application Products Group for ON Semiconductor and SCI LLC. From March 2008 to September 2012, he was Senior Vice President and General Manager of the business unit then known as the Automotive, Industrial, Medical, & Mil/Aero Group. He has more than three decades of experience in the electronics industry. During his career, Mr. Klosterboer has held various engineering, marketing and product line management positions and responsibilities. Prior to joining ON Semiconductor in 2008, Mr. Klosterboer was Senior Vice President, Automotive & Industrial Group for AMI Semiconductor, Inc. Mr. Klosterboer joined AMIS in 1982 as a test engineer and during his tenure there he also was a design

[Table of Contents](#)

engineer, field applications engineer, design section manager, program development manager, and product marketing manager. Mr. Klosterboer holds a bachelor's degree in electrical engineering technology from Montana State University.

Mamoon Rashid. Mr. Rashid has over 29 years of experience in the semiconductor and electronics industry spanning from marketing, manufacturing, and sales, to product line management positions. In January 2013, Mr. Rashid was appointed as Senior Vice President and General Manager, SANYO Semiconductor Group (now known as the System Solutions Group) for ON Semiconductor and SCI LLC. Prior to his promotion, Mr. Rashid held the position of Vice President of strategic business development, during which time he led the integration and restructuring of SANYO Semiconductor. Mr. Rashid joined ON Semiconductor in October 2004 and has held several leadership positions during his time with us. Prior to September 2008, Mr. Rashid served as Vice President and General Manager of our discrete products division, where he improved the growth and profitability of the business by entering several new product areas. From September 2008 to 2010, Mr. Rashid led our global supply chain organization as Vice President and General Manager during a transformational period for the Company. In these positions, he has supported the growth of ON Semiconductor into a multi-technology leading supplier of power solutions, as well as helped improve profitability, efficiency and new product successes. Prior to joining ON Semiconductor, Mr. Rashid held leadership positions at market leading companies such as Intersil, Semtech and General Semiconductor.

Geographical Information

For certain geographic operating information, see Note 15: "Income Taxes" and Note 18: "Segment Information" of the notes to our audited consolidated financial statements and Part II, Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations," in each case, as included elsewhere in this report. For information regarding other aspects of risks associated with our foreign operations, see Part I, Item 1A "Risk Factors—Trends, Risks and Uncertainties Related to Our Business" elsewhere in this report.

Available Information

We make our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and all amendments to those reports available, free of charge, in the "Investor Relations" section of our Internet website as soon as reasonably practicable after we electronically file these materials with, or furnish these materials to, the Securities and Exchange Commission (the "SEC"). Our website is www.onsemi.com.

You may also read or copy any materials that we file with the SEC at its Public Reference Room at 100 F. Street, N.E., Washington, DC 20549. You may obtain additional information about the Public Reference Room by calling the SEC at 1-800-SEC-0330. Additionally, you will find these materials on the SEC Internet site at <http://www.sec.gov> that contains reports, proxy statements and other information regarding issuers that file electronically with the SEC.

Item 1A. Risk Factors

Overview

This Annual Report on Form 10-K includes "forward-looking statements," as that term is defined in Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). All statements, other than statements of historical facts, included or incorporated in this Form 10-K could be deemed forward-looking statements, particularly statements about our plans, strategies and prospects under the headings "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Business." Forward-looking statements are often characterized by the use of words such as "believes," "estimates," "expects," "projects," "may," "will," "intends," "plans," or "anticipates," or by discussions of strategy, plans or intentions. All forward-looking statements in this Form 10-K are made based on our current expectations, forecasts, estimates and assumptions, and involve risks, uncertainties and other factors that could cause results or events to differ materially from those expressed in the forward-looking statements.