

FORMFACTOR INC  
Form 10-K  
March 04, 2016

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 December 26, 2015

Or

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT  
OF 1934

For the transition period from \_\_\_\_\_ to \_\_\_\_\_  
Commission file number: 000-50307

FormFactor, Inc.

(Exact name of registrant as specified in its charter)

Delaware

13-3711155

(State or other jurisdiction of  
incorporation or organization)

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

7005 Southfront Road, Livermore, California 94551

(Address of principal executive offices, including zip code)

(925) 290-4000

(Registrant's telephone number, including area code)

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

Name of each exchange on which registered: NASDAQ Global Market

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  
Exchange Act. Yes ☐ No ☒

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

Indicate by check mark whether the registrant submitted electronically and posted on its corporate Web site, if any,  
every Interactive Data File required to be submitted and posted pursuant to Rule 405 of the Regulation S-T during the  
preceding 12 months (or for such shorter period that the registrant was required to submit and post such  
files). Yes ☒ No ☐

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

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

Large accelerated filer <input type="checkbox"/>	Accelerated filer <input checked="" type="checkbox"/>	Non-accelerated filer <input type="checkbox"/> (Do not check if a smaller reporting company)	Smaller reporting company <input type="checkbox"/>
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Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

Aggregate market value of registrant's common stock held by non-affiliates of the registrant, based upon the closing price of a share of the registrant's common stock on June 26, 2015 (the last business day of the registrant's most recently completed second quarter) as reported by NASDAQ Global Market on that date: \$363,290,833. Shares of the registrant's common stock held by each executive officer, director and person who owns 5% or more of the outstanding common stock of the registrant have been excluded in that such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

The number of shares of the registrant's common stock, par value \$0.001 per share, outstanding as of March 3, 2016 was 58,912,756 shares.

**DOCUMENTS INCORPORATED BY REFERENCE**

Portions of the registrant's definitive Proxy Statement for the 2015 Annual Meeting of Stockholders, which will be filed within 120 days of the end of the registrant's fiscal year ended December 26, 2015, are incorporated by reference in Part III hereof. Except with respect to information specifically incorporated by reference in this Annual Report on Form 10-K, the Proxy Statement is not deemed to be filed as a part of this Annual Report on Form 10-K.

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FORMFACTOR, INC.

Form 10-K for the Fiscal Year Ended December 26, 2015

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FormFactor, the FormFactor logo and its product and technology names, including Apollo, ATRE, DC-Boost, Matrix, MicroProbe, the MicroProbe logo, MicroSpring, Mx-FinePitch, OneTouch, QiLin, RapidSoak, SmartMatrix, SMART Matrix 100, TouchMatrix, Takumi, TRE, TrueScale and TrueScale Lite, Vector, Vx-MP and Vx-RF are trademarks or registered trademarks of FormFactor, Inc. in the United States and other countries. All other trademarks, trade names or service marks appearing in this Annual Report on Form 10-K are the property of their respective owners.

Throughout this Annual Report on Form 10-K, we refer to FormFactor, Inc. and its consolidated subsidiaries as "FormFactor," "we," "us," and "our". Our fiscal years end on the last Saturday in December. Our last three fiscal years ended on December 26, 2015, December 27, 2014 and December 28, 2013.

## NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K contains forward-looking statements within the meaning of the Securities Exchange Act of 1934 and the Securities Act of 1933, which are subject to known and unknown risks and uncertainties. The forward-looking statements include statements concerning, among other things, our business strategy (including the influence of anticipated trends and developments in our business and the markets in which we operate), financial results, operating results, revenues, gross margin, operating expenses, products, projected costs and capital expenditures, research and development programs, sales and marketing initiatives and competition. In some cases, you can identify these statements by our use of forward-looking words, such as "may," "might," "will," "could," "should," "expect," "plan," "anticipate," "believe," "estimate," "predict," "intend" and "continue," the negative or plural of these words and other comparable terminology. Forward-looking statements are based on information available to us as of the filing date of this Annual Report on Form 10-K and our current expectations about future events, which are inherently subject to change and involve known and unknown risks and uncertainties. You should not place undue reliance on these forward-looking statements. We have no obligation to update any of these statements, and we assume no obligation to do so. Actual events or results may differ materially from those expressed or implied by these statements due to various factors, including but not limited to the matters discussed below in the section entitled "Item 1A: Risk Factors", and elsewhere in this Annual Report on Form 10-K.

Our operating results have fluctuated in the past and are likely to continue to fluctuate. You should not rely on period-to-period comparisons of our financial results as indicators of our future performance. Some of the important factors that could cause our revenues, operating results and outlook to fluctuate from period-to-period include:

- customer demand for and adoption of our products;
- market and competitive conditions in our industry, the semiconductor industry and the economy as a whole;
- the timing and success of new technologies and product introductions by our competitors and by us;
- our ability to work efficiently with our customers on their qualification of our new technologies and products;
- our ability to deliver reliable, cost-effective products that meet our customers' testing requirements in a timely manner;
- our ability to transition to new product architectures to solve next-generation semiconductor test and measurement challenges, and to bring new products into volume production on time and at acceptable yields and cost;
- our ability to implement measures for enabling efficiencies and supporting growth in our design, applications, manufacturing and other operational activities;
- the reduction, rescheduling or cancellation of orders by our customers;
- our ability to collect accounts receivables owed by our customers;
- our product and customer sales mix and geographical sales mix;
- a reduction in the price or the profitability of our products due to competitive pressures or other factors;
- the timely availability or the cost of components and materials utilized in our products;
- our ability to efficiently optimize manufacturing capacity and production yields as necessary to meet customer demand and ramp variable production volumes at our manufacturing facilities;
- our ability to protect our intellectual property against infringement and continue our investment in research and development and design activities;
- any disruption in the operation of our manufacturing facilities;
- the timing of and return on our investments in research and development;
- The impact of any acquisition we might make including our acquisition of Cascade Microtech Inc., and our ability to integrate effectively any acquired businesses into our business operations;
- our ability to realize the benefits of certain deferred tax attributes;

macroeconomic events that impact global buying in general and the semiconductor industry in particular; and seasonality, principally due to our customers' purchasing cycles.

The impact of one or more of these factors might cause our operating results to vary widely. If our revenues, operating results or outlook fall below the expectations of market analysts or investors, the market price of our common stock could decline substantially. You should carefully consider the numerous risks and uncertainties described above and in other section of this Annual Report on Form 10-K.

## PART I

### Item 1: Business

We design, develop, manufacture, sell and support advanced semiconductor probe card products, and are the largest supplier worldwide of those products. Semiconductor manufacturers use our probe cards to perform wafer test (also known as wafer sort), which is the testing of the semiconductor die, or chips, while those die are still constituted on the semiconductor wafer. Wafer test enables semiconductor manufacturers to determine whether chips will meet specifications and be saleable once the wafer is diced, and the die are singulated and individually packaged. The per-die costs of singulation and packaging processes are relatively high, and some of the die on a wafer are typically expected to be defective. Consequently, there is often a compelling economic reason to perform wafer test. Probe cards are a critical element in enabling that wafer test process.

During wafer test, the probe card is mounted on a prober and electrically connected to automated test equipment, or ATE, to form the overall test cell, which is capable of automatically performing wafer test in a full production environment. The probe card forms the electrical interface between the individual chips on a wafer, and the ATE, allowing the ATE to detect chip faults and verify chip functionality and performance. Because each probe card forms a custom interface between a standard ATE system and a unique customer chip design, a key part of our product offering is ensuring that our design and customization processes successfully and accurately match the specific chip and wafer designs of our customers.

We were incorporated in 1993 and we introduced our first probe card in 1995. For much of our history, sales of probe cards for testing Dynamic Random Access Memory, or DRAM, devices made up the majority of our revenues. In October 2012, we completed the acquisition of Astria Semiconductor Holdings, Inc., including its subsidiary Micro-Probe Incorporated (together "MicroProbe"). The majority of MicroProbe's sales consisted of probe cards for testing System-on-Chip, or SoC, devices. The acquisition of Microprobe significantly diversified and broadened our customer and revenue base, and enabled us to realize operational and cost efficiencies in the combined companies' technology, resources, assets, and teams.

Partially as a result of this diversification and leveraging of resources, we improved our financial and operational performance during fiscal 2015 as compared to fiscal 2014. In fiscal 2015, our business continued to gain momentum through strong broad-based customer demand, coupled with continued improvements in our operational execution. During fiscal 2015, we increased revenues by \$13.8 million to \$282.4 million, from \$268.5 million in 2014. Our net loss decreased by \$17.7 million to \$(1.5) million, from \$(19.2) million in 2014. We generated net cash of \$23.8 million in fiscal 2015, making it the second contiguous fiscal year in which we achieved a year-to-year increase in cash, cash equivalents and marketable securities.

As described in further detail below under the heading "Business-Cascade Microtech Acquisition," in February 2016, we entered into a definitive agreement with Cascade Microtech, Inc. ("Cascade Microtech") under which we will acquire all outstanding Cascade Microtech shares in a cash and stock transaction. Cascade Microtech is a leader in the field of probe cards for radio frequency ("RF") semiconductor products, and has important capabilities in engineering probes and test systems. We believe that this combination will further diversify our customer and revenue base, and enable efficiencies and value realization in the combined companies' operations, technology, resources, assets, and teams. By leveraging combined global support and channel investments across a product line that spans from engineering to production test applications, the combined company will be uniquely positioned to solve many of our customers' most difficult test challenges from engineering to production. The transaction is expected to close mid-2016 subject to customary closing conditions, including the receipt of regulatory approvals and the approval by Cascade Microtech's shareholders of the merger.

### Products

Our products utilize a variety of technologies, including micro-electromechanical systems (MEMS) technologies, automation systems, various product architectures and design tools. Our MEMS technologies generally enable rapid and cost-effective manufacturing of resilient multi-material composite spring-like electrically-conductive contact elements with characteristic length scales of a few microns. These contact elements, such as our MicroSpring contacts, optimize the relative amounts of force on, and across, a chip's bond pad, solder bump, or copper pillar during the test process and maintain their shape and position over a range of compression. In addition, while maintaining these mechanical characteristics, the contact

elements must achieve reliable and high-fidelity electrical contact through wafer surfaces that are generally oxidized or otherwise contaminated, and must maintain these attributes over hundreds of thousands, and even millions, of compression cycles. This capability, when paired with our automation systems, enables us to rapidly produce customer-design specific probe cards that deliver leading precision, reliability, and electro-mechanical performance. Our probe cards are customized for our customers' unique wafer and chip design, by modifying and adapting our standard product architectures to meet an individual customer's design layout and electrical test requirements. For many advanced applications, our products must maintain tens of thousands of simultaneous high-fidelity low-impedance electrical contacts with the corresponding chip contacts on the wafer. Our present technologies enable probe cards to be populated with over 100,000 contact elements, with contact element spacings as small as 40 microns, distributed over extents as large as 300mm so that all die on the wafer can be tested simultaneously. We have invested, and intend to continue to invest, considerable resources in proprietary probe card design tools and processes. These tools and processes are intended to enable the rapid and accurate customization described above, including automated routing and trace length adjustment within our probe cards, greatly enhancing our ability to rapidly design complex structures.

In addition, some of our customers test certain chips over a large range of operating temperatures, as opposed to conducting wafer test at one predetermined temperature. We select materials used in our products after careful consideration of the potential range of test operating temperatures, and design our probe cards to provide for a precise match with the thermal expansion characteristics of the wafer under test. As a result, for many of our products, our customers can use the same probe card for both low and high temperature testing without a loss of mechanical or electrical performance. In addition, for test situations for which a customer requires extreme positional accuracy at a specific temperature, we have designed probe cards that are intended to be optimized for testing at such temperatures. Through on-going investments in both our technology and operations, we continue to innovate and improve so that our products will meet customers' future technical roadmap performance, quality, and commercial requirements. We also continue to leverage these ongoing investments across all advanced probe card markets, to realize synergies and economies of scale to benefit our competitiveness, time-to-market and overall profitability.

#### Customers

Our customers include semiconductor chip manufacturers in the DRAM, Flash and SoC markets. Our customers use our probe cards to test DRAM chips, including LPDDR2, LPDDR3, LPDDR4, DDR, DDR2, DDR3, DDR4, SDRAM, PSRAM, and Graphic DRAM; NOR, PCM and NAND flash memory chips. Our customers also use our probe cards to test SoC devices, including microprocessors, mobile application processors, microcontrollers, graphic processors, RF, analog and mixed-signal devices.

Four customers accounted for 60.2% of our revenues in fiscal 2015, 3 customers accounted for 51.6% of our revenues in fiscal 2014 and 3 customers accounted for 45.9% of our revenues in fiscal 2013, as follows:

	Fiscal 2015		Fiscal 2014		Fiscal 2013	
Intel	19.6	%	19.7	%	17.7	%
Samsung	14.6		*		*	
SK hynix	14.3		16.9		16.5	
Micron	11.7		15.0		11.7	
Total	60.2	%	51.6	%	45.9	%

\*Less than 10% of revenues.

Information concerning revenue by geographic region and by country based upon ship to location appears under Item 7: Management's Discussion and Analysis of Financial Condition and Results of Operations - Revenues - Revenues by Geographic Region and Note 14 - Operating Segments and Geographic Information of the Notes to our Consolidated Financial Statements, that are included in this Annual Report on Form 10-K.

#### Backlog

We manufacture our products based on order backlog and customer commitments. Backlog includes only orders with written authorizations and shipment dates within 12 months. Backlog also includes revenue for existing product service agreements to be earned within the next 12 months. Customers may delay delivery of products or cancel orders prior to





shipment, subject to possible cancellation penalties. Due to possible changes in delivery schedules and cancellations of orders, our backlog on any particular date is not necessarily indicative of actual sales for any succeeding period. Delays in delivery schedules or a reduction in backlog during any particular period could have a material adverse effect on our business and results of operations.

#### Manufacturing

Our probe cards are designed for each of our customers' unique wafer design, by modifying and adapting our product architectures to meet an individual customer's design layout and test requirements. Our proprietary manufacturing processes for our probe cards include: a complex interconnection system-level design process; a front-end process, which may include wire bonding, photolithography, plating and metallurgical processes, dry and electro-deposition, pick and place assembly; and a back-end process, which includes general assembly and test. Critical steps in our manufacturing process are performed in a variety of clean room environments, including as stringent as a Class 100 environment, depending on the requirements of the specific manufacturing processes.

We depend on suppliers for some critical components of our manufacturing processes, including ceramic substrates and complex printed circuit boards, and for other materials used in our manufacturing processes. We also rely on suppliers to provide certain contact elements and interconnects incorporated into our products. Some of these components and materials are supplied by a single vendor, and some are subject to certain minimum order quantities. Generally, we rely on purchase orders rather than long-term contracts with our suppliers, which subjects us to risks, including price increases, manufacturing capacity constraints issues and component shortages. We continually assess and evaluate alternative sources of supply for all components and materials.

Our primary manufacturing facilities are located in Livermore, San Jose and Carlsbad, California, United States. We also perform certain probe card manufacturing operations in our facilities in Suzhou, China and Yokohama, Japan. We maintain repair and service capabilities in Livermore, San Jose, and Carlsbad, California, United States; Dresden, Germany; Bundang, South Korea; Yokohama City and Hiroshima, Japan; Suzhou, China; Hsinchu, Taiwan; and Singapore.

#### Research, Development and Engineering

The semiconductor industry is subject to rapid technological change and new product introductions and enhancements. We believe that our continued commitment to research and development and our timely introduction of new and enhanced products and technologies are integral to maintaining and enhancing our competitive position. We allocate significant resources to these efforts, and prioritize those resources to prepare for our customers' next generation wafer test challenges. We also increasingly seek to deploy our resources to solve fundamental challenges that are both common to, and provide competitive advantage across, our SoC, DRAM, and Flash Memory product offerings and roadmaps.

Research and development expenses were \$44.2 million for fiscal 2015, \$42.7 million for fiscal 2014 and \$42.1 million for fiscal 2013.

#### Sales and Marketing

We sell our products worldwide through a global direct sales force. Our sales and marketing staff, located in the United States, China, Germany, Italy, Japan, Singapore, South Korea, and Taiwan, work closely with customers in the effort to understand their businesses, anticipate trends and define products that will provide significant technical and economic advantages to our customers.

We utilize a highly skilled team of application and customer support engineers that support our customers as they integrate our products into their manufacturing processes. Through these customer relationships, we seek to develop a close understanding of customer and product requirements to align our product capabilities and capacities with our customers' roadmaps and production ramps.

#### Environmental Matters

We are subject to U.S. Federal, State, local, and foreign governmental laws and regulations relating to the protection of the environment, including those governing the discharge of pollutants into the air and water, the management and disposal of hazardous substances and wastes, the clean-up of contaminated sites and the maintenance of a safe workplace. We believe that we comply in all material respects with the environmental laws and regulations that apply to us, including those of the California Department of Toxic Substances Control, the Bay Area Air Quality

Management District, the City of Livermore Water Resources Division, County of Santa Clara Department of Environmental Health, County of San Diego Hazardous Materials Division and Encino Water District, and the California Division of Occupational Safety and Health. We did not receive any notices of violations of environmental laws and regulations in fiscal 2015, 2014 or 2013. In the future, we may

receive notices of violations of environmental regulations, or otherwise learn of such violations. Environmental contamination or violations may negatively impact our business.

We are also subject to SEC rules that will require diligence, disclosure and reporting on whether certain minerals and metals, known as conflict minerals, used in our products originate from the Democratic Republic of Congo and adjoining countries. We have implemented a program in the effort to comply with these new rules, which could adversely affect the sourcing, availability and pricing of minerals we use in our products. We will not only incur costs in relation to our compliance with such disclosure requirements, but may also face difficulties in satisfying any of our customers who require that all of our products are certified as conflict mineral free.

#### Competition

The highly competitive probe card market comprises many domestic and foreign companies, and has historically been fragmented with many local suppliers servicing individual customers in often differentiated applications. Our current and potential competitors in the probe card market include AMST Co., Ltd., Cascade Microtech, Inc., Feinmetall GmbH, Japan Electronic Materials Corporation, Korea Instrument Co., Ltd., M2N Co., Ltd., Microfriend Inc., Micronics Japan Co., Ltd., MPI Corporation, NHK Spring Co., Ltd., Soulbrain Engineering, SV Probe, Inc., Synergie CAD, Technoprobe, TSE Co., Ltd. and WILL-Technology Co., Ltd., among others. In addition to the ability to address probe card performance and capability requirements in differing applications, the primary competitive factors in the industry in which we compete include product quality and reliability, price, total cost of ownership, design and manufacturing lead times, service capability, geographic proximity, field applications support and timeliness of delivery.

Some of our competitors are also suppliers of other types of test equipment or other semiconductor equipment and may have greater financial and other resources than we do. We expect our competitors may enhance their current products and may introduce new products that will be competitive with our probe cards. In addition, it is possible that new competitors, including test equipment manufacturers, may offer new technologies that reduce the value of our probe cards.

Additionally, semiconductor manufacturers may implement chip designs that include built-in self-test, or BIST, capabilities or similar functions or methodologies that increase test throughput and reduce test content, thereby eliminating some or all of our current product advantages. Our ability to compete favorably may also be adversely affected by delays in qualification of our new products, very short design and manufacturing lead time requirements, long-standing relationships between our competitors and certain semiconductor manufacturers, and semiconductor manufacturer test strategies that include low performance semiconductor testers and less complex probe cards.

#### Intellectual Property

Our success depends in part upon our ability to continue to innovate and invest in research and development to meet the testing requirements of our customers, to maintain and protect our proprietary technology, and to conduct our business without infringing on the proprietary rights of others. We rely on a combination of patents, trade secrets, trademarks and contractual restrictions on disclosure to protect our intellectual property rights. We have filed actions to enforce those rights against third parties, and may pursue such actions in the future.

We have generated, and continue to generate and maintain, patents and other intellectual property rights covering innovations that are intended to create a competitive advantage, and to support the protection of our investments in research and development. We believe that we possess one of the most substantial patent portfolios relevant to probe card products. Many of our issued patents cover features of our products, including inventions related to interconnect technologies, probe cards and testing, wafer-level packaging and test, sockets and assemblies, and microchips.

Although we believe that our patents and other intellectual property rights have significant value, we do not believe that maintaining or growing our business is materially dependent on any single patent. Due to the rapid pace of innovation within the markets that we serve, it is possible that our protection through patents may be less important than factors such as our technological expertise, continuing development of new products and technologies, protection of trade secrets, market penetration, customer relationships, and our ability to provide comprehensive support and service to customers worldwide.

No assurance can be given that any patents will not be challenged, invalidated or circumvented, or that the rights granted thereunder will provide us with a sustained competitive advantage. In addition, there can be no assurance that

we will be able to protect our technology, or that competitors will not be able to independently develop similar or functionally competitive technologies, design around our patents, or attempt to manufacture and sell infringing products in countries that do not strongly enforce intellectual property rights.

## Employees

As of December 26, 2015, we had 958 regular full-time employees, including 587 in operations, 194 in research and development, 110 in sales and marketing and 67 in general and administrative functions. By region, 705 of our employees were in North America, 63 in China, 60 in Singapore, 53 in South Korea, 34 in Taiwan, 34 in Japan and 9 in Europe. No employees are currently covered by a collective bargaining agreement. We believe that, overall, our relations with our employees are good.

## Available Information

We maintain a website at <http://www.formfactor.com>. We make available free of charge on our website our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, current reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act, as soon as reasonably practicable after we electronically file such material with, or furnish it to, the United State Securities and Exchange Commission, or SEC. The reference to our website does not constitute incorporation by reference of the information contained at the site.

The public may also read and copy any materials that we file with the SEC at the SEC's Public Reference Room at 100 F Street N.E., Washington, D.C. 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC also maintains an Internet website that contains reports and other information regarding issuers, such as FormFactor, that file electronically with the SEC. The SEC's Internet website is located at <http://www.sec.gov>.

## Directors and Executive Officers

Directors. The names of the members of our board of directors, their ages as of December 26, 2015, and their current occupations are set forth below.

Name of Director	Age	Current Occupation
Edward Rogas, Jr.	75	Director of Vitesse Semiconductor Corporation
Lothar Maier	60	Chief Executive Officer and Director of Linear Technology Corporation
Michael D. Slessor	46	Chief Executive Officer and Director of FormFactor, Inc.
Michael W. Zellner	60	Director of FormFactor, Inc.
Kelley Steven-Waiss (1)	46	Director of FormFactor, Inc.
Richard DeLateur	57	Director of FormFactor, Inc.
Thomas St. Dennis	62	Executive Chairman of FormFactor, Inc.

(1) Ms. Steven-Waiss was appointed to the Company's Board in August 2015.

Edward Rogas, Jr. has served as a Director since October 2010. Mr. Rogas served as a Director of Vitesse Semiconductor Corporation until April 2015, Vignani Technologies Pvt Ltd until February 2014 and Photon Dynamics, Inc., from May 2006 to October 2008. Mr. Rogas held management positions at Teradyne, Inc. for over 29 years, including serving as Senior Vice President from 2000 through 2005. Mr. Rogas holds an M.B.A. degree from Harvard Business School and a B.S. from the United States Naval Academy.

Lothar Maier has served as a Director since November 2006. Mr. Maier has served as the Chief Executive Officer and a member of the board of directors of Linear Technology Corporation (Nasdaq: LLTC), a supplier of high performance analog integrated circuits since January 2005. Prior to that, Mr. Maier served as Linear Technology's Chief Operating Officer from April 1999 to December 2004. Before joining Linear Technology, Mr. Maier held various management positions at Cypress Semiconductor Corporation, a provider of high-performance, mixed-signal, programmable solutions, from 1983 to 1999, reaching the level of Senior Vice President and Executive Vice President of Worldwide Operations. Mr. Maier holds a B.S. in chemical engineering from the University of California at Berkeley.

Michael Slessor has served as a Director since October 2013. Dr. Slessor became our Chief Executive Officer on December 28, 2014. Dr. Slessor served as our President from October 2013 to December 27, 2014, and as Senior Vice President and General Manager, MicroProbe Product Group from October 2012 to October 2013. Before joining FormFactor, Dr. Slessor was President and Chief Executive Officer of MicroProbe from July 2008 through the October 2012 closing of FormFactor's acquisition of MicroProbe. Prior to joining MicroProbe, he held various

management, product-marketing, and applications-engineering positions in the semiconductor industry, primarily with KLA-Tencor. Dr. Slessor received his Ph.D. in Aeronautics and Physics from the California Institute of Technology and his B.A.Sc. in Engineering Physics from the University of British Columbia.

Michael W. Zellner has served as a Director since April 2011. Mr. Zellner served as Vice President and Chief Financial Officer of Cyan, Inc. (NYSE: CYNI) from March 2013 through March 2014. He was Vice President, Finance and Chief Financial Officer of PMC-Sierra, Inc. (Nasdaq: PMCS) from March 2007 to November 2012. Prior to joining PMC-Sierra, Mr. Zellner was Senior Vice President of Finance and Administration and Chief Financial Officer at Wind River Systems, Inc., a device software solutions provider to the electronics industry. Mr. Zellner attended the Stanford Executive Program at the Stanford Graduate School of Business as well as the MBA and BBA accounting program at Florida Atlantic University.

Kelley Steven-Waiss has served as a Director since August 2015. Ms. Waiss has served as the Executive Vice President and Chief Human Resources Officer of Extreme Networks, Inc., a software and services-led networking solutions company since March 2014. Prior to that, Ms. Waiss served as the Vice President of Worldwide Human Resources for Integrated Device Technology, Inc., a provider of mixed-signal semiconductor solutions from 2009-2012, and prior to that, as the VP of Worldwide Human Resources for PMC-Sierra, Inc., a provider of semiconductor and systems solutions. Ms. Waiss also serves on the board of directors of ALean, a Silicon Valley based educational non-profit. She holds an M.A. in human resources and organization development from the University of San Francisco and a B.A. in journalism from the University of Arizona.

Richard DeLateur has served as a Director since May 2011, and as our Lead Independent Director since May 2014. Mr. DeLateur served as Chief Financial Officer of FormFactor, Inc. from May 2010 to May 2011. Mr. DeLateur is a 20-year veteran of Intel's finance team, where he held various positions, including the role of Vice President and Group Controller of Worldwide Technology and Manufacturing. Mr. DeLateur more recently served as Chief Financial Officer at the private companies Fluidigm Corporation and Topsin Corporation. Mr. DeLateur had also served as a Director at Numonyx Corp., a leading manufacturer of Flash memory, which is now part of Micron Technology, Inc. Mr. DeLateur holds a B.A. in Economics from the University of California, Davis and was awarded his Chartered Financial Analyst (CFA) certification in 1999.

Thomas St. Dennis has served as a Director since September 2010, when he joined our company, and as Executive Chairman of the Board of Directors since October 23, 2013, and became Chairman of the Board of Directors in February 2016. Mr. St. Dennis served as our Chief Executive Officer from September 2010 through December 27, 2014. Mr. St. Dennis also currently serves as a director on the Board of Axcelis Technologies, Inc. since May 2015. Mr. St. Dennis previously held various positions at Applied Materials, Inc. from 1992 to 1999 and again from 2005 to 2009. His last at Applied Materials, Inc. was Senior Vice President and General Manager of the Silicon Systems Group. He also worked at Novellus Systems, Inc. as Executive Vice President of Sales and Marketing from 2003 to 2005. From 1999 to 2003 Mr. St. Dennis was President and CEO of Wind River Systems, Inc. Mr. St. Dennis currently also sits on the Board of Mattson Technology, Inc. Mr. St. Dennis holds a B.S. in Physics and a M.S. in Physics, both from UCLA.

Executive Officers. Our executive officers, their ages as of December 26, 2015, and their positions with our company are set forth below.

Name	Age	Position
Thomas St. Dennis	62	Executive Chairman
Michael M. Ludwig	54	Chief Financial Officer
Michael D. Slessor	46	Chief Executive Officer and Director

Michael M. Ludwig has served as our Chief Financial Officer since May 2011. Mr. Ludwig also served as our Vice President, Finance from December 2009 to May 2011, was a consultant to our company from February 2009 to December 2009, and served as our Vice President and Corporate Controller from April 2001 to April 2007. Mr. Ludwig has also held senior level finance and accounting positions at Force 10 Networks, Inc., a division of Dell Inc., that builds and secures high performance networks, and at divisions of Tyco Electronics and Beckman Coulter. Mr. Ludwig holds a B.S. in accounting from California State Polytechnic University, Pomona.

#### Cascade Microtech Acquisition

On February 3, 2016, we entered into an Agreement and Plan of Merger under which we agreed to acquire Cascade Microtech through the merger of a wholly owned subsidiary with and into Cascade Microtech. Subject to the terms of

the merger agreement, at the effective time of the merger, each outstanding share of Cascade Microtech common stock will be cancelled and converted into the right to receive (a) \$16.00 in cash, without interest, and (b) 0.6534 shares of FormFactor common stock. Cascade Microtech is an Oregon corporation that designs, develops, manufactures and markets advanced wafer probing, thermal and reliability solutions for the electrical measurement and testing of high performance semiconductor devices.



Subject to the terms of the merger agreement, at the effective time of the merger, all of the outstanding and vested equity awards of Cascade Microtech will be cancelled and converted into the right to receive an amount in cash in respect of the merger consideration the shares of Cascade Microtech common stock underlying the awards would have received, and all of the outstanding and unvested equity awards of Cascade Microtech will be assumed on substantially the same terms, except that the number of shares of our common stock that will underlie the assumed award and the exercise price of any assumed option will be determined pursuant to a formula intended to preserve the intrinsic value of the original award.

Completion of the merger is subject to customary closing conditions, including approval by Cascade Microtech's shareholders and expiration of the applicable waiting period under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended, among others, and therefore has not been reflected in the financial statements included in this Annual Report on Form 10-K. There is no financing condition to our obligations under the merger agreement. We expect the merger to be completed in mid-2016.

To finance a portion of the consideration for the proposed merger, we entered into a commitment letter with certain lenders to provide a senior secured term loan facility in an aggregate amount of \$150 million. The funding of the term loan facility is subject to certain conditions, including the execution of definitive financing documentation, the consummation of the merger in accordance with the merger agreement, the absence of a Company Material Adverse Effect (as defined in the merger agreement), a minimum liquidity condition and other customary closing conditions. The above description of the merger agreement and the proposed merger is a summary and is qualified in its entirety by reference to the merger agreement included as Exhibit 2.1 to our Current Report on Form 8-K, filed with the SEC on February 9, 2016.

#### Item 1A: Risk Factors

In addition to the other information in this Annual Report on Form 10-K, you should carefully consider the risk factors discussed in this Annual Report on Form 10-K in evaluating FormFactor and our business. If any of the identified risks actually occur, our business, financial condition and results of operations could be materially adversely affected. The trading price of our common stock could decline and you may lose all or part of your investment in our common stock. The risks and uncertainties described in this Annual Report on Form 10-K are not the only ones we face. Additional risks that we currently do not know about, or that we currently believe to be sufficiently important to describe here may also impair our business operations or the trading price of our common stock.

A delay in qualifying next generation products could result in higher development costs and loss of market share, which could negatively impact our business and financial results.

We may suffer from delays in qualifying our next-generation products at our customers. In 2013, we increased our activities and spending on the development of a new NAND Flash probe card architecture, which is incorporated into our Vector NAND Flash memory probe card. In 2015, we successfully qualified our Vector probe card at two customers. If we are not able to continue to successfully qualify our Vector product at other NAND Flash memory customers, or if we are not able to realize material revenues from sales of the Vector probe card in the future, it could negatively impact our revenues and margins and harm our business. We continue to invest in research and development activities around new product technologies and architectures. In 2015, we introduced new vertical MEMS products for sub-100um pitch Copper pillar probing and wirebond pads probing. If we are unable to qualify and successfully introduce products incorporating new product technologies and architectures, it may negatively impact our business.

We have announced a proposed acquisition and may make additional acquisitions and investments in the future, which could put a strain on our resources, cause ownership dilution to our stockholders and adversely affect our financial results.

On February 4, 2016, we announced our proposed acquisition of Cascade Microtech, which is expected to close in mid-2016. Our proposed acquisition of Cascade Microtech will subject us to a number of risks and uncertainties, including that:

the process of integrating Cascade Microtech's business, additional lines of products or technologies into our company could put a strain on our resources, be expensive and time consuming, substantially reduce our cash reserves, cause delays in product delivery and might not be successful;

management's attention may be diverted from other business concerns and our business may be exposed to unforeseen liabilities or risks associated with entering new markets;

we might lose key Cascade Microtech employees during or after the integration process;

we might not be successful in integrating Cascade Microtech's business, products or technologies, and might not achieve the revenues and cost benefits we anticipate, even if Cascade Microtech is integrated;

our purchase of Cascade Microtech may require additional investment that we do not currently anticipate;

customers of Cascade Microtech or us may become dissatisfied, especially if we experience performance problems creating, maintaining, distributing or otherwise with Cascade Microtech's products;

we will issue new equity securities in connection with a transaction as part of the consideration paid to Cascade Microtech's shareholders which will result in dilution to our existing stockholders;

we will finance a portion of the consideration to be paid to Cascade shareholders in connection with the merger through a new senior secured term loan facility for \$150 million, which will contain restrictive debt covenants;

we may assume contingent liabilities, experience possible impairment charges related to goodwill or other intangible assets or encounter other unanticipated events or circumstances upon completion of the acquisition of Cascade Microtech, any of which could harm our business; or

we will have less cash available for other purposes, including for use in acquisitions of other technologies or businesses.

In addition to our proposed acquisition of Cascade Microtech, we may in the future make other acquisitions or investments, which may subject us to similar risks. Integrating any newly acquired businesses, products or technologies into our company could put a strain on our resources, could be expensive and time consuming, could substantially reduce our cash reserves, could cause delays in product delivery and might not be successful. Future acquisitions and investments could divert management's attention from other business concerns and expose our business to unforeseen liabilities or risks associated with entering new markets. In addition, we might lose key employees while integrating new organizations. We might not be successful in integrating any acquired businesses, products or technologies, and might not achieve anticipated revenues and cost benefits. Investments that we make may not result in a return consistent with our projections upon which such investments are made, or may require additional investment that we did not originally anticipate. In addition, future acquisitions could result in customer dissatisfaction, performance problems with an acquired company, potentially dilutive issuances of equity securities or the incurrence of debt and restrictive debt covenants, contingent liabilities, possible impairment charges related to goodwill or other intangible assets or other unanticipated events or circumstances, any of which could harm our business.

We derive a substantial portion of our revenues from a small number of customers, and we could continue to experience significant declines in our revenues if any major customer cancels, reduces, delays a purchase of, or does not place a projected order for our products, or does not pay us, or delays or extends payment for our products past their original due dates.

A relatively small number of customers account for a significant portion of our revenues. Four customers represented 60% of total revenues in fiscal 2015, 3 customers represented 52% of total revenues in fiscal 2014 and 3 customers represented 46% of total revenues in fiscal 2013. In fiscal 2015, 2014 and 2013, our ten largest customers accounted for 78%, 80% and 75% of our revenues, respectively. We anticipate that sales of our products to a relatively small number of customers will continue to account for a significant portion of our revenues. Consolidation in the semiconductor industry may increase this concentration. In the future, the loss of any of these customers, or cancellation, reduction or deferral of even a small number of purchases of our products by these customers could significantly reduce our revenues. Cancellations, reductions or deferrals could result from another downturn in the semiconductor industry, or from manufacturing delays, quality or reliability issues with our products, or from

interruptions to our customers' operations due to fire, natural disasters or other events. Furthermore, because our probe cards are custom products designed for our customers' unique wafer designs, any cancellations, reductions or delays can result in significant, non-recoverable costs. In some situations, our customers might be able to cancel or reduce orders without a significant penalty.

Our customers could also fail to pay all or part of an invoice for our products. If a customer fails to pay us or delays payment for our products, we may be unable to recognize revenue, our financial condition and liquidity could be adversely impacted and we may incur additional charges for uncollectable customer receivable. It is also possible that if we make the decision to initiate legal proceedings against customers to seek payment of outstanding receivables, it will negatively impact a customer relationship and result in lost revenues in the future. As happened with our customer ProMos Technologies, customers with financial difficulties may be forced to materially reduce or discontinue operations, file for bankruptcy or other relief, or

may be acquired by one of our other customers, any of which would further reduce our customer base and/or result in the loss of revenues.

Changes in customers' test strategies, equipment and processes could cause us to lose revenues.

The demand for probe cards depends in large part upon the number of semiconductor designs, the pace of technology and architecture transitions in chip designs and overall semiconductor unit volume. The time it takes to test a wafer depends upon the number of devices being tested, the complexity of these devices, the test software program and the test equipment itself. As test programs become increasingly effective and test throughput increases, the number of probe cards required to test a given volume of devices declines. Therefore, advances in the test process could cause us to lose sales. Further, many semiconductor manufacturers are implementing chip designs featuring built-in-self-test, or BIST, capabilities or similar "design for testability", or DFT, functions or methodologies that increase test throughput and reduce the cost of test. These efforts include strategies to reduce the technical requirements on test equipment, or to improve data about device performance early in the manufacturing process, or to test the device later in the manufacturing process for quality assurance purposes. In some cases, BIST or DFT can create opportunities for our technologies. In other cases, BIST or DFT can reduce requirements for wafer-level test and reduce our opportunities. Although we seek to work with our customers to show ways that our technologies can be applied together with BIST and DFT approaches to create opportunities to further reduce the cost of test, the overall impact of BIST and DFT technologies could slow the migration to wafer level testing and adversely affect our revenues.

Similar results could occur if new chip designs are implemented which we are unable to test efficiently, or if semiconductor manufacturers reduce generally the amount or degree of wafer test they perform. We incur significant research and development expenses in conjunction with the introduction of new product architectures and platforms. The introduction and adoption of new test equipment platforms can impact probe card requirements and/or demand, which could harm our revenues. Additionally, because our customers require both test equipment and probe cards, a delay or disruption in the introduction of new test equipment platforms could negatively affect our growth. Cyclicity in the semiconductor industry may adversely impact our sales in the future, and as a result we have experienced and may continue to experience reduced revenues and operating results.

The semiconductor industry has historically been cyclical and is characterized by wide fluctuations in product supply and demand. From time to time, this industry has experienced significant downturns, often in connection with, or in anticipation of, maturing product and technology cycles, excess inventories and declines in general economic conditions. The global economic and semiconductor downturns have caused and may in the future cause our operating results to decline dramatically from one period to the next. Our business depends heavily upon the development and manufacture of new semiconductors, the rate at which semiconductor manufacturers make transitions to smaller nanometer technology nodes and implement tooling cycles, the volume of production by semiconductor manufacturers and the overall financial strength of our customers, which, in turn, depend upon the current and anticipated market demand for semiconductors and products, such as servers, personal computers, automobiles and cell phones, that use semiconductors. During industry downturns, semiconductor manufacturers generally sharply curtail their spending, including their equipment spending, defer their adoption of emerging technologies and historically have lowered their spending disproportionately more than the decline in their revenues. This is particularly true when there is a point during an industry cycle in which the semiconductor manufacturers' costs related to semiconductor devices approach or exceed the sales price of the devices. As a result, we would experience reduced revenues due to the decreased demand for our probe cards by our semiconductor manufacturer customers.

Accordingly, if we do not adjust our levels of manufacturing and human resources or manage our costs and deliveries from suppliers in response to lower spending by semiconductor manufacturers, our gross margin may decline and cause us to experience further operating losses.

Changes in customers' product roadmaps and the timelines associated with those roadmaps could negatively impact our product development effort and new product introductions, which could in turn, cause us to lose revenues.

The demand for probe cards depends in large part upon the demand for semiconductor devices and our customers' product roadmaps. For example, the DRAM market was impacted negatively in fiscal 2013 as secular changes in the personal computer markets significantly lowered demand for commodity DRAM. We may be required to make changes to our operational or R&D activities to reduce the breadth of our investments in certain of our products. For

example, in the first quarter of fiscal 2013, we suspended development activities specific to our next generation Matrix platform and consolidated our technologies and development to extend the capabilities of the then-current Matrix platform. If this consolidation does not continue to be successful, or does not extend the capabilities of our products as anticipated, or if changes to our operational or R&D activities impact our ability to introduce competitive products in the future, we may lose sales and our financial results will be negatively impacted.

The markets in which we participate are competitive, and if we do not compete effectively, our operating results could be harmed.

We are experiencing increased competition in the probe card market and we expect competition to intensify in the future. Increased competition has resulted in, and in the future is likely to result in, price reductions, reduced gross margins or loss of market share. Competitors might introduce new competitive products for the same markets that our products currently serve. These products may have better performance, lower prices and/or broader acceptance than our products. Competitive products may not have better performance, lower prices and/or broader acceptance than our products, but may be able to meet shorter delivery times required by customers and result in the loss of revenue for us. In addition, for products such as probe cards, semiconductor manufacturers typically qualify more than one source to avoid dependence on a single source of supply. As a result, our customers would likely purchase products from our competitors. Current or potential competitors include AMST Co., Ltd., Cascade Microtech, Inc., Feinmetall GmbH, Japan Electronic Materials Corporation, Korea Instrument Co., Ltd., M2N Co., Ltd., Microfriend Inc., Micronics Japan Co., Ltd., MPI Corporation, NHK Spring Co., Ltd., Soulbrain Engineering, SV Probe, Inc., Synergie CAD, Technoprobe, TSE Co., Ltd. and WILL-Technology Co., Ltd., among others.

Many of our current or potential competitors have larger customer bases, more established customer relationships or greater financial, technical, manufacturing, marketing and other resources than we do. As a result, they might be able to respond more quickly to new or emerging technologies and changes in customer requirements, devote greater resources to the development, promotion, sale and support of their products, and reduce prices to increase market share. Some of our competitors also supply other types of test equipment. Those competitors that offer both advanced probe cards and needle probe cards might have strong, existing relationships with our existing customers or with potential customers. It is possible that one or more of our competitors may be able to increase their sales to mutual customers, resulting in a loss of revenue share for us. It is further possible that existing or new competitors, including test equipment manufacturers, may offer new technologies that reduce the value of our probe cards.

If we fail to protect our proprietary rights, our competitors might gain access to our technology, which could adversely affect our ability to compete successfully in our markets and harm our operating results.

If we choose not to protect our proprietary rights or fail in our efforts to protect our proprietary rights, our competitors might gain access to our technology. Unauthorized parties might attempt to copy aspects of our products or to obtain and use information that we regard as proprietary. Others might independently develop similar or competing technologies or methods or design around our patents. In addition, the laws of many foreign countries in which we or our customers do business do not protect our intellectual property rights to the same extent as the laws of the United States. As a result, our proprietary rights could be compromised, our competitors might offer products similar to ours and we might not be able to compete successfully. We also cannot assure that:

- our means of protecting our proprietary rights will be adequate;
- patents will be issued from our pending or future applications;
- our existing or future patents will be sufficient in scope or strength to provide any meaningful protection or commercial advantage to us;
- our patents or other intellectual property will not be invalidated, circumvented or successfully challenged in the United States or foreign countries; or
- others will not misappropriate our proprietary technologies or independently develop similar technologies, duplicate our products or design around any of our patents or other intellectual property, or attempt to manufacture and sell infringing products in countries that do not strongly enforce intellectual property rights.

We spent and may be required to spend in the future, significant resources to monitor and protect our intellectual property rights.

In certain cases, our competitors have initiated re-examination proceedings in the USPTO and invalidity proceedings in foreign patent offices against certain of our patents. Any litigation, whether or not resolved in our favor, and whether initiated by us or by a third party, could result in significant and possibly material expense to us and divert the efforts of our management and technical personnel. In addition, while patents are territorial and a ruling on a certain given patent does not necessarily impact the validity or enforceability of a corresponding or related patent in a different country, an adverse ruling in one country might negatively impact our ability to enforce the corresponding or

related patent in other countries. Certain of our customer contracts contain provisions that require us to defend and/or indemnify our customers for third party intellectual property infringement claims, which would increase the cost to us of an adverse ruling in such a claim. An adverse determination could also negatively impact our ability to license certain of our technologies and methods to others, and result in



our competitors being allowed to sell products with, or add to their products, features and benefits contained in our products, thereby reducing our competitive advantages over these competing products.

If we do not innovate and keep pace with technological developments in the semiconductor industry, our products might not be competitive and our revenues and operating results could suffer.

We must continue to innovate and to invest in research and development to improve our competitive position and to meet the testing requirements of our customers. Our future growth depends, in significant part, upon our ability to work effectively with and anticipate the testing needs of our customers and to develop and support new products and product enhancements to meet these needs on a timely and cost-effective basis. Our customers' testing needs are becoming more challenging as the semiconductor industry continues to experience rapid technological change driven by the demand for complex circuits that are shrinking in size, are increasing in speed and functionality and also becoming less expensive to produce. Examples of trends driving demand for technological research and development include semiconductor manufacturers' transition to 20 nanometer DRAM technology node, Flash and SoC fabrication process nodes, transition to higher gigabit density memory and lower-power multi-core processors, and rapid adoption of advanced IC packaging types, such as wafer-level packaging, Flipchip devices, devices incorporating Copper Pillar packaging, and Through-Silicon-Via (TSV) technologies. Our customers expect that they will be able to integrate our probe cards into any manufacturing process as soon as they are installed. Therefore, to meet these expectations and remain competitive, we must continually design, develop and introduce on a timely basis new products and product enhancements with improved features.

We may also work collaboratively with one or more third parties in the development of new technologies or in improvements to our existing technologies. It is possible that these collaborations may be delayed, or even ultimately prove unsuccessful, by matters outside of our control, such as the financial condition of the third party. It is possible that our internal development efforts and engagements with third parties regarding the development of manufacturing equipment having similar functionality may have a lengthy development and ramp up time and negatively impact our ability to complete new products and realize revenue from those products.

Successful product design, development and introduction on a timely basis require that we:

- design innovative and performance-enhancing product architectures, technologies and features that differentiate our products from those of our competitors;
- in some cases engage with third parties who have particular expertise in order to complete one or more aspects of the design and manufacturing process;
- qualify with the customer(s) the new product, or an existing product incorporating new technology;
- transition our products to new manufacturing technologies;
- offer our products for sale at competitive price levels while maintaining our gross-margins within our financial model;
- identify emerging technological trends in our target markets;
- maintain effective marketing strategies;
- respond effectively to technological changes or product announcements by others; and
- adjust to changing market conditions quickly and cost-effectively.

Not only do we need the technical expertise to implement the changes necessary to keep our technologies current, but we must also rely heavily on the judgment of our management to anticipate future market trends. If we are unable to timely predict industry changes or industry trends, or if we are unable to modify our products or design, manufacture and deliver new products on a timely basis, or if a third party with which we engage does not timely deliver a component or service for one of our product modifications or new products, we might lose customers or market share. In addition, we might not be able to recover our research and development expenditures, which could harm our operating results.

We have recorded significant restructuring, inventory write-offs and asset impairment charges in the past and may do so again in the future, which could have a material negative impact on our business.

We recorded material restructuring charges related to our global workforce reductions in fiscal 2015, 2014 and 2013, and impairment charges related to our long-lived assets in fiscal 2014 and fiscal 2013. As we continue to align our operations with our business requirements, we may implement additional cost reduction actions, which would require us to take additional, potentially material, restructuring charges related to employee terminations, asset disposal or exit

costs. We may also be

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required to write off additional inventory if our product build plans or usage of inventory experience declines, and such additional write-offs could constitute material charges. In addition, significant adverse changes in market conditions could require us to take additional material impairment charges related to our long-lived assets. Our long-lived assets, including intangible assets, are amortized over their respective estimated useful lives using the straight-line and accelerated methods and are reviewed for impairment annually, or whenever events or changes in circumstances indicate that their carrying amount may not be recoverable. The valuation of our long-lived assets requires assumptions and estimates of many critical factors, including revenue and market growth, operating cash flows, market multiples, and discount rates. Other adverse changes in market conditions, particularly if such changes have the effect of changing one of the critical assumptions or estimates we use in our assessment of the recoverability of our long-lived assets, could result in a change to the estimation of fair value that could result in future impairment charges. We may also incur charges for factory underutilization depending upon the demand for our products and factory capacity. Any such additional charges, whether related to restructuring, asset impairment or factory underutilization may have a material negative impact on our operating results and related financial statements. Our recent restructuring plans may not have properly aligned our cost structure with our business needs and overall semiconductor industry requirements and even though completed may adversely affect our business, financial condition, or operating results.

In each of fiscal 2009 through 2015, we conducted reductions in our work force as part of company-wide organizational restructurings or cost reduction plans. These plans were intended to help focus our resources more strategically towards business needs and industry requirements. We realized certain cost savings from these restructuring actions, but our business, financial condition and operating results could be materially adversely affected if we experience unanticipated inefficiencies as a result of our restructuring activities, unanticipated or product delivery or quality issues resulting in impaired customer relationships caused by reduced headcount, or delay in ramping the manufacture of our products or delay in our development, introduction and qualification of our new products and technologies. We cannot ensure we will not undertake additional workforce reductions, that any of our restructuring efforts will be successful, or that we will be able to realize the cost savings and other anticipated benefits from our previous or future restructuring plans. Any of these issues could render our restructuring plan ineffective, which could have a material adverse effect on our business, financial condition, or operating results.

If we do not continue to take steps to optimize the structure of our operations to position our company for long-term, profitable growth, we might not succeed.

The timing, length and severity of the cyclical downturns in the semiconductor industry are difficult to predict. This cyclical nature affects our ability to accurately predict our future operating results and plan our business, and could also impair the value of our tangible and intangible assets. We implemented global cost reduction plans in each fiscal year from 2009 through 2014 and are continuing to pursue measures to improve our operating efficiency. Such cost reduction plans and measures to improve operating efficiency have included workforce reductions, the consolidation of manufacturing capacity, the centralization of support functions to regional and global shared service centers and the combining of the technical and manufacturing teams across multiple product lines. If we do not continue to implement measures for optimizing our financial model for prevailing market conditions, our competitiveness could be seriously harmed, our ability to invest in our business for future growth may be negatively impacted and our company might not succeed. If we do not successfully structure our operations by, for example, strengthening our local application and service capabilities to improve customer responsiveness, changing our manufacturing structure and processes for shorter cycle time and improved product delivery capabilities, realigning our research and development efforts, and continue to motivate and retain our key employees, we may experience deterioration in our business and our company might not succeed. In addition, if we are unable to proactively and effectively manage our operations and/or realign our controls, systems and infrastructure to changing business conditions, for example as the semiconductor industry moves past a cyclical downturn, we may not be in a position to boost our personnel, manufacturing capacity, service capabilities and productivity, and support growth in response to increasing customer demand for our products, which would, in turn, have a negative impact on our operating results.

Our pricing for our products could result in certain customers deciding to not purchase our products, which could negatively impact our business and financial results.

We believe that our pricing guidelines are consistent with normal industry cost learning curves, but certain customers may in the future react negatively to our pricing and elect to not purchase our products, to purchase fewer of our products as compared to those of our competitors, or to phase out the purchase of our products, in which case our business, financial condition and operating results could be materially and adversely impacted.

If goodwill or other intangible assets that we recorded in connection with the MicroProbe Acquisition become impaired, we could be required to take significant charges against earnings.

In connection with the accounting for the MicroProbe Acquisition, we have recorded a significant amount of goodwill and other intangible assets. Under U.S. generally accepted accounting principles, or GAAP, we must assess, at least annually and potentially more frequently, whether the value of goodwill and other indefinite-lived intangible assets have been impaired. Finite-lived intangible assets will be assessed for impairment in the event of an impairment indicator. Any reduction or impairment of the value of goodwill or other intangible assets will result in a charge against earnings, which could materially adversely affect our results of operations and stockholders' equity in future periods. Similarly, any goodwill we may record upon the completion of our proposed acquisition of Cascade Microtech could become impaired in future periods. Refer to note 8 to Notes to Consolidated Financial Statements - Goodwill and Intangible Assets for further details relating to our annual goodwill impairment assessment.

Periodic global economic and semiconductor industry downturns could negatively affect our business, results of operations, and financial condition.

Global economic and semiconductor industry downturns have in the past negatively affected and could in the future negatively affect our business, results of operations and financial condition. During a downturn, we may experience declines in demand for our probe cards resulting from our customers taking steps to conserve cash by cutting production, postponing the implementation of tooling cycles and delaying the ramp of new technology nodes in response to slow demand for consumer and other products incorporating devices tested with our probe cards. We may also experience increased pricing pressure on certain of our products, which may reduce our gross margins. A protracted downturn could cause customers to become insolvent, resulting in a loss of revenue and/or the uncollectability of accounts receivable. Downturns have historically, and may in the future, cause customers to seek extended payment terms or delay payment for our products past their original due dates, resulting in deferral of revenue and increasing our potential bad debt exposure.

It is also possible that one or more of our key suppliers may become insolvent, leading to delays in the development and shipment of our products, increased expense and loss of revenue. In addition, we may experience increased impairment charges due to declines in the fair values of marketable debt securities, or charges based upon underutilization of our factory.

Environmental and other disasters, such as flooding, earthquakes, fires, volcanic eruptions or leakage from nuclear reactors, or a combination thereof, may negatively impact our business.

Our business is vulnerable to the direct and indirect impact of environmental and other disasters. For example, flooding in Thailand in 2012 negatively impacted the operations of several disk drive manufacturers, which created a shortage of disk drives available for incorporation into personal computers. This disk drive shortage resulted in a slowing of the manufacture of personal computers and for the DRAM incorporated into personal computers, which created an oversupply of DRAM devices and caused price erosion for our DRAM probe cards. It is possible that future acts of terrorism, environmental events or natural disasters, such as earthquakes and aftershocks, and infrastructure events arising out of such occurrences and disasters, could negatively impact our suppliers' ability to supply components to us on a timely basis. Any such delays in supplying or delivering components to us could, and any catastrophic loss suffered by our key suppliers would likely, disrupt our operations, delay production and shipments and adversely affect our revenues and business. Similarly, any catastrophic loss at our California facilities, such as from an earthquake, would materially and adversely affect our business.

If we are unable to efficiently manufacture our existing probe card products and our new probe card products, our business may be materially adversely affected.

We must continuously improve our manufacturing processes in an effort to increase yields and product performance, lower our costs and reduce the time required for us to design, manufacture and deliver our products in volume. If we cannot do these things, both our existing products and our new products may not be commercially successful, our revenues may be adversely affected, our customer relationships and our reputation may be harmed and our business may be materially adversely affected. To improve our manufacturing processes, we have incurred, and may incur in the future, substantial costs in an effort to optimize capacity and yields, implement new manufacturing technologies, methods and processes, purchase new equipment, upgrade existing equipment and train technical personnel. We have

experienced, and may experience in the future, manufacturing delays and other inefficiencies in connection with implementation of these improvements and customer qualifications of new processes, which have caused and could cause in the future, our operating results to decline.

We have also experienced, and may experience in the future, difficulties in manufacturing our complex products in volume on time and at acceptable yields and cost and installation issues in the field due to the complexity of customer design requirements, including integration of probe cards with varying customer test cell environments and testing of semiconductor devices over a wide temperature range. For example, design and manufacturing delays related to our Matrix architecture products resulted in qualification at certain customers taking longer than we anticipated. Once a new product or technology is

qualified, if we are unable to timely and efficiently expand our manufacturing capacity and ramp volume production to meet customer demand, our operating results will be negatively impacted. Delayed qualification has caused in the past, and could continue to cause, lost sales opportunities. This increases our vulnerability to our competitors and the likelihood that our customers will seek solutions from other suppliers or to develop solutions themselves. If demand for our products decreases, we could have excess manufacturing capacity. The fixed costs associated with excess manufacturing capacity could cause our operating results to decline. If we are unable to achieve further manufacturing efficiencies and cost reductions, particularly if we are experiencing pricing pressures in the marketplace, our operating results could suffer.

Consolidation in the semiconductor industry and within the semiconductor test equipment market could adversely affect the market for our products and negatively impact our ability to compete, which could cause a decline in our revenues.

Consolidation in the semiconductor industry may reduce our customer base and could adversely affect the market for our products, which could cause a decline in our revenues. With consolidation, the number of semiconductor customers in the industry has decreased in recent years. Consolidation may lead to relatively fewer opportunities to sell our products if we are not chosen as a supplier by any given prospective customer, and may lead to increased pricing pressures from customers that have greater volume purchasing power.

There has also been a recent move toward consolidation within the semiconductor test equipment market. This consolidation trend could change our interactions and relationships with semiconductor tester and prober companies and negatively impact our revenue and operating results.

We depend upon the sale of our probe cards for substantially all of our revenues, and the majority of our probe cards are utilized by semiconductor manufacturers for testing SoC and DRAM devices. If we experience a downturn in demand for our SoC and DRAM products, our revenues could decline.

We have historically derived substantially all of our revenues from the sale of our probe cards to manufacturers of DRAM, flash memory devices, and microprocessor, chipset and other SoC devices. Subsequent to the acquisition of MicroProbe in October 2012, our revenues have substantially been derived from the sale of our probe cards to manufacturers of SoC and DRAM devices.

For fiscal 2015, 2014 and 2013, sales to manufacturers of SoC devices accounted for 52%, 53% and 50%, respectively, of our revenues. Sales to manufacturers of DRAM devices accounted for 44%, 41% and 40%, respectively, and sales to manufacturers of Flash Memory devices accounted for 4%, 6% and 10%, respectively. We anticipate that sales of probe cards will represent a substantial majority of our revenues for the foreseeable future. Our success depends in large part upon the continued acceptance of our products and our ability to continue to develop and introduce new products that meet our customers' requirements on a timely basis resulting in gained market share. In particular, to continue to grow our business, we need to gain additional market share with manufacturers of Flash memory and SoC devices. To the extent that we are unable to realize cost reductions and manufacturing efficiencies in the production of our probe cards, or if we are not able to timely deliver our products, our revenues and business operations could be adversely impacted and our ability to grow could suffer. In 2013, we increased our activities and spending on the development of a new NAND Flash probe card architecture, which is incorporated into our Vector NAND Flash memory probe card. In 2015, we successfully qualified our Vector probe card at two customers. If we are not able to continue to successfully qualify our Vector product for other additional customers in the future, or if customers do not qualify the Vector product and purchase it for NAND Flash Memory wafer test, it could negatively impact our revenues and margins and harm our business.

As our next generation probe cards are used in greater volume in commercial production, it is possible that we will identify certain areas of technical performance that require improvement, and if we are unable to continually, efficiently and in a timely manner improve our products, we could suffer reduced demand for our products and our operating results could be harmed.

If chip manufacturers fail to make architecture, node or technology transitions as we anticipate, or if anticipated or announced transitions are delayed, it could adversely impact our revenues and operating results. In addition, we might not be able to sustain or increase our revenues from sales of our probe cards, particularly if the semiconductor market enters another downturn. Any decrease in revenues from sales of our probe cards could harm our business.

If our relationships with our customers and companies that manufacture semiconductor test equipment deteriorate, our product development activities could be harmed.

The success of our product development efforts depends upon our ability to anticipate market trends and to collaborate closely with our customers and with companies that manufacture semiconductor test equipment. Our relationships with these customers and companies provide us with access to valuable information regarding manufacturing and process technology trends in the semiconductor industry, which enables us to better plan our product development activities. These relationships



also provide us with opportunities to understand the performance and functionality requirements of our customers, which improves our ability to customize our products to fulfill their needs. Our relationships with test equipment companies are important to us because test equipment companies can design the use of our probe cards into their equipment and provide us with the insight into their product plans. This cooperation allows us to offer probe cards for use with the test equipment companies' products when they are introduced to the market as opposed to several months or more later, which would negatively impact our revenues.

Our relationships with our customers and test equipment companies could deteriorate if they:

- become concerned about our ability to protect their intellectual property;
- become concerned with our ability to deliver quality products on a timely basis;
- develop their own solutions to address the need for testing improvement;
- implement chip designs that include enhanced built-in self-test capabilities;
- regard us as a competitor in the case of test-equipment company, or in the case of a customer believe we are too closely aligned with a competitor of the customer;
- introduce their own probe card product;
- establish relationships with others in our industry;
- acquire or invest in a competitive probe card manufacturer or enter into a business venture with a competitive probe card manufacturer; or
- attempt to restrict our ability to enter into relationships with their competitors.

Many of our customers and the test equipment companies we work with are large companies. The consequences of deterioration in our relationship with any of these companies could be exacerbated due to the significant influence these companies can exert in our markets. If our current relationships with our customers and test equipment companies deteriorate, or if we are unable to develop similar collaborative relationships with important customers and test equipment companies in the future, our long-term ability to produce commercially successful products could be impaired.

Because we generally do not have a sufficient backlog of unfilled orders to meet our quarterly revenue targets, revenues in any quarter are substantially dependent upon customer orders received and fulfilled in that quarter.

Our revenues are difficult to forecast because we generally do not have sufficient backlog of unfilled orders to meet our quarterly revenue targets at the beginning of a quarter. Rather, a substantial percentage of our revenues in any quarter depend upon customer orders for our probe cards that we receive and fulfill in that quarter. Because our expense levels are based in part on our expectations as to future revenues and to a large extent are fixed in the short term, we might be unable to adjust spending in time to compensate for any unexpected shortfall in revenues.

Accordingly, any significant shortfall of revenues in relation to our expectations could hurt our operating results.

We manufacture substantially all our products at our facilities in Livermore, San Jose, and Carlsbad, California, and any disruption in the operations of these facilities or our customer's manufacturing facilities could adversely impact our business and operating results.

Certain of our manufacturing processes and our customers' processes require sophisticated and expensive equipment and specially designed facilities, including semiconductor clean rooms. We manufacture the majority of our probe cards at our facilities located in Livermore, San Jose, and Carlsbad, California. Any disruption in our manufacturing, whether due to contamination in our manufacturing process, technical or labor difficulties, destruction or damage from fire or earthquake, infrastructure failures such as power or water shortage or any other reason, could interrupt our operations, impair critical systems, disrupt communications with our customers and suppliers, and cause us to write off inventory, thereby potentially resulting in the loss of revenues. Further, current and potential customers might not purchase our products if they perceive our lack of a fully operational alternate manufacturing facility to be a risk to their continuing source of supply. Similarly, any of these events, such as contamination, fire, power or water shortage and labor strike could interrupt our customer's operations thereby potentially resulting in the loss of revenues to our company.



If we are unable to continue to reduce the time it takes for us to design and produce a probe card, our growth could be impeded.

Our customers continuously seek to reduce the time it takes them to introduce new products to market. The cyclical nature of the semiconductor industry, coupled with changing demands for semiconductor devices, requires our customers to be flexible and highly adaptable to changes in the volume and mix of products they must produce. Each of those changes requires a new design and each new design requires a new probe card. For some existing semiconductor devices, the manufacturers' volume and mix of product requirements are such that we are unable to design, manufacture and ship products to meet manufacturers' relatively short cycle time requirements. We have lost sales in the past where we were unable to meet a customer's required delivery schedule for probe cards for a particular design. If we are unable to reduce the time it takes for us to design, manufacture and ship our products in response to the needs of our customers, our competitive position could be harmed and we could lose sales. If we are unable to increase design and manufacturing capacity in the event demand increases, our ability to respond to customer requirements could be challenged and our revenues could be negatively impacted.

We obtain some of the components and materials we use in our products from a sole source or a limited group of suppliers, and the partial or complete loss of one of these suppliers could cause production delays and a substantial loss of revenues.

We obtain some of the components and materials used in our products, such as printed circuit board assemblies, plating materials and ceramic substrates, from a sole source or a limited group of suppliers. Alternative sources are not currently available for sole source components and materials. Because we rely on purchase orders rather than long-term contracts with the majority of our suppliers, we cannot predict with certainty our ability to obtain components and materials in the longer term. A sole or limited source supplier could increase prices, which could lead to a decline in our gross profit. Our dependence upon sole or limited source suppliers exposes us to several other risks, including inability to obtain an adequate supply of materials, late deliveries and poor component quality.

In addition, the ability of any of these suppliers to timely provide us with sufficient quality materials would be adversely affected if they are forced to reduce or discontinue operations due to financial difficulties. Disruption or termination of the supply of components or materials could delay shipments of our products, damage our customer relationships and reduce our revenues. For example, if we were unable to obtain an adequate supply of a component or material, we might have to use a substitute component or material, which could require us to make changes in our manufacturing process and could also require us to re-qualify impacted product at certain customers. From time to time, we have experienced difficulties in receiving shipments from one or more of our suppliers, especially during periods of high demand for our products. If we cannot obtain an adequate supply of the components and materials we require, or do not receive them in a timely manner, we might be required to identify new suppliers.

We might not be able to identify new suppliers on a timely basis or at all. We, as well as our customers, would also need to qualify any new suppliers. The lead-time required to identify and qualify new suppliers could affect our ability to timely ship our products and cause our operating results to suffer. Further, a sole or limited source supplier could require us to enter into non-cancelable purchase commitments, minimum volume purchases or pay in advance to ensure our source of supply. In an industry downturn or in an environment in which growth is not at a level we projected or anticipated, commitments of this type could result in charges for excess inventory of parts.

Further, if a customer's needs for a particular probe card design and purchase orders for those probe cards are spread out over several months as opposed to being placed at one time in a single purchase order, it may cause us to purchase excessive materials or components in light of minimum purchase requirements or to be unable to realize volume discounts for materials or components because of the lack of visibility into the customer's overall purchase plan. These purchase issues would require us to incur a greater cost of goods sold than we might otherwise realize. These issues are also magnified in those situations in which the supplied material or component is a custom component for a unique customer probe card design. Additionally, if we are unable to predict our component and materials needs accurately, or if our supply is disrupted, we might miss market opportunities by not being able to meet the demand for our products.

Probe cards that do not meet specifications or that contain defects could damage our reputation, decrease market acceptance of our technology, cause us to lose customers and revenues, and result in liability to us.

The complexity and ongoing development of our probe card manufacturing process, combined with increases in probe card production volumes, have in the past and could in the future lead to design or manufacturing problems. For example, we have experienced the presence of contaminants in our plating baths, which have caused a decrease in our manufacturing yields or have resulted in unanticipated stress-related failures when our probe cards are being used in the manufacturing test environment. This contamination problem caused a yield decline that, in turn, resulted in our inability to timely ship products to our customers. Manufacturing design errors such as the mis-wiring of a probe card or the incorrect placement of probe contact elements have caused us to repeat manufacturing design steps. In addition to these examples, problems might result from a

number of factors, including design defects, materials failure, failure of components manufactured by our suppliers to meet our specifications, contamination in the manufacturing environment, impurities in the materials used, and unknown sensitivities to process conditions such as temperature and humidity, and equipment failures. As a result, our products have in the past contained and might in the future contain undetected errors or defects. Any errors or defects could:

- cause lower than anticipated yields and lengthen delivery schedules;
- cause delays in product shipments;
- cause delays in new product introductions;
- cause us to incur warranty expenses;
- result in increased costs and diversion of development resources;
- cause us to incur increased charges due to unusable inventory;
- require design modifications; or
- decrease market acceptance or customer satisfaction with these products.

The occurrence of any one or more of these events could adversely affect our operating results.

In addition, if any of our products fail to meet specifications when installed in the customer's test environment, or have reliability, quality or compatibility problems, our reputation could be damaged significantly and customers might be reluctant to buy our products, which could result in a decline in revenues, an increase in product returns or warranty costs and the loss of existing customers or the failure to attract new customers. For example, in mid-2013, we experienced certain supply chain and manufacturing challenges that impacted critical deliveries for a key DRAM customer in Japan. These delays and manufacturing challenges not only impacted in-quarter short-term revenue, but also resulted in our loss of future orders and increased warranty costs and required us to implement programs to re-establish ourselves as a key supplier to the customer. These consequences negatively impacted our operating results.

Our customers use our products with test equipment and software in their manufacturing facilities. Our products must be compatible with the customers' equipment and software to form an integrated system. While we have designed our test capabilities and standards to replicate the actual test environment of our customers and continually work to improve our capabilities, it is possible that our probe card will perform differently in the customers' actual test environments. If our probe card does not function properly within a customer's specific test environment, we could be required to provide field application engineers to locate the problem, which can take time and resources. If the problem relates to our probe cards, we might have to invest significant capital, manufacturing capacity and other resources to correct it. Our current or potential customers also might seek to recover from us any losses resulting from defects or failures in our products. Liability claims could require us to spend significant time and money in litigation or to pay significant damages.

If our ability to forecast demand for our products or the predictability of our manufacturing yields deteriorates, we could incur higher inventory losses than we currently experience.

Each semiconductor chip design requires a custom probe card. Because our products are design-specific, demand for our products is difficult to forecast. Due to our customers' short delivery time requirements, we often design and procure materials and, at times, produce our products in anticipation of demand for our products rather than in response to an order. Our manufacturing yields, particularly for new DRAM and Flash Memory probe cards, have at times been unpredictable and consequently, we have produced more components for probe cards, or actual probe cards, than forecasted demand. If we do not obtain orders as we anticipate, or if we produce additional inventory to compensate for unpredictable manufacturing yields, we could have excess or obsolete inventory for a specific customer design that we would not be able to sell to any other customer, which would likely result in inventory write-offs or material charges for scrap.

If we fail to maintain an effective system of internal and disclosure controls and procedures, we may not be able to accurately report our financial results or prevent fraud, which may adversely affect our business and reputation. In addition, current and potential stockholders could lose confidence in our financial reporting, which may adversely impact the trading price of our securities.

Effective internal and disclosure controls and procedures are necessary for us to provide reliable financial reports, to prevent fraud and to operate successfully as a public company. If we cannot provide reliable financial reports or prevent fraud, our business and reputation may be harmed. We regularly review and assess our internal controls over financial reporting and our disclosure controls and procedures. As part of that process, we may discover material weaknesses or significant deficiencies

in our internal controls as defined under standards adopted by the Public Company Accounting Oversight Board, or PCAOB, that require remediation. A material weakness is a deficiency, or combination of deficiencies, in internal controls over financial reporting, such that there is a reasonable possibility that a material misstatement of the company's annual or interim financial statements will not be prevented or detected on a timely basis. A significant deficiency is a deficiency or combination of deficiencies, in internal controls over financial reporting that is less severe than a material weakness, yet important enough to merit attention by those responsible for the oversight of the company's financial reporting. As a result of weaknesses that may be identified in our internal controls, we may also identify certain deficiencies in some of our disclosure controls and procedures that we believe require remediation. If we discover weaknesses, we will make efforts to improve our internal and disclosure controls. However, there is no assurance that we will be successful. If we fail to maintain effective controls or timely affect any necessary improvement of our internal and disclosure controls, we may not have accurate information to make management decisions, our operating results could be harmed or we may fail to meet our reporting obligations, which could affect our ability to remain listed with the NASDAQ Global Market. Ineffective internal and disclosure controls could also cause stockholders to lose confidence in our reported financial information and our ability to manage our business, which would likely have a negative effect on the trading price of our securities.

We might be subject to claims of infringement of other parties' proprietary rights which could harm our business. In the future, as we have in the past, we might receive claims that we are infringing intellectual property rights of others or inquiries about our interest in a license, or assertions that we need a license, to the intellectual property. The semiconductor industry is characterized by uncertain and conflicting intellectual property claims and vigorous protection and pursuit of these rights. The resolution of any claims of this nature, with or without merit, could be time consuming, result in costly litigation or cause product shipment delays. In the event of an adverse ruling or settlement, we might be required to pay substantial damages, cease the use or sale of infringing products, spend significant resources to develop non-infringing technology, discontinue the use of certain technology and/or enter into license agreements. License agreements, if required, might not be available on terms acceptable to us or at all. The loss of access to any of our intellectual property or the ability to use any of our technology could harm our business. Finally, certain of our customer contracts contain provisions that require us to defend or indemnify our customers for third party intellectual property infringement claims, which would increase the cost to us of an adverse ruling or settlement. We may not be able to recruit or retain qualified personnel, which could harm our business.

We believe our ability to manage successfully and grow our business and to develop new products depends, in large part, on our ability to recruit and retain qualified employees, particularly highly skilled technical, sales, management, and key staff personnel. Competition for qualified resources is intense and other companies may have greater resources available to provide substantial inducements to lure key personnel away from us or to offer more competitive compensation packages to individuals we are trying to hire. Additionally, we have implemented global cost reduction plans in which we have reduced our workforce, which could make it challenging to retain key people and recruit new talent, as needed. While we implement programs to attract employees, and we may grant additional equity compensation to certain employees outside of our annual equity grant program for retention purposes, or implement retention bonus programs for certain employees, there can be no assurance that we will be able to successfully recruit and retain the qualified personnel we require.

As part of our sales process, we could incur substantial sales and engineering expenses that do not result in revenues, which would harm our operating results.

Our customers generally expend significant efforts evaluating and qualifying our products prior to placing an order. The time that our customers require to evaluate and qualify our probe cards is typically between three and 12 months and sometimes longer. While our customers are evaluating our products, we might incur substantial sales, marketing, and research and development expenses. For example, we typically expend significant resources educating our prospective customers regarding the uses and benefits of our probe cards and developing probe cards customized to the potential customer's needs, for which we might not be reimbursed. Although we commit substantial resources to our sales efforts, we might never receive any revenues from a customer. For example, many semiconductor chip designs never reach production, including designs for which we may have expended design effort and expense. In addition, prospective customers might decide not to use our probe cards or use our probe cards for a relatively small

percentage of their probe card requirements after we have expended significant effort and expense toward probe card design, development, and/or manufacture. The length of time that it takes for the evaluation process and for us to make a sale depends upon many factors including:

- the efforts of our sales force and our distributor and independent sales representatives;
- the complexity of the customer's fabrication processes;
- the internal technical capabilities of the customer;



- the customer's budgetary constraints;
- the availability of compatible product offerings; and
- the customer's ability to devote resources to the evaluation process.

In addition, product purchases are frequently subject to delays; as a result, our sales cycles are unpredictable. If we incur substantial sales and engineering expenses without generating revenues, our operating results could be harmed. Our failure to comply with environmental laws and regulations could subject us to significant fines and liabilities, and new laws and regulations or changes in regulatory interpretation or enforcement could make compliance more difficult and costly.

We are subject to various U.S. Federal, state and local, and foreign governmental laws and regulations relating to the protection of the environment, including those governing the discharge of pollutants into the air and water, the management and disposal of hazardous substances and wastes, the cleanup of contaminated sites and the maintenance of a safe workplace. We could incur substantial costs, including cleanup costs, civil or criminal fines or sanctions and third-party claims for property damage or personal injury, as a result of violations of or liabilities under environmental laws and regulations or non-compliance with the environmental permits required at our facilities.

These laws, regulations and permits also could require the installation of costly pollution control equipment or operational changes to limit pollution emissions or decrease the likelihood of accidental releases of hazardous substances. In addition, changing laws and regulations, new laws and regulations, stricter enforcement of existing laws and regulations, the discovery of previously unknown contamination at our or others' sites or the imposition of new cleanup requirements could require us to curtail our operations, restrict our future expansion, subject us to liability and cause us to incur future costs that could harm our operations, thereby adversely impacting our operating results and cash flow.

Because we conduct most of our business internationally, we are subject to operational, economic, financial and political risks abroad.

Sales of our products to customers outside North America have accounted for a significant part of our revenues. Our international sales as a percentage of our revenues were 77%, 72% and 73% for fiscal 2015, 2014 and 2013, respectively. Additionally, certain of our South Korean customers purchase through their North American subsidiaries. In the future, we expect international sales, particularly in Japan, South Korea and Taiwan, to continue to account for a significant percentage of our revenues. Accordingly, we will be subject to risks and challenges that we would not otherwise face if we conducted our business solely in North America.

These risks and challenges include:

- compliance with a wide variety of foreign laws and regulations;
- legal uncertainties regarding taxes, tariffs, quotas, export controls, export licenses and other trade barriers;
- political and economic instability or foreign conflicts that involve or affect the countries of our customers;
- difficulties in collecting accounts receivable and longer accounts receivable payment cycles;
- difficulties in staffing and managing personnel, distributors and representatives;
- reduced protection for intellectual property rights in some countries;
- currency exchange rate fluctuations, which could affect the value of our assets denominated in local currency, as well as the price of our products relative to locally produced products;
- seasonal fluctuations in purchasing patterns in other countries; and
- fluctuations in freight rates and transportation disruptions.

Any of these factors could harm our existing international operations, impair our ability to continue expanding into international markets or materially adversely affect our operating results. Additionally, we are required to comply with foreign import and export requirements, customs and value added tax standards. Our failure to meet these requirements and standards could negatively impact our business operations. As an example in the third quarter of 2011, we received inquiries from a foreign jurisdiction tax authority regarding certain indirect tax matters. We cooperated with these inquiries, which related to our prior shipping process for new product qualifications and for products for certain of our repair center activities, and resolved



the matter. We regularly address our tax compliance and make submissions to the appropriate jurisdiction as appropriate. In the future, if our tax practices are questioned by authorities or found to be irregular, it is possible that we could incur material expenses or charges, which would negatively impact our financial condition.

The trading price of our common stock has been and is likely to continue to be volatile, and you might not be able to sell your shares at or above the price that you paid for them.

The trading prices of the securities of technology companies have been highly volatile, and from December 28, 2015, the first business day of our fiscal 2016, through March 3, 2016, our stock price (NASDAQ Global Market close price) has ranged from \$6.34 a share to \$9.33 a share. The trading price of our common stock is likely to continue to be subject to wide fluctuations. Factors affecting the trading price of our common stock could include:

- variations in our operating results;
- our forecasts and financial guidance for future periods;
- announcements of technological innovations, new products or product enhancements, new product adoptions at semiconductor customers or significant agreements by us or by our competitors;
- reports regarding our ability to bring new products into volume production efficiently;
- the gain or loss of significant orders or customers;
- changes in the estimates of our operating results or changes in recommendations by any securities analysts that elect to follow our common stock;
- rulings on litigations and proceedings;
- seasonality, principally due to our customers' purchasing cycles;
- market and competitive conditions in our industry, the entire semiconductor industry and the economy as a whole;
- recruitment or departure of key personnel; and
- announcements of mergers and acquisition transactions and the ability to successfully integrate the business activities of the acquired/merged company.

In addition, if the market for technology stocks or the stock market in general experiences loss of investor confidence, the trading price of our common stock could decline for reasons unrelated to our business, operating results or financial condition. The trading price of our common stock also might decline in reaction to events that affect other companies in our industry even if these events do not directly affect us.

Provisions of our certificate of incorporation and bylaws or Delaware law might discourage, delay or prevent a change of control of our company or changes in our management and, therefore, depress the trading price of our common stock.

Delaware corporate law and our certificate of incorporation and bylaws contain provisions that could discourage, delay or prevent a change in control of our company or changes in our management that the stockholders of our company may deem advantageous. These provisions:

- establish a classified board of directors so that not all members of our board are elected at one time;
- provide that directors may only be removed "for cause" and only with the approval of 66.7% of our stockholders;
- require super-majority voting to amend some provisions in our certificate of incorporation and bylaws;
- authorize the issuance of "blank check" preferred stock that our board could issue to increase the number of outstanding shares and to discourage a takeover attempt;
- limit the ability of our stockholders to call special meetings of stockholders;
- prohibit stockholder action by written consent, which requires all stockholder actions to be taken at a meeting of our stockholders;
- provide that the board of directors is expressly authorized to make, alter or repeal our bylaws; and

establish advance notice requirements for nominations for election to our board or for proposing matters that can be acted upon by stockholders at stockholder meetings.

In addition, Section 203 of the Delaware General Corporation Law may discourage, delay or prevent a change in control of our company. In addition, each of our named executive officers and certain other officers of the company have entered into change of control severance agreements, which were approved by our Compensation Committee, which could increase the costs associated with a change of control and thus, potentially deter such a transaction. Regulations related to conflict minerals may force us to incur additional expenses, disrupt our supply chain processes, and create additional compliance risks.

Under the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, the SEC adopted regulations that require public companies that manufacture products containing certain minerals and their derivatives, referred to as conflict minerals, to perform due diligence relating to conflict minerals, have these procedures audited, and file reports with the SEC on these subjects. We may incur additional costs in complying with these regulation, and suffer compliance risks.

Item 1B: Unresolved Staff Comments

None.

Item 2: Properties

Our corporate headquarters, which includes sales, marketing, administration, manufacturing, engineering, and research and development facilities, is located in Livermore, California, United States. Our corporate headquarters comprises a campus of four buildings totaling approximately 169,000 square feet. We presently lease those four buildings. In addition, we lease office, repair and service, manufacturing and/or research and development space both inside and outside of the United States. The leases expire at various times through 2021. We believe that our existing and planned facilities are suitable for our current needs.

Information concerning our properties as of December 26, 2015 is set forth below:

Location	Principal Use	Square Footage	Ownership
Livermore, California, United States	Corporate headquarters, sales, marketing, finance, product design, manufacturing, service and repair, distribution, research and development	168,636	Leased
San Jose, California, United States	Sales, marketing, finance, product design, manufacturing, service and repair, distribution, research and development	23,860	Leased
Carlsbad, California, United States	Product design, finance, manufacturing, service and repair, distribution, research and development	26,260	Leased
Southbury, Connecticut, United States	Sales office	1,000	Leased
Singapore	Sales, finance, product design, service, and field service.	26,805	Leased
Suzhou, China	Sales, marketing, finance, manufacturing, product design, service and repair, distribution, research and development	24,877	Leased
Jubei City, Hsinchu, Taiwan	Sales office, finance, product design, field service and repair center	9,309	Leased
Yokohama City, Japan	Sales office, finance, marketing, product design, research and development, field service, and repair center, manufacturing and distribution.	8,777	Leased
Hiroshima, Japan	Repair center	1,615	Leased
Bundang, South Korea		15,310	Leased

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	Sales office, finance, product design, field service, and repair center		
Dresden, Germany	Sales office	2,906	Leased
Milan, Italy	Sales office	215	Leased

Item 3: Legal Proceedings

From time to time, we may be subject to legal proceedings and claims in the ordinary course of business. As of December 26, 2015 and as of the filing of this Annual Report on Form 10-K, we were not involved in any material legal proceedings other than the proceeding summarized below. In the future we may become a party to additional legal proceedings that may require us to spend significant resources, including proceedings designed to protect our intellectual property rights. Litigation can be expensive and disruptive to normal business operations. Moreover, the results of legal proceedings are difficult to predict, and the costs incurred in litigation can be substantial, regardless of outcome.

Intellectual Property Litigation

In the ordinary course of business, the Company has been, currently is, and may in the future be, involved in commercial litigation relating to intellectual property, as well as third party initiated patent office proceedings in the United States and foreign patent offices.

In March 2014, we filed a lawsuit against MarTek, Inc. ("MarTek"), asserting breach of contract, copyright infringement and related claims arising out of a licensing agreement we entered into with MarTek for the use by MarTek of certain intellectual property assets (the "IP"). MarTek asserted counterclaims against us for breach of contract and related claims regarding that license. On July 13, 2015, we entered into an agreement with MarTek under which the parties agreed to dismiss the pending litigation and release each other from any and all claims relating to the license agreement. As part of the agreement, we agreed to sell the IP to MarTek for \$2 million, of which \$1.2 million was received on July 17, 2015, and the remaining \$0.8 million is in the form of a promissory note secured by the IP and scheduled to be repaid by MarTek in two equal tranches on the first and second anniversary of the settlement. We recognized a net gain of approximately \$1.0 million (which was classified in our Consolidated Statement of Operations under Other Income, net) from the agreement proceeds of \$1.2 million received on July 17, 2015.

Other Litigation

In August 2013, a former employee filed a class action lawsuit against the Company in the Superior Court of California, alleging violations of California's wage and hour laws and unfair business practices on behalf of himself and all other similarly situated current and former employees at the Company's Livermore facilities from August 21, 2009, to the present. On January 4, 2016, the court certified the plaintiff class. The lawsuit is currently proceeding to notice to class members and merits discovery. The Company denies the allegations contained in the lawsuit, and, based on available information, believes it has significant defenses to the allegations of the lawsuit. The Company currently believes that any settlement reached would be an amount that is not material to the Company's financial statements. If the matter is not settled, the Company could incur material attorneys' fees in defending the lawsuit.

Item 4: Mine Safety Disclosures

Not applicable.

## PART II

## Item 5: Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

## Price Range of Common Stock

Our common stock is listed on the NASDAQ Global Market under the symbol "FORM". The following table sets forth the range of high and low closing sales prices per share as reported on the Nasdaq Global Market for the periods indicated.

Fiscal 2015	High	Low
First Quarter	\$ 10.26	\$ 7.55
Second Quarter	9.51	7.97
Third Quarter	9.20	5.93
Fourth Quarter	\$ 9.13	\$ 6.49
Fiscal 2014	High	Low
First Quarter	\$ 7.19	\$ 6.01
Second Quarter	8.09	5.41
Third Quarter	8.41	6.61
Fourth Quarter	\$ 8.93	\$ 6.18

The closing sales price of our common stock on the NASDAQ Global Market was \$7.84 per share on March 3, 2016. As of March 3, 2016, there were 203 registered holders of record of our common stock.

## Repurchase of Common Stock

On April 16, 2015, our Board of Directors authorized a program to repurchase up to \$25.0 million of outstanding common stock. Under the authorized stock repurchase program, we may repurchase shares from time-to-time on the open market. The pace of repurchase activity will depend on levels of cash generation, current stock price and other factors. The stock repurchase program was announced on April 16, 2015 and expires on April 15, 2016. The program may be modified or discontinued at any time.

During fiscal 2015, under this repurchase authorization, we repurchased and retired 1,013,162 shares of common stock for approximately \$8.2 million.

Period (Fiscal months)	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Amount that May Yet Be Purchased Under the Plans or Programs
April 16, 2015-April 25, 2015	—	\$—	—	\$ 25,000,000
April 26, 2015-May 23, 2015	215,500	8.53	215,500	\$ 23,161,747
May 24, 2015-June 27, 2015	184,862	9.04	184,862	\$ 21,491,213
June 28, 2015-July 25, 2015	300,000	7.88	300,000	\$ 19,128,287
July 26, 2015-August 22, 2015	150,000	6.58	150,000	\$ 18,140,248
August 23, 2015-September 26, 2015	22,800	6.00	22,800	\$ 18,003,461
September 27, 2015-October 24, 2015	—	—	—	\$ 18,003,461
October 25, 2015-November 21, 2015	140,000	8.67	140,000	\$ 16,789,103
November 22, 2015-December 26, 2015	—	—	—	\$ 16,789,103
	1,013,162	\$ 8.10	1,013,162	

Repurchased shares are retired upon the settlement of the related trade transactions. Our policy related to repurchases of our common stock is to charge the excess of cost over par value to additional paid-in capital. All repurchases were made in compliance with Rule 10b-18 under the Securities Exchange Act of 1934, as amended.





#### Dividend Policy

We have never declared or paid cash dividends on our common stock and we do not currently anticipate declaring or paying cash dividends on our common stock.

#### Stock Price Performance Graph

The following graph shows the total stockholder return of an investment of \$100 in cash on December 31, 2010 through December 26, 2015, for (1) our common stock, (2) the S&P 500 Index and (3) the RDG Semiconductor Composite Index. All values assume reinvestment of the full amount of all dividends. No cash dividends have been declared on shares of our common stock. Stockholder returns over the indicated period are based on historical data and are not necessarily indicative of future stockholder returns.

#### COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN\*

Among FormFactor, Inc., the S&P 500 Index, and the RDG Semiconductor Composite Index

\*\$100 invested on 12/31/10 in stock or index, including reinvestment of dividends.

Fiscal year ended December 31.

	Cumulative Total Return					
	December 31, 2010	December 31, 2011	December 31, 2012	December 31, 2013	December 31, 2014	December 31, 2015
FormFactor, Inc.	\$ 100.00	\$ 56.98	\$ 51.35	\$ 67.68	\$ 96.85	\$ 101.35
S&P 500	100.00	102.11	118.45	156.82	178.29	180.75
RDG Semiconductor Composite	100.00	97.51	99.00	132.42	166.28	151.75

## Item 6: Selected Financial Data

The following selected consolidated financial data is derived from our consolidated financial statements. This data should be read in conjunction with our consolidated financial statements and the related notes, and "Item 7: Management's Discussion and Analysis of Financial Condition and Results of Operations" contained elsewhere in this Annual Report on Form 10-K.

	Fiscal 2015 (1)(3)	Fiscal 2014 (1)(2)	Fiscal 2013 (1)(2)(4)	Fiscal 2012 (1)(2)(5)(7)	Fiscal 2011 (1)(2)(5)(6)
(in thousands, except per share data)					
Consolidated Statements of Operations Data:					
Revenues	\$ 282,358	\$ 268,530	\$ 231,533	\$ 178,535	\$ 169,325
Gross profit	85,738	77,439	42,284	25,331	20,958
Net loss	(1,523 )	(19,185 )	(57,683 )	(35,546 )	(65,981 )
Basic and diluted net loss per share	\$ (0.03 )	\$ (0.34 )	\$ (1.06 )	\$ (0.70 )	\$ (1.31 )
Consolidated Balance Sheets Data:					
Cash, cash equivalents and marketable securities	\$ 187,589	\$ 163,837	\$ 151,091	\$ 165,788	\$ 296,691
Working capital	214,437	196,412	173,881	194,125	308,380
Total assets	342,723	344,243	340,708	395,682	383,071
Capital leases, net of current portion	—	—	—	340	—
Total stockholders' equity	\$ 294,681	\$ 289,436	\$ 294,086	\$ 339,258	\$ 346,652
Number of employees	958	907	961	1,021	709

Fiscal 2015, 2014, 2013, 2012 and 2011 net losses include restructuring charges, net of \$0.6 million, \$2.7 million, (1) \$4.7 million, \$2.9 million and \$0.5 million, respectively, relating to our global restructuring and reorganization actions. See Note 4—Restructuring Charges of the Notes to the Consolidated Financial Statements.

Fiscal 2014, 2013, 2012 and 2011 net losses include impairment charges of \$1.2 million, \$0.8 million, \$0.4 million (2) and \$0.5 million, respectively. See Note 6—Impairment of Long-lived Assets of the Notes to the Consolidated Financial Statements.

Fiscal 2015 includes the following: a) a \$1.5 million gain from a business interruption insurance claim relating to a (3) factory fire at a customer. See Note-16, Business Interruption Insurance Claim Recovery of the Notes to the Consolidated Financial Statements, and b) a \$1.0 million net gain from the sale of intellectual property. See Note 9-Commitments and contingencies of the Notes to Consolidated Financial Statements.

(4) Fiscal 2013 net loss includes \$0.3 million attributable to loss on sale of a subsidiary.

Fiscal 2012 includes a \$25.5 million tax benefit from the release of deferred tax asset valuation allowances due to (5) deferred tax liabilities established on the acquired identifiable intangible assets from our acquisition of MicroProbe. Additionally, fiscal 2011 includes a \$2.5 million tax benefit from the release of the deferred tax asset valuation allowance for a non-U.S. jurisdiction.

(6) Fiscal 2011 includes a \$0.3 million net benefit from collections on amounts previously reserved as bad debts.

Fiscal 2012 includes the following as a result of the MicroProbe Acquisition: \$19.8 million in revenue, \$5.4 (7) million in the amortization of intangibles expense, \$2.6 million release of pre-existing backlog, \$0.2 million charge for step-up depreciation on the fair value of fixed assets, resulting in a \$6.4 million net loss. As part of the MicroProbe Acquisition, a patent lawsuit was settled with a benefit of \$3.3 million.

Item 7: Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our consolidated financial statements and the related notes included elsewhere in this Annual Report on Form 10-K. In addition to historical consolidated financial information, the following discussion and analysis contains forward-looking statements that involve risks, uncertainties and assumptions as described under the "Note Regarding Forward-Looking Statements" that appears earlier in this Annual Report on Form 10-K. Our actual results could differ materially from those anticipated by these forward-looking statements as a result of many factors, including those discussed under "Item 1A: Risk Factors" and elsewhere in this Annual Report on Form 10-K.

Overview

We design, develop, manufacture, sell and support advanced semiconductor probe card products, and are the largest supplier worldwide of those products. Semiconductor manufacturers use our probe cards to perform wafer test (also known as wafer sort), which is the testing of the semiconductor die, or chips, while those die are still constituted on the semiconductor wafer. Wafer test enables semiconductor manufacturers to determine whether chips will meet specifications and be saleable once the wafer is diced, and the die are singulated and individually packaged. The per-die costs of singulation and packaging processes are relatively high, and some of the die on a wafer are typically expected to be defective. Consequently, there is often a compelling economic reason to perform wafer test. Probe cards are a critical element in enabling that wafer test process.

During fiscal 2015, revenues increased by \$13.8 million or 5% to \$282.4 million from \$268.5 million in 2014. Our net loss decreased by \$17.7 million or 92% to \$(1.5) million from \$(19.2) million in 2014. The net loss for fiscal 2015 included restructuring charges of \$0.6 million, gain from a business interruption insurance claim of \$1.5 million and a net gain from sale of intellectual property of \$1.0 million. The net loss for fiscal 2014 included restructuring charges of \$2.7 million and impairment charges of \$1.2 million. Our gross profit margins and operating profit margins also improved in fiscal 2015 as a result of our increasing revenues and ongoing initiatives to reduce manufacturing overhead costs, lower production material costs and reduce operating expenses. Overall, we experienced an improvement in our financial and operational performance during fiscal 2015, as compared to fiscal 2014 as our business continued to gain momentum through strong broad-based demand from our customers and continued improvements in our execution.

In fiscal 2015, our Board of Directors authorized a share repurchase program to repurchase up to \$25.0 million of our outstanding common stock from time-to-time on the open market. During fiscal 2015, under this repurchase authorization, we repurchased and retired approximately 1 million shares of common stock for approximately \$8.2 million.

Our cash, cash equivalents and marketable securities and restricted cash totaled \$188.0 million as of December 26, 2015, as compared to \$164.3 million at December 27, 2014. The increase in our cash, cash equivalents and marketable securities was primarily due to higher revenues and improved operating results net of investments in working capital to grow revenues. We generated cash after stock repurchases of \$23.8 million in fiscal 2015 as compared to \$12.7 million for fiscal 2014. There were no stock repurchases in fiscal 2014. We believe that we will be able to satisfy our working capital requirements for at least the next twelve months with the liquidity provided by our existing cash, cash equivalents and marketable securities. If we are unsuccessful in maintaining or growing our revenues, or maintaining or reducing our cost structure in an industry downturn, or increasing our available cash through financing, our cash, cash equivalents and/or marketable securities could decline in future fiscal years.

In February 2016, we entered into a definitive agreement with Cascade Microtech, Inc. ("Cascade Microtech") under which we will acquire all outstanding Cascade Microtech shares in a cash and stock transaction. Cascade Microtech is a leader in the field of probe cards for radio frequency ("RF") semiconductor products, and has important capabilities in engineering probes and test systems. We believe that this combination will further diversify our customer and revenue base, and enable efficiencies and value realization in the combined companies' operations, technology, resources, assets, and teams. By leveraging combined global support and channel investments across a product line that spans from engineering to production test applications, the combined company will be uniquely positioned to solve many of our customers' most difficult test challenges from engineering to production. The transaction is expected to close

mid-2016 subject to customary closing conditions, including the receipt of regulatory approvals and the approval by Cascade Microtech's shareholders of the merger.

We believe the following information is important to understanding our business, our financial statements as well as the remainder of this discussion and analysis of our financial condition and results of operations:

**Fiscal Year.** We operate on a 52/53 week fiscal year, whereby the fiscal year ends on the last Saturday of December. The fiscal years ended December 26, 2015, December 27, 2014 and December 28, 2013 included 52 weeks each.

**Revenues.** We derive substantially all of our revenues from product sales of probe cards. Revenues from our customers are subject to fluctuations due to factors including, but not limited to, design cycles, technology adoption rates, competitive pressure to reduce prices, cyclicalities of the different end markets into which our customers' products are sold and market conditions in the semiconductor industry. Historically, increases in revenues have resulted from increased demand for our existing products, the introduction of new, more complex products, the penetration of new markets and through acquisition. We expect that revenues from the sale of probe cards will continue to account for substantially all of our revenues for the foreseeable future.

**Cost of Revenues.** Cost of revenues consists primarily of manufacturing materials, payroll, shipping and handling costs, manufacturing-related overhead and amortization of certain intangible assets. Our manufacturing operations rely upon a limited number of suppliers to provide key components and materials for our products, some of which are a sole source. We order materials and supplies based on backlog and forecasted customer orders. Tooling and setup costs related to changing manufacturing lots at our suppliers are also included in the cost of revenues. We expense all warranty costs, inventory provisions and amortization of certain intangible assets as cost of revenues.

We design, manufacture and sell custom advanced probe cards into the semiconductor test market, which is subject to significant variability and demand fluctuations. Our probe cards are complex products that are custom to a specific chip design of a customer and must be delivered on relatively short lead-times as compared to our overall manufacturing process. As our advanced probe cards are manufactured in low volumes, it is not uncommon for us to acquire production materials and start certain production activities based on estimated production yields and forecasted demand prior to or in excess of actual demand for our probe cards. We record an adjustment to our inventory valuation for estimated excess, obsolete and non-sellable inventories based on assumptions about future demand, past usage, changes to manufacturing processes and overall market conditions.

**Research and Development.** Research and development expenses include expenses related to product development, engineering and material costs. Research and development costs are expensed as incurred. We plan to continue to invest in research and development activities to improve and enhance existing product technologies and to develop new technologies for current and new products and for new applications.

**Selling, General and Administrative.** Selling, general and administrative expenses include expenses related to sales, marketing, administrative personnel, sales commissions, market research and consulting, and other sales, marketing, administrative activities, amortization of certain intangible assets, and provision for doubtful accounts. These expenses also include costs for protecting and enforcing our intellectual property rights and regulatory compliance costs.

**Restructuring Charges.** Restructuring charges include costs related to employee termination benefits, cost of long-lived assets abandoned or impaired, as well as contract termination costs.

**Impairment of Long-Lived Assets.** Asset impairment charges include charges associated with the write-down of assets that have no future expected benefit or for assets that have been determined to be impaired as well as adjustments to the carrying amount of our assets held for sale.

**Use of Estimates.** The preparation of consolidated financial statements in conformity with generally accepted accounting principles in the United States of America ("GAAP") requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Estimates may change as new information is obtained. We believe that the estimates, assumptions and judgments involved in revenue recognition, fair value of marketable securities, allowance for doubtful accounts, reserves for product warranty, valuation of obsolete and slow moving inventory, assets acquired and liabilities assumed in business combinations, legal contingencies, valuation of goodwill, the assessment of recoverability of long-lived assets, valuation and recognition of stock-based compensation, provision for income taxes and valuation of deferred tax assets have the greatest potential impact on our consolidated financial statements. Actual results could differ from those estimates.

#### **Critical Accounting Policies and Estimates**

Our discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements, which have been prepared in accordance with generally accepted accounting principles (GAAP).

The preparation of these financial statements require us to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of net revenue and expenses in the reporting period. Our accounting policies are fundamental to understanding our financial condition and results of operations

reported in our financial statements and related disclosures. We have identified the following accounting policies as being critical because they require our management to make particularly difficult, subjective and/or complex judgments about the effect of matters that are inherently uncertain. We evaluate our estimates and assumptions on an ongoing basis and we base these estimates and assumptions on current facts, historical experiences and various other factors and assumptions that are believed to be reasonable under the circumstances. Actual results may differ materially and adversely from our estimates. Our management has discussed the development, selection, application and disclosure of these critical accounting policies with the Audit Committee of our Board of Directors.

**Revenue Recognition:** We recognize revenue when persuasive evidence of an arrangement exists, title and risk of loss has transferred to the customer, the selling price is fixed or determinable and collection of the related receivable is reasonably assured. In instances where final acceptance of the deliverable is specified by the customer, revenue is deferred until all acceptance criteria have been met. Revenues from the licensing of our design and manufacturing technology, which have not been material to date, are recognized over the term of the license agreement or when the significant contractual obligations have been fulfilled.

**Goodwill:** Goodwill represents the excess of the purchase price over the fair value of identifiable assets acquired and liabilities assumed. Since our acquisition of MicroProbe in Fiscal 2012, we had historically operated in one reportable segment consisting of two operating segments and for the purposes of our goodwill impairment analysis, we had two reporting units, all of which related to our FormFactor and MicroProbe product groups. During the fourth quarter of fiscal 2015, we determined that we now operate in one reportable segment consisting of one operating segment and for the purposes of our goodwill impairment analysis, we further concluded that we now have one reporting unit, all of which relates to the design, development, manufacture and sale of high performance advanced probe cards as a result of the successful integration of the MicroProbe business into our overall consolidated operations.

We first assess qualitative factors to determine whether it is necessary to perform a two-step quantitative goodwill impairment test. If an entity determines as a result of the qualitative assessment that it is more likely than not that the fair value of a reporting unit is less than its carrying amount, then the quantitative impairment test is required. Otherwise, no further testing is required.

The performance of the quantitative impairment test involves a two-step process. The first step of the impairment test involves comparing the fair value of the applicable reporting unit with its aggregate carrying value, including goodwill. We generally determine the fair value of our reporting unit using a combination of the income approach (that includes the use of the discounted cash flow method) and the market approach (guideline company approach) valuation methodologies. If the carrying amount of a reporting unit exceeds the fair value of that reporting unit, we perform the second step of the quantitative impairment test to determine the amount of impairment loss. The second step of the goodwill impairment test involves comparing the implied fair value of the affected reporting unit's goodwill with the carrying value of that goodwill.

During the fourth quarter of fiscal 2015, we performed our annual goodwill impairment test prior to and subsequent to the change in our reporting unit structure by assessing qualitative factors and we concluded that our goodwill was not impaired as of December 26, 2015. Our qualitative review included, among other factors, an assessment of our market capitalization which was significantly higher than our book value. The evaluation of goodwill for impairment requires the exercise of significant judgment. In the event of future changes in business conditions, we will be required to reassess and update our forecasts and estimates used in future impairment analyses. If the results of these analyses are lower than current estimates, a material impairment charge may result at that time. Refer to note 8 to Notes to Consolidated Financial Statements - Goodwill and Intangible Assets for further details.

**Impairment of Long-Lived Assets:** We test long-lived assets or asset groups such as property, plant and equipment and intangibles for recoverability when events or changes in circumstances indicate that their carrying amounts may not be recoverable. Circumstances that could trigger a review include, but are not limited to: significant decreases in the market price of the asset; significant adverse changes in the business climate or legal factors; accumulation of costs significantly in excess of the amount originally expected for the acquisition or construction of the asset; current period cash flow or operating losses combined with a history of losses or a forecast of continuing losses associated with the use of the asset; and current expectation that the asset will more likely than not be sold or disposed of significantly before the end of its estimated useful life.

Recoverability is assessed based on the carrying amounts of the asset or asset group and the sum of the undiscounted cash flows expected to result from the use and the eventual disposal of the asset. An impairment loss is recognized when the carrying amount is not recoverable and exceeds fair value.

Significant judgments and assumptions are required in the forecast of future operating results used in the preparation of the estimated future cash flows, including profit margins, long-term forecasts of the amounts and timing of overall market growth and our percentage of that market, groupings of assets, discount rates and terminal growth rates. In addition, significant



estimates and assumptions are required in the determination of the fair value of our intangible assets and tangible long-lived assets, including replacement cost, economic obsolescence, and the value that could be realized in an orderly liquidation. Changes in these estimates could have a material adverse effect on the assessment of our long-lived assets, thereby requiring us to write down the assets.

**Restructuring Charges:** Restructuring charges include costs related to employee termination benefits, long-lived assets impaired or abandoned, and contract termination costs. The determination of when we accrue for employee termination benefits depends on whether the termination benefits are provided under a one-time benefit arrangement or under an on-going benefit arrangement. For restructuring charges recorded as an on-going benefit arrangement, a liability for post-employment benefits is recorded when payment is probable, the amount is reasonably estimable, and the obligation relates to rights that have vested or accumulated. For restructuring charges recorded as a one-time benefit arrangement, we recognize a liability for employee termination benefits when a plan of termination, approved by management and establishing the terms of the benefit arrangement, has been communicated to employees. The timing of the recognition of one-time employee termination benefits is dependent upon the period of time the employees are required to render service after communication. If employees are not required to render service in order to receive the termination benefits or if employees will not be retained to render service beyond the minimum legal notification period, a liability for the termination benefits is recognized at the communication date. In instances where employees will be retained to render service beyond the minimum legal notification period, the liability for employee termination benefits is measured initially at the communication date based on the fair value of the liability as of the termination date and is recognized ratably over the future service period. We continually evaluate the adequacy of the remaining liabilities under our restructuring initiatives.

We record charges related to long-lived assets to be abandoned when the assets cease to be used. When we cease using a building or other asset with remaining non-cancelable lease payments continuing beyond our use period, we record a liability for remaining payments under lease arrangements, as well as for contract termination costs, that will continue to be incurred under a contract for its remaining term without economic benefit to us at the cease-use date. Given the significance of, and the timing of the execution of such activities, this process is complex and involves periodic reassessments of estimates made at the time the original decisions were made, including evaluating real estate market conditions for expected vacancy periods and sub-lease rents. Although we believe that these estimates accurately reflect the costs of our restructuring plans, actual results may differ, thereby requiring us to record additional provisions or reverse a portion of such provisions.

**Inventory Valuation:** We state our inventories at the lower of cost (principally standard cost which approximates actual cost on a first in, first out basis) or market value. We continually assess the value of our inventory and will periodically write down its value for estimated excess inventory and product obsolescence based upon assumptions about forecasted future sales, past usage, and market conditions. On a quarterly basis, we review inventory quantities on hand and on order under non-cancelable purchase commitments in comparison to our past usage and estimated forecast of product demand for the next six to twelve months to determine what inventory quantities, if any, may not be sellable. Based on this analysis, we write down the affected inventory value for estimated excess and obsolescence charges. At the point of loss recognition, a new, lower cost basis for that inventory is established, and subsequent changes in facts and circumstances do not result in the restoration or increase in that newly established cost basis. Market conditions are subject to change, and demand for our products can fluctuate significantly. Actual consumption of inventories could differ from forecasted demand and this difference could have a material impact on our gross profit and inventory balances based on additional provisions for excess or obsolete inventories or a benefit from the sale of inventories previously written down.

## Results of Operations

The following table sets forth our operating results as a percentage of revenues:

	Fiscal 2015		Fiscal 2014		Fiscal 2013	
Revenues	100.0	%	100.0	%	100.0	%
Cost of revenues	69.6		71.2		81.7	
Gross profit	30.4		28.8		18.3	
Operating expenses:						
Research and development	15.6		15.9		18.2	
Selling, general and administrative	16.0		19.0		23.0	
Restructuring charges, net	0.2		1.0		2.0	
Loss on sale of subsidiary	—		—		0.1	
Impairment of long-lived assets	—		0.5		0.3	
Total operating expenses	31.8		36.4		43.6	
Operating loss	(1.4	)	(7.6	)	(25.3	)
Interest income, net	0.1		0.1		0.2	
Other income, net	0.9		0.1		0.3	
Loss before income taxes	(0.4	)	(7.4	)	(24.8	)
Provision (benefit) from income taxes	0.1		(0.3	)	—	
Net loss	(0.5	)%	(7.1	)%	(24.8	)%

Fiscal Years Ended December 26, 2015 and December 27, 2014

## Revenues

	Fiscal	% of	Fiscal	% of	Change	
	2015	Revenues	2014	Revenues	\$	%
	(In thousands)					
Revenues by Market:						
SoC	\$145,839	51.7	% \$142,360	53.0	% \$3,479	2.4
DRAM	125,512	44.5	110,800	41.3	14,712	13.3
Flash	11,007	3.9	15,370	5.7	(4,363	) (28.4
Total revenues	\$282,358	100.0	% \$268,530	100.0	% \$13,828	5.1

Overall, our revenues increased by 5.1%, or \$13.8 million, in fiscal 2015 as compared to fiscal 2014. Our revenues increased 2.4% year-over-year in the SoC market, increased 13.3% in DRAM and decreased 28.4% in Flash memory. The increase in DRAM revenue was primarily driven by market share increases at a major South Korean memory producer, based on the adoption of our SmartMatrix product. The increase in SoC revenue was primarily due to higher mobile processor demand and market share gains for our CMOS Image Sensor testing products at a European customer. The decrease in Flash memory revenue was primarily due to a weakening NOR Flash memory market partially offset by increased demand for our TouchMatrix product to test NAND Flash devices at a South Korean memory producer.

## Revenues by Geographic Region

The following table sets forth our revenues by geographic region for the periods indicated:

	Fiscal 2015	% of Revenues	Fiscal 2014	% of Revenues	
	(In thousands)				
South Korea	\$71,120	25.2	% \$52,677	19.6	%
North America	66,178	23.4	75,393	28.1	
Taiwan	61,711	21.9	49,395	18.4	
Asia-Pacific (1)	31,389	11.1	34,705	12.9	
Japan	26,418	9.4	25,683	9.6	
Europe	25,542	9.0	30,677	11.4	
Total Revenues	\$282,358	100.0	% \$268,530	100.0	%

(1) Asia-Pacific includes all countries in the region except Taiwan, South Korea, and Japan, which are disclosed separately.

Geographic revenue information is based on the location to which we ship the customer product. For example, if a certain South Korean customer purchases through their North American subsidiary and requests the products to be shipped to an address in Asia-Pacific, this sale will be reflected in the revenue for Asia-Pacific rather than North America.

The change in revenues from our geographical regions for fiscal 2015, when compared to fiscal 2014, were primarily driven by the following factors:

South Korea revenues increased driven primarily by a combination of market share increases at a major South Korean customer based on the adoption of our SmartMatrix product for DRAM applications and increased SoC product shipments related to mobile processor demand;

North America revenues decreased driven primarily by a shift of SoC product shipments for personal computer processors to customers' test facilities in Europe;

Taiwan revenues increased driven primarily by a combination of increased SoC product shipments and an increase in commodity or personal computer DRAM demand;

Asia-Pacific revenues decreased driven primarily by reduced sales of our SmartMatrix DRAM products;

Europe revenues decreased driven primarily due to reduced mobile processor related product demand, partially offset by a shift of SoC product shipments for personal computer processors to customers' test facilities in Europe; and

Japan revenues were relatively flat year over year.

	Fiscal 2015	Fiscal 2014	
	(In thousands)		
Gross profit	\$85,738	\$77,439	
Gross margin	30.4	% 28.8	%

Gross margin fluctuates with revenue levels, product mix, selling prices, factory loading and material costs. For fiscal 2015, gross profit increased \$8.3 million when compared to fiscal 2014, primarily due to higher production volume driven by higher sales. Factory utilization, execution and operating efficiency improved. We also increased production yields and reduced obsolete inventory charges and acquisition-related intangible amortization expense. This was offset by price reductions due to competition at several customers.

Our net inventory provision charges declined by \$0.6 million in fiscal 2015 compared to fiscal 2014 due to increased demand levels. The value of previously reserved materials that were used in manufacturing and shipped for fiscal 2015 and 2014 was \$2.5 million and \$2.4 million, respectively.

Gross margin included intangible asset amortization expense of \$10.8 million and \$15.8 million in fiscal 2015 and 2014, respectively, related to the MicroProbe Acquisition. Stock-based compensation expense included in gross margin for fiscal 2015 and 2014 was \$2.7 million and \$2.4 million, respectively.

Future gross margins may be adversely impacted by lower levels of product revenues, even though we have taken significant steps to reduce our operating cost structure. Our gross margins may also be adversely affected if we are required to record additional inventory write-downs if estimated average selling prices of products held in finished goods and work in process inventories are below the manufacturing cost of those products.

#### Research and Development

	Fiscal 2015	Fiscal 2014
	(In thousands)	
Research and development	\$44,184	\$42,725
% of revenues	15.6	% 15.9

Research and development expenses for fiscal 2015 increased \$1.5 million, or 3%, compared to the prior year and was primarily due to an increase of \$1.2 million in project and material costs, \$0.4 million in incentive compensation and \$0.3 million in personnel-related costs offset by a reduction of \$0.4 million in overall general operating expenses. Stock-based compensation expense included within research and development expenses was \$3.5 million and \$3.5 million, respectively, for fiscal 2015 and 2014.

Our research and development expenses fluctuate as projects transition from development to manufacturing, depending on the stage of completion and level of effort related to each project undertaken. We are continuing our strategic investments in research and development, including investments in new spring technologies, substrate architectures and new process technologies. We remain committed to product development in new and emerging technologies.

#### Selling, General and Administrative

	Fiscal 2015	Fiscal 2014
	(In thousands)	
Selling, general and administrative	\$45,090	\$51,385
% of revenues	16.0	% 19.0

Selling, general and administrative expenses decreased \$6.3 million, or 12%, in fiscal 2015 compared to the prior year and was primarily due to decreases of \$2.1 million in personnel-related costs, \$1.9 million in stock compensation expense, \$1.2 million in legal expenses, \$0.9 million in overall general operating expenses and \$0.3 million in travel costs which was partially offset by an increase of \$0.2 million in consulting costs to support strategic corporate initiatives. Stock-based compensation expense included within selling, general and administrative expenses was \$5.4 million and \$7.3 million, respectively for fiscal 2015 and 2014.

#### Restructuring Charges, net

	Fiscal 2015	Fiscal 2014
	(In thousands)	
Restructuring charges, net	\$559	\$2,668
% of revenues	0.2	% 1.0

Restructuring charges decreased \$2.1 million, or 79%, in fiscal 2015 from fiscal 2014. The restructuring plans we implemented in fiscal 2015 and 2014 are discussed below.



## 2015 Restructuring Activities

During fiscal 2015, we recorded restructuring charges of approximately \$0.6 million which included stock-based compensation expense of approximately \$0.5 million relating to the modification of an equity-based award. All other restructuring charges recorded in fiscal 2015 were insignificant.

## 2014 Restructuring Activities

On January 27, 2014, we announced a global organizational restructuring and cost reduction plan. As part of the plan, we eliminated 52 full-time employees. In addition, we reduced our temporary workforce by 9 positions. We recorded \$2.0 million of restructuring charges during the first quarter of fiscal 2014, which was comprised of \$1.4 million in severance and related benefits and \$0.6 million in impairment charges for certain equipment that would no longer be utilized. During the remainder of fiscal 2014, we further eliminated an additional 5 full-time positions and recorded \$0.7 million in severance charges. The activities comprising these restructuring activities were substantially completed in fiscal 2014 and the remaining cash payments associated with these activities were paid in fiscal 2015.

## Impairment of Long-Lived Assets

	Fiscal 2015 (In thousands)	Fiscal 2014	
Impairment of long-lived assets	\$8	\$1,219	
% of revenues	—	% 0.5	%

We test long-lived assets or asset groups for recoverability when events or changes in circumstances indicate that their carrying amounts may not be recoverable. In fiscal 2015, long-lived asset impairment charges recorded were insignificant. In fiscal 2014, we recorded impairment charges of \$1.2 million related to manufacturing assets we no longer utilize.

## Interest Income and Other Income, Net

	Fiscal 2015 (In thousands)	Fiscal 2014	
Interest income, net	\$285	\$302	
% of revenues	0.1	% 0.1	%
Other income, net	\$2,547	\$161	
% of revenues	0.9	% 0.1	%

Interest income is primarily earned on our cash, cash equivalents and marketable securities. The decrease in interest income for fiscal 2015 as compared to fiscal 2014 was primarily the result of lower yields. Cash, cash equivalents, restricted cash and marketable securities were \$188.0 million at December 26, 2015 compared to \$164.3 million at December 27, 2014. The weighted-average yield on our cash, cash equivalents and marketable securities for fiscal 2015 and 2014 was 0.12% and 0.16%, respectively.

The increase in Other income, net, in fiscal 2015 as compared to fiscal 2014 was primarily due to approximately \$1.0 million net gain recognized from the sale of intellectual property to MarTek pursuant to a settlement agreement (refer to Note 9 to Notes to Consolidated Financial Statements - Commitments and Contingencies, for further details) and approximately \$1.5 million cash received as a result of a payment from our insurer arising from a business interruption insurance claim related to a factory fire at a customer during the second half of fiscal 2013.



# Provision (Benefit) From Income Taxes

	Fiscal 2015 (In thousands)	Fiscal 2014
Provision (benefit) from income taxes	\$252	\$(910)
Effective tax rate	19.8%	(4.5)%

We recorded an income tax provision of \$0.3 million and a benefit of \$0.9 million for fiscal 2015 and 2014, respectively. Income tax provisions reflect the tax on our operations in the US and foreign jurisdictions and the tax benefit from the lapsing of the statute of limitations in foreign jurisdictions.

We recognize interest (benefit) charges and penalties related to uncertain tax positions as part of the income tax provision. We recognized interest (benefit) charges and penalties of \$50 thousand, \$(0.1) million and \$(0.2) million in fiscal 2015, 2014, and 2013, respectively. As of December 26, 2015 and December 27, 2014, we had accrued total interest charges and penalties of \$0.2 million and \$0.1 million, respectively, related to uncertain tax positions.

We anticipate that we will continue to record a valuation allowance against our U.S. deferred tax assets. We expect our future tax provisions, during the time such valuation allowances are recorded, will consist primarily of the tax provision of our profitable non-U.S. jurisdictions and state minimum tax. At December 26, 2015, we had Federal research and development tax credit, net operating loss, and foreign tax credit carryforwards of \$21.0 million, \$298.7 million and \$2.0 million, respectively, which will expire at various dates from 2016 through 2035. We had alternative minimum tax credits of \$2.4 million which do not expire. We had California research credit and net operating loss carryforwards of \$28.4 million and \$270.7 million, respectively. The California research credit can be carried forward indefinitely while California net operating loss carryforwards will expire at various dates from 2016 through 2035. We had Japan and Singapore net operating loss carryforwards of approximately \$0.3 million and \$10.0 million, respectively. Japan net operating loss carryforwards will expire in 2022 while Singapore net operating loss carryforwards will be carried forward indefinitely.

Our effective tax rate may vary from period to period based on changes in estimated taxable income or loss by jurisdiction, changes to the valuation allowance, changes to U.S. Federal, state or foreign tax laws, future expansion into areas with varying country, state, and local income tax rates, deductibility of certain costs and expenses by jurisdiction.

Fiscal Years Ended December 27, 2014 and December 28, 2013

## Revenues

	Fiscal 2014 (In thousands)	% of Revenues	Fiscal 2013	% of Revenues	Change \$	%
Revenues by Market:						
SoC	\$142,360	53.0%	\$115,597	49.9%	\$26,763	23.2%
DRAM	110,800	41.3	92,603	40.0	18,197	19.7
Flash	15,370	5.7	23,333	10.1	(7,963)	(34.1)
Total revenues	\$268,530	100.0%	\$231,533	100.0	\$36,997	16.0%

Overall, our revenues increased by 16.0%, or \$37.0 million, in fiscal 2014 as compared to fiscal 2013. Our revenues increased 23.2% year-over-year in the SoC market, increased 19.7% in DRAM and decreased 34.1% in Flash memory. The overall increase in revenues was primarily driven by higher unit volume in both the SoC and DRAM markets. The SoC revenue increase was driven by a combination of strong mobile application processor, personal computer processor, and automotive microcontroller demand. DRAM demand and revenue increased due to the adoption of our SmartMatrix product at a major South Korean memory producer and overall strong mobile, server and personal computer DRAM market demand. The decrease in Flash memory revenue was due to a weakening NOR Flash memory market and reduced demand for our TouchMatrix product at South Korean and Taiwanese NAND



Flash memory producers.

## Revenues by Geographic Region

The following table sets forth our revenues by geographic region for the periods indicated:

	Fiscal 2014 (In thousands)	% of Revenues	Fiscal 2013	% of Revenues	
North America	\$75,393	28.1	% \$63,053	27.2	%
South Korea	52,677	19.6	45,823	19.8	
Taiwan	49,395	18.4	64,623	27.9	
Asia-Pacific (1)	34,705	12.9	21,173	9.2	
Europe	30,677	11.4	20,023	8.6	
Japan	25,683	9.6	16,838	7.3	
Total Revenues	\$268,530	100.0	% \$231,533	100.0	%

(1) Asia-Pacific includes all countries in the region except Taiwan, South Korea, and Japan, which are disclosed separately.

Geographic revenue information is based on the location to which we ship the customer product. For example, if a certain South Korean customer purchases through their North American subsidiary and requests the products to be shipped to an address in Asia-Pacific, this sale will be reflected in the revenue for Asia-Pacific rather than North America.

The increases in North America and Europe revenues for fiscal 2014, when compared to the same periods in 2013, were driven by increased SoC product shipments for both flip chip and wire bond applications. The decrease in Taiwan revenues for fiscal 2014, when compared to the same period in 2013, was driven by a combination of decreased SoC product shipments, a decrease in commodity or personal computer based DRAM demand, and reduced NAND Flash memory demand. The increase in South Korea revenues for fiscal 2014 when compared to the same period in 2013 was primarily due to increased DRAM demand and the adoption of our SmartMatrix product at a major South Korean memory producer. The increase in Japan revenues for fiscal 2014 was driven by a combination of higher demand for SoC wire bond and mobile DRAM products. The increase in Asia-Pacific revenues in fiscal 2014 when compared to fiscal 2013 was primarily driven by sales of our SmartMatrix DRAM products in that region.

## Gross Profit

	Fiscal 2014 (In thousands)	Fiscal 2013	
Gross profit	\$77,439	\$42,284	
Gross margin	28.8	% 18.3	%

Gross margin fluctuates with revenue levels, product mix, selling prices, factory loading and material costs. For fiscal 2014, gross profit increased \$35.2 million when compared to fiscal 2013, primarily due to lower material costs, lower labor expenses and overhead charges as a result of our cost reduction initiatives and favorable production yields.

Gross profit also benefited from higher production volume driven by higher sales. This led to higher factory utilization on a relatively fixed base of overhead costs and resulted in improvements to our gross profits for all product markets.

Our net inventory provision charges declined by \$3.3 million in fiscal 2014 compared to fiscal 2013 due to increased demand levels. The value of previously reserved materials that were used in manufacturing and shipped for fiscal 2014 and 2013 was \$2.4 million and \$2.6 million, respectively.

Gross margin included intangible asset amortization expense of \$15.8 million and \$13.8 million in fiscal 2014 and 2013, respectively, related to the MicroProbe Acquisition. Stock-based compensation expense included in gross margin for fiscal 2014 and 2013 was \$2.4 million each, respectively.

Future gross margins may be adversely impacted by lower levels of product revenues, even though we have taken significant steps to reduce our operating cost structure. Our gross margins may also be adversely affected if we are required to

record additional inventory provision charges and inventory write-downs if estimated average selling prices of products held in finished goods and work in process inventories are below the manufacturing cost of those products.

#### Research and Development

Fiscal 2014	Fiscal 2013
(In thousands)	
\$42,725	\$42,139
15.9	% 18.2

Research and development

% of revenues

Research and development expenses for fiscal 2014 increased \$0.6 million, or 1%, compared to the prior year. The increase was primarily due to an increase of \$1.5 million of incentive compensation and \$1.6 million in project and material costs offset by a reduction of \$2.4 million in personnel related costs as a result of our restructuring efforts. Stock-based compensation expense included within research and development expenses was \$3.5 million and \$3.4 million, respectively, for fiscal 2014 and 2013.

Our research and development expenses fluctuate as projects transition from development to manufacturing, depending on the stage of completion and level of effort related to each project undertaken. We are continuing our strategic investments in research and development, including investments in new spring technologies, substrate architectures and new process technologies. We remain committed to product development in new and emerging technologies.

#### Selling, General and Administrative

Fiscal 2014	Fiscal 2013
(In thousands)	
\$51,385	\$53,217
19.0	% 23.0

Selling, general and administrative

% of revenues

Selling, general and administrative expenses decreased \$1.8 million, or 3%, in fiscal 2014 compared to the prior year. The decrease was primarily due to a reduction of \$2.3 million in personnel related costs as a result of our restructuring efforts, \$1.1 million in acquisition and integration related costs, \$1.1 million in sales commissions, \$1.0 million in general operating expenses as a result of our cost reduction efforts, \$0.6 million in expensed equipment and supplies and \$0.3 million in travel costs offset by an increase of \$2.0 million in incentive compensation, \$1.1 million in stock based compensation, \$1.2 million in loss contingency reserve and \$0.3 million in foreign payroll taxes. Stock-based compensation expense included within selling, general and administrative expenses was \$7.3 million and \$6.2 million, respectively for fiscal 2014 and 2013.

#### Restructuring Charges, net

Fiscal 2014	Fiscal 2013
(In thousands)	
\$2,668	\$4,658
1.0	% 2.0

Restructuring charges, net

% of revenues

Restructuring charges decreased \$2.0 million, or 43%, in fiscal 2014 from fiscal 2013. The restructuring plans we implemented in fiscal 2014 and 2013 are discussed below.

#### 2014 Restructuring Activities

On January 27, 2014, we announced a global organizational restructuring and cost reduction plan. As part of the plan, we eliminated 52 full-time employees. In addition, we reduced our temporary workforce by 9 positions. We recorded \$2.0 million of restructuring charges during the first quarter of fiscal 2014, which was comprised of \$1.4 million in severance and related benefits and \$0.6 million in impairment charges for certain equipment that would no longer be utilized. During the remainder of fiscal 2014, we further eliminated an additional 5 full-time employees and recorded \$0.7 million in severance charges.



The activities comprising these restructuring activities were substantially completed in fiscal 2014 and the remaining cash payments associated with these activities were paid in fiscal 2015.

### 2013 Restructuring Activities

In the first quarter of fiscal 2013, we implemented a restructuring plan which resulted in the reduction of our global workforce by 31 employees across the organization. In addition, we reduced our temporary workforce by approximately 20 positions. We also suspended development activities and engineering efforts for our next generation DRAM Matrix platform and terminated development activities for a certain SoC product platform. We recorded \$4.0 million of restructuring charges during the first fiscal quarter of 2013, which was comprised of \$1.3 million in severance and related benefits and \$2.7 million in impairment charges for certain equipment that was no longer utilized.

In the fourth fiscal quarter of 2013, we implemented a restructuring plan which resulted in the reduction of our global workforce by 17 full-time employees across the organization. In addition, we reduced our temporary workforce by 17 positions. We recorded \$0.4 million of restructuring charges during the fourth fiscal quarter of 2013 for severance and related benefits. The cash payments associated with our various fiscal 2013 reductions in workforce were paid in fiscal 2013 and 2014.

#### Loss on Sale of Subsidiary

	Fiscal 2014	Fiscal 2013	
	(In thousands)		
Loss on sale of subsidiary	\$—	\$300	
% of revenues	—	% 0.1	%

On June 29, 2013, we sold TMMC, a wholly owned subsidiary of the Company for a purchase consideration of \$1.0 million. We received approximately \$0.2 million in cash upon the sale and an \$0.8 million note to be repaid over 7 years at a 5% interest rate. The fair value of the note was discounted to approximately \$0.5 million as of June 29, 2013. We recorded a net loss on the sale of TMMC's assets of \$0.3 million in fiscal 2013.

#### Impairment of Long-Lived Assets

	Fiscal 2014	Fiscal 2013	
	(In thousands)		
Impairment of long-lived assets	\$1,219	\$761	
% of revenues	0.5	% 0.3	%

We test long-lived assets or asset groups for recoverability when events or changes in circumstances indicate that their carrying amounts may not be recoverable. In fiscal 2014 and 2013, we recorded impairment charges of \$1.2 million and \$0.8 million, respectively, related to manufacturing assets we no longer utilize.

#### Interest Income and Other Income, Net

	Fiscal 2014	Fiscal 2013	
	(In thousands)		
Interest income, net	\$302	\$386	
% of revenues	0.1	% 0.2	%
Other income, net	\$161	\$623	
% of revenues	0.1	% 0.3	%

Interest income is primarily earned on our cash, cash equivalents and marketable securities. The decrease in interest income for fiscal 2014 as compared to fiscal 2013 was primarily the result of lower yields. Cash, cash equivalents, restricted cash and marketable securities were \$164.3 million at December 27, 2014 compared to \$151.5 million at December 28, 2013.

The weighted-average yield on our cash, cash equivalents and marketable securities for fiscal 2014 and 2013 was 0.16% and 0.25%, respectively.

Other income, net is comprised primarily of foreign currency impact and various other gains and losses. The decrease in fiscal 2014 as compared to fiscal 2013 was primarily due to the completion of payments received in fiscal 2013 from an intellectual property settlement and overall lower foreign currency gains and bank and other charges.

#### Benefit From Income Taxes

	Fiscal 2014		Fiscal 2013
	(In thousands)		
Benefit from income taxes	\$(910	)	\$(99 )
Effective tax rate	(4.5	)%	(0.2 )%

We recorded an income tax benefit of \$0.9 million and \$0.1 million for fiscal 2014 and 2013, respectively. Income tax provisions reflect the tax provision on our operations in the US and foreign jurisdictions and the tax benefit from the lapsing of the statute of limitations in foreign jurisdictions.

We recognize interest (benefit) charges and penalties related to uncertain tax positions as part of the income tax provision. We recognized interest (benefit) charges and penalties of \$(0.1) million, \$(0.2) million and \$0.3 million in fiscal 2014, 2013, and 2012, respectively. As of December 27, 2014 and December 28, 2013, we had accrued total interest charges and penalties of \$0.1 million and \$0.2 million, respectively, related to uncertain tax positions.

We anticipate that we will continue to record a valuation allowance against our U.S. deferred tax assets. We expect our future tax provisions, during the time such valuation allowances are recorded, will consist primarily of the tax provision of our profitable non-U.S. jurisdictions. At December 27, 2014, we had Federal research and development tax credit, net operating loss, and foreign tax credit carryforwards of \$19.3 million, \$293.9 million and \$1.9 million, respectively, which will expire at various dates from 2016 through 2034. We had alternative minimum tax credits of \$2.4 million which do not expire. We had California research credit and net operating loss carryforwards of \$26.5 million and \$270.8 million, respectively. The California research credit can be carried forward indefinitely while California net operating loss carryforwards will expire at various dates from 2015 through 2034. We had Singapore net operating loss carryforwards of \$10.6 million which can be carried forward indefinitely.

Our effective tax rate may vary from period to period based on changes in estimated taxable income or loss by jurisdiction, changes to the valuation allowance, changes to U.S. Federal, state or foreign tax laws, future expansion into areas with varying country, state, and local income tax rates, deductibility of certain costs and expenses by jurisdiction.

#### Liquidity and Capital Resources

**Capital Resources:** Our working capital was \$214.4 million at December 26, 2015 and \$196.4 million at December 27, 2014. The increase in working capital was primarily due to an increase in cash due to improved operating results and decreased current liabilities.

Cash and cash equivalents consist of deposits held at banks, money market funds and U.S. government agency securities that at the time of purchase had maturities of 90 days or less. Marketable securities consist of U.S. government and agency securities. We typically invest in highly-rated securities with low probabilities of default. Our investment policy requires investments to be rated single-A or better, and limits the types of acceptable investments, issuer concentration and duration of the investment.

Our cash, cash equivalents and marketable securities totaled \$187.6 million at December 26, 2015 compared to \$163.8 million at December 27, 2014. Cash, cash equivalents and marketable securities included \$36.9 million held by our foreign subsidiaries as of December 26, 2015. The increase in our cash, cash equivalents and marketable securities balances was primarily due to improved operating results and lower use of cash to support working capital. We



believe that we will be able to satisfy our working capital requirements for at least the next twelve months with the liquidity provided by our existing cash, cash equivalents and marketable securities. If we are unsuccessful in maintaining or growing our revenues, or maintaining or reducing our cost structure in an industry down-turn, or increasing our available cash through financing, our cash, cash equivalents and marketable securities may decline in fiscal 2016.

We utilize a variety of tax planning and financing strategies in an effort to manage our worldwide cash and deploy funds to locations where they are needed. As part of these strategies, we indefinitely reinvest a significant portion of our foreign earnings and our current plans do not demonstrate a need to repatriate these earnings. Should we require additional capital in the United States, we may elect to repatriate indefinitely reinvested foreign funds or raise capital in the United States. If we were to repatriate indefinitely reinvested foreign funds, we would be required to accrue and pay additional United States taxes less applicable foreign tax credits.

Day Sales Outstanding: Days sales outstanding from receivables, or DSO, were 45 days at December 26, 2015 compared with 59 days at December 27, 2014. Our DSO calculation is determined using the count back method and is based on gross accounts receivable (including accounts receivable for amounts in deferred revenue). The decrease in DSO in fiscal 2015 as compared to fiscal 2014 was primarily due to changes in customer mix.

	Fiscal 2015	Fiscal 2014	Fiscal 2013
	(In thousands)		
Net cash provided by (used in) operating activities	\$36,122	\$17,659	\$(5,802)
Net cash provided by (used in) investing activities	1,129	37,339	(7,750)
Net cash (used in) provided by financing activities	\$(4,792)	\$2,542	\$1,999

Cash flows from operating activities: Net cash provided by operating activities for fiscal 2015 was primarily attributable to improved operating results from increased revenues and decreased costs, and lower working capital necessary to support the increased revenues. The company had a net loss of \$1.5 million and non-cash expenses of \$41.1 million, including \$23.8 million of depreciation and amortization, \$11.6 million of stock-based compensation, \$6.5 million of provision for excess and obsolete inventories, \$0.5 million of restructuring activities and which was partially offset by \$1.0 million gain on disposal and write-off of long-lived assets and \$0.3 million gain on foreign currency transactions.

The net change in operating assets and liabilities for fiscal 2015 resulted in a net use of cash of \$3.4 million comprised of \$8.2 million of cash used for inventory build, a \$2.4 million decrease in deferred revenues due to recognition of previously deferred revenues for which the revenue recognition criteria have been met and a \$2.0 million decrease in accounts payable driven by the timing of our payments on vendor obligations. The above use of cash was offset in part by an increase of \$8.3 million in accounts receivable from strong collections, \$0.8 million in income tax refunds and a \$0.3 million decrease in other assets.

The net change in operating assets and liabilities for fiscal 2014 resulted in a net use of cash of \$18.8 million and which was comprised of cash used of \$15.9 million in accounts receivable due to higher sales, \$12.0 million of cash used for inventory due to inventory build, a decrease in income tax payable of \$1.5 million due to the release of a reserve for uncertain tax positions, an increase of prepaid expenses and other current assets of \$0.8 million and a \$0.7 million decrease in deferred revenues due to recognition of previously deferred revenues for which the revenue recognition criteria have been met. The above use of cash was offset in part by an increase of \$7.8 million in accrued liabilities due to incentive compensation, accrued payroll and warranty, an increase of \$4.2 million in accounts payable driven by the timing of our payments on vendor obligations, and a \$0.2 million increase in deferred rent and other liabilities due to additional operating lease obligations.

Cash flows from investing activities: Net cash provided by investing activities for fiscal 2015 was primarily related to \$74.8 million of proceeds from maturities of marketable securities and \$1.2 million of proceeds from sales of property, plant and equipment offset by purchases of marketable securities totaling \$66.2 million and cash used in the acquisition of property and equipment of \$8.6 million. We carefully monitor our investments to minimize risks and have not experienced other than temporary investment losses.

Net cash provided by investing activities for fiscal 2014 was primarily related to \$73.5 million of proceeds from maturities of marketable securities and \$1.1 million of proceeds from sales of property, plant and equipment offset by

purchases of marketable securities totaling \$31.7 million and cash used in the acquisition of property and equipment of \$5.7 million.

Cash flows from financing activities: Net cash used in financing activities for fiscal 2015 included \$8.2 million used for the repurchase and retirement of our common stock offset by \$3.4 million from proceeds received from purchases under our 2012 Employee Stock Purchase Plan and stock option exercises.

Net cash provided by financing activities in fiscal 2014 included \$2.8 million from proceeds received from purchases under our 2012 Employee Stock Purchase Plan offset by payments of \$0.3 million made on capital leases.

Our cash, cash equivalents and marketable securities increased by \$23.8 million in fiscal 2015. We continue to focus on improving our operating efficiency to increase operating cash flows. We believe that we will be able to satisfy our cash requirements for at least the next twelve months with the liquidity provided by our existing cash, cash equivalents and marketable securities. To the extent necessary, we may also consider entering into short and long-term debt obligations, raise cash through a stock issuance, or to obtain new financing facilities which may not be available on terms favorable to us. Our future capital requirements may vary materially from those now planned. However, if we are unsuccessful in maintaining or growing our revenues, or maintaining or reducing our cost structure in an industry down-turn, or increasing our available cash through financing, our cash, cash equivalents and marketable securities could decline in future fiscal years.

#### Contractual Obligations and Commitments

The following table summarizes our significant commitments to make future payments in cash under contractual obligations as of December 26, 2015 (in thousands):

	Payments Due In Fiscal Years				Total
	2016	2017-2018	2019-2020	After 2020	
	(In thousands)				
Operating leases	\$3,994	\$7,194	\$7,064	\$2,505	\$20,757
Purchase obligations	20,899	9,580	30	—	30,509
Total <sup>(1)</sup>	\$24,893	\$16,774	\$7,094	\$2,505	\$51,266

(1) These amounts do not include our obligations under our agreement to acquire Cascade Microtech, which was entered into on February 3, 2016.

Purchase obligations are primarily for purchases of inventory and manufacturing related service contracts. For the purposes of this table, purchase obligations are defined as agreements that are enforceable and legally binding and that specify all significant terms, including: fixed or minimum quantities to be purchased; fixed, minimum or variable price provisions; and the approximate timing of the transaction. The expected timing of payment of the obligations discussed above is estimated based on information available to us as of December 26, 2015. Timing of payments and actual amounts paid may be different depending on the timing of receipt of goods or services or changes to agreed-upon amounts for some obligations.

The table above excludes our gross liability for unrecognized tax benefits, which totaled approximately \$17.0 million as of December 26, 2015. The timing of any payments which could result from these unrecognized tax benefits will depend upon a number of factors. Accordingly, the timing of payment cannot be estimated and has been excluded from the table above. As of December 26, 2015, the changes to our uncertain tax positions in the next 12 months that are reasonable and probable are not expected to have a significant impact on our financial position or results of operations.

#### Off-Balance Sheet Arrangements

Historically, we have not participated in transactions that have generated relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, which would have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes. As of December 26, 2015, we were not involved in any off-balance sheet arrangements.

#### Indemnification Agreements

We may, from time to time in the ordinary course of our business enter into contractual arrangements with third parties that include indemnification obligations. Under these contractual arrangements, we have agreed to defend, indemnify and/or hold the third party harmless from and against certain liabilities. These arrangements include indemnities in favor of customers in the event that our probe cards infringe a third party's intellectual property and our lessors in connection with facility leasehold liabilities that we may cause. In addition, we have entered into indemnification agreements with our directors and certain of our officers, and our bylaws contain indemnification obligations in favor of our directors, officers and agents. These indemnity arrangements may limit the type of the

claim, the total amount that we can be required to pay in connection with the indemnification obligation and the time within which an indemnification claim can be made. The duration of the

indemnification obligation may vary and, for most arrangements, survives the agreement term and is indefinite. We believe that substantially all of our indemnity arrangements provide either for limitations on the maximum potential future payments we could be obligated to make, or for limitations on the types of claims and damages we could be obligated to indemnify, or for both. However, it is not possible to determine or reasonably estimate the maximum potential amount of future payments under these indemnification obligations due to the varying terms of such obligations, the history of prior indemnification claims, the unique facts and circumstances involved in each particular contractual arrangement and in each potential future claim for indemnification, and the contingency of any potential liabilities upon the occurrence of events that are not reasonably determinable. We have not had any requests for indemnification under these arrangements. We have not recorded any liabilities for these indemnification arrangements on our consolidated balance sheet as of December 26, 2015.

#### Recent Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2014-09, "Revenue from Contracts with Customers", and in August 2015 the FASB issued ASU 2015-14, "Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date," which defers the effective date of ASU 2014-09 by one year. ASU 2014-09 requires an entity to recognize revenue to depict the transfer of goods or services to customers in an amount that reflects the consideration to which an entity expects to be entitled in exchange for those goods or services. The guidance also requires expanded disclosures relating to the nature, amount, timing, and uncertainty of revenue and cash flows arising from contracts with customers. Additionally, qualitative and quantitative disclosures are required about customer contracts, significant judgments and changes in judgments, and assets recognized from the costs to obtain or fulfill a contract. The standard permits the use of either the retrospective or cumulative effect transition methods. This guidance will replace most existing revenue recognition guidance in United States generally accepted accounting principles when it becomes effective, which for us will be at the beginning of the first quarter of fiscal year 2018 using one of the two prescribed transition methods. Early adoption of one year prior to the required effective date is permitted. We are in the process of evaluating the impact of this guidance on our ongoing results and operations as well as in the transition methods prescribed above.

In July 2015, the FASB issued ASU 2015-11, which requires entities to measure most inventory "at the lower of cost and net realizable value," thereby simplifying the current guidance under which an entity must measure inventory at the lower of cost or market (market in this context is defined as one of three different measures). The ASU will not apply to inventories that are measured by using either the last-in, first-out ("LIFO") method or the retail inventory method ("RIM"). The ASU is effective prospectively for annual periods beginning after December 15, 2016, and interim periods therein. Early application of the ASU is permitted. Upon transition, entities must disclose the nature of and reason for the accounting change. We do not believe adoption of this standard will have a material impact on our consolidated financial statements.

In November 2015, the FASB issued ASU 2015-17, Balance Sheet Classification of Deferred Taxes, related to balance sheet classification of deferred taxes. The ASU requires that deferred tax assets and liabilities be classified as noncurrent in the statement of financial position, thereby simplifying the current guidance that requires an entity to separate deferred assets and liabilities into current and noncurrent amounts. The ASU will be effective for us beginning in the first quarter of fiscal year 2018 though early adoption is permitted. We have early-adopted the ASU as of December 26, 2015 prospectively and our statement of financial position as of this date reflects the revised classification of current deferred tax assets and liabilities as noncurrent. No prior periods were retrospectively adjusted. There is no other impact on our financial statements of early-adopting the ASU.

In January 2016, the FASB issued ASU 2016-01, Recognition and Measurement of Financial Assets and Financial Liabilities, which provides guidance for the recognition, measurement, presentation, and disclosure of financial assets and liabilities. This ASU will be effective for us beginning in the first quarter of fiscal year 2018. We are evaluating the effects of the adoption of this ASU to our financial statements.

In February 2016, the FASB issued ASU 2016-02, Leases. ASU 2016-02 requires that lease arrangements longer than twelve months result in an entity recognizing an asset and liability. The updated guidance is effective for interim and

annual periods beginning after December 15, 2018, and early adoption is permitted. We have not evaluated the impact of the updated guidance on our consolidated financial statements.

Item 7A: Quantitative and Qualitative Disclosures about Market Risk

Foreign Currency Exchange Risk. We conduct certain operations in foreign currencies. We enter into currency forward exchange contracts to hedge a portion, but not all, of existing foreign currency denominated amounts. Gains and losses on these contracts are generally recognized in "Other income, net" in our Consolidated Statements of Operations. Because the effect of

movements in currency exchange rates on the currency forward exchange contracts generally offsets the related effect on the underlying items being hedged, these financial instruments are not expected to subject us to risks that would otherwise result from changes in currency exchange rates. We do not use derivative financial instruments for trading or speculative purposes. We recognized a net loss of \$2.1 million and a net gain of \$1.7 million, respectively for fiscal 2015 and 2014, from the fluctuation in foreign exchange rates and the valuation of these hedge contracts.

**Interest Rate Sensitivity.** Our exposure to market risk for changes in interest rates relates primarily to our investment portfolio. We invest in a number of securities including U.S. agency discount notes, money market funds and commercial paper. We attempt to ensure the safety and preservation of our invested principal funds by limiting default risk, market risk and reinvestment risk. We mitigate default risk by investing in high grade investment securities. By policy, we limit the amount of credit exposure to an issuer, except U.S. Treasuries and U.S. agencies. We do not use interest rate derivative instruments to manage interest rate exposures nor do we invest for trading or speculative purposes. The fair market value of our fixed rate securities may be adversely impacted by increases in interest rates while income earned on floating rate securities may decline as a result of decreases in interest rates. A hypothetical 100 basis-point (one percentage point) increase or decrease in interest rates compared to rates at December 26, 2015 and December 27, 2014 would have affected the fair value of our investment portfolio by less than \$0.2 million and \$0.3 million, respectively.

#### Item 8: Financial Statements and Supplementary Data

##### Consolidated Financial Statements

The consolidated financial statements and supplementary data of FormFactor required by this item are included in the section entitled "Consolidated Financial Statements" of this Annual Report on Form 10-K. See Item 15(a)(1) for a list of our consolidated financial statements.

#### Item 9: Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

#### Item 9A: Controls and Procedures

##### Evaluation of Disclosure Controls and Procedures

Based on our management's evaluation (with the participation of our Principal Executive Officer and Principal Financial Officer), as of the end of the period covered by this report, our Principal Executive Officer and Principal Financial Officer have concluded that our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, (the "Exchange Act")) were effective to ensure that information required to be disclosed by us in reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in SEC rules and forms and is accumulated and communicated to our management, including our Principal Executive Officer and Principal Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

##### Changes in Internal Control over Financial Reporting

There was no change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

##### Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. Internal control over financial reporting is a process designed by, or under the supervision of, our Principal Executive Officer and Principal Financial Officer, and effected by our board of directors, management and other personnel and consultants, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles, and includes those policies and procedures that:

- (i) pertain to the maintenance of records that in reasonable detail accurately and fairly reflect our transactions and dispositions of assets;

- (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that our receipts and expenditures are being made only in accordance with the authorization of our management and directors; and





(iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Under the supervision and with the participation of our management, including our Principal Executive Officer and Principal Financial Officer, we conducted an assessment of the effectiveness of our internal control over financial reporting as of December 26, 2015. In making this assessment, our management used the criteria set forth in Internal Control-Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). Based on the results of this assessment, management has concluded that, our internal control over financial reporting was effective as of December 26, 2015, based on the criteria in Internal Control-Integrated Framework (2013) issued by the COSO.

The effectiveness of our internal control over financial reporting as of December 26, 2015 has been audited by KPMG LLP, an independent registered public accounting firm, as stated in their report which appears in this Annual Report on Form 10-K.

#### Limitations on the Effectiveness of Controls

Control systems, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control systems' objectives are being met. Further, the design of any control systems must reflect the fact that there are resource constraints, and the benefits of all controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within our company have been detected. These inherent limitations include the realities that judgments in decision making can be faulty and that breakdowns can occur because of simple error or mistake. Control systems can also be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the controls. The design of any system of controls is based, in part, on certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Over time, controls may become inadequate because of changes in conditions or deterioration in the degree of compliance with policies or procedures.

#### CEO and CFO Certifications

We have attached as exhibits to this Annual Report on Form 10-K the certifications of our Chief Executive Officer and Chief Financial Officer, which are required in accordance with the Exchange Act. We recommend that this Item 9A be read in conjunction with the certifications for a more complete understanding of the subject matter presented.

#### Item 9B: Other Information

None.

### PART III

#### Item 10: Directors, Executive Officers and Corporate Governance

Information concerning our board of directors, committees and directors, including our audit committee and audit committee financial expert, will be included in our Proxy Statement for our 2016 Annual Meeting of Stockholders, under the section entitled "Proposal No. 1—Election of Directors". The information in such portions of the Proxy Statement is incorporated in this Annual Report on Form 10-K by reference.

For biographical information with respect to our directors and executive officers, see Part I, Item 1 of this Annual Report on Form 10-K under the section entitled "Directors and Executive Officers".

Information concerning Section 16(a) beneficial ownership reporting compliance will appear in our Proxy Statement under the section entitled "Section 16(a) Beneficial Ownership Reporting Compliance". The information in such portion of the Proxy Statement is incorporated in this Annual Report on Form 10-K by reference.

We have adopted a Statement of Corporate Code of Business Conduct that applies to all directors, officers and employees of FormFactor and a Statement of Financial Code of Ethics that applies to our Chief Executive Officer, Chief Financial Officer, and other employees in our finance department. Information concerning these codes will appear in our Proxy Statement under the section entitled "Proposal No. 1—Election of Directors—Corporate Codes". The information in such portion of the Proxy Statement is incorporated in this Annual Report on Form 10-K by reference.

#### Item 11: Executive Compensation

Information concerning executive officer compensation and related information will appear in our Proxy Statement under the section entitled "Compensation Discussion and Analysis", "Executive Compensation and Related Information", "Report of the Compensation Committee" and "Proposal No. 1—Election of Directors—Compensation Committee Interlocks and Insider Participation". Information concerning director compensation and related information will appear in our Proxy Statement under the section entitled "Proposal No. 1—Election of Directors". The information in such portions of the Proxy Statement is incorporated in this Annual Report on Form 10-K by reference.

#### Item 12: Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

Information concerning the security ownership of certain beneficial owners and management and related stockholder matters will appear in our Proxy Statement under the section entitled "Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters". The information in such portion of the Proxy Statement is incorporated in this Annual Report on Form 10-K by reference.

Information concerning our equity compensation plans will appear in our Proxy Statement under the section entitled "Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters—Equity Compensation Plans". The information in such portion of the Proxy Statement is incorporated in this Annual Report on Form 10-K by reference.

#### Item 13: Certain Relationships and Related Transactions, and Director Independence

Information concerning certain relationships and related transactions, including our related person transactions policy will appear in our Proxy Statement under the section entitled "Certain Relationships and Related Transactions". The information in such portion of the Proxy Statement is incorporated in this Annual Report on Form 10-K by reference. Information concerning director independence will appear in our Proxy Statement under the section entitled "Proposal No. 1—Election of Directors". The information in such portion of the Proxy Statement is incorporated in this Annual Report on Form 10-K by reference.

#### Item 14: Principal Accounting Fees and Services

Information concerning principal accounting fees and services and the audit committee's pre-approval policies and procedures will appear in our Proxy Statement under the section entitled "Proposal No. 2—Ratification of Selection of Independent Registered Public Accounting Firm". The information in such portion of the Proxy Statement is incorporated in this Annual Report on Form 10-K by reference.

## PART IV

## Item 15: Exhibits, Financial Statement Schedules

(a) The following documents are filed as part of this Annual Report on Form 10-K:

(1) Consolidated Financial Statements:

Report of Independent Registered Public Accounting Firms

Consolidated Balance Sheets

Consolidated Statements of Operations

Consolidated Statements of Comprehensive Loss

Consolidated Statements of Stockholders' Equity

Consolidated Statements of Cash Flows

Notes to Consolidated Financial Statements

(2) Exhibits:

The exhibits listed in the accompanying Index to Exhibits are filed or incorporated by reference as part of this Annual Report on Form 10-K.

(b) Financial Statement Schedules:

All schedules have been omitted because they are not required, not applicable, or the required information is included in the consolidated financial statements or notes thereto.

(c) Exhibits:

Exhibit Number	Exhibit Description	Incorporated by Reference			Exhibit Number	Filed Herewith
		Form	File No	Date of First Filing		
2.01***	Agreement and Plan of Merger dated as of August 31, 2012 among Astria Semiconductor Holdings, Inc., the Registrant, ELM Acquisition, Inc. and Fortis Advisors LLC, as Equityholder Representative	10-Q/A	000-50307	1/23/2013	33.01	
3.01	Amended and Restated Certificate of Incorporation of the Registrant as filed with the Delaware Secretary of State on June 17, 2003	S-1	333-109815	10/20/2003	3.01	
3.02	Amended and Restated Bylaws of the Registrant	8-K	000-50307	5/25/2005	3.02	
4.01	Specimen Common Stock Certificate	S-1/A	333-86738	5/28/2002	4.01	
10.01+	Form of Indemnity Agreement	S-1/A	333-86738	5/28/2002	10.01	
10.02+	Form of Change of Control Severance Agreement	10-K	000-50307	3/14/2005	10.48	
10.03+	1996 Stock Option Plan, and form of option grant	S-1	333-86738	4/22/2002	10.03	
10.04+	Incentive Option Plan, and form of option grant	S-1	333-86738	4/22/2002	10.04	
10.05+	Management Incentive Option Plan, and form of option grant	S-1	333-86738	4/22/2002	10.05	
10.06+	2002 Equity Incentive Plan, as amended, and forms of plan agreements	10-Q	000-50307	5/4/2011	10.06	
10.07+	2002 Employee Stock Purchase Plan, as amended	10-Q	000-50307	8/7/2007	10.01	
10.08+	Key Employee Bonus Plan, as amended	10-Q	000-50307	5/7/2007	10.01	
10.09+	Equity Incentive Plan, as amended and restated effective April 18, 2012, and forms of plan agreements	10-K	000-50307	3/13/2013	10.09	
10.10+	Employee Stock Purchase Plan, as amended and restated April 18, 2012	10-K	000-50307	3/13/2013	10.10	

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10.11	Pacific Corporate Center Lease by and between Greenville Holding Company LLC (successor to Greenville Investors, L.P.) ("Greenville") and the Registrant dated May 3, 2001	S-1/A	333-86738	6/10/2003	10.18
10.12	First Amendment to Pacific Corporate Center Lease by and between Greenville and the Registrant dated January 31, 2003	S-1/A	333-86738	5/7/2003	10.18.1
10.13	Pacific Corporate Center Lease by and between Greenville and the Registrant dated May 3, 2001	S-1/A	333-86738	6/10/2003	10.19
10.14	First Amendment to Pacific Corporate Center Lease by and between Greenville and the Registrant dated January 31, 2003	S-1/A	333-86738	5/7/2003	10.19.1

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Exhibit Number	Exhibit Description	Incorporated by Reference		Date of First Filing	Exhibit Number	Filed Herewith
		Form	File No			
10.15	Pacific Corporate Center Lease by and between Greenville and the Registrant dated May 3, 2001	S-1/A	333-86738	6/10/2003	10.2	
10.16+	First Amendment to Pacific Corporate Center Lease by and between Greenville and the Registrant dated January 31, 2003	S-1/A	333-86738	5/7/2003	10.20.1	
10.17+	Pacific Corporate Center Lease by and between Greenville and the Registrant dated September 7, 2004, as amended by First Amendment to Building 6 Lease dated August 16, 2006	10-Q	000-50307	11/7/2006	10.01	
10.18+	Employment Offer Letter, dated August 29, 2012 to Mike Slessor	10-K	000-50307	3/13/2013	10.19+	
10.19+	Tax withholding reimbursement letter between Mike Slessor and the Registrant dated December 30, 2013	10-K	000-50307	3/6/2015	10.2	
16.01	Letter of PricewaterhouseCoopers LLP dated April 8, 2013	8-K	000-50307	4/8/2013	16.01	
21.01	List of Registrant's subsidiaries	—	—	—	—	X
23.01	Consent of Independent Registered Public Accounting Firm - KPMG	—	—	—	—	X
24.01	Power of Attorney (included on the signature page of this Form 10-K)	—	—	—	—	X
31.01	Certification of Chief Executive Officer pursuant to 15 U.S.C. Section 7241, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002	—	—	—	—	X
31.02	Certification of Chief Financial Officer pursuant to 15 U.S.C. Section 7241, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002	—	—	—	—	X
32.01*	Certification of Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002	—	—	—	—	X
101.INS**	XBRL Instance Document	—	—	—	—	X
101.SCH**	XBRL Taxonomy Extension Schema Document	—	—	—	—	X
101.CAL**	XBRL Taxonomy Extension Calculation Linkbase Document	—	—	—	—	X
101.DEF**	XBRL Taxonomy Extension Definition Linkbase Document	—	—	—	—	X
101.LAB**	XBRL Taxonomy Extension Label Linkbase Document	—	—	—	—	X
101.PRE**	XBRL Taxonomy Extension Presentation Linkbase Document	—	—	—	—	X

\*This exhibit shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934 or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under

the Securities Act of 1933 or the Securities Exchange Act of 1934, whether made before or after the date hereof and irrespective of any general incorporation language in any filings.

Pursuant to Rule 406T of Regulation S-T, these interactive data files are deemed not filed or part of a registration \*\* statement or prospectus for purposes of Sections 11 or 12 of the Securities Act of 1933 or Section 18 of the Securities Exchange Act of 1934 and otherwise are not subject to liability.

Confidential treatment has been requested for portions of this document. The schedules, exhibits, and annexes to \*\*\* this exhibit have been omitted in reliance on Item 601(b)(2) of Regulation S-K and will be furnished supplementally to the SEC upon request.

+ Indicates a management contract or compensatory plan or arrangement.

## SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Livermore, State of California, on the 4<sup>th</sup> day of March 2016.

FORMFACTOR, INC.

By: /s/ MICHAEL M. LUDWIG  
Michael M. Ludwig  
Chief Financial Officer  
(Principal Financial Officer and Principal  
Accounting Officer)

## POWER OF ATTORNEY

KNOW BY ALL PERSONS BY THESE PRESENTS, that each of the undersigned whose signature appears below constitutes and appoints Michael M. Ludwig and Jason Cohen, and each of them, the undersigned's true and lawful attorneys-in-fact and agents with full power of substitution, for the undersigned and in the undersigned's name, place and stead, in any and all capacities, to sign any and all amendments to this Annual Report on Form 10-K and any other documents in connection therewith, and to file the same, with all exhibits thereto, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act requisite and necessary to be done with respect to this Annual Report on Form 10-K, including amendments, as fully to all intents and purposes as the undersigned might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or his or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, each of the undersigned has executed this Power of Attorney as of the date indicated below.

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

Signature	Title	Date
Principal Executive Officer: /s/ MICHAEL D. SLESSOR Michael D. Slessor Principal Financial Officer and Principal Accounting Officer:	Chief Executive Officer and Director	March 4, 2016
/s/ MICHAEL M. LUDWIG Michael M. Ludwig	Chief Financial Officer	March 4, 2016



Signature	Title	Date
Additional Directors:		
/s/ LOTHAR MAIER Lothar Maier	Director	March 4, 2016
/s/ EDWARD ROGAS, JR Edward Rogas, Jr	Director	March 4, 2016
/s/ KELLEY STEVEN-WAISS Kelley Steven-Waiss	Director	March 4, 2016
/s/ MICHAEL W. ZELLNER Michael W. Zellner	Director	March 4, 2016
/s/ RICHARD DELATEUR Richard DeLateur	Director	March 4, 2016
/s/ THOMAS ST. DENNIS Thomas St. Dennis	Director	March 4, 2016

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders  
FormFactor, Inc.:

We have audited the accompanying consolidated balance sheets of FormFactor, Inc. and subsidiaries as of December 26, 2015 and December 27, 2014, and the related consolidated statements of operations, comprehensive loss, stockholders' equity, and cash flows for each of the years in the three-year period ended December 26, 2015. We also have audited the Company's internal control over financial reporting as of December 26, 2015, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting appearing under Item 9A. Our responsibility is to express an opinion on these consolidated financial statements and an opinion on the Company's internal control over financial reporting based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the consolidated financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of FormFactor, Inc. and subsidiaries as of December 26, 2015 and December 27, 2014, and the results of their operations and their cash flows for each of the years in the three-year period ended December 26, 2015, in conformity with U.S. generally accepted accounting principles. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 26, 2015, based on the criteria established in Internal Control - Integrated Framework (2013) issued by COSO.

/s/ KPMG LLP  
Santa Clara, California  
March 4, 2016

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FORMFACTOR, INC.  
CONSOLIDATED BALANCE SHEETS

	December 26, 2015	December 27, 2014
	(In thousands, except share and per share data)	
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 146,264	\$ 113,940
Marketable securities	41,325	49,897
Accounts receivable, net	36,725	45,152
Inventories, net	27,223	25,548
Deferred tax assets	—	2,036
Refundable income taxes	—	782
Prepaid expenses and other current assets	6,481	6,919
Total current assets	258,018	244,274
Restricted cash	435	435
Property, plant and equipment, net	23,853	25,498
Goodwill	30,731	30,731
Intangibles, net	25,552	38,689
Deferred tax assets	3,281	3,466
Other assets	853	1,150
Total assets	\$342,723	\$ 344,243
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Current liabilities:		
Accounts payable	\$ 18,072	\$ 20,274
Accrued liabilities	21,507	21,217
Income taxes payable	110	68
Deferred revenue	3,892	6,303
Total current liabilities	43,581	47,862
Long-term income taxes payable	1,069	1,094
Deferred tax liabilities	—	2,208
Deferred rent and other liabilities	3,392	3,643
Total liabilities	48,042	54,807
Commitments and contingencies (Note 9)		
Stockholders' equity:		
Preferred stock, \$0.001 par value:		
10,000,000 shares authorized; no shares issued and outstanding at December 26, 2015 and December 27, 2014	—	—
Common stock, \$0.001 par value:		
250,000,000 shares authorized; 58,088,969 and 56,518,428 shares issued and outstanding at December 26, 2015 and December 27, 2014, respectively	58	57
Additional paid-in capital	718,904	711,676
Accumulated other comprehensive loss	(2,222)	(1,761)
Accumulated deficit	(422,059)	(420,536)
Total stockholders' equity	294,681	289,436
Total liabilities and stockholders' equity	\$342,723	\$ 344,243

The accompanying notes are an integral part of these consolidated financial statements.

## FORMFACTOR, INC.

## CONSOLIDATED STATEMENTS OF OPERATIONS

	Fiscal Year Ended		
	December 26, 2015	December 27, 2014	December 28, 2013
	(In thousands, except per share data)		
Revenues	\$ 282,358	\$ 268,530	\$ 231,533
Cost of revenues	196,620	191,091	189,249
Gross profit	85,738	77,439	42,284
Operating expenses:			
Research and development	44,184	42,725	42,139
Selling, general and administrative	45,090	51,385	53,217
Restructuring charges, net	559	2,668	4,658
Loss on sale of subsidiary	—	—	300
Impairment of long-lived assets	8	1,219	761
Total operating expenses	89,841	97,997	101,075
Operating loss	(4,103	) (20,558	) (58,791 )
Interest income, net	285	302	386
Other income, net	2,547	161	623
Loss before income taxes	(1,271	) (20,095	) (57,782 )
Provision (benefit) from income taxes	252	(910	) (99 )
Net loss	\$(1,523	) \$(19,185	) \$(57,683 )
Net loss per share:			
Basic and diluted	\$ (0.03	) \$ (0.34	) \$ (1.06 )
Weighted-average number of shares used in per share calculations:			
Basic and diluted	57,850	55,908	54,204

The accompanying notes are an integral part of these consolidated financial statements.

FORMFACTOR, INC.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS

	Fiscal Year Ended		
	December 26, 2015	December 27, 2014	December 28, 2013
	(In thousands)		
Net loss	\$ (1,523	) \$ (19,185	) \$ (57,683
Other comprehensive loss, net of tax:			
Foreign currency translation adjustments	(397	) (1,502	) (1,825
Unrealized losses on available-for-sale marketable securities	(64	) (10	) (139
Other comprehensive loss, net of tax	(461	) (1,512	) (1,964
Comprehensive loss	\$ (1,984	) \$ (20,697	) \$ (59,647

The accompanying notes are an integral part of these consolidated financial statements.

## FORMFACTOR, INC.

## CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

	Common Stock Shares	Amount	Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total
	(In thousands, except shares)					
Balances, December 29, 2012	53,286,703	\$54	\$681,157	\$ 1,715	\$(343,668 )	\$339,258
Issuance of common stock pursuant to exercise of options for cash	20,000	—	106	—	—	106
Issuance of common stock pursuant to vesting of restricted stock units, net of stock withheld	759,724	—	(4 )	—	—	(4 )
Issuance of common stock under the Employee Stock Purchase Plan	583,173	1	2,501	—	—	2,502
Stock-based compensation	—	—	11,871	—	—	11,871
Components of other comprehensive income (loss):						
Change in unrealized gain (loss) on marketable securities, net of tax	—	—	—	(139 )	—	(139 )
Currency translation adjustments	—	—	—	(1,825 )	—	(1,825 )
Net loss	—	—	—	—	(57,683 )	(57,683 )
Balances, December 28, 2013	54,649,600	55	695,631	(249 )	(401,351 )	294,086
Issuance of common stock pursuant to exercise of options for cash	—	—	—	—	—	—
Issuance of common stock pursuant to vesting of restricted stock units, net of stock withheld	1,282,442	1	—	—	—	1
Issuance of common stock under the Employee Stock Purchase Plan	586,386	1	2,811	—	—	2,812
Stock-based compensation	—	—	13,234	—	—	13,234
Components of other comprehensive income (loss):						
Change in unrealized gain (loss) on marketable securities, net of tax	—	—	—	(10 )	—	(10 )
Currency translation adjustments	—	—	—	(1,502 )	—	(1,502 )
Net loss	—	—	—	—	(19,185 )	(19,185 )
Balances, December 27, 2014	56,518,428	57	711,676	(1,761 )	(420,536 )	289,436
Issuance of common stock pursuant to exercise of options for cash	24,607	—	209	—	—	209
Issuance of common stock pursuant to vesting of restricted stock units, net of stock withheld	1,993,603	2	—	—	—	2
Issuance of common stock under the Employee Stock Purchase Plan	565,493	—	3,206	—	—	3,206
Purchase and retirement of common stock	(1,013,162 )	(1 )	(8,210 )	—	—	(8,211 )
Stock-based compensation	—	—	12,023	—	—	12,023



Components of other comprehensive  
income (loss):

Change in unrealized gain (loss) on marketable securities, net of tax	—	—	—	(64	) —	(64	)
Currency translation adjustments	—	—	—	(397	) —	(397	)
Net loss	—	—	—	—	(1,523	) (1,523	)
Balances, December 26, 2015	58,088,969	\$58	\$718,904	\$ (2,222	) \$ (422,059	) \$294,681	

The accompanying notes are an integral part of these consolidated financial statements.

## FORMFACTOR, INC.

## CONSOLIDATED STATEMENTS OF CASH FLOWS

	Fiscal Year Ended		
	December 26, 2015	December 27, 2014	December 28, 2013
	(In thousands)		
Cash flows from operating activities:			
Net loss	\$(1,523	) \$(19,185	) \$(57,683
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	23,771	30,491	28,909
(Accretion) amortization of discount on investments	(10	) 208	463
Stock-based compensation expense	11,575	13,279	12,124
Deferred income tax (benefit) provision	(14	) 230	445
Provision (recovery) for doubtful accounts receivable	18	1	(19
Provision for excess and obsolete inventories	6,493	7,127	10,461
(Gain) loss on disposal and write-off of long-lived assets	(1,009	) (10	) 365
Impairment of long-lived assets	8	1,219	761
Loss on sale of subsidiary	—	—	300
Non-cash restructuring	500	600	2,743
Foreign currency transaction (gains) losses	(275	) 2,489	620
Changes in assets and liabilities:			
Accounts receivable	8,261	(15,949	) (2,102
Inventories	(8,167	) (11,975	) (7,980
Prepaid expenses and other current assets	173	(822	) 3,557
Refundable income taxes	782	—	5,143
Other assets	250	25	138
Accounts payable	(2,036	) 4,155	(2,324
Accrued liabilities	(333	) 7,765	(2,474
Income taxes payable	19	(1,511	) (346
Deferred rent and other liabilities	52	248	83
Deferred revenues	(2,413	) (726	) 1,014
Net cash provided by (used in) operating activities	36,122	17,659	(5,802
Cash flows from investing activities:			
Acquisition of property, plant and equipment	(8,640	) (5,670	) (8,530
Proceeds (use of cash) from sale of subsidiary	53	115	(210
Proceeds from sale of intellectual property and property, plant and equipment	1,200	1,114	61
Purchases of marketable securities	(66,234	) (31,693	) (91,338
Proceeds from maturities of marketable securities	74,750	73,473	90,385
Proceeds from sale of marketable securities	—	—	2,000
Change in restricted cash	—	—	(118
Net cash provided by (used in) investing activities	1,129	37,339	(7,750
Cash flows from financing activities:			
Proceeds from issuances of common stock	3,418	2,813	2,602
Purchase and retirement of common stock	(8,210	) —	—
Payments made on capital leases	—	(271	) (603
Net cash (used in) provided by financing activities	(4,792	) 2,542	1,999
Effect of exchange rate changes on cash and cash equivalents	(135	) (2,796	) (1,494
Net increase (decrease) in cash and cash equivalents	32,324	54,744	(13,047

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Cash and cash equivalents, beginning of year	113,940	59,196	72,243
Cash and cash equivalents, end of year	\$146,264	\$113,940	\$59,196
Non-cash investing and financing activities:			
Changes in accounts payable and accrued liabilities related to property, plant and equipment purchases	\$361	\$(122	) \$1,528
Supplemental disclosure of cash flow information:			
Income and property taxes paid (refunded), net	\$27	\$950	\$(6,152 )
The accompanying notes are an integral part of these consolidated financial statements.			

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FORMFACTOR, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1—Formation and Business of the Company

FormFactor, Inc. ("FormFactor" or the "Company" and also referred to as "we" or "our") was incorporated in Delaware on April 15, 1993 and designs, develops, manufactures, sells and supports precision, high performance advanced semiconductor probe card products. We are based in Livermore, California, which is our corporate office, research and development center, and one of our manufacturing locations. We have facilities in the United States, Singapore, Japan, Taiwan, South Korea, Germany, Italy and the People's Republic of China.

Fiscal Year

Our fiscal year ends on the last Saturday in December. The fiscal years ended on December 26, 2015, December 27, 2014 and December 28, 2013, respectively, consisted of 52 weeks each.

Note 2—Summary of Significant Accounting Policies

Basis of Consolidation and Foreign Currency Translation

The consolidated financial statements include our accounts and those of our wholly-owned subsidiaries. All intercompany balances and transactions have been eliminated.

The functional currencies of certain of our foreign subsidiaries are the local currencies and, accordingly, all assets and liabilities of these foreign operations are translated to U.S. Dollars at current period-end exchange rates, and revenues and expenses are translated to U.S. Dollars using average exchange rates in effect during the period. The gains and losses from the foreign currency translation of these subsidiaries' financial statements are included as a separate component of stockholders' equity under "Accumulated other comprehensive income (loss)."

Certain other of our foreign subsidiaries use the U.S. Dollar as their functional currency. Accordingly, monetary assets and liabilities in non-functional currencies of these subsidiaries are remeasured using exchange rates in effect at the end of the period. Revenues and costs in local currency are remeasured using average exchange rates for the period, except for costs related to those balance sheet items that are remeasured using historical exchange rates. The resulting remeasurement gains and losses are included in the Consolidated Statements of Operations as incurred.

Use of Estimates

The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States of America ("GAAP") requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Estimates may change as new information is obtained. We believe that the estimates, assumptions and judgments involved in revenue recognition, fair value of marketable securities, allowance for doubtful accounts, reserves for product warranty, valuation of obsolete and slow moving inventory, assets acquired and liabilities assumed in business combinations, legal contingencies, valuation of goodwill, the assessment of recoverability of long-lived assets, valuation and recognition of stock-based compensation, provision for income taxes and valuation of deferred tax assets have the greatest potential impact on our consolidated financial statements. Actual results could differ from those estimates.

Business Acquisitions

Our consolidated financial statements include the operations of an acquired business after the completion of the acquisition. We account for acquired businesses using the acquisition method of accounting. The acquisition method of accounting for acquired businesses requires, among other things, that assets acquired and liabilities assumed be recognized at their estimated fair values as of the acquisition date, and that the fair value of acquired intangibles including in-process research and development (IPR&D) be recorded on the balance sheet. Also, transaction costs are expensed as incurred. Any excess of the purchase price over the assigned fair values of the net assets acquired is recorded as goodwill.

Cash, Cash Equivalents and Marketable Securities

Cash and cash equivalents consist of deposits and financial instruments which are readily convertible into cash and have original maturities of 90 days or less at the time of acquisition. Marketable securities consist primarily of highly liquid investments with maturities of greater than 90 days when purchased. We generally classify our marketable securities at the date



FORMFACTOR, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

of acquisition as available-for-sale. These securities are reported at fair value with the related unrealized gains and losses included in "Accumulated other comprehensive income (loss)", a component of stockholder's equity, net of tax. Any unrealized losses which are considered to be other-than-temporary impairments are recorded in "Other income, net" in the Consolidated Statements of Operations. Realized gains (losses) on the sale of marketable securities are determined using the specific-identification method and recorded in "Other income, net" in the Consolidated Statements of Operations.

All of our available-for-sale investments are subject to a periodic impairment review. We record a charge to earnings when a decline in fair value is significantly below cost basis and judged to be other-than-temporary, or have other indicators of impairments. If the fair value of an available-for-sale investment is less than its amortized cost basis, an other-than-temporary impairment is triggered in circumstances where (1) we intend to sell the instrument, (2) it is more likely than not that we will be required to sell the instrument before recovery of its amortized cost basis or (3) a credit loss exists where we do not expect to recover the entire amortized cost basis of the instrument. If we intend to sell or it is more likely than not that we will be required to sell the available-for-sale investment before recovery of its amortized cost basis, we recognize an other-than-temporary impairment charge equal to the entire difference between the investment's amortized cost basis and its fair value.

Fair Value of Financial Instruments

We have evaluated the estimated fair value of financial instruments using available market information and valuations as provided by third-party sources. The use of different market assumptions and/or estimation methodologies could have a significant effect on the estimated fair value amounts. The fair value of the Company's cash, cash equivalents, accounts receivable, accounts payable and other current liabilities approximate their carrying amounts due to the relatively short maturity of these items. Estimates of fair value of our marketable securities are based on quoted market prices from active markets or third party, market-based pricing sources which we believe to be reliable. These estimates represent the third parties' good faith opinion as to what a buyer in the marketplace would pay for a security in a current sale.

Whenever possible, the fair values of our financial assets and liabilities are determined using quoted market prices of identical assets or quoted market prices of similar assets from active markets. The three levels of inputs that may be used to measure fair value are as follows:

Level 1 valuations are obtained from real-time quotes for transactions in active exchange markets involving identical assets;

Level 2 inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities, quoted prices near the reporting date in markets that are less active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities; and

Level 3 valuations are based on unobservable inputs to the valuation methodology and include our own data about assumptions market participants would use in pricing the asset or liability based on the best information available under the circumstances.

Each level of input has different levels of subjectivity and difficulty involved in determining fair value.

Foreign Exchange Management

We transact business in various foreign currencies. We enter into forward foreign exchange contracts in an effort to mitigate the risks associated with currency fluctuations on certain foreign currency balance sheet exposures. Gains and losses resulting from the impact of currency exchange rate movements on forward foreign exchange contracts designated to offset certain foreign currency balance sheet exposures are recognized as "Other income, net" in the Consolidated Statements of Operations in the period in which the exchange rates change. These gains and losses are intended to partially offset the foreign currency exchange gains and losses on the underlying exposures being hedged. We record the fair value of these contracts as of the end of our reporting period in the Consolidated Balance Sheet. We do not use derivative financial instruments for trading or speculative purposes.

Restricted Cash

Under the terms of one of our facility leases, we provide security to the landlord in the form of letters of credit. As of December 26, 2015 and December 27, 2014, restricted cash included \$0.4 million, respectively, for letters of credit secured by a certificate of deposit.

#### Inventories

Inventories are stated at the lower of cost (principally standard cost which approximates actual cost on a first-in, first-out basis) or market value. The provision for potentially excess and obsolete inventory is made based on management's analysis of inventory levels and forecasted future sales. On a quarterly basis, we review inventory quantities on hand and on order under

FORMFACTOR, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

non-cancelable purchase commitments in comparison to our past usage and estimated forecast of product demand for the next six to twelve months to determine what inventory quantities, if any, may not be sellable. Based on this analysis, we write down the affected inventory value for estimated excess and obsolescence charges. Once the value is adjusted, the original cost of our inventory less the related inventory write-down represents the new cost basis of such products. Reversal of these write downs is recognized only when the related inventory has been scrapped or sold. Shipping and handling costs are classified as a component of "Cost of revenues" in the Consolidated Statements of Operations.

We design, manufacture and sell a fully custom product into a market that has been subject to cyclicity and significant demand fluctuations. Probe cards are complex products, custom to a specific chip design and have to be delivered on short lead-times. Probe cards are manufactured in low volumes, but for certain materials, the purchases are often subject to minimum order quantities in excess of the actual underlying probe card demand. It is not uncommon for us to acquire production materials and commence production activities based on estimated production yields and forecasted demand prior to or in excess of actual demand for our probe cards. These factors result in normal recurring inventory valuation adjustments to cost of revenues. Aggregate inventory write downs were \$6.5 million, \$7.1 million and \$10.5 million for fiscal 2015, 2014 and 2013, respectively.

When our products have been delivered, but the revenue associated with that product is deferred because the related revenue recognition criteria have not been met, we may defer the related inventory costs. The deferred inventory costs do not exceed the deferred revenue amounts. The deferred inventory costs are classified as a component of "Prepaid expenses and other current assets" in the Consolidated Balance Sheet.

Property, Plant, and Equipment

Property and equipment is stated at cost less accumulated depreciation and amortization. Depreciation is provided on a straight-line method over the following estimated useful lives of the assets: 1 to 5 years for machinery and equipment, 1 to 5 years for computer equipment and software and 1 to 5 years for furniture and fixtures. Leasehold improvements are amortized over the shorter of the lease term or the estimated useful life of the related asset.

Construction-in-progress assets are not depreciated until the assets are placed in service. Upon sale or retirement of assets, the cost and related accumulated depreciation or amortization, are removed from the balance sheet and the resulting gain or loss is reflected in operations.

Goodwill

Goodwill represents the excess of the purchase price over the fair value of identifiable assets acquired and liabilities assumed. Since our acquisition of MicroProbe in Fiscal 2012, we had historically operated in one reportable segment consisting of two operating segments and for the purposes of our goodwill impairment analysis, we had two reporting units, all of which related to our FormFactor and MicroProbe product groups. During the fourth quarter of fiscal 2015, we determined that we now operate in one reportable segment consisting of one operating segment and for the purposes of our goodwill impairment analysis, we further concluded that we now have one reporting unit, all of which relates to the design, development, manufacture and sale of high performance advanced probe cards as a result of the successful integration of the MicroProbe business into our overall consolidated operations.

The Company first assesses qualitative factors to determine whether it is necessary to perform a two-step quantitative goodwill impairment test. If an entity determines as a result of the qualitative assessment that it is more likely than not that the fair value of a reporting unit is less than its carrying amount, then the quantitative impairment test is required. Otherwise, no further testing is required.

The performance of the quantitative impairment test involves a two-step process. The first step of the impairment test involves comparing the fair value of the applicable reporting unit with its aggregate carrying value, including goodwill. We generally determine the fair value of our reporting unit using a combination of the income approach (that includes the use of the discounted cash flow method) and the market approach (guideline company approach) valuation methodologies. If the carrying amount of a reporting unit exceeds the fair value of that reporting unit, we perform the second step of the quantitative impairment test to determine the amount of impairment loss. The second step of the goodwill impairment test involves comparing the implied fair value of the affected reporting unit's goodwill with the carrying value of that goodwill.



During the fourth quarter of fiscal 2015, we performed our annual goodwill impairment test prior to and subsequent to the change in our reporting unit structure by assessing qualitative factors and we concluded that our goodwill was not impaired as of December 26, 2015. Our qualitative review included, among other factors, an assessment of our market capitalization which was significantly higher than our book value. No impairment charges associated with our goodwill were recorded during fiscal 2014 and 2013. Refer to Note 8 to Notes to Consolidated Financial Statements - Goodwill and Intangible Assets for further details.

## FORMFACTOR, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## Intangible Assets

Intangible assets consist of acquisition related intangible assets and intellectual property. The intangible assets are being amortized over periods which reflect the pattern in which economic benefits of the assets are expected to be realized, over 1 to 10 years. We perform a review of intangible assets when facts and circumstances indicate that the useful life is shorter than originally estimated or that the carrying amount of assets may not be recoverable. Such facts and circumstances include significant adverse changes in the business climate or legal factors; current period cash flow or operating losses combined with a history of losses or a forecast of continuing losses associated with the use of the intangible assets; and current expectation that the intangible assets will more likely than not be sold or disposed of before the end of their estimated useful lives. We assess the recoverability of identified intangible assets by comparing the projected undiscounted net cash flows associated with the related asset or group of assets over their remaining lives against their respective carrying amounts. Impairments, if any, are based on the excess of the carrying amount over the fair value of those assets.

## Impairment of Long-Lived Assets

We test long-lived assets or asset groups such as property, plant and equipment and intangible assets for recoverability when events or changes in circumstances indicate that their carrying amounts may not be recoverable. Circumstances which could trigger a review include, but are not limited to: significant decreases in the market price of the asset; significant adverse changes in the business climate or legal factors; accumulation of costs significantly in excess of the amount originally expected for the acquisition or construction of the asset; current period cash flow or operating losses combined with a history of losses or a forecast of continuing losses associated with the use of the asset; and current expectation that the asset will more likely than not be sold or disposed of before the end of its estimated useful life. Recoverability is assessed based on the carrying amounts of the asset or asset group and the sum of the undiscounted cash flows expected to result from the use and the eventual disposal of the asset. An impairment loss is recognized when the carrying amount is not recoverable and exceeds fair value. Refer to Note 6 to Notes to Consolidated Financial Statements - Impairment of Long-lived Assets, for additional information.

## Concentration of Credit Risk and Other Risks and Uncertainties

Financial instruments that potentially subject us to concentrations of credit risk consist primarily of cash equivalents, marketable securities and trade receivables. Our cash equivalents and marketable securities are held in safekeeping by large, credit worthy financial institutions. We invest our excess cash primarily in U.S. banks, government and agency bonds, money market funds and corporate obligations. We have established guidelines relative to credit ratings, diversification and maturities that seek to maintain safety and liquidity. Deposits in these banks may exceed the amounts of insurance provided on such deposits. To date, we have not experienced any losses on our deposits of cash and cash equivalents.

We market and sell our products to a narrow base of customers and generally do not require collateral. The following customers represented greater than 10% of our revenues in fiscal 2015, fiscal 2014 and fiscal 2013:

	Fiscal 2015	Fiscal 2014	Fiscal 2013
Intel	19.6	% 19.7	% 17.7
Samsung	14.6	*	*
SK hynix	14.3	16.9	16.5
Micron	11.7	15.0	11.7
Total	60.2	% 51.6	% 45.9

\* Less than 10% of revenues

At December 26, 2015, one customer accounted for 29% of gross accounts receivable. At December 27, 2014, two customers accounted for 26% and 18% of gross accounts receivable. We operate in the intensely competitive semiconductor industry, including the Dynamic Random Access Memory, or DRAM, Flash memory, and System-on-Chip, or SoC markets, which have been characterized by price erosion, rapid technological change, short product life cycles and heightened foreign and domestic competition. Significant technological changes in the industry could adversely affect our operating results.

We are exposed to non-performance risk by counterparties on the currency forward exchange contracts used in hedging activities. We seek to minimize risk by diversifying our hedging program across multiple financial institutions. These counterparties are large international financial institutions, and to date no such counterparty has failed to meet its financial obligations to us.

## FORMFACTOR, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Certain components for our wafer probe card products that meet our requirements are available only from a limited number of suppliers. The rapid rate of technological change and the necessity of developing and manufacturing products with short life cycles may intensify our reliance on such suppliers. The inability to obtain components as required, or to develop alternative sources, if and as required in the future, could result in delays or reductions in product shipments, which in turn could have a material adverse effect on our business, financial condition, results of operations or cash flows.

## Revenue Recognition

We recognize revenue when persuasive evidence of a sales arrangement exists, title and risk of loss has transferred to the customer, the selling price is fixed or determinable and collection of the related receivable is reasonably assured. In instances where final acceptance of the deliverable is specified by the customer, revenue is deferred until all acceptance criteria have been met. Revenues from the licensing of our design and manufacturing technology, which have not been material to date, are recognized over the term of the license agreement or when the significant contractual obligations have been fulfilled.

## Warranty Obligations

We offer warranties on certain products and record a liability for the estimated future costs associated with warranty claims at the time revenue is recognized. The warranty liability is based upon historical experience and our estimate of the level of future costs. While we engage in product quality programs and processes, our warranty obligation is affected by product failure rates, material usage and service delivery costs incurred in correcting a product failure. We continuously monitor product returns for warranty and maintain a reserve for the related expenses based upon our historical experience and any specifically identified field failures. As we sell new products to our customers, we must exercise considerable judgment in estimating the expected failure rates. This estimating process is based on historical experience of similar products, as well as various other assumptions that we believe to be reasonable under the circumstances.

We provide for the estimated cost of product warranties at the time revenue is recognized. Warranty costs are reflected in the Consolidated Statement of Operations as a cost of revenues. A reconciliation of the changes in our warranty liability is as follows (in thousands):

	Fiscal Years Ended	
	December 26, 2015	December 27, 2014
Balance at beginning of year	\$ 1,592	\$ 691
Accruals	2,536	2,972
Settlements	(3,012)	(2,071)
Balance at end of year	\$ 1,116	\$ 1,592

## Research and Development

Research and development expenses include expenses related to product development, engineering and material costs. All research and development costs are expensed as incurred.

## Allowance for Doubtful Accounts

The majority of our trade receivables are derived from sales to large multinational semiconductor manufacturers throughout the world. In order to monitor potential credit losses, we perform ongoing credit evaluations of our customers' financial condition. An allowance for doubtful accounts is maintained based upon our assessment of the expected collectability of all accounts receivable. The allowance for doubtful accounts is reviewed and assessed for adequacy on a quarterly basis. We take into consideration (1) any circumstances of which we are aware of a customer's inability to meet its financial obligations and (2) our judgments as to prevailing economic conditions in the industry and their impact on our customers. If circumstances change, and the financial condition of our customers is adversely affected and they are unable to meet their financial obligations, we may need to take additional allowances, which would result in an increase in our operating expense.



## FORMFACTOR, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The allowance for doubtful accounts receivable consisted of the following activity for fiscal years 2015, 2014 and 2013 (in thousands):

	Balance at Beginning of Year	Additions	Reductions	Balance at End of Year
Fiscal year ended December 28, 2013	\$289	\$—	\$(24)	) \$265
Fiscal year ended December 27, 2014	265	5	(4)	) 266
Fiscal year ended December 26, 2015	\$266	\$20	\$(2)	) \$284

**Restructuring Charges**

Restructuring charges include costs related to employee termination benefits, cost of long-lived assets abandoned or impaired, as well as contract termination costs. The determination of when we accrue for employee termination benefits depends on whether the termination benefits are provided under a one-time benefit arrangement or under an on-going benefit arrangement. For restructuring charges recorded as an on-going benefit arrangement, a liability for post-employment benefits is recorded when payment is probable, the amount is reasonably estimable, and the obligation relates to rights that have vested or accumulated. For restructuring charges recorded as a one-time benefit arrangement, we recognize a liability for employee termination benefits when a plan of termination, approved by management and establishing the terms of the benefit arrangement, has been communicated to employees. The timing of the recognition of one-time employee termination benefits is dependent upon the period of time the employees are required to render service after communication. If employees are not required to render service in order to receive the termination benefits or if employees will not be retained to render service beyond the minimum legal notification period, a liability for the termination benefits is recognized at the communication date. In instances where employees will be retained to render service beyond the minimum legal notification period, the liability for employee termination benefits is measured initially at the communication date based on the fair value of the liability as of the termination date and is recognized ratably over the future service period. We continually evaluate the adequacy of the remaining liabilities under our restructuring initiatives.

We record charges related to long-lived assets to be abandoned when the assets cease to be used. When we cease using a building or other asset with remaining non-cancelable lease payments continuing beyond our use period, we record a liability for remaining payments under lease arrangements and contract termination costs that continue for the remaining term without economic benefit to us at the cease-use date. Given the significance of, and the timing of the execution of such activities, this process is complex and involves periodic reassessments of estimates made at the time the original decisions were made, including evaluating real estate market conditions for expected vacancy periods and sub-lease rents. Although we believe that these estimates accurately reflect the costs of our restructuring plans, actual results may differ, thereby requiring us to record additional provisions or reverse a portion of such provisions.

The Company recorded restructuring charges of \$0.6 million, \$2.7 million and \$4.7 million for fiscal years 2015, 2014 and 2013, respectively. Refer to Note 4, Restructuring Charges in Notes to Consolidated Financial Statements for further details.

**Income Taxes**

We utilize the asset and liability method of accounting for income taxes, under which deferred taxes are determined based on the temporary differences between the financial statement and tax basis of assets and liabilities using tax rates expected to be in effect during the years in which the basis differences reverse and for operating losses and tax credit carryforwards. We estimate our provision for income taxes and amounts ultimately payable or recoverable in numerous tax jurisdictions around the world. Estimates involve interpretations of regulations and are inherently complex. Resolution of income tax treatments in individual jurisdictions may not be known for many years after completion of any fiscal year. We are required to evaluate the realizability of our deferred tax assets on an ongoing basis to determine whether there is a need for a valuation allowance with respect to such deferred tax assets. A valuation allowance is recorded when it is more likely than not that some or all of the deferred tax assets will not be realized. Significant management judgment is required in determining any valuation allowance recorded against deferred tax assets. In evaluating the ability to recover deferred tax assets, we consider all available positive and

negative evidence giving greater weight to our recent cumulative losses and our ability to carryback losses against prior taxable income and, commensurate with objective verifiability, the forecast of future taxable income including the reversal of temporary differences and the implementation of feasible and prudent tax planning strategies.

We recognize and measure uncertain tax positions taken or expected to be taken in a tax return if it is more likely than not that the tax position will be sustained on examination by the taxing authorities, based on the technical merits of the position. The tax benefits recognized in the consolidated financial statements from such positions are then measured based on the largest benefit that has a greater than 50 percent likelihood of being realized upon ultimate settlement.

We report a liability for

## FORMFACTOR, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

unrecognized tax benefits resulting from uncertain tax positions taken or expected to be taken in a tax return. We adjust these reserves in light of changing facts and circumstances, such as the closing of a tax audit or the refinement of an estimate. To the extent that the final tax outcome of these matters is different than the amounts recorded, such differences will impact the provision for income taxes in the period in which such determination is made. The provision for income taxes includes the impact of reserve provisions and changes to reserves that are considered appropriate, as well as the related net interest. We recognize interest and penalties related to unrecognized tax benefits within the income tax provision. Accrued interest and penalties are included within the related tax liability caption line in the consolidated balance sheet.

We file annual income tax returns in multiple taxing jurisdictions around the world. A number of years may elapse before an uncertain tax position is audited and finally resolved. While it is often difficult to predict the final outcome or the timing of resolution of any particular uncertain tax position, we believe that our reserves for income taxes reflect the most likely outcome. We adjust these reserves, as well as the related interest, in light of changing facts and circumstances. Settlement of any particular position could require the use of cash.

**Stock-Based Compensation**

We recognize compensation expense for all stock-based awards based on the grant-date estimated fair values, net of an estimated forfeiture rate. The value of the portion of the award that is ultimately expected to vest is recognized as expense ratably over the requisite service periods in our Consolidated Statement of Operations. The fair value of stock options is measured using the Black-Scholes option pricing model while the fair value for restricted stock awards and restricted stock units is measured based on the closing market price of our common stock on the date of grant.

**Net Loss Per Share**

Basic net loss per share is computed by dividing net loss by the weighted-average number of common shares outstanding for the period. Diluted net loss per share is computed giving effect to all potential dilutive common stock, including stock options, restricted stock units and common stock subject to repurchase. Diluted loss per share was based only on the weighted-average number of shares outstanding during that period as the inclusion of any common stock equivalents would have been anti-dilutive.

A reconciliation of the numerator and denominator used in the calculation of basic and diluted net loss per share is as follows (in thousands):

	Fiscal Years Ended		
	December 26, 2015	December 27, 2014	December 28, 2013
Numerator:			
Net loss used in computing basic and diluted net loss per share	\$(1,523)	\$(19,185)	\$(57,683)
Denominator:			
Weighted-average shares used in computing basic net loss per share	57,850	55,908	54,204
Add potentially dilutive securities	—	—	—
Weighted-average shares used in computing basic and diluted net loss per share	57,850	55,908	54,204

The following securities were excluded from the calculation of diluted net loss per share because their effect would have been anti-dilutive for the periods presented (in thousands):

	Fiscal Years Ended		
	December 26, 2015	December 27, 2014	December 28, 2013
Options to purchase common stock	2,320	2,874	3,805
Restricted stock units	2,578	—	373
Employee stock purchase plan	8	28	22
Total potentially dilutive securities	4,906	2,902	4,200





## FORMFACTOR, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## Accumulated Other Comprehensive Loss

Accumulated other comprehensive loss includes foreign currency translation adjustments and unrealized losses on available-for-sale securities net of tax, the impact of which has been excluded from earnings and reflected as components of stockholders' equity.

Components of accumulated other comprehensive loss was as follows (in thousands):

	December 26, 2015	December 27, 2014
Unrealized loss on marketable securities, net of tax of \$428 in fiscal 2015 and fiscal 2014, respectively	\$ (483 )	\$ (419 )
Cumulative translation adjustments	(1,739 )	(1,342 )
Accumulated other comprehensive loss	\$ (2,222 )	\$ (1,761 )

## Recent Adopted Accounting Standards

In November 2015, the FASB issued ASU 2015-17, Balance Sheet Classification of Deferred Taxes, related to balance sheet classification of deferred taxes. The ASU requires that deferred tax assets and liabilities be classified as noncurrent in the statement of financial position, thereby simplifying the current guidance that requires an entity to separate deferred assets and liabilities into current and noncurrent amounts. The ASU will be effective for us beginning in the first quarter of fiscal year 2018 though early adoption is permitted. We have early-adopted the ASU as of December 26, 2015 prospectively and our statement of financial position as of this date reflects the revised classification of current deferred tax assets and liabilities as noncurrent. No prior periods were retrospectively adjusted. There is no other impact on our financial statements of early-adopting the ASU.

## Note 3—Balance Sheet Components

## Marketable Securities

Marketable securities at December 26, 2015 consisted of the following (in thousands):

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
U.S. Treasuries	\$ 18,896	\$ 1	\$ (44 )	\$ 18,853
Agency securities (Federal)	22,484	—	(12 )	22,472
	\$ 41,380	\$ 1	\$ (56 )	\$ 41,325

Marketable securities at December 27, 2014 consisted of the following (in thousands):

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
U.S. Treasuries	\$ 42,386	\$ 13	\$ (4 )	\$ 42,395
Agency securities (Federal)	7,502	—	—	7,502
	\$ 49,888	\$ 13	\$ (4 )	\$ 49,897

We classify our marketable securities as available-for-sale. All marketable securities represent the investment of funds available for current operations, notwithstanding their contractual maturities. Such marketable securities are recorded at fair value and unrealized gains and losses are recorded in accumulated other comprehensive income until realized. We typically invest in highly-rated securities with low probabilities of default. Our investment policy requires investments to be rated single-A or better, limits the types of acceptable investments, concentration as to security holder and duration of the investment. The gross unrealized losses on the Company's investments in fiscal 2015 and 2014, respectively, were caused primarily by changes in interest rates.



## FORMFACTOR, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Our investment portfolio consists of both corporate and government securities that have a maximum maturity of three years. The longer the duration of these securities, the more susceptible they are to changes in market interest rates and bond yields. As yields increase, those securities with a lower yield-at-cost show a mark-to-market unrealized loss. We anticipate recovering the full cost of the securities either as market conditions improve, or as the securities mature. Accordingly, we believe that the unrealized losses are not other-than-temporary. When evaluating the investments for other-than-temporary impairment, we review factors such as the length of time and extent to which fair value has been below the amortized cost basis, review of current market liquidity, interest rate risk, the financial condition of the issuer, as well as credit rating downgrades. As of December 26, 2015 and December 27, 2014, none of our investments had been in a continuous loss position for 12 months or more.

The contractual maturities of marketable securities as of December 26, 2015 and December 27, 2014 were as follows (in thousands):

	December 26, 2015		December 27, 2014	
	Amortized Cost	Fair Value	Amortized Cost	Fair Value
Due in one year or less	\$33,882	\$33,871	\$38,499	\$38,509
Due after one year to five years	7,498	7,454	11,389	11,388
	\$41,380	\$41,325	\$49,888	\$49,897

Realized gains on sales or maturities of marketable securities were immaterial for each of the fiscal years 2015, 2014, and 2013.

## Asset Retirement Obligations

We account for the fair value of a liability for an asset retirement obligation to be recognized in the period in which it is incurred if a reasonable estimate of fair value can be made. The fair value of the liability is added to the carrying amount of the associated asset and this additional carrying amount is amortized over the life of the asset. Our asset retirement obligation is associated with our commitment to return property subject to operating leases in the People's Republic of China, Taiwan, South Korea, Singapore and Japan to their original condition upon lease termination. We have estimated that as of December 26, 2015, gross expected future cash flows of \$0.9 million would be required to fulfill these obligations.

The carrying amount of a majority of the leasehold improvements resulting from asset retirement obligations were fully amortized by fiscal 2013 and over the original term of the related leases. Leasehold improvements amortization expense was immaterial for each of fiscal years 2015 and 2014.

The following is a reconciliation of the aggregate asset retirement liability associated with our commitment to return property to its original condition upon lease termination (in thousands):

	Fiscal Years Ended	
	December 26, 2015	December 27, 2014
Asset retirement obligation beginning balance	\$903	\$988
Initial amount recorded for new asset retirement obligation	10	—
Currency translation	6	(85)
Asset retirement obligation ending balance	\$919	\$903

The aggregate asset retirement liability was further classified in the Consolidated Balance Sheets as (in thousands):

Other accrued liabilities, current	\$212	\$—
Deferred rent and other liabilities, non-current	707	903
	\$919	\$903

## FORMFACTOR, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## Inventories

Net inventories consisted of the following (in thousands):

	Fiscal Years Ended	
	December 26, 2015	December 27, 2014
Raw materials	\$ 12,996	\$ 10,646
Work-in-progress	12,492	12,813
Finished goods	1,735	2,089
	\$ 27,223	\$ 25,548

## Property, Plant and Equipment

Property, plant and equipment consisted of the following (in thousands):

	Fiscal Years Ended	
	December 26, 2015	December 27, 2014
Machinery and equipment	150,983	145,995
Computer equipment and software	27,951	28,953
Furniture and fixtures	5,380	5,402
Leasehold improvements	67,121	66,821
Sub-total	251,435	247,171
Less: Accumulated depreciation and amortization	(232,005)	(224,135)
Net long-lived assets	19,430	23,036
Construction-in-progress	4,423	2,462
Total	\$ 23,853	\$ 25,498

In fiscal 2015 and 2014, we ceased use of fully depreciated assets with an acquired cost of \$1.6 million and \$6.6 million, respectively.

As discussed in Note 6 to the Notes to Consolidated Financial Statements - Impairment of Long-lived Assets, in fiscal 2015, long-lived asset impairment charges recorded were insignificant. In fiscal 2014 and 2013, we recorded impairment charges of \$1.2 million and \$0.8 million, respectively, for manufacturing assets and software that we no longer utilize.

Depreciation and amortization of property, plant and equipment, excluding the impairments charges discussed above, for the fiscal years 2015, 2014 and 2013 was \$10.6 million, \$11.7 million and \$12.2 million, respectively.

## Accrued Liabilities

Accrued liabilities consisted of the following (in thousands):

	Fiscal Years Ended	
	December 26, 2015	December 27, 2014
Accrued compensation and benefits	\$ 12,286	\$ 12,431
Accrued indirect and other taxes	2,189	2,223
Accrued commissions	366	460
Accrued warranty	1,116	1,592
Deferred rent	325	216
Accrued restructuring	2	584
Other accrued expenses	5,223	3,711
	\$ 21,507	\$ 21,217

FORMFACTOR, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Note 4—Restructuring Charges

Restructuring charges include costs related to employee termination benefits, cost of long-lived assets abandoned or impaired, as well as contract termination costs. Restructuring charges are reflected separately as "Restructuring charges, net" in the Consolidated Statements of Operations. A summary of the actions we have taken during fiscal 2015, 2014, and 2013, the purpose of which were to improve operating efficiency, streamline and simplify our operations and reduce our operating costs, are discussed below.

2015 Restructuring Activities

During fiscal 2015, we recorded restructuring charges of approximately \$0.6 million which included stock-based compensation expense of approximately \$0.5 million relating to the modification of an equity-based award. All other restructuring charges recorded in fiscal 2015 were insignificant.

2014 Restructuring Activities

On January 27, 2014, we announced a global organizational restructuring and cost reduction plan. As part of the plan, the Company eliminated 52 full-time employees. In addition, we reduced our temporary workforce by 9 positions. We recorded \$2.0 million of restructuring charges during the first quarter of fiscal 2014, which was comprised of \$1.4 million in severance and related benefits and \$0.6 million in impairment charges for certain equipment that would no longer be utilized. During the remainder of fiscal 2014, we further eliminated an additional 5 full-time positions and recorded \$0.7 million in severance charges. The activities comprising these restructuring activities were substantially completed in fiscal 2014 and the remaining cash payments associated with these activities were paid in fiscal 2015.

2013 Restructuring Activities

In the first fiscal quarter of 2013, we implemented a restructuring plan which resulted in the reduction of our global workforce by 31 employees across the organization. In addition, we reduced our temporary workforce by approximately 20 positions. We also suspended development activities and engineering efforts for our next generation DRAM Matrix platform and terminated development activities for a certain SoC product platform. We recorded \$4.0 million of restructuring charges during the first fiscal quarter of 2013, which was comprised of \$1.3 million in severance and related benefits and \$2.7 million in impairment charges for certain equipment that would no longer be utilized.

In the fourth fiscal quarter of 2013, we implemented a restructuring plan which resulted in the reduction of our global workforce by 17 full-time employees across the organization. In addition, we reduced our temporary workforce by 17 positions. We recorded \$0.4 million of restructuring charges during the fourth fiscal quarter of 2013 for severance and related benefits.

The above activities comprising the reduction in workforce were completed in fiscal 2013. The remaining cash payments as of December 28, 2013 associated with the various reductions in workforce were paid in fiscal 2014.

## FORMFACTOR, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The following table summarizes the activities related to the restructuring actions from fiscal 2013 to 2015 (in thousands):

	Employee Severance and Benefits	Property and Equipment Impairment	Contract Termination and Other Costs	Total
Accrual at December 31, 2012	\$ 548	\$—	\$68	\$ 616
Restructuring charges	2,083	2,743	15	4,841
Asset impairments	—	(2,743)	) —	(2,743)
Adjustments to restructuring charges	(178)	) (5)	) —	(183)
Cash payments	(2,320)	) (32)	) (17)	) (2,369)
Non-cash settlements	5	37	(66)	) (24)
Accrual at December 28, 2013	138	—	—	138
Restructuring charges	2,068	600	—	2,668
Asset impairments	—	(600)	) —	(600)
Cash payments	(1,620)	) —	—	(1,620)
Non-cash settlements	(2)	) —	—	(2)
Accrual at December 27, 2014	584	—	—	584
Restructuring charges	59	—	500	559
Cash payments	(641)	) —	—	(641)
Non-cash settlements	—	—	(500)	) (500)
Accrual at December 26, 2015	\$ 2	\$—	\$—	\$ 2

## Note 5—Derivative Financial Instruments

We operate and sell our products in various global markets. As a result, we are exposed to changes in foreign currency exchange rates. We utilize foreign currency forward contracts to hedge against future movements in foreign exchange rates that affect certain existing foreign currency denominated assets and liabilities. Under this program, our strategy is to have increases or decreases in our foreign currency exposures offset by gains or losses on the foreign currency forward contracts to mitigate the risks and volatility associated with foreign currency transaction gains or losses. We do not use derivative financial instruments for speculative or trading purposes. Our derivative instruments are not designated as hedging instruments for accounting purposes. Accordingly, changes in the fair value of these hedges are recorded in earnings to offset the changes in the fair value of the assets or liabilities being hedged. We record the fair value of these contracts as of the end of our reporting period to our Consolidated Balance Sheet with changes in fair value recorded within "Other income, net" in our Consolidated Statement of Operations for both realized and unrealized gains and losses.

As of December 26, 2015, there were three outstanding foreign exchange forward contracts, one contract to sell Japanese Yen and two contracts to buy Korean Won and Taiwan Dollars. The following tables provide information about our foreign currency forward contracts outstanding as of December 26, 2015 and December 27, 2014 (in thousands):

December 26, 2015	Contract Position	Contract Amount (Local Currency) (In thousands)	Contract Amount (U.S. Dollar)
Japanese Yen	Sell	3,328,268	\$ 27,635
Taiwan Dollar	Buy	(37,152)	) (1,136)
Korean Won	Buy	(840,111)	) (718)
Total USD notional amount of outstanding foreign exchange contracts			\$ 25,781





## FORMFACTOR, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

December 27, 2014	Contract Position	Contract Amount (Local Currency) (In thousands)	Contract Amount (U.S. Dollar)
Japanese Yen	Sell	1,955,798	\$ 16,241
Taiwan Dollar	Buy	(30,886)	) (977)
Korean Won	Buy	(1,763,054)	) (1,613)
Total USD notional amount of outstanding foreign exchange contracts			\$ 13,651

The contracts outstanding at December 26, 2015 were entered into on December 24, 2015 and matured on January 26, 2016 for the Japanese Yen, Korean Won and Taiwan Dollar. Our foreign currency contracts are classified within Level 2 of the fair value hierarchy as they are valued using pricing models that utilize observable market inputs. There was no change in the value of these contracts as of December 26, 2015. Additionally, no gains or losses relating to the outstanding derivative contracts as of December 26, 2015 and December 27, 2014 were recorded during their respective fiscal periods.

The location and amount of gains (losses) related to non-designated derivative instruments that matured in fiscal 2015 and 2014 in the Consolidated Statements of Operations are as follows (in thousands):

Derivatives Not Designated as Hedging Instruments	Location of Gain (Loss) Recognized on Derivatives	Fiscal Years Ended	
		December 26, 2015	December 27, 2014
Foreign exchange forward contracts	Other Income, net	\$ (310)	) \$ 1,768

## Note 6—Impairment of Long-lived Assets

The following table summarizes the components of the impairments that we recorded in fiscal 2015, 2014 and 2013 (in thousands):

	Fiscal Years Ended		
	December 26, 2015	December 27, 2014	December 28, 2013
Impairment of long-lived assets:			
Assets held for sale	\$—	\$ 191	\$—
Assets to be disposed of other than by sale	8	1,028	761
Total	\$8	\$ 1,219	\$ 761

## Assets held for sale

In fiscal 2015, we did not record any impairment charge on assets held for sale and there were no long-lived assets classified as held for sale as of December 26, 2015.

During fiscal 2014, we reclassified \$0.6 million of building and \$0.5 million of machinery and equipment from "Property, plant and equipment, net" to "Prepaid expenses and other current assets" in our Consolidated Balance Sheet as these assets were identified as held for sale. In the same fiscal year, we recorded a gain of \$0.2 million and \$52.0 thousand on the sale of the building and machinery and equipment, respectively. In addition, we also recorded a \$0.2 million impairment charge related to machinery and equipment which was held for sale. There were no long-lived assets classified as held for sale as of December 27, 2014.

In fiscal 2013, we did not record any impairment charge on assets held for sale.

These impairments were included within "Impairment of long-lived assets" in the Consolidated Statement of Operations for their respective periods.



FORMFACTOR, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Assets to be disposed of other than by sale

In fiscal 2015, long-lived asset impairment charges recorded were insignificant. In fiscal 2014 and 2013, we recorded impairment charges of \$1.2 million and \$0.8 million, respectively, for manufacturing assets and software that we no longer utilize.

All of these charges are included in "Impairment of long-lived assets" in the Consolidated Statements of Operations for their respective periods.

Refer to Note 8 to the Notes to Consolidated Financial Statements - Goodwill and Intangible Assets for further details relating to our intangible long-lived assets.

Note 7—Fair Value

We use fair value measurements to record adjustments to certain financial and non-financial assets and to determine fair value disclosures. The carrying amounts of certain of our financial instruments, including cash and cash equivalents, accounts receivable, accounts payable, accrued compensation and other accrued liabilities, approximate fair value because of their short maturities. Our marketable securities are financial assets recorded at fair value on a recurring basis.

The accounting standards for fair value defines fair value, establishes a framework for measuring fair value and requires disclosures about fair value measurements. Fair value is defined as the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. When determining the fair value measurements for assets and liabilities required to be recorded at fair value, we consider the principal or most advantageous market in which we would transact and consider assumptions that market participants would use when pricing the asset or liability, such as inherent risk, transfer restrictions and risk of nonperformance. The accounting standard establishes a fair value hierarchy that requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. A financial instrument's categorization within the fair value hierarchy is based upon the lowest level of input that is significant to the fair value measurement. The standard describes a fair value hierarchy based on three levels of inputs, the first two of which are considered observable and the last unobservable. We apply the following fair value hierarchy, which prioritizes the inputs used in measuring fair value as follows:

Level 1—Quoted prices in active markets for identical assets or liabilities;

- Level 2—Inputs, other than the quoted prices in active markets, such as quoted prices for similar assets or liabilities, quoted prices near the reporting date in markets that are less active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities; and

• Level 3—Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

We obtain the fair value of our Level 1 investments in certain money market funds, at the expected market price. These investments are expected to maintain a net asset value of \$1 per share.

We determine the fair value of our Level 2 financial instruments from several third party asset managers, custodian banks, and the accounting service providers. Independently, these service providers use professional pricing services to gather pricing data, which may include quoted market prices for identical or comparable instruments or inputs other than quoted prices that are observable either directly or indirectly.

We utilize the market approach to measure the fair value of our fixed income securities. The market approach is a valuation technique that uses prices and other relevant information generated by market transactions involving identical or comparable assets or liabilities. The fair value of our fixed income securities is obtained using readily-available market prices from a variety of industry standard data providers, large financial institutions and other third-party sources for the identical underlying securities.

Our fair value processes include controls that are designed to ensure appropriate fair values are recorded. Such controls include model validation, review of key model inputs, analysis of period-over-period fluctuations and independent recalculation of prices.

**Assets Measured at Fair Value on a Recurring Basis**

We measure and report certain assets and liabilities at fair value on a recurring basis, including money market funds, U.S. Treasury securities, agency securities and foreign currency derivatives (refer to Note 5 to Notes to Consolidated Financial Statements - Derivative Financial Instruments for a discussion of fair value of foreign currency derivatives).

## FORMFACTOR, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Fair values measured on a recurring basis as of December 26, 2015 (in thousands):

	Level 1	Level 2	Total
Assets:			
Cash equivalents			
Money market funds	\$ 82,935	\$ —	\$ 82,935
Marketable securities			
U.S. Treasuries	—	18,853	18,853
Agency securities (Federal)	—	22,472	22,472
Total	\$ 82,935	\$ 41,325	\$ 124,260

Fair values measured on a recurring basis as of December 27, 2014 (in thousands):

	Level 1	Level 2	Total
Assets:			
Cash equivalents			
Money market funds	\$ 65,303	\$ —	\$ 65,303
Marketable securities			
U.S. Treasuries	—	42,395	42,395
Agency securities (Federal)	—	7,502	7,502
Total	\$ 65,303	\$ 49,897	\$ 115,200

The Level 1 assets consist of our money market fund deposits. The Level 2 assets consist of our available-for-sale investment portfolio, which are valued utilizing a market approach. Our investments are priced by pricing vendors who provided observable inputs for their pricing without applying significant judgment. Broker pricing is used mainly when a quoted price is not available, the investment is not priced by our pricing vendors or when a broker price is more reflective of fair values in the market in which the investment trades. Our broker-priced investments are labeled as Level 2 investments because fair values of these investments are based on similar assets without applying significant judgments. In addition, all of our investments have a sufficient level of trading volume to demonstrate that the fair values used are appropriate for these investments.

We did not have any transfers of assets measured at fair value on a recurring basis to or from Level 1 and Level 2 during fiscal 2015 and 2014.

#### Assets Measured at Fair Value on a Non-recurring Basis

We measure and report goodwill and intangible assets at fair value on a non-recurring basis. Refer to Note 8 to Notes to Consolidated Financial Statements - Goodwill and Intangible Assets, for further details. There were no assets measured at fair value on a non-recurring basis during fiscal 2015.

#### Note 8—Goodwill and Intangible Assets

Goodwill of \$30.7 million as of December 26, 2015 remained unchanged from the amounts recorded as of December 27, 2014.

For the purposes of our goodwill impairment analysis and since our acquisition of MicroProbe in Fiscal 2012, we had historically two reporting units, all of which related to our FormFactor and MicroProbe product groups. During the fourth quarter of fiscal 2015, we determined that we now have one reporting unit relating to the design, development, manufacture and sale of high performance advanced probe cards as a result of the successful integration of the MicroProbe business into our overall consolidated operations.

During the fourth quarter of fiscal 2015, we performed our annual goodwill impairment test prior to and subsequent to the change in our reporting unit structure by assessing qualitative factors and we concluded that our goodwill was not impaired as of December 26, 2015. Our qualitative review included, among other factors, an assessment of our market capitalization which was significantly higher than our book value. During the fourth quarter of fiscal 2014, we also performed our annual goodwill impairment test by an assessment of qualitative factors and concluded that our goodwill was not impaired as December 27, 2014. Furthermore, the Company has not recorded any historical goodwill impairments as of December 26, 2015. The evaluation of goodwill and intangible assets for impairment requires the exercise of significant judgment. In the



## FORMFACTOR, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

event of future changes in business conditions, we will be required to reassess and update our forecasts and estimates used in future impairment analyses. If the results of these analyses are lower than current estimates, a material impairment charge may result at that time.

The changes in intangible assets for fiscal 2015 and the net book value of intangible assets at December 26, 2015 and December 27, 2014 were as follows (in thousands):

	Intangible Assets, Gross Amount			Accumulated Amortization			Intangible Assets, Net		Weight Average Useful Life
Other Intangible Assets (1)	December 27, 2014	Additions/Disposals	December 26, 2015	December 27, 2014	Expense, net	December 26, 2015	December 27, 2014	December 26, 2015	December 26, 2015
Existing developed technologies (2)	\$45,300	\$ 6,900	\$ 52,200	\$29,097	\$10,484	\$ 39,581	\$16,203	\$ 12,619	2.0
Trade name	4,388	—	4,388	970	439	1,409	3,418	2,979	6.8
Customer relationships	17,000	—	17,000	4,832	2,214	7,046	12,168	9,954	4.8
Total finite-lived intangible assets	66,688	6,900	73,588	34,899	13,137	48,036	31,789	25,552	
In-process research and development	6,900	(6,900 )	—	—	—	—	6,900	—	
Total intangible assets	\$73,588	\$ —	\$ 73,588	\$34,899	\$13,137	\$ 48,036	\$38,689	\$ 25,552	

(1) Excludes fully amortized intangible assets.

As of December 26, 2015, we excluded approximately \$5.9 million of fully amortized existing developed technology intangible assets from gross intangible assets and accumulated amortization due to the sale of these

(2) intangible assets to MarTek Inc. These intangible assets were fully amortized as of December 27, 2014 but were in use until their sale to MarTek Inc. Refer to Note 9 in Notes to Consolidated Financial Statements-Commitments and Contingencies, for further details.

During the year ended December 26, 2015, purchased in-process research and development ("IPR&D") projects with carrying values of \$6.9 million were completed and reclassified to finite-lived intangible assets, and are currently being amortized over their remaining estimated weighted average useful lives of 2.8 years as of December 26, 2015. We recorded \$13.1 million, \$18.8 million and \$16.7 million, in amortization expense related to our intangible assets in fiscal 2015, 2014, and 2013, respectively. Of the total amortization expense for fiscal 2015, 2014, and 2013, \$10.4 million, \$16.1 million, and \$13.8 million were charged to cost of revenues, respectively, and \$2.7 million, \$2.7 million and \$2.9 million were charged to selling, general and administrative expenses, respectively. Based on the carrying value of the finite-lived intangible assets recorded as of December 26, 2015, and assuming no subsequent additions to or impairment of the underlying assets, the remaining estimated annual amortization expense is expected to be as follows (in thousands):

Fiscal Year	Amount
2016	\$ 10,060
2017	4,943
2018	4,666

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2019	3,052
2020	2,045
and thereafter	786
Total	\$ 25,552



## FORMFACTOR, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## Note 9—Commitments and Contingencies

## Leases

We lease facilities under non-cancellable operating leases with various expiration dates through 2021. The facilities generally require us to pay property taxes, insurance and maintenance costs. Further, several lease agreements contain rent escalation clauses or rent holidays. For purposes of recognizing minimum rental expenses on a straight-line basis over the terms of the leases, we use the date of initial possession to begin amortization. We have the option to extend or renew most of our leases which may increase the future minimum lease commitments.

Rent expense for the fiscal years 2015, 2014, and 2013 was \$4.9 million, \$4.8 million and \$4.9 million, respectively. As of December 26, 2015 and December 27, 2014, we did not lease any equipment under capital leases. The depreciation expense of certain equipment under capital leases was \$0.2 million in fiscal 2014 and \$0.5 million in fiscal 2013.

Future minimum payments under our non-cancelable operating leases are as follows as of December 26, 2015 (in thousands):

	Operating Leases
Fiscal years:	
2016	\$ 3,994
2017-2018	7,194
2019-2020	7,064
Thereafter	2,505
Total	\$ 20,757

## Other Contractual Obligations

The following table sets forth our commitments to settle other contractual obligations in cash as of December 26, 2015 (in thousands):

	Payments Due In Fiscal Years				
	2016	2017-2018	2019-2020	After 2020	Total
	(In thousands)				
Purchase obligations	\$ 20,899	\$ 9,580	\$ 30	\$ —	\$ 30,509

Purchase obligations are primarily for purchases of inventory and manufacturing related service contracts. For the purposes of this table, purchase obligations are defined as agreements that are enforceable and legally binding and that specify all significant terms, including: fixed or minimum quantities to be purchased; fixed, minimum or variable price provisions; and the approximate timing of the transaction. The expected timing of payment of the obligations discussed above is estimated based on information available to us as of December 26, 2015. Timing of payments and actual amounts paid may be different depending on the time of receipt of goods or services or changes to agreed-upon amounts for some obligations.

The table above excludes our gross liability for unrecognized tax benefits, which totaled \$17.0 million as of December 26, 2015. The timing of any payments which could result from these unrecognized tax benefits will depend upon a number of factors. Accordingly, the timing of payment cannot be estimated and has been excluded from the table above. As of December 26, 2015, the changes to our uncertain tax positions in the next 12 months, that are reasonably possible, are not expected to have a significant impact on our financial position or results of operations.

## Environmental Matters

We are subject to U.S. Federal, State, local, and foreign governmental laws and regulations relating to the protection of the environment, including those governing the discharge of pollutants into the air and water, the management and disposal of hazardous substances and wastes, the clean-up of contaminated sites and the maintenance of a safe workplace. We believe that we comply in all material respects with the environmental laws and regulations that apply to us, including those of the California Department of Toxic Substances Control, the Bay Area Air Quality

Management District, the City of Livermore Water Resources Division, County of Santa Clara Department of Environmental Health, County of San Diego Hazardous Materials Division and Encino Water District, and the California Division of Occupational Safety and Health. We did not

FORMFACTOR, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

receive any notices of violations of environmental laws and regulations in fiscal 2015, 2014 or 2013. In the future, we may receive notices of violations of environmental regulations, or otherwise learn of such violations. Environmental contamination or violations may negatively impact our business.

**Indemnification Arrangements**

We have entered, and may from time to time in the ordinary course of our business enter, into contractual arrangements with third parties that include indemnification obligations. Under these contractual arrangements, we have agreed to defend, indemnify and/or hold the third party harmless from and against certain liabilities. These arrangements include indemnities in favor of customers in the event that our products or services infringe a third party's intellectual property or cause property or other damages and indemnities in favor of our lessors in connection with facility leasehold liabilities that we may cause. In addition, we have entered into indemnification agreements with our directors and certain of our officers, and our bylaws contain indemnification obligations in favor of our directors, officers and agents. These indemnity arrangements may limit the type of the claim, the total amount that we can be required to be paid in connection with the indemnification obligation and the time within which an indemnification claim can be made. The duration of the indemnification obligation may vary, and for most arrangements, survives the agreement term and is indefinite. We believe that substantially all of our indemnity arrangements provide either for limitations on the maximum potential future payments we could be obligated to make, or for limitations on the types of claims and damages we could be obligated to indemnify, or both. However, it is not possible to determine or reasonably estimate the maximum potential amount of future payments under these indemnification obligations due to the varying terms of such obligations, a lack of history of prior indemnification claims, the unique facts and circumstances involved in each particular contractual arrangement and in each potential future claim for indemnification, and the contingency of any potential liabilities upon the occurrence of events that are not reasonably determinable. We have not had any material requests for indemnification under these arrangements. Our management believes that any liability for these indemnity arrangements would not be material to our accompanying consolidated financial statements. We have not recorded any liabilities for these indemnification arrangements on our consolidated balance sheet as of December 26, 2015.

**Legal Matters**

From time to time, we may be subject to legal proceedings and claims in the ordinary course of business. For the year ended December 26, 2015, we were not involved in any material legal proceedings. We identify below in "Other Litigation", a proceeding filed in fiscal 2013, which, if not resolved amicably, either (i) includes allegations that could potentially result in a material legal proceeding, or (ii) the cost to defend the allegations through trial could be material. In the future we may become a party to additional legal proceedings that may require us to spend significant resources, including proceedings designed to protect our intellectual property rights. Litigation can be expensive and disruptive to normal business operations. Moreover, the results of legal proceedings are difficult to predict, and the costs incurred in litigation can be substantial, regardless of outcome.

In March 2014, we filed a lawsuit against MarTek, Inc. ("MarTek"), asserting breach of contract, copyright infringement and related claims arising out of a licensing agreement we entered into with MarTek for the use by MarTek of certain intellectual property assets (the "IP"). MarTek asserted counterclaims against us for breach of contract and related claims regarding that license.

On July 13, 2015, we entered into an agreement with MarTek under which the parties agreed to dismiss the pending litigation and release each other from any and all claims relating to the license agreement. As part of the agreement, we agreed to sell the IP to MarTek for \$2 million, of which \$1.2 million was received on July 17, 2015, and the remaining \$0.8 million is in the form of a promissory note secured by the IP and scheduled to be repaid by MarTek in two equal tranches on the first and second anniversary of the settlement. We recognized a net gain of approximately \$1.0 million (which was classified in our Consolidated Statement of Operations under Other Income, net) from the agreement proceeds of \$1.2 million received on July 17, 2015.

**Other Litigation**

In August 2013, a former employee filed a class action lawsuit against the Company in the Superior Court of California, alleging violations of California's wage and hour laws and unfair business practices on behalf of himself and all other similarly situated current and former employees at the Company's Livermore facilities from August 21, 2009, to the present. On January 4, 2016, the court certified the plaintiff class. The lawsuit is currently proceeding to notice to class members and merits discovery. The Company denies the allegations contained in the lawsuit, and, based on available information, believes it has significant defenses to the allegations of the lawsuit. The Company currently believes that any settlement reached would be an amount that is not material to the Company's financial statements. If the matter is not settled, the Company could incur material attorneys' fees in defending the lawsuit.

FORMFACTOR, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Note 10—Stockholders' Equity

Preferred Stock

We have authorized 10,000,000 shares of undesignated preferred stock, \$0.001 par value, none of which is issued and outstanding. Our Board of Directors shall determine the rights, preferences, privileges and restrictions of the preferred stock, including dividends rights, conversion rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms and the number of shares constituting any series or the designation of any series.

Common Stock

Each share of common stock has the right to one vote. The holders of common stock are also entitled to receive dividends whenever funds are legally available and when declared by the Board of Directors, subject to the prior rights of holders of all classes of stock outstanding having priority rights as to dividends. No dividends have been declared or paid as of December 26, 2015.

Common Stock Repurchase Program

On April 16, 2015, our Board of Directors authorized a program to repurchase up to \$25.0 million of outstanding common stock. Under the authorized stock repurchase program, we may repurchase shares from time-to-time on the open market. The pace of repurchase activity will depend on levels of cash generation, current stock price and other factors. The stock repurchase program was announced on April 16, 2015 and expires on April 15, 2016. The program may be modified or discontinued at any time. During fiscal 2015, under this repurchase authorization, we repurchased and retired 1,013,162 shares of common stock for approximately \$8.2 million.

Repurchased shares are retired upon the settlement of the related trade transactions. Our policy related to repurchases of our common stock is to charge the excess of cost over par value to additional paid-in capital. All repurchases were made in compliance with Rule 10b-18 under the Securities Exchange Act of 1934, as amended.

Equity Incentive Plan

We currently grant equity-based awards under our Equity Incentive Plan (the "2012 Plan") which was approved by our stockholders at our Annual Meeting of Stockholders on April 18, 2012. On May 1, 2015, at our Annual Meeting of Stockholders, our stockholders further approved the amended and restated 2012 Plan which increased the maximum number of shares of common stock authorized for issuance by an additional 4.5 million shares and prohibited the cashing out of stock appreciation rights. Refer to the 2015 Proxy Statement filed with the Securities and Exchange Commission on March 19, 2015 for further details.

Restricted stock and restricted stock units granted under the 2012 Plan will generally vest over four years in annual tranches though we also have granted and will continue to grant such awards over a shorter vest term for employee retention purposes. Additionally, restricted shares reduce the shares available for issuance at 1.70 shares for every one share issued.

The 2012 Plan also provides for the grant of incentive stock options, nonqualified stock options and stock appreciation rights. The incentive stock options may be granted to our employees and the nonqualified stock options, and all awards other than incentive stock options may be granted to employees, directors and consultants. The exercise price of incentive stock options must be at least equal to the fair market value of common stock on the date of grant. All options granted under the 2012 Plan will generally vest over four years and have a term of ten years, unless otherwise determined by the Compensation Committee of the Board of Directors. Stock appreciation rights granted under the 2012 Plan will generally vest over four years in annual tranches. We have not granted any incentive stock options or stock appreciation rights during fiscal 2015 and 2014.

At December 26, 2015, there were 5.8 million shares available for grant under the 2012 Plan.

## FORMFACTOR, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## Stock Options

Stock option activity is set forth below:

	Outstanding Options			
	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life in Years	Aggregate Intrinsic Value
Outstanding at December 27, 2014	2,571,376	10.72		
Options granted	456,000	8.42		
Options exercised	(24,607)	) 8.61		
Options canceled	(682,574)	) 13.75		
Outstanding at December 26, 2015	2,320,195	\$9.40	2.70	\$1,146,680
Vested and expected to vest at December 26, 2015	2,320,195	\$9.40	2.70	\$1,146,680
Exercisable at December 26, 2015	1,864,861	\$9.64	1.86	\$833,552

On February 9, 2015, we granted 450,000 stock options to our Chief Executive Officer with a grant-date fair value of approximately \$1.7 million which will be recognized as stock compensation expense ratably over the service period. The following weighted average assumptions were used in the estimated grant-date fair value calculations using the Black-Scholes option pricing model:

## Stock Options:

Dividend yield	—	%
Expected volatility	47.5	%
Risk-free interest rate	1.6	%
Expected term (in years)	5.5	

## Restricted Stock Units

Restricted stock units are converted into shares of our common stock upon vesting on a one-for-one basis. The vesting of restricted stock units is subject to the employee's continuing service to us. Restricted stock unit activity is set forth below:

	Number of Shares	Weighted Average Grant Date Fair Value
Restricted stock units at December 29, 2012	2,228,946	\$7.66
Granted	1,708,000	5.04
Vested	(760,590)	) 8.44
Canceled	(246,717)	) 8.18
Restricted stock units at December 28, 2013	2,929,639	5.88
Granted	1,900,000	6.52
Vested	(1,282,442)	) 6.30
Canceled	(297,151)	) 6.17
Restricted stock units at December 27, 2014	3,250,046	6.07
Granted	1,540,250	8.64
Vested	(1,993,603)	) 6.00
Canceled	(218,555)	) 6.36
Restricted stock units at December 26, 2015	2,578,138	\$7.63



## FORMFACTOR, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

On May 28, 2015, we issued 195,000 RSUs to seven senior executives of our company that will vest based on certain market performance criteria. The performance criteria are based on a metric called our Total Shareholder Return (TSR) for the period from April 1, 2015 to March 31, 2017 relative to the TSR of the companies identified as being part of the S&P Semiconductor Select Industry Index (FormFactor peer companies), as of April 1, 2015. The total stock-based compensation cost of approximately \$1.5 million will be recognized ratably over the requisite service period.

On May 5, 2014, we issued 350,000 RSUs to seven senior executives of our company that will vest based on certain market performance criteria. The performance criteria are based on our TSR for the period from April 1, 2014 to March 31, 2016 relative to the TSR of the companies identified as being part of the S&P Semiconductor Select Industry Index (FormFactor peer companies), as of April 1, 2014. The total stock-based compensation cost of approximately \$1.8 million will be recognized ratably over the requisite service period.

On May 6, 2013, we issued 355,000 RSUs to seven senior executives and one non-executive of our company that would vest based on certain market performance criteria. The performance criteria were based on our TSR for the period from April 1, 2013 to March 31, 2015 relative to the TSR of the companies identified as being part of the S&P Semiconductor Select Industry Index (FormFactor peer companies), as of April 1, 2013. On April 8, 2015, upon the review of the market performance criteria, our Compensation Committee certified a total earn out of 443,750 RSUs which immediately vested as of that date.

The total fair value of restricted stock units vested during fiscal 2015, 2014 and 2013 was \$18.1 million, \$8.2 million and \$3.9 million, respectively.

## Employee Stock Purchase Plan

Under the 2012 Employee Stock Purchase Plan ("ESPP"), the offering periods are 12 months commencing on February 1 of each calendar year and ending on January 31 of the subsequent calendar year, and a six month fixed offering period commencing on August 1 of each calendar year and ending on January 31 of the subsequent calendar year. The 12 month offering period consists of two six-month purchase periods and the six month offering period consists of one six month purchase period. The price of the common stock purchased is 85% of the lesser of the fair market value of the common stock on the first day of the applicable offering period or the last day of each purchase period.

During fiscal 2015, 2014, and 2013, employees purchased 565,493 shares, 586,386 shares and 583,173 shares under this program at a weighted average exercise price of \$5.67, \$4.80 and \$4.29, respectively.

## Note 11—Stock-Based Compensation

We account for all stock-based compensation to employees and directors, including grants of restricted stock units and stock options, as stock-based compensation costs in the Consolidated Financial Statements based on the fair value measured as of the date of grant. These costs are recognized as an expense in the Consolidated Statements of Operations over the requisite service period and increase additional paid-in capital.

The table below shows the stock-based compensation expense included in the Consolidated Statement of Operations (in thousands):

	Fiscal Years Ended		
	December 26, 2015	December 27, 2014	December 28, 2013
Stock-based compensation expense included in:			
Cost of revenues	\$ 2,651	\$ 2,433	\$ 2,436
Research and development	3,490	3,529	3,440
Selling, general and administrative	5,434	7,317	6,248
Total stock-based compensation	11,575	13,279	12,124
Tax effect on stock-based compensation	—	—	—
Total stock-based compensation, net of tax	\$ 11,575	\$ 13,279	\$ 12,124



During fiscal 2015, we recorded stock-based compensation expense of approximately \$0.5 million relating to a full-time employee who was impacted by our restructuring activities. Hence, we classified this stock-based compensation expense as a

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## FORMFACTOR, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

restructuring expense. The table above does not include this expense. Refer to Note 4 to Notes to Consolidated Financial Statements - Restructuring Charges for further details.

**Restricted Stock Units**

The fair value of restricted stock units is determined using the market closing price of our common stock on the grant date and compensation cost is recognized over the vesting period on a straight line basis. The restricted stock units generally vest over four years though we also have granted and will continue to grant such awards over a shorter vest term for employee retention purposes.

During fiscal 2015, 2014 and 2013, we granted 1,540,250 shares, 1,900,000 shares and 1,708,000 shares of restricted stock units with the weighted average grant-date fair values of \$8.64, \$6.52 and \$5.04 per share, respectively. As of December 26, 2015, the unamortized stock-based compensation balance related to restricted stock units was \$11.8 million after estimated forfeitures, which will be recognized over an estimated period of 2.03 years based on the weighted average days to vest.

**Stock Options**

The exercise price of each stock option equals the market price of our stock on the date of grant. Most options are scheduled to vest over three to four years and expire five to ten years from the grant date. The fair value of each option grant is estimated on the date of grant using the Black-Scholes option pricing model. In addition, we estimate forfeitures when recognizing compensation expense, and adjust our estimates of forfeitures over the requisite service period based on the extent to which actual forfeitures differ, or are expected to differ, from such estimates. Changes in estimated forfeitures are recognized as a change in estimate in the period of change and will also impact the amount of compensation expense to be recognized in future periods.

The following weighted-average assumptions were used in the estimated grant-date fair value calculations for stock options granted in fiscal 2015. There were no options granted in fiscal 2014 and 2013.

**Stock Options:**

Dividend yield	—	%
Expected volatility	47.5	%
Risk-free interest rate	1.6	%
Expected life (in years)	5.5	

During fiscal 2015, we granted 456,000 stock options under our approved plans with a weighted average grant-date fair value of \$3.78 per share. Our computation of expected volatility was based on a combination of historical and market-based implied volatility from traded options on our common stock. We believe that including market-based implied volatility in the calculation of expected volatility results in a more accurate measure of the volatility expected in future periods. Risk-free interest rates are yields for zero-coupon U.S. Treasury notes maturing approximately at the end of the expected option life. We determine the expected term by considering several factors, including historical option exercise behavior, post vesting turnover rates, contractual terms and vesting periods of the options granted. As of December 26, 2015, the unamortized stock-based compensation balance related to stock options was \$1.3 million after estimated forfeitures, which will be recognized over an estimated period of 3.1 years based on the weighted average days to vest.

**Employee Stock Purchase Plan**

During fiscal 2015, we issued 565,493 shares under our approved employee stock purchase plans. As of December 26, 2015, we had \$0.1 million of total unrecognized stock-based compensation expense, which will be recognized over the weighted average period of approximately one month. Compensation expense is calculated using the fair value of the employees' purchase rights under the Black-Scholes model.

## FORMFACTOR, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The following assumptions were used in estimating the fair value of employees' purchase rights under the approved employee stock purchase plans:

	Fiscal Years Ended			
	December 26, 2015	December 27, 2014	December 28, 2013	
Employee Stock Purchase Plan:				
Dividend yield	—	% —	% —	%
Expected volatility	51.78	% 41.71	% 39.80	%
Risk-free interest rate	0.12	% 0.09	% 0.13	%
Expected life (in years)	0.7	0.7	0.7	

## Note 12—Income Taxes

The components of loss before income taxes were as follows (in thousands):

	Fiscal Years Ended		
	December 26, 2015	December 27, 2014	December 28, 2013
United States	\$ (3,069	) \$ (23,230	) \$ (60,447 )
Foreign	1,798	3,135	2,665
	\$ (1,271	) \$ (20,095	) \$ (57,782 )

The components of the provision for income taxes are as follows (in thousands):

	Fiscal Years Ended		
	December 26, 2015	December 27, 2014	December 28, 2013
Current provision (benefit):			
Federal	\$ (3	) \$ (983	) \$ (770 )
State	72	(386	) 76
Foreign	198	234	287
	267	(1,135	) (407 )
Deferred provision (benefit):			
Federal	—	—	—
State	—	—	—
Foreign	(15	) 225	308
	(15	) 225	308
Total provision (benefit) from income taxes	\$ 252	\$ (910	) \$ (99 )

## FORMFACTOR, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The following is a reconciliation of the difference between income taxes computed by applying the federal statutory rate of 35% and the provision (benefit) from income taxes for fiscal 2015, 2014 and 2013 (in thousands):

	Fiscal Years Ended		
	December 26, 2015	December 27, 2014	December 28, 2013
U.S. statutory federal tax rate	\$ (445)	) \$ (7,033)	) \$ (20,224)
State taxes and credits, net of Federal benefit	17	(186)	) (345)
Amortization of stock-based compensation	907	686	923
Research and development credits	(1,872)	) (1,183)	) (560)
Foreign taxes at rates different than the U.S.	(66)	) (84)	) 162
Other permanent differences	238	(972)	) (378)
Change in valuation allowance	1,457	7,886	20,505
Other	16	(24)	) (182)
Total	\$ 252	\$ (910)	) \$ (99)

Deferred tax assets and liabilities are recognized for the future tax consequences of differences between the carrying amounts of assets and liabilities and their respective tax bases using enacted tax rates in effect for the year in which the differences are expected to be reversed. Significant deferred tax assets and liabilities consist of the following (in thousands):

	Fiscal Years Ended	
	December 26, 2015	December 27, 2014
Tax credits	\$ 30,968	\$ 28,458
Inventory reserve	14,010	16,612
Unrealized investment gains	20	—
Other reserves and accruals	5,953	7,610
Non-statutory stock options	4,936	18,096
Depreciation and amortization	13,440	14,037
Net operating loss carryforwards	119,327	120,110
Gross deferred tax assets	188,654	204,923
Valuation allowance	(176,196)	) (187,759)
Total deferred tax assets	12,458	17,164
Acquired intangibles & fixed assets	(9,177)	) (13,867)
Unrealized investment gains	—	(3)
Total deferred tax liabilities	(9,177)	) (13,870)
Net deferred tax assets	\$ 3,281	\$ 3,294

We are required to evaluate the realizability of our deferred tax assets in both our U.S. and non-U.S. jurisdictions on an ongoing basis to determine whether there is a need for a valuation allowance with respect to such deferred tax assets. During fiscal 2015 and 2014, we maintained a valuation allowance against our U.S. deferred tax assets. We intend to maintain a valuation allowance until sufficient positive evidence exists to support the realization of such deferred tax assets.

## FORMFACTOR, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The valuation allowance against deferred tax assets consisted of the following activity for the fiscal years 2015, 2014 and 2013 (in thousands):

Description	Balance at Beginning of Year	Additions	Reduction	Balance at End of Year
Allowance against deferred tax assets				
Year ended December 31, 2015	\$ 187,759	\$—	\$ (11,563	) \$ 176,196
Year ended December 31, 2014	180,913	6,846	—	187,759
Year ended December 31, 2013	\$ 163,265	\$ 17,648	\$—	\$ 180,913

At December 26, 2015, we had Federal research and development tax credit, net operating loss, and foreign tax credit carryforwards of \$21.0 million, \$298.7 million and \$2.0 million, respectively, which will expire at various dates from 2016 through 2035. We had alternative minimum tax credits of \$2.4 million which do not expire. We had California research credit and net operating loss carryforwards of \$28.4 million and \$270.7 million, respectively. The California research credit can be carried forward indefinitely while California net operating loss carryforwards will expire at various dates from 2016 through 2035. We had Japan and Singapore net operating loss carryforwards of approximately \$0.3 million and \$10.0 million, respectively. Japan net operating loss carryforwards will expire in 2022 while Singapore net operating loss carryforwards can be carried forward indefinitely.

We have not provided U.S. Federal and State income taxes, nor foreign withholding taxes, on approximately \$5.4 million of undistributed earnings for certain non-US subsidiaries, because such earnings are intended to be indefinitely reinvested. If these earnings were distributed to the U.S. in the form of dividends or otherwise, or if the shares of the relevant foreign subsidiaries were sold or otherwise transferred, we would be subject to additional U.S. income taxes (subject to an adjustment for foreign tax credits) and foreign withholding taxes, of approximately \$0.4 million. Determination of the amount of unrecognized deferred tax liability for temporary differences related to investment in these non-U.S. subsidiaries that are essentially permanent in duration is not practicable.

During fiscal 2015, there is \$6.3 million tax benefit associated with the exercise of employee stock options and other employee stock programs. During fiscal 2014 and 2013, there were no tax benefits associated with the exercise of employee stock options and other employee stock programs.

The following table reflects changes in the unrecognized tax benefits (in thousands):

	Fiscal Years Ended		
	December 26, 2015	December 27, 2014	December 28, 2013
Unrecognized tax benefit beginning balance	\$ 16,333	\$ 16,972	\$ 17,181
Additions based on tax positions related to the current year	667	498	307
Additions based on tax position from prior year	163	324	—
Reductions for tax positions of prior years	(18	) (1,109	) (60
Reductions to unrecognized tax benefits due to lapse of the applicable statute of limitations	(112	) (352	) (456
Unrecognized tax benefit ending balance	\$ 17,033	\$ 16,333	\$ 16,972

At December 26, 2015, we had total tax-effected unrecognized tax benefits of \$17.0 million of which \$1.1 million, if recognized, would impact the effective tax rate.

We recognize interest (benefit) charges and penalties related to uncertain tax positions as part of the income tax provision. We recognized interest (benefit) charges and penalties of \$50 thousand, \$(0.1) million and \$(0.2) million in fiscal 2015, 2014, and 2013, respectively. As of December 26, 2015 and December 27, 2014, we have accrued total interest charges and penalties of \$0.2 million and \$0.1 million, respectively, related to uncertain tax positions.

The amount of income taxes we pay is subject to ongoing audits by Federal, State and foreign tax authorities which might result in proposed assessments. Our estimate for the potential outcome for any uncertain tax issue is judgmental in nature. However, we believe we have adequately provided for any reasonably foreseeable outcome related to those matters. Our future results may include favorable or unfavorable adjustments to our estimated tax liabilities in the period the assessments are

## FORMFACTOR, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

made or resolved or when statutes of limitation on potential assessments expire. As of December 26, 2015 changes to our uncertain tax positions in the next 12 months that are reasonably possible are not expected to have a significant impact on our financial position or results of operations.

We and our subsidiaries file income tax returns in the U.S. Federal jurisdiction, various states and non U.S jurisdictions. The material income tax jurisdictions are the United States (Federal), California, Singapore, China and Japan. The audit of income tax returns for Federal and California for the tax years 2010 to 2012 stub period and 2010 to 2011, respectively, have been settled. However, as a result of net operating loss carryforwards, we are subject to audit for tax years 2007 and forward for Federal purposes and 2008 and forward for California purposes. For Singapore, China and Japan purposes, we are subject to audit for tax years after 2011.

On December 18, 2015, Protecting Americans from Tax Hikes Act of 2015 (PATH Act) was signed into law, which retroactively reinstated and made permanent the federal research tax credit provisions from January 1, 2015 through December 31, 2015. Since the Company has a full valuation allowance in the U.S., there is no income tax benefit recognized for federal research and development tax credit.

## Note 13—Employee Benefit Plans

We have an employee savings plan that qualifies as a deferred salary arrangement under Section 401(k) of the Internal Revenue Code. We match up to 50% of an eligible employee's contributions to a maximum of the first 1.5% of the eligible employee's contributions through a fiscal year. We also provide a tax-qualified profit sharing retirement plan for the benefit of eligible employees in the U.S. The plan is designed to provide employees with an accumulation of funds for retirement on a tax-deferred basis and provide for annual discretionary employer contributions. The total charge to operations under the 401(k) and the profit sharing retirement plans for fiscal 2015, 2014 and 2013 aggregated \$1.1 million, \$1.0 million and \$1.0 million, respectively.

## Note 14—Operating Segments and Geographic Information

Since our acquisition of MicroProbe in Fiscal 2012, we had historically operated in one reportable segment consisting of two operating segments related to our FormFactor and MicroProbe product groups. During the fourth quarter of fiscal 2015, we determined that we now operate in one reportable segment consisting of one operating segment relating to the design, development, manufacture and sale of high performance advanced probe cards as a result of the successful integration of the MicroProbe business into our overall consolidated operations. Our chief operating decision maker is the Chief Executive Officer, who reviews operating results to make decisions about allocating resources and assessing performance for the entire company.

The following table summarizes revenue by country as a percentage of total revenues based upon ship-to location:

	Fiscal Years Ended				
	December 26, 2015	December 27, 2014	December 28, 2013		
South Korea	25.2	% 19.6	% 19.8		
North America	23.4	28.1	27.2		
Taiwan	21.9	18.4	27.9		
Asia-Pacific (1)	11.1	12.9	9.2		
Japan	9.4	9.6	7.3		
Europe	9.0	11.4	8.6		
Total Revenues	100.0	% 100.0	% 100.0		

(1) Asia-Pacific includes all countries in the region except Taiwan, Japan and South Korea, which are disclosed separately.

## FORMFACTOR, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The following table summarizes revenue by product group (in thousands):

	Fiscal Years Ended		
	December 26, 2015	December 27, 2014	December 28, 2013
SoC	\$ 145,839	\$ 142,360	\$ 115,597
DRAM	125,512	110,800	92,603
Flash	11,007	15,370	23,333
Total revenues	\$ 282,358	\$ 268,530	\$ 231,533

Long-lived assets, comprising of net property, plant and equipment, goodwill and net intangibles assets are reported based on the location of the asset. Long-lived assets by geographic location are as follows (in thousands):

	December 26, 2015		December 27, 2014
North America	\$ 77,257		\$ 91,862
South Korea	1,128		1,578
Asia-Pacific (1)	689		935
Japan	295		358
Singapore	112		172
Europe	655		13
Total	\$ 80,136		\$ 94,918

(1) Asia-Pacific includes all countries in the region except South Korea, Singapore, and Japan, which are disclosed separately.

The following customers represented greater than 10% of our revenues in fiscal 2015, fiscal 2014 and fiscal 2013:

	Fiscal 2015		Fiscal 2014		Fiscal 2013	
Intel	19.6	%	19.7	%	17.7	%
Samsung	14.6		*		*	
SK hynix	14.3		16.9		16.5	
Micron	11.7		15.0		11.7	
Total	60.2	%	51.6	%	45.9	%

\* Less than 10% of revenues

#### Note 15—Selected Quarterly Financial Data (Unaudited)

The following selected quarterly financial data should be read in conjunction with our consolidated financial statements and the related notes and "Item 7: Management's Discussion and Analysis of Financial Condition and Results of Operations." This information has been derived from our unaudited consolidated financial statements that, in our opinion, reflect all recurring adjustments necessary to fairly present this information when read in conjunction with our consolidated financial statements and the related notes appearing in the section entitled "Consolidated Financial Statements." The results of operations for any quarter are not necessarily indicative of the results to be expected for any future period.



## FORMFACTOR, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

	Fiscal Quarters Ended							
	Dec. 26, 2015	Sep. 26, 2015 (2)	June. 27, 2015	March 28, 2015 (1)	Dec. 27, 2014	Sep. 27, 2014	June. 28, 2014	March 29, 2014
	(in thousands, except per share data)							
Revenues	\$71,782	\$65,862	\$73,885	\$70,829	\$71,285	\$73,934	\$67,352	\$55,959
Cost of revenues	50,591	47,407	50,582	48,040	50,337	49,792	47,328	43,634
Gross profit	21,191	18,455	23,303	22,789	20,948	24,142	20,024	12,325
Operating Expenses:								
Research and development	11,236	10,645	11,217	11,086	10,706	11,198	11,074	9,747
Selling, general and administrative	10,719	11,108	11,381	11,882	12,631	13,309	13,191	12,254
Restructuring charges, net	(3	) 59	—	503	584	28	59	1,997
Impairment of long-lived assets	—	—	8	—	390	86	—	743
Total operating expenses	21,952	21,812	22,606	23,471	24,311	24,621	24,324	24,741
Operating income (loss)	(761	) (3,357	) 697	(682	) (3,363	) (479	) (4,300	) (12,416
Interest income, net	70	65	65	85	69	75	79	79
Other income (expense), net	(36	) 982	100	1,501	155	228	(156	) (66
Income (loss) before income taxes	(727	) (2,310	) 862	904	(3,139	) (176	) (4,377	) (12,403
Provision (benefit) for income taxes	(108	) 215	24	121	(1,268	) 101	(51	) 308
Net income (loss)	\$(619	) \$(2,525	) \$838	\$783	\$(1,871	) \$(277	) \$(4,326	) \$(12,711
Net income (loss) per share:								
Basic	\$(0.01	) \$(0.04	) \$0.01	\$0.01	\$(0.03	) \$0.00	\$(0.08	) \$(0.23
Diluted	\$(0.01	) \$(0.04	) \$0.01	\$0.01	\$(0.03	) \$0.00	\$(0.08	) \$(0.23
Weighted average number of shares used in per share calculations:								
Basic	58,128	58,209	58,109	56,594	56,472	56,297	55,812	55,050
Diluted	58,128	58,209	59,094	58,838	56,472	56,297	55,812	55,050

In the first quarter of fiscal 2015, we recorded a \$1.5 million gain from a business interruption insurance claim (1) relating to a factory fire at a customer. See Note 16, Business Interruption Insurance Claim Recovery, to the Notes to Consolidated Financial Statements for further details.

(2) In the third quarter of fiscal 2015, we recorded a \$1.0 million net gain from the sale of intellectual property. See Note 9, Commitments and contingencies, to the Notes to Consolidated Financial Statements for further details.

#### Note 16—Business Interruption Insurance Claim Recovery

During fiscal 2015, we received approximately \$1.5 million as a result of a payment from our insurer arising from a business interruption insurance claim related to a factory fire at a customer during the second half of fiscal 2013. We recorded this cash receipt within “Other income, net” in our Consolidated Statements of Operations.

Note 17—Subsequent Events

Cascade Microtech Acquisition

On February 3, 2016, we entered into an Agreement and Plan of Merger under which we agreed to acquire Cascade Microtech through the merger of a wholly owned subsidiary with and into Cascade Microtech. Subject to the terms of the merger agreement, at the effective time of the merger, each outstanding share of Cascade Microtech common stock will be cancelled and converted into the right to receive (a) \$16.00 in cash, without interest, and (b) 0.6534 shares of FormFactor common stock. Cascade Microtech is an Oregon corporation that designs, develops, manufactures and markets advanced wafer probing, thermal and reliability solutions for the electrical measurement and testing of high performance semiconductor devices.

Subject to the terms of the merger agreement, at the effective time of the merger all of the outstanding and vested equity awards of Cascade Microtech will be cancelled and converted into the right to receive an amount in cash in respect of the merger consideration the shares of Cascade Microtech common stock underlying the awards would have received, and all of

FORMFACTOR, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

the outstanding and unvested equity awards of Cascade Microtech will be assumed on substantially the same terms, except that the number of shares of our common stock that will underlie the assumed award and the exercise price of any assumed option will be determined pursuant to a formula intended to preserve the intrinsic value of the original award.

Completion of the merger is subject to customary closing conditions, including approval by Cascade Microtech's shareholders and expiration of the applicable waiting period under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended, among others, and therefore has not been reflected in the financial statements included in this Annual Report on Form 10-K. There is no financing condition to our obligations under the merger agreement. We expect the merger to be completed in mid-2016.

To finance a portion of the consideration for the proposed merger, we entered into a commitment letter with certain lenders to provide a senior secured term loan facility in an aggregate amount of \$150 million. The funding of the term loan facility is subject to certain conditions, including the execution of definitive financing documentation, the consummation of the merger in accordance with the merger agreement, the absence of a Company Material Adverse Effect (as defined in the merger agreement), a minimum liquidity condition and other customary closing conditions.

The above description of the merger agreement and the proposed merger is a summary and is qualified in its entirety by reference to the merger agreement included as Exhibit 2.1 to our Current Report on Form 8-K, filed with the SEC on February 9, 2016.

## INDEX TO EXHIBITS

Set forth below is a list of exhibits that are being filed or incorporated by reference into this Annual Report on Form 10-K:

Exhibit Number	Exhibit Description	Incorporated by Reference			Exhibit Number	Filed Herewith
		Form	File No	Date of First Filing		
2.01***	Agreement and Plan of Merger dated as of August 31, 2012 among Astria Semiconductor Holdings, Inc., the Registrant, ELM Acquisition, Inc. and Fortis Advisors LLC, as Equityholder Representative	10-Q/A	000-50307	1/23/2013	33.01	
3.01	Amended and Restated Certificate of Incorporation of the Registrant as filed with the Delaware Secretary of State on June 17, 2003	S-1	333-109815	10/20/2003	3.01	
3.02	Amended and Restated Bylaws of the Registrant	8-K	000-50307	5/25/2005	3.02	
4.01	Specimen Common Stock Certificate	S-1/A	333-86738	5/28/2002	4.01	
10.01+	Form of Indemnity Agreement	S-1/A	333-86738	5/28/2002	10.01	
10.02+	Form of Change of Control Severance Agreement	10-K	000-50307	3/14/2005	10.48	
10.03+	1996 Stock Option Plan, and form of option grant	S-1	333-86738	4/22/2002	10.03	
10.04+	Incentive Option Plan, and form of option grant	S-1	333-86738	4/22/2002	10.04	
10.05+	Management Incentive Option Plan, and form of option grant	S-1	333-86738	4/22/2002	10.05	
10.06+	2002 Equity Incentive Plan, as amended, and forms of plan agreements	10-Q	000-50307	5/4/2011	10.06	
10.07+	2002 Employee Stock Purchase Plan, as amended	10-Q	000-50307	8/7/2007	10.01	
10.08+	Key Employee Bonus Plan, as amended	10-Q	000-50307	5/7/2007	10.01	
10.09+	Equity Incentive Plan, as amended and restated effective April 18, 2012, and forms of plan agreements	10-K	000-50307	3/13/2013	10.09	
10.10+	Employee Stock Purchase Plan, as amended and restated April 18, 2012	10-K	000-50307	3/13/2013	10.1	
10.11	Pacific Corporate Center Lease by and between Greenville Holding Company LLC (successor to Greenville Investors, L.P.) ("Greenville") and the Registrant dated May 3, 2001	S-1/A	333-86738	6/10/2003	10.18	
10.12	First Amendment to Pacific Corporate Center Lease by and between Greenville and the Registrant dated January 31, 2003	S-1/A	333-86738	5/7/2003	10.18.1	
10.13	Pacific Corporate Center Lease by and between Greenville and the Registrant dated May 3, 2001	S-1/A	333-86738	6/10/2003	10.19	
10.14	First Amendment to Pacific Corporate Center Lease by and between Greenville and the Registrant dated January 31, 2003	S-1/A	333-86738	5/7/2003	10.19.1	
10.15	Pacific Corporate Center Lease by and between Greenville and the Registrant dated May 3, 2001	S-1/A	333-86738	6/10/2003	10.2	
10.16+	First Amendment to Pacific Corporate Center Lease by and between Greenville and the Registrant dated January 31, 2003	S-1/A	333-86738	5/7/2003	10.20.1	
10.17+		10-Q	000-50307	11/7/2006	10.01	

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	Pacific Corporate Center Lease by and between Greenville and the Registrant dated September 7, 2004, as amended by First Amendment to Building 6 Lease dated August 16, 2006				
10.18+	Employment Offer Letter, dated August 29, 2012 to Mike Slessor	10-K	000-50307	3/13/2013	10.19+
10.19+	Tax withholding reimbursement letter between Mike Slessor and the Registrant dated December 30, 2013	10-K	000-50307	3/6/2015	10.2
16.01	Letter of PricewaterhouseCoopers LLP dated April 8, 2013	8-K	000-50307	4/8/2013	16.01
21.01	List of Registrant's subsidiaries	—	—	—	X
23.01	Consent of Independent Registered Public Accounting Firm - KPMG	—	—	—	X
24.01	Power of Attorney (included on the signature page of this Form 10-K)	—	—	—	X
31.01	Certification of Chief Executive Officer pursuant to 15 U.S.C. Section 7241, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002	—	—	—	X
31.02	Certification of Chief Financial Officer pursuant to 15 U.S.C. Section 7241, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002	—	—	—	X
32.01*	Certification of Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002	—	—	—	X

Exhibit Number	Exhibit Description	Incorporated by Reference			Exhibit Number	Filed Herewith
		Form	File No	Date of First Filing		
101.INS**	XBRL Instance Document	—	—	—	—	X
101.SCH**	XBRL Taxonomy Extension Schema Document	—	—	—	—	X
101.CAL**	XBRL Taxonomy Extension Calculation Linkbase Document	—	—	—	—	X
101.DEF**	XBRL Taxonomy Extension Definition Linkbase Document	—	—	—	—	X
101.LAB**	XBRL Taxonomy Extension Label Linkbase Document	—	—	—	—	X
101.PRE**	XBRL Taxonomy Extension Presentation Linkbase Document	—	—	—	—	X

This exhibit shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934 or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934, whether made before or after the date hereof and irrespective of any general incorporation language in any filings.

Pursuant to Rule 406T of Regulation S-T, these interactive data files are deemed not filed or part of a registration statement or prospectus for purposes of Sections 11 or 12 of the Securities Act of 1933 or Section 18 of the Securities Exchange Act of 1934 and otherwise are not subject to liability.

Confidential treatment has been requested for portions of this document. The schedules, exhibits, and annexes to this exhibit have been omitted in reliance Item 601(b)(2) of Regulation S-K and will be furnished supplementally to the SEC upon request.

+Indicates a management contract or compensatory plan or arrangement.