

FORMFACTOR INC

FORM 10-K (Annual Report)

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**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 29, 2012

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
(State or other jurisdiction of
incorporation or organization)

13-3711155
(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

Accelerated filer

Non-accelerated filer
(Do not check if a smaller
reporting company)

Smaller reporting company

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 30, 2012 (the last business day of the registrant's most recently completed second quarter) as reported by NASDAQ Global Market on that date: \$237,713,972. 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 5, 2013 was 53,941,728 shares.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive Proxy Statement for the 2013 Annual Meeting of Stockholders, which will be filed within 120 days of the end of the registrant's fiscal year ended December 29, 2012, 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.

FORMFACTOR, INC.

Form 10-K for the Fiscal Year Ended December 29, 2012

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FormFactor, the FormFactor logo and its product and technology names, including ATRE, BladeRunner, DC-Boost, Harmony, MicroSpring, MicroForce, RapidSoak, SmartMatrix, SMART Matrix 100, TouchMatrix, OneTouch, Takumi, TRE, TrueScale and TrueScale Lite, MicroProbe, the MicroProbe logo, QiLin, Mx-FinePitch, Vx-MP, Vx-RF and Apollo 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 25, 2010, December 31, 2011 and December 29, 2012.

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 risks and uncertainties. The forward-looking statements include statements concerning, among other things, our business strategy (including anticipated trends and developments in, and management plans for, 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 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. The 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 risks and uncertainties. You should not place undue reliance on these forward-looking statements. We undertake no obligation to update any of these statements for any reason. 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. As a result, we believe 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;
- our ability to improve operating efficiency to achieve operating cash flow break even in the current business environment and to better position our company for long-term, profitable growth;
- our ability to realize the benefits of certain deferred tax attributes;
- 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 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;
- our ability to integrate successfully and efficiently the operations of Astria Semiconductor Holdings, Inc., including its major subsidiary, MicroProbe Inc. (together "MicroProbe");
- 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;
- the availability or the cost of components and materials utilized in our products;
- our ability to efficiently optimize manufacturing capacity and to stabilize production yields as necessary to meet customer demand and ramp production volume at our manufacturing facilities;
- our ability to protect our intellectual property against third parties 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;
- 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 such sections.

PART I

Item 1: *Business*

We design, develop, manufacture, sell and support precision, high performance advanced semiconductor wafer probe card products and solutions. Semiconductor manufacturers use our wafer probe cards in the front-end of the semiconductor manufacturing process to perform sort and test on the semiconductor die, or chips, on a semiconductor wafer. A wafer probe card is mounted in a prober, which in turn is connected to a semiconductor tester. The wafer probe card is used as an interface to connect electrically with and test individual chips on a wafer. Using our wafer probe cards to test at this stage of the manufacturing process, our customers can reduce their cost of test by identifying defective chips prior to incurring the time and costs of packaging defective chips after singulation. We work closely with our customers on product design, as each wafer probe card is a custom product that is specific to the chip and wafer designs of the customer.

We were incorporated in 1993 and we introduced our first wafer probe card based on our MicroSpring® interconnect technology in 1995. Historically, sales for wafer probe cards for testing Dynamic Random Access Memory, or DRAM, devices have made up the majority of our revenues. In October 2012, we completed the acquisition of Astria Semiconductor Holdings, Inc., including its subsidiary MicroProbe, Inc., (together "MicroProbe acquisition"). The majority of MicroProbe's revenue is made up of sales of wafer probe cards for testing System-on-Chip, or SoC devices.

Our business is generally subject to the cyclical nature of the semiconductor industry. In fiscal 2008 through 2012, our financial performance was negatively impacted not only by semiconductor industry specific events, but also by global macro-economic issues and by product transition and other business execution challenges. In fiscal 2008, our revenue declined 55% from our fiscal 2007 revenue level, as the global economic crisis was accompanied by a collapse in demand for semiconductor chips in general, and for DRAM chips in particular. In fiscal 2009, we were late in our development and introduction of a competitive next-generation wafer probe card for memory devices and our revenue declined 36% from our fiscal 2008 revenue level. These dramatic revenue drops were accompanied by gross margin challenges resulting in operating losses in both fiscal 2008 and 2009. In fiscal 2010, our revenue increased by 39% over fiscal 2009, but the evaluation and qualification of our Matrix architecture-based wafer probe cards took longer than we anticipated at many customers, which negatively impacted demand and revenues from our DRAM and Flash memory wafer probe cards. We also realized an operating loss in fiscal 2010.

In fiscal 2011, total sales for the global semiconductor market were relatively unchanged compared to 2011. The moderate growth in SOC and NAND Flash devices was offset by substantial reductions in DRAM and NOR Flash devices. The DRAM and NOR weakening was severe in the second half of 2011 due to the impact of Thailand flooding on personal computer output and selling price erosion for DRAM semiconductor devices. In Fiscal 2012, DRAM devices experienced a continued weakening, particularly in the second half of the year, due to lower personal computer demand and falling semiconductor prices. Our sales declined 10% in fiscal 2011 compared to fiscal 2010, and declined 6% in fiscal 2012 compared to fiscal 2011, excluding the impact of the MicroProbe acquisition. We incurred operating losses in both fiscal years.

We acquired MicroProbe to better address the changing demand in the type of semiconductor devices that is resulting from the structural change in the computing industry from a PC focus to a mobile computing focus. The acquisition of MicroProbe enables us to leverage the combination of two advanced wafer probe card manufacturers and expand our SoC product portfolio to diversify our business. Since our acquisition of MicroProbe, we have been working as a single worldwide organization to combine our capabilities in technologies. The acquisition created the largest probe card supplier in the semiconductor industry. Combined we believe we have the broadest portfolio of products and the largest customer service and support organization in the industry.

With the acquisition of MicroProbe, we can now assist semiconductor manufacturers in bringing new generations of SoC devices to market faster and more economically. SoC devices include microprocessors, graphic processors, mobile radio frequency ("RF"), and analog and mixed-signal products - imperative drivers of today's sophisticated, multi-functional consumer mobile devices.

MicroProbe experienced steady growth from 2008 to 2012 and in 2011, was ranked as the number one supplier of advanced non-memory probe cards by VLSI Research, Inc. This growth was attributable to two factors including the accelerated overall market migration to advanced probe cards for SoC chip testing, along with the strong adoption of MicroProbe's advanced MEMS-based products at leading edge mobile SoC chip manufacturers.

Products

Our products are based on our proprietary technologies, including our MicroSpring interconnect technology and design tools. Our MicroSpring interconnect technology, which includes resilient spring-like contact elements, enables us to produce wafer probe cards for applications that require reliability, speed, precision and signal integrity. We manufacture our MicroSpring contact elements through precision micro-machining and scalable semiconductor-like wafer fabrication processes. Our MicroSpring contacts are springs that optimize the relative amounts of force on, and across, a bond pad during the test process and maintain their shape and position over a range of compression. These characteristics allow us to achieve reliable, electrical contact on either clean or oxidized surfaces, including bond pads on a wafer. MicroSpring contacts enable our wafer probe cards to make hundreds of thousands of touchdowns with minimal maintenance for many device applications. The MicroSpring contact can be attached to many surfaces, or substrates, including printed circuit boards, silicon wafers, ceramics and various metalized surfaces.

We are continually improving our proprietary technologies in order to respond to our customers' increasing requirements to test smaller, faster and more complex semiconductor devices. We continue to invest in research and development activities around our interconnect technologies, including our microelectromechanical systems, or MEMS technology, as our MicroSpring contacts need to scale in size with the continuing evolution of semiconductors.

Our MicroSpring contacts include geometrically precise tip structures. These tip structures are the part of our wafer probe cards that come into physical contact with the devices being tested, and are manufactured using proprietary micro-machining, semiconductor-like processes. These tip structures enable precise contact with small bond pad sizes and pitches. Our technology allows for the design of specific geometries of the contact tip that deliver precise and predictable electrical contact for a customer's particular application.

Our wafer probe cards are custom products that are designed to order for our customers' unique wafer designs. For high parallelism memory test applications, our products require large area contact array sizes because they must accommodate tens of thousands of simultaneous contacts. Our current technology, including our proprietary advanced tester resource enhancement, or ATRE technology, enables probe cards for certain applications to be populated with over 75,000 contacts. This requirement poses fundamental challenges that our technology addresses, including the planarity of the array, the force needed to make contact and the need to touch all bond pads with equal accuracy. We have developed wafer probe cards that use array sizes ranging from 23 mm by 23 mm up to array sizes suitable for contacting all die on a 300 mm wafer simultaneously.

We have invested and intend to continue to invest considerable resources in our wafer probe card design tools and processes. These tools and processes enable automated routing and trace length adjustment within our complex multi-layer printed circuit boards and greatly enhance our ability to rapidly design and lay out complex printed circuit board structures. Our proprietary design tools also enable us to design wafer probe cards particularly suited for testing today's low voltage, high power chips, which require superior power supply performance. Our MicroSpring interconnect technology is used to provide a very low inductance, low resistance electrical path between the power source and the chip under test.

Because our customers typically use our wafer probe cards in a wide range of operating temperatures, as opposed to conducting wafer probe tests at one predetermined temperature, we have designed complex thermal compensation characteristics into our products, including our proprietary RapidSoak thermal compensation technology. We select our wafer probe card materials after careful consideration of the potential range of test operating temperatures and design our wafer probe cards to provide for a precise match with the thermal expansion characteristics of the wafer under test. As a result, our wafer probe cards are able to accurately probe over a large range of operating temperatures. This feature enables our customers to use the same wafer probe card for both low and high temperature testing without a loss of performance. In addition, for those testing situations that require positional accuracy at a specific temperature, we have designed wafer probe cards optimized for testing at such temperatures.

With the acquisition of MicroProbe, we deliver a suite of advanced vertical or flip chip (area array) products including vertical MEMS, Cobra-style vertical and Spring-pin vertical probe cards, and cantilever probe cards. Our vertical products are primarily used to probe SoC semiconductor chips with advanced packages in grid-array layout. Examples of the advanced

packages include Wafer-Level-Packaging (WLP), flip-chip and copper pillar packaging technologies. These technologies have diverse wafer test requirements. To address these test requirements, we offer a wide range of propriety probe designs and metallurgy choices, individually optimized for the targeted applications. Cantilever products are primarily used to probe peripheral-layout pads on wire-bonded SoC chips. Our products help our customers to increase wafer test throughputs and achieve optimal test yield.

Through on-going investments in our technology, we scale our products to meet customers' future technical roadmap requirements for performance and geometry shrinks. Our high-precision vertical MEMS probe technology enables the necessary pitch shrinks to achieve sub-90nm grid-array layouts. These MEMS probes incorporate a composite (multi-material) structure that allows for independent optimization of probe metallurgy choices for both electrical and mechanical characteristics. This enables ultra-low-contact resistance during probing which enhances wafer test yield, especially in emerging IC packaging materials like copper pillars and SnAg bumps.

Customers

Our customers include manufacturers in the DRAM, Flash and SoC markets. Our customers use our wafer probe cards to test DRAM chips, including DDR, DDR2, DDR3, SDRAM, PSRAM, mobile DRAM, and Graphic DRAM; NOR and NAND flash memory chips; and SoC devices, including serial data devices, chipsets, microprocessors, microcontrollers, graphic processors, mobile RF, analog and mixed-signal devices.

Two customers accounted for 41.8% of our revenues in fiscal 2012 , three customers accounted for 37.7% of our revenues in fiscal 2011 and three customers accounted for 44.8% of our revenues in fiscal 2010 , as follows:

	Fiscal 2012	Fiscal 2011	Fiscal 2010
SK hynix (1)	29.4%	16.3%	12.8%
Elpida Memory (2)	*	*	20.0
Samsung (3)	12.4	11.2	12.0
Micron Technology(4)	*	10.2	*
Total	41.8%	37.7%	44.8%

- (1) Includes SK hynix and its consolidated subsidiary SK hynix Semiconductor (China) Ltd.
- (2) Includes Elpida Memory Inc. and its consolidated subsidiary Rexchip Electronics Corporation.
- (3) Includes Samsung Semiconductor and its consolidated subsidiary Samsung Austin Semiconductor.
- (4) Includes Micron Technology, Inc. and its consolidated subsidiaries, including Micron Semiconductor Asia Pte. Ltd., Micron Semiconductor Italia S.r.L., Micron Semiconductor Israel Ltd. and Micron Japan Ltd.

* Less than 10% of revenues.

The percentages above reflect customers and their consolidated subsidiaries as of December 29, 2012 . Prior period consolidated subsidiaries have been updated to reflect the current customer compositions.

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—Revenue by Geographic Region" and Note 15—Operating Segment and Geographic Information of the Notes to our Consolidated Financial Statements, which are included elsewhere in this Annual Report on Form 10-K.

Backlog

Our backlog was \$27.0 million at December 29, 2012 compared to \$14.6 million at December 31, 2011 . We manufacture our wafer probe cards based on order backlog and customer commitments. In addition, due to our customers' short delivery time requirements, we at times begin production of our products, or order product components from third party suppliers, in anticipation of receiving orders for our products. However, backlog includes only orders for which written authorizations have been accepted and shipment dates within 12 months have been assigned. In addition, backlog includes service 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 and/or a reduction in backlog during any particular period could have a material adverse effect on our business and results of operations.

Manufacturing

Our wafer probe cards are custom products that we design and manufacture to order for our customers' unique wafer designs. Our proprietary manufacturing processes can generally be divided into a front-end process, which includes wire bonding, photolithography, plating and metallurgical processes, dry and electro-deposition, pick and place assembly and complex interconnection system design, and a back-end process, which includes assembly. The critical steps in our manufacturing process are performed in a Class 100 clean room environment.

We depend upon suppliers for some critical components of our manufacturing processes, including ceramic substrates and complex printed circuit boards, and for materials used in our manufacturing processes. We also rely on suppliers to provide certain contacts 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 and component shortages. We continue to evaluate alternative sources of supply for these components and materials.

Our primary manufacturing facilities are located in Livermore, San Jose and Carlsbad, California. We also perform certain probe card manufacturing operations in our facility in Suzhou, China. We also have a small manufacturing facility that builds semiconductor test equipment, but not wafer probe cards, in Carson City, Nevada.

We maintain repair and service capabilities in Livermore, San Jose, and Carlsbad, California, United States; Carson City, Nevada, United States; Austin, Texas, United States; Gyeonggi-do, South Korea; Yokohama City, Japan; Hiroshima, Japan; Suzhou, China; Jubei City and 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 wafer probe test solutions and other technologies related to our MicroSpring interconnect and vertical probe technologies are integral to maintaining our competitive position. We continue to invest considerable time and resources in creating structured processes for undertaking, tracking and completing our development projects, and plan to implement those developments into new product or technology offerings. We continue to allocate significant resources to these efforts and to use automation and information technology to provide additional efficiencies in our research and development activities.

Research and development expenses were \$40.1 million for fiscal 2012 , \$43.5 million for fiscal 2011 and \$55.4 million for fiscal 2010 .

Our research and development activities, including our product engineering activities, are directed by individuals with significant expertise and industry experience.

Sales and Marketing

We sell our products utilizing a proprietary sales model that emphasizes the customer's total cost of ownership as it relates to the costs of test. With this sales model, we strive to demonstrate how test costs can be reduced by simulating the customer's test floor environment, including testers and probers, utilizing our products and comparing the overall cost of test to that of conventional and competitive wafer probe cards.

We sell our products worldwide primarily through a combination of a global direct sales force, independent sales representatives and value added resellers.

Our sales and marketing staff, located in the United States, China, Germany, Italy, Japan, Singapore, South Korea, and

Taiwan, work closely with customers 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 field application engineers that support our customers as they integrate our products into their manufacturing processes. Through these customer relationships, we develop a close understanding of customer and product requirements, thereby accelerating our customers' production ramps.

Environmental Matters

We are subject to 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 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 2012 or 2011. In fiscal 2010 we did receive one notice of violation from the City of Livermore regarding a violation of certain applicable waste water discharge limits. For the notice received, we promptly investigated the violation, took what we believed to be appropriate steps to address the cause of the violation, and implemented corrective measures to prevent a recurrence. No provision has been made for loss from environmental remediation liabilities associated with our facilities because we believe that it is not probable that a liability has been incurred as of December 29, 2012.

While we believe that we are in compliance in all material respects with the environmental laws and regulations that apply to us, in the future, we may receive additional environmental violation notices, and if received, final resolution of the violations identified by these notices could harm our operations, which may adversely impact our operating results and cash flows. 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 also harm our operations or subject us to monetary liabilities, thereby adversely impacting our operating results and cash flows.

We are also subject to new 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. Among other things, the implementation of these rules could adversely affect the sourcing, availability and pricing of minerals we use in our products, will require us to incur additional costs to comply with the disclosure requirements and we may face difficulties in satisfying customers who require that all of the products are certified as conflict mineral free.

Competition

The highly competitive wafer probe card market comprises many domestic and foreign companies, and has historically been fragmented with many local suppliers servicing individual customers. Our current and potential competitors in the wafer probe card market include Advantest Corporation, Aehr Test Systems, AMST Co., Ltd., BucklingBean Solutions, Cascade Microtech, Inc., Feinmetall GmbH, Korea Instrument Co., Ltd., Japan Electronic Materials Corporation, SV Probe, Inc., Micronics Japan Co., Ltd., Microfriend Inc., TSC MEMSYS Corporation, Technoprobe Asia Pte. Ltd., Tokyo Cathode Laboratory Co., Ltd., Tokyo Electron Ltd., TSE Co., Ltd., Wentworth Laboratories, Inc., and Will Technology Co., Ltd, among others. In addition to the ability to address wafer probe card performance issues, the primary competitive factors in the industry in which we compete include product performance quality and reliability, price, total cost of ownership, lead times, the ability to provide prompt and effective customer service, 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 that our competitors will enhance their current wafer probe products and that they may introduce new products that will be competitive with our wafer probe cards. In addition, it is possible that new competitors, including test equipment manufacturers, may offer new technologies that reduce the value of our wafer probe cards.

Additionally, semiconductor manufacturers may implement chip designs that include built-in self-test capabilities or similar functions or methodologies that increase test throughput and eliminate some or all of our current competitive advantages. Our ability to compete favorably may also be adversely affected by (1) delays in qualification of our new products, (2) low volume orders that do not meet our present minimum volume requirements, (3) very short cycle time requirements which may be difficult for us to meet, (4) long-standing relationships between our competitors and certain semiconductor manufacturers and (5) semiconductor manufacturer test strategies that include low performance semiconductor testers.

Intellectual Property

Our success depends in part upon our ability to continue to innovate and invest in research and development to meet the semiconductor 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.

As of December 29, 2012, we had 707 issued patents, of which 489 are United States patents and 218 are foreign patents. The expiration dates of these patents range from 2013 to 2031. Our issued patents cover many of the features of our interconnect technology, as well as some of our inventions related to wafer probe cards and testing, wafer-level packaging and test, sockets and assemblies and chips. In addition, as of December 29, 2012, we had 260 patent applications pending worldwide, including 65 United States applications, 188 foreign national or regional stage applications and 7 Patent Cooperation Treaty applications. We cannot provide any assurance that our current patent applications, or any future patent applications that we may file, will result in a patent being issued with the scope of the claims we seek, or at all, or whether any patents that we may obtain will not be challenged or invalidated. Even if additional patents are issued, our patents might not provide sufficiently broad coverage to protect our proprietary rights or to avoid a third party claim against one or more of our products or technologies.

We have both registered and unregistered trademarks, including FormFactor, ATRE, DC-Boost, MicroSpring, MicroForce, RapidSoak, SmartMatrix, SmartMatrix 100, TouchMatrix, OneTouch, Takumi, TRE, TrueScale, TrueScale Lite, the FormFactor logo, MicroProbe, the MicroProbe logo, QiLin, Mx-FinePitch, Vx-MP, Vx-RF and Apollo.

We routinely require our employees, customers, suppliers and potential business partners to enter into confidentiality and non-disclosure agreements before we disclose to them any sensitive or proprietary information regarding our products, technology or business plans. We require our employees to assign to us proprietary information, inventions and other intellectual property they create, modify or improve.

Legal protections afford only limited protection for our proprietary rights. We also may not be successful in our efforts to enforce our proprietary rights. To date, for example, we have been unsuccessful in our efforts to enforce certain of our patent rights and obtain injunctive relief for violation of those rights in South Korea, and through U.S. courts and the U.S. International Trade Commission, or ITC. Notwithstanding our efforts to protect our proprietary rights, unauthorized parties may attempt to copy aspects of our products or to obtain and use information that we regard as proprietary. From time to time, we have become aware of situations where others are or may be infringing on our proprietary rights. We evaluate these situations as they arise and elect to take actions against these companies as we deem appropriate. Others might independently develop similar or competing technologies or methods, design around our patents, or attempt to manufacture and sell infringing products in countries that do not strongly enforce intellectual property rights or hold invalid our intellectual property rights. In addition, leading companies in the semiconductor industry have extensive patent portfolios and other intellectual property with respect to semiconductor technology. Actions have been filed in the U.S. Patent and Trademark Office and patent offices in other countries, challenging the validity of certain of our patents. In the future, we might receive claims that we are infringing intellectual property rights of others or that our patents or other intellectual property rights are invalid. We have received in the past, and may receive in the future, communications from third parties inquiring about our interest in licensing certain of their intellectual property or more generally identifying intellectual property that may be of interest to us.

We have invested significant time and resources in our technology and as a part of our ongoing efforts to protect the intellectual property embodied in our proprietary technologies, we may pursue actions to enforce our intellectual property rights against infringing third parties.

For a description of the material patent-related proceedings in which we are involved, see "Item 3: Legal Proceedings".

Employees

As of December 29, 2012, we had 1,021 regular full-time employees, including 238 in research and development, 121 in sales and marketing, 90 in general and administrative functions, and 572 in operations. By region, 737 of our employees were in North America, 78 in Singapore, 76 in China, 42 in Japan, 41 in South Korea, 40 in Taiwan, and 7 in Europe. No employees are currently covered by a collective bargaining agreement. We believe that 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 States 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 29, 2012 and their current occupations are set forth below.

Name of Director	Age	Current Occupation
G. Carl Everett, Jr.(1)	62	Venture Partner at Accel LLP
Lothar Maier	57	Chief Executive Officer and Director of Linear Technology Corporation
Thomas St. Dennis	59	Chief Executive Officer and Director of FormFactor, Inc.
Edward Rogas, Jr.	72	Director of Vitesse Semiconductor Corporation and Vignani Technologies Pvt Ltd
Michael W. Zellner	57	Director of FormFactor, Inc.
Richard DeLateur	54	Director of FormFactor, Inc.

(1) Mr. Everett became the Chairman of our Board of Directors on December 26, 2010.

G. Carl Everett, Jr. has served as a Director since June 2001 and our Chairman since December 2010 and served as our interim Chief Executive Officer from May 2010 to September 2010, as well as our Executive Chairman from September 2010 to December 2010. Mr. Everett founded GCE Ventures, a venture advisement firm, in April 2001. Mr. Everett has served as a venture partner at Accel LLP, a venture capital firm, since 2002. From February 1998 to April 2001, Mr. Everett served as Senior Vice President, Personal Systems Group of Dell Inc. During 1997, Mr. Everett was on a personal sabbatical. From 1978 to December 1996, Mr. Everett held several management positions with Intel Corporation, including Senior Vice President and General Manager of the Microprocessor Products Group, and Senior Vice President and General Manager of the Desktop Products Group. Mr. Everett currently serves on the board of directors of three privately held companies. Mr. Everett holds a B.A. in business administration and an honorary Doctorate of Laws from New Mexico State University.

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, which is a publicly traded company, 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, most recently as 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.

Thomas St. Dennis has served as our Chief Executive Officer and a Director since September 2010, when he joined our company. Mr. St. Dennis previously held various positions at Applied Materials, Inc. from 1992 to 1999 and again from 2005 to 2009. His most recent role at Applied Materials, Inc. was the Senior Vice President and General Manager of the Silicon Systems Group. He also worked at Novellus Systems, Inc. as the Executive Vice President of Sales and Marketing from 2003 to 2005. From 1999 to 2003 Mr. St. Dennis was the President and CEO of Wind River Systems, Inc. Mr. St. Dennis holds a B.S. in Physics and a M.S. in Physics, both from UCLA.

Edward Rogas, Jr. has served as a Director since October 2010. Mr. Rogas currently serves on the Boards of Vitesse Semiconductor Corporation and Vignani Technologies Pvt Ltd. Mr. Rogas served as a Director of Photon Dynamics, Inc., from May 2006 to October 2008. Mr. Rogas held management positions at Teradyne, Inc. for over 30 years, including serving as Senior Vice President from 2000 through 2005. Mr. Rogas holds degrees of M.B.A. (with distinction) from Harvard Business

School and B.S. from the United States Naval Academy.

Michael W. Zellner has served as a Director since April 2011. Mr. Zellner, has over 25 years of financial experience in the high tech industry, most recently as the CFO of PMC-Sierra (March 2001 - 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.

Richard DeLateur has served as a Director since May 2011. 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.

Executive Officers. Our executive officers, their ages and their positions with our company as of December 29, 2012 are set forth below.

Name	Age	Position
Thomas St. Dennis	59	Chief Executive Officer
Michael M. Ludwig	51	Chief Financial Officer
Stuart L. Merkadeau	51	Senior Vice President, General Counsel and Secretary

Michael M. Ludwig has served as our Chief Financial Officer since May 2011. Mr. Ludwig has 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 privately held company 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.

Stuart L. Merkadeau has served as one of our Senior Vice Presidents since October 2003 and as our General Counsel and Secretary since October 2002. Mr. Merkadeau previously served as one of our Vice Presidents from October 2002 to September 2003, and as our Vice President of Intellectual Property from July 2000 to October 2002. From 1990 to July 2000, Mr. Merkadeau practiced law as an associate and then a partner with Graham & James LLP, where he specialized in licensing and strategic counseling in intellectual property matters. Mr. Merkadeau is admitted to practice in California and registered to practice before the U.S. Patent and Trademark Office. Mr. Merkadeau holds a B.S. in industrial engineering from Northwestern University and a J.D. from the University of California at Los Angeles.

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 immaterial may also impair our business operations.

We have incurred and will continue to incur significant costs related to our acquisition of Astria Semiconductor Holdings, Inc., including its subsidiary MicroProbe, Inc., and the acquisition may not be successful.

On October 16, 2012, we completed our acquisition of Astria Semiconductor Holdings, Inc., including its subsidiary MicroProbe, Inc. (together "MicroProbe acquisition"), which is our most substantial acquisition to date. See Note 3 to the Consolidated Financial Statements included elsewhere in this Annual Report on Form 10-K for a more complete description of the acquisition. Astria transitioned from being a standalone privately-held corporation to a wholly-owned subsidiary of a public company. This combination entails many changes, including the integration of MicroProbe, its personnel and its systems with those of FormFactor. These transition activities are complex and we have incurred and will continue to incur significant costs related to the acquisition, and the commercial and financial success of the acquisition is subject to many risks as set forth below:

- We might not be successful in integrating MicroProbe's employees, products and technology with our existing business, and such integration may divert significant management attention from our existing business;
- We may realize greater expenses than we anticipated from the combination of the two companies;
- We may fail to realize synergies that we anticipated from the combination of the two companies;
- We may fail to retain key MicroProbe executives and employees, which could reduce the likelihood of success of the acquisition;
- We may encounter difficulties in the assimilation of employees and corporate cultures;
- The combination of the two companies may not deliver to our customers the benefits that we have anticipated, including a broader range of products, improved product service and support and enhanced R&D programs, and our customers may reduce their aggregate spending on MicroProbe and FormFactor products;
- We may assume unforeseen legal, regulatory, intellectual property or other liabilities;
- We will have less cash available for other purposes, including acquisitions of technologies or businesses.

If any of these factors impairs our ability to integrate our operations with those of MicroProbe's successfully or on a timely basis, we may not be able to realize the anticipated synergies, business opportunities and growth prospects from combining the businesses. In addition, we may be required to spend additional time or money on integration that otherwise would be spent on the development and expansion of our business.

In addition, the market price of our common stock may decline if the integration of the businesses of FormFactor and MicroProbe is unsuccessful, takes longer than expected or fails to achieve financial benefits to the extent anticipated by financial analysts or investors, or the effect of the business combination on the financial results of the combined company is otherwise not consistent with the expectations of financial analysts or investors.

We may make additional acquisitions and investments, which could put a strain on our resources, cause ownership dilution to our stockholders and adversely affect our financial results.

Integrating newly acquired businesses, products or technologies into our company could put a strain on our resources, could be expensive and time consuming, may 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, 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.

If goodwill or other intangible assets that we record 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.

Our delay in qualifying our next generation products at certain of our customers could result in the loss of market share at those customers, which could negatively impact our business and financial results.

We may suffer from delays in qualifying our next-generation products at our customers. As an example, in fiscal 2010 we transitioned customers from our Harmony platform products to our SmartMatrix and TouchMatrix product lines and

notified our customers of our end-of-life plans for our Harmony products. Although we believe our new SmartMatrix and TouchMatrix products enable our customers to lower their cost of ownership and we completed the qualification phase of this transition, we were late to market with these new products and lost market share as we made this product transition. This share loss was the result of the time required for SmartMatrix and TouchMatrix product qualifications and of our customers' manufacturing lead times as they moved from qualification volumes to full commercial production volumes, which resulted in continued lost opportunities for us and negatively impacted our business, financial and operating results. Because of this market timing, our products were not used by certain of our customers in their high volume production runs for certain devices, which resulted in our losing follow-on orders for those devices, which had a negative impact on our business and financial results.

In fiscal 2011 we engaged with certain customers on a next-generation, or evolution, of our SmartMatrix product which enables greater parallelism, and also with a SoC customer on a next-generation vertical probe technology. In the first quarter of our fiscal 2013, we announced that we suspended development activities specific to of our next generation Matrix platform and will consolidate our technologies and development to extend the capabilities of the current Matrix platform. If this consolidation is not successful, or does not extend the capabilities of our products as anticipated, we may lose sales and our financial results will be negatively impacted. It is also possible that our efforts focused on our next-generation vertical probe technology will not be successful, which could negatively impact our revenues.

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

The recent and historical global economic and semiconductor industry downturns negatively affected and could continue to negatively affect our business, results of operations and financial condition. We may experience continued declines in demand for our probe cards resulting from our customers continuing 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 wafer probe cards. We may experience continued pricing pressure on certain of our products, which may reduce our gross margins. A protracted downturn could cause additional customers to file for bankruptcy protection as occurred in 2009 with our customers Spansion and Qimonda, and in 2012 with our customer Elpida, resulting in our loss of revenue. In the past environment, customers were seeking extended payment terms or delaying payment for our products past their original due dates, which could impact their payment histories resulting in our deferral of revenue and which could increase our potential bad debt exposure.

We may also experience the insolvency of key suppliers, 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.

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 does not place, cancels, reduces or delays a purchase of 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 have accounted for a significant portion of our revenues in any particular period. Two customers represented 42% of total revenues in fiscal 2012, three customers represented 38% of total revenues in fiscal 2011 and three customers represented 45% of total revenues in fiscal 2010. In fiscal 2012, 2011 and 2010, our ten largest customers accounted for 78%, 80% and 82% 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. As a result of the global economic and semiconductor industry downturns, we have experienced significant declines in our revenues. In the future, the cancellation, reduction or deferral of even a small number of purchases of our products could significantly reduce our revenues in any particular period. Cancellations, reductions or deferrals could result from a delay in the recovery of the semiconductor industry, a weaker than anticipated recovery, 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 bad-debt reserve to the extent certain of our customers continue to face financial difficulties during this downturn. It is also possible that if we make the decision to initiate legal proceedings against customers to seek payment of outstanding receivables that it will negatively impact a customer relationship and result in lost revenues in the future. 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.

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 wafer 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 wafer 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 and potential competitors include Advantest Corporation, Aehr Test Systems, AMST Co., Ltd., BucklingBean Solutions, Cascade Microtech, Inc., Feinmetall GmbH, Korea Instrument Co., Ltd., Japan Electronic Materials Corporation, SV Probe, Inc., Micronics Japan Co., Ltd., Microfriend Inc., TSC MEMSYS Corporation, Technoprobe Asia Pte. Ltd., Tokyo Cathode Laboratory Co., Ltd., Tokyo Electron Ltd., TSE Co., Ltd., Wentworth Laboratories, Inc., and Will Technology Co., Ltd, among others.

Many of our current and potential competitors have greater name recognition, 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 wafer 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 with 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 wafer 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. To date, we have not been successful in our efforts to enforce our proprietary rights and obtain injunctive relief for violation of those rights in South Korea and in 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 have spent in the past, and may be required to spend in the future, significant resources to monitor and protect our intellectual property rights. We presently believe that it is likely that several of our competitors are using methodologies or have implemented structures into certain of their products that are covered by one or more of our intellectual property rights. We have in the past brought claims to protect our 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. Finally, 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 and at the same time are increasing in speed and functionality and becoming less expensive to produce. Examples of trends driving demand for technological research and development include semiconductor manufacturers' transition to 2x 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, Cu Pillar, and Through-Silicon-Via (TSV) technologies. Our customers expect that they will be able to integrate our wafer probe cards into any manufacturing process as soon as it is deployed. 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;
- transition our products to new manufacturing technologies;
- 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.

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

The demand for wafer 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 wafer probe cards required to test a given volume of devices declines. Therefore, advances in the test process could cause us to lose sales. Further, most 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 life of the product 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, as they exist today and as they may be developed in the future, 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. Often, we time our product introductions to the introduction of new test equipment platforms or to enable a manufacturer's test roadmap when it elects to retain existing test platforms but requires certain test throughput. Because our customers require both test equipment and wafer probe cards, any delay or disruption in the introduction of new test equipment platforms would negatively affect our growth.

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 wafer probe cards depends in large part upon the demand for semiconductor devices and our customers' product roadmaps. For example, the DRAM market continued to be impacted negatively in the fourth quarter of fiscal 2012 as secular changes in the personal computer markets significantly lowered demand for commodity DRAM. This negative 2012 trend was forecasted to continue through 2013 and into 2014 by some of our customers, which resulted in certain customers planning lower investment in DRAM test and lower spending on DRAM probe cards for commodity DRAM application. As a result we may make changes to our operational or R&D activities to reduce the breadth of our investments in certain market segments. For example, in the first quarter of fiscal 2013, we announced that we suspended development activities specific to our next generation Matrix platform and will consolidate our technologies and development to extend the capabilities of the current Matrix platform. These changes were implemented in light of the lower demand for commodity DRAM. If this consolidation is not successful, or does not extend the capabilities of our products as anticipated, we may lose sales and our financial results will be negatively impacted.

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 and impairment charges related to our long-lived assets in fiscal 2012, fiscal 2011, and fiscal 2010. 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 required to write off additional inventory if our product build plans or usage of inventory experience further declines, and such additional write-offs could constitute material charges. In addition, a further decline in our stock price or significant adverse change 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 material 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 2012 and into 2013 we conducted reductions in our work force as part of company-wide cost reduction plans. These plans were intended to help focus our resources more strategically towards business needs and industry requirements as part of our global reorganization activities. We expect to realize cost savings from these restructuring actions. Our business, financial condition and operating results could be materially adversely affected if we experience unanticipated inefficiencies as a result of our restructuring activities, such as impaired customer relationships caused by reduced headcount, or delay in ramping the manufacture of our SmartMatrix and TouchMatrix products. 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 2012 and into 2013, and are continuing to pursue measures to improve our operating efficiency. Such measures have included workforce reductions, the implementation of a shared service center, the consolidation of manufacturing capacity and the centralization of support functions to regional and global shared service centers. 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 design, application and service capabilities to improve customer responsiveness, changing our manufacturing structure for shorter cycle time and improved product delivery capabilities, and realigning our research and development efforts, and continue to motivate and retain our key employees, we may experience continued deterioration in our business and our company might not succeed. In addition, as the business environment improves, if we are unable to proactively and effectively manage our operations and/or realign our controls, systems and infrastructure to changing business conditions, 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. Adverse general economic conditions may also impair the recovery of our business.

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.

Changes in our tax rates, inability to realize our deferred tax assets or exposure to additional tax liabilities could adversely affect our operating results.

We are subject to income taxes in both the United States and various foreign jurisdictions, and our domestic and international tax liabilities are subject to the allocation of expenses in different jurisdictions. The amount of income taxes we pay are subject to audits in various jurisdictions and a material assessment by a governing tax authority could adversely affect our operating results. Our effective tax rate could be adversely affected by changes in the mix of earnings in countries with different statutory tax rates or changes in tax laws. Realization of our deferred tax assets, which are predominantly in the United States, is dependent on our ability to generate sufficient future taxable income. In 2010, we determined that we would not be able to realize some portion of our deferred tax assets in the future, so we recorded a valuation allowance against the deferred tax assets that resulted in additional income tax expense. This valuation allowance does not limit our ability to utilize our federal and state deferred tax assets to offset future U.S. profits.

Environmental and other disasters, such as flooding, earthquakes, 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, such as the March 2011 earthquake off the coast of Japan and the resulting tsunami and disaster at certain nuclear power plants in Japan. For instance,

while our design operations in Tokyo, Japan, and our repair facilities in Yokohama, Japan and Hiroshima, Japan were all not damaged by the March 2011 disasters in Japan, it is possible that our operations could be impacted in the future by the consequences of those events or similar future events. The facilities of certain of our suppliers, including suppliers of our ceramics, our printed circuit boards and certain of our mechanical parts, are located in Japan. While our suppliers did not report any significant damage to their facilities and they resumed operations consistent with the power usage guidelines in their respective areas, the supply chains for certain of our suppliers were negatively impacted. Additionally, the flooding in Thailand 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. 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.

Cyclical in the semiconductor industry is currently adversely impacting our sales and may do so 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 continue to 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 personal computers and cell phones, that use semiconductors. Semiconductor manufacturers generally sharply curtail their spending, including their equipment spending, and defer their adoption of emerging technologies during industry downturns 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 wafer probe cards by our semiconductor manufacturer customers, which is what we are experiencing in this current downturn. Accordingly, if we are unable to 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 continue to decline and cause us to experience further operating losses.

If we are unable to efficiently manufacture and ramp production of 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, 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, and expansion of manufacturing capacity and ramp of production volume to meet customer demand, 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 complexity of customer design requirements, including integration of wafer probe cards with varying customer test cell environments and testing of semiconductor devices over a wide temperature range. For example, we experienced challenges transitioning our Harmony architecture-based products from a lower-volume, engineering-assisted process to a high-volume manufacturing process. These problems resulted in missed opportunities with customers. While we ramped commercial volume manufacturing of our Matrix architecture products at a significantly greater rate than our Harmony architecture products, design and manufacturing delays related to our Matrix architecture products resulted in qualification at certain customers taking longer than we anticipated. Delayed qualification caused 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 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, particularly among manufacturers of DRAM devices, would reduce our customer base and could adversely affect the market for our products, which could cause a decline in our revenues. The global economic downturn caused significant disruption within the semiconductor industry. The semiconductor industry now has a smaller customer base than in past years. The loss of additional customers could further concentrate, and could adversely affect, the market for our products. Consolidation may lead to lost or delayed sales, reduced demand for our wafer probe cards, loss of market share and increased pricing pressures. Additionally, certain customers may not want to rely entirely or substantially on a single wafer probe card supplier and, as a result, such customers could reduce their purchases of our wafer probe cards.

There has also been a recent move toward consolidation within the semiconductor test equipment market. For example, in 2009, Touchdown Technologies, Inc., a probe card manufacturer, was acquired by Verigy Ltd., a tester company, and in 2010, after Verigy announced intent to combine with LTX Credence, a tester company, Advantest Corporation, made a successful unsolicited bid to acquire Verigy. 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 wafer probe cards for substantially all of our revenues, and the majority of our wafer probe cards are utilized by semiconductor manufacturers for testing DRAM devices. If we continue to experience a downturn in demand for our DRAM products, our revenues could decline further.

We have historically derived substantially all of our revenues from the sale of our wafer probe cards to manufacturers of DRAM, flash memory devices, and microprocessor, chipset and other SoC devices. For fiscal 2012, 2011 and 2010, sales to manufacturers of DRAM devices accounted for 57%, 68% and 70%, respectively, of our revenues, sales to manufacturers of Flash memory devices accounted for 17%, 15% and 16%, respectively, of our revenues and sales to manufacturers of SoC devices accounted for 26%, 17% and 14%, respectively, of our revenues. We anticipate that sales of our wafer 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 within these markets and our ability to continue to develop and introduce new products that meet our customers' requirements on a timely basis for these markets. 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 wafer 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. As our next generation wafer 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 wafer probe cards, particularly if conditions in the semiconductor market continue to deteriorate or do not improve or if the market enters another downturn. Any decrease in revenues from sales of our wafer probe cards could harm our business more than it would if we offered a more diversified line of products.

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 improve 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 our wafer probe cards into their equipment and provide us with the insight into their product plans that allows us to offer wafer probe cards for use with their products when they are introduced to the market. 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;
- introduce their own wafer probe card product;
- establish relationships with others in our industry;
- acquire or invest in a competitive wafer probe card manufacturer or enter into a business venture with a competitive wafer 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 wafer 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 could adversely impact our business and operating results.

Our manufacturing processes require sophisticated and expensive equipment and specially designed facilities, including semiconductor clean rooms. We manufacture the majority of our wafer 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. In addition, if the previous energy crises in California that resulted in disruptions in power supply and increases in utility costs were to recur, we might experience power interruptions and shortages, which could disrupt our manufacturing operations. This could subject us to loss of revenues as well as significantly higher costs of energy. 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.

If we are unable to continue to reduce the time it takes for us to design and produce a wafer 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 wafer 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 wafer 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 grow design 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 margin. 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, which is a heightened risk during the current economic downturn. 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 in light of minimum purchase requirements or to be unable to realize volume discounts for materials 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. 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.

Wafer 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 wafer probe card manufacturing process, combined with increases in wafer 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 wafer 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 wafer 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, 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 fails to meet specifications when installed in the customer's test environment, or has 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. 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 wafer probe card will perform differently in the customers' actual test environments. If our wafer 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 wafer 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 deteriorates or the predictability of our manufacturing yields does not improve, we could incur higher inventory losses than we currently experience.

Each semiconductor chip design requires a custom wafer 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 products, have historically been unpredictable and consequently, we generally produce more components for probe cards, or actual probe cards, than forecasted demand. If we do not obtain orders as we anticipate, or if we continue to produce excess 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, 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 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 control 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 control 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 control 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 control 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. 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 and/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 are implementing 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 wafer 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 wafer probe cards and developing wafer 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 wafer probe cards. 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; and
- the customer's budgetary constraints and, in particular, the customer's ability to devote resources to the evaluation process.

In addition, product purchases are frequently subject to delays, particularly with respect to large customers for which our products may represent a small percentage of their overall purchases. 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 85% , 85% and 80% for fiscal 2012 , 2011 and 2010 , 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.

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 30, 2012 through March 5, 2013, our stock price has ranged from \$4.56 a share to \$5.15 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 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 various of our pending litigations and proceedings relating to intellectual property matters;
- seasonality, principally due to our customers' purchasing cycles;
- market and competitive conditions in our industry, semiconductor industry and the economy as a whole; and
- recruitment or departure of key personnel.

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.

New regulations related to conflict minerals may force us to incur additional expenses, may make our supply chain more complex and may result in damage to our relationships with customers.

On August 22, 2012, as mandated by the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, the SEC adopted new disclosure regulations for public companies that manufacture products that contain certain minerals and their derivatives, namely tin, tantalum, tungsten or gold, known as conflict minerals, if these minerals are necessary to the functionality or production of the company's products. These regulations require such issuers to report annually whether or not such minerals originate from the Democratic Republic of Congo and adjoining countries and in some cases to perform extensive due diligence on their supply chains for such minerals. The implementation of these new requirements could adversely affect the sourcing, availability and pricing of conflict minerals used in the manufacture of semiconductor equipment, including our products. In addition, we may incur additional costs to comply with the disclosure requirements, including costs related to determining the source of any of the relevant minerals used in our products. Since our supply chain is complex, the due diligence procedures that we implement may not enable us to ascertain the origins for these minerals or determine that these minerals are DRC conflict-free. We may also face difficulties in satisfying customers who may require that our products be certified as DRC conflict-free, which could harm our relationships with these customers and lead to a loss of revenue. These new requirements also could have the effect of limiting the pool of suppliers from which we source these minerals, and we may be unable to obtain conflict-free minerals at competitive prices, which could increase our costs and adversely affect our manufacturing operations and our profitability.

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. We also own one building which was a part of our older manufacturing facility and which is being utilized for storage. 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 29, 2012 is set forth below:

<u>Location</u>	<u>Principal Use</u>	<u>Square Footage</u>	<u>Ownership</u>
Livermore, California, United States	Corporate headquarters, sales, marketing, finance, product design, manufacturing, service and repair, distribution, research and development	168,636	Leased
Livermore, California, United States	Storage	13,531	Owned
San Jose, California, United States	Sales, marketing, finance, product design, manufacturing, service and repair, distribution, research and development	39,894	Leased
Carson City, Nevada, United States	Sales, marketing, product design, manufacturing, service and repair, distribution for non probe cards business	31,100	Leased
Carlsbad, California, United States	Product design, manufacturing, service and repair, distribution, research and development	25,634	Leased
Austin, Texas, United States	Service and repair	2,025	Leased
Singapore	Sales, finance, product design, service, field service, supply chain.	25,278	Leased
SuZhou, China	Sales, marketing, finance, manufacturing, product design, service and repair, distribution, research and development	9,700	Leased
Jubei City, Hsinchu, Taiwan	Sales office, product design, field service and repair center	9,309	Leased
Hsinchu, Taiwan	Sales office, field service, and repair center	1,267	Leased
Yokohama City, Japan	Field service, and repair center	8,777	Leased
Tokyo, Japan	Sales office, marketing, product design, research and development (*)	7,816	Leased
Hiroshima, Japan	Repair center	1,615	Leased
Gyeonggi-do, South Korea	Sales office, product design, field service, and repair center	7,979	Leased
Gyeonggi-Do, South Korea	Sales office, field service, and repair center	1,000	Leased
Dresden, Germany	Sales office	2,282	Leased
Singapore	Sales office, field service, and repair center	1,338	Leased
Shanghai, China	Sales office	418	Leased
Southbury, Connecticut, United States	Sales office	143	Leased

* These functions moved to our Yokohama City, Japan office in first quarter of fiscal 2013.

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 the filing of this Annual Report on Form 10-K, we were not involved in any material legal proceedings, other than the proceedings 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 and to collect past due accounts receivable from our customers.

We believe that the factual allegations and circumstances underlying the legal proceedings described below that have been filed against us are without merit. We also believe that our company does not have a material monetary damages exposure in these legal proceedings that would individually or in the aggregate have a material adverse effect on our financial condition, liquidity or results of operations; however, these legal proceedings have been costly and it is possible we will incur significant, and possibly material, attorneys' fees, which may not be covered by our insurance policies. These legal proceedings may also divert our management's time and attention away from business operations, which could prove to be disruptive to our business operations. In addition, an unfavorable outcome or settlement of these proceedings, particularly if it is not covered by or exceeds our insurance coverage, could individually or in the aggregate adversely impact our financial condition, liquidity or results of operations.

Patent Litigation

In July 2010, we filed a lawsuit in the United States District Court for the Northern District of California, case no. 4:10-cv-03095-PJH (the "Action"), against MicroProbe Inc. and a MicroProbe officer who was a former FormFactor employee. In the Action, we asserted patent infringement and unfair competition claims against MicroProbe, and trade secret misappropriation and breach of confidence claims against MicroProbe and the former FormFactor employee. On October 16, 2012, and in connection with our acquisition of Astria Semiconductor Holdings, Inc., the parent of MicroProbe; FormFactor, Astria Semiconductor Holdings, MicroProbe and the former FormFactor employee entered into a Confidential Settlement Agreement and these parties along with certain other entities entered into a Confidential Release Agreement, both to resolve the Action in favor of FormFactor for \$3.3 million.

One or more third parties have initiated challenges in the U.S. Patent and Trademark Office, or USPTO, against certain of our patents, including requests for reexamination directed to all of the patents-in-suit in the Action. The USPTO granted the re-examination requests directed to U.S. Patent Nos. 6,246,247, 6,825,422, 6,441,315, and 7,225,538, and granted in part the requests directed to U.S. Patent Nos. 6,965,244, 7,227,371 and 7,671,614. Requests for reexamination of the Company's U.S. Patent Nos. 6,615,485 and 6,624,648 and 5,994,152 were also granted by the USPTO. With respect to US Patent Nos. 5,994,152, 6,246,247, 6,624,648, 6,965,244, 7,617,614, the re-examination proceedings have concluded and re-examination certificates issued. The Company did not appeal the adverse USPTO decision regarding US Patent No. 6,615,485. The foreign actions include proceedings in Taiwan against several of our Taiwan patents.

No provision has been made for patent-related litigation because we believe that it is not probable that a liability had been incurred as of December 29, 2012. We have incurred and will incur in the future material attorneys' fees in prosecuting and defending the various identified actions.

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.

<u>Fiscal 2012</u>	<u>High</u>	<u>Low</u>
First Quarter	\$ 5.75	\$ 4.85
Second Quarter	6.63	5.16
Third Quarter	6.88	5.05
Fourth Quarter	5.65	3.78
<u>Fiscal 2011</u>	<u>High</u>	<u>Low</u>
First Quarter	\$ 10.77	\$ 8.55
Second Quarter	10.70	8.56
Third Quarter	9.63	6.41
Fourth Quarter	6.74	4.69

The closing sales price of our common stock on the NASDAQ Global Market was \$5.00 per share on March 5, 2013. As of March 5, 2013, there were 154 registered holders of record of our common stock.

Repurchase of Common Stock

On October 20, 2010, our Board of Directors authorized a program to repurchase up to \$50.0 million of outstanding common stock. Under the authorized stock repurchase program, we were authorized to 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 October 26, 2010 and had a scheduled expiration date of October 19, 2011.

On October 12, 2011, our Board of Directors authorized the extension of this repurchase program through October 19, 2012. Under the program, we were authorized to repurchase up to a total of \$40.5 million of outstanding common stock during the program period. The terms and conditions of the extended repurchase program remained the same as those in the original program approved in fiscal 2010. All of our repurchases were made under the authorized repurchase program.

During fiscal year 2010, we repurchased and retired 70,000 shares of common stock at a cost of \$0.6 million. During fiscal 2011, we repurchased and retired 2,332,740 shares of common stock at a cost of \$16.4 million. We did not repurchase any shares of common stock under this program during fiscal 2012.

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.

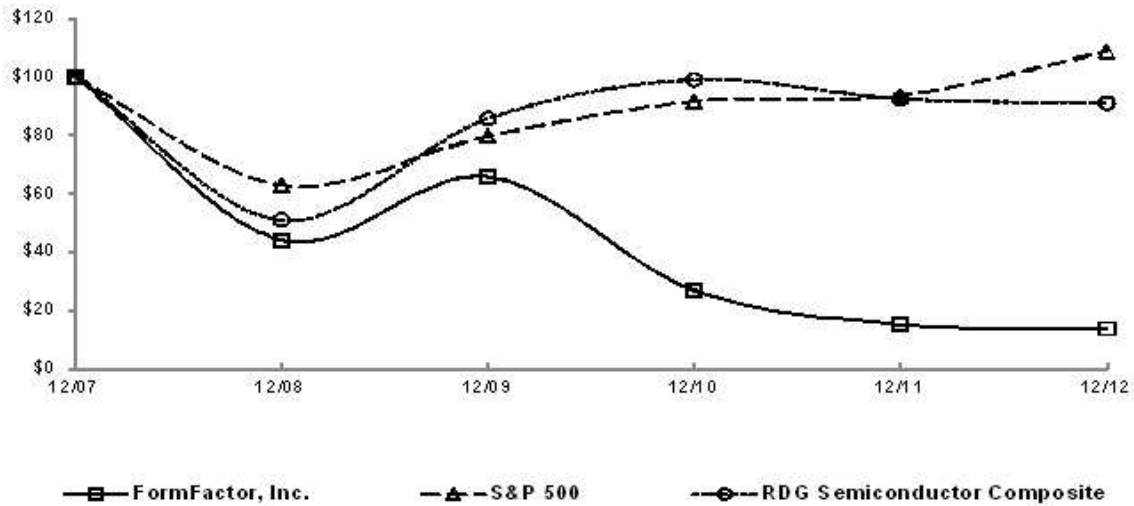
Dividend Policy

We have never declared or paid cash dividends on our common stock. We currently expect to retain all available funds and any future earnings for use in the operation and development of our business. Accordingly, we do not anticipate declaring or paying cash dividends on our common stock in the foreseeable future.

Stock Price Performance Graph

The following graph shows the total stockholder return of an investment of \$100 in cash on December 31, 2007 through December 29, 2012, 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 12/31/07 in stock or index, including reinvestment of dividends.
Fiscal year ending December 31.

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	Cumulative Total Return					
	December 31, 2007	December 31, 2008	December 31, 2009	December 31, 2010	December 31, 2011	December 31, 2012
FormFactor, Inc.	\$ 100.00	\$ 44.11	\$ 65.77	\$ 26.83	\$ 15.29	\$ 13.78
S&P 500	100.00	63.00	79.67	91.67	93.61	108.59
RDG Semiconductor Composite	100.00	50.95	85.67	99.01	92.48	91.00

* \$100 invested on December 31, 2007, including reinvestment of dividends.
Fiscal year ending December 31.

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 2012 (1) (2) (5)(7)	Fiscal 2011 (1)(2) (5)(6)	Fiscal 2010 (1)(2) (3)(4)(6)	Fiscal 2009 (1)(2) (5)(6)	Fiscal 2008
(in thousands, except per share data)					
Consolidated Statements of Operations Data:					
Revenues	\$ 178,535	\$ 169,325	\$ 188,565	\$ 135,335	\$ 210,189
Gross profit(loss)	25,331	20,958	(2,272)	819	36,263
Net loss	(35,546)	(65,981)	(188,286)	(155,653)	(80,621)
Basic loss per share	\$ (0.70)	\$ (1.31)	\$ (3.75)	\$ (3.15)	\$ (1.65)
Diluted loss per share	\$ (0.70)	\$ (1.31)	\$ (3.75)	\$ (3.15)	\$ (1.65)
Consolidated Balance Sheets Data:					
Cash, cash equivalents and marketable securities	\$ 165,788	\$ 296,691	\$ 347,235	\$ 449,235	\$ 522,894
Working capital	194,125	308,380	370,767	482,607	576,754
Total assets	395,682	383,071	466,054	655,968	785,710
Capital leases, net of current portion	340	—	—	—	—
Total stockholders' equity	339,258	346,652	411,201	577,781	706,064
Number of employees	1,021	709	729	808	940

- (1) Fiscal 2012 , 2011 , 2010 and 2009 net losses include restructuring charges, net of \$2.9 million , \$0.5 million , \$15.9 million and \$8.8 million , respectively, relating to our global restructuring and reorganization actions. See Note 5—Restructuring Charges of the Notes to the Consolidated Financial Statements.
- (2) Fiscal 2012 , 2011 , 2010 and 2009 net losses include impairment charges of \$0.4 million , \$0.5 million , \$56.4 million and \$1.3 million , respectively. See Note 7—Impairment of Long-lived Assets of the Notes to the Consolidated Financial Statements.
- (3) Fiscal 2010 gross loss includes an out-of-period adjustment related to cost of revenues that resulted in \$2.9 million of additional expense offset by an income tax benefit of \$0.5 million . See Note 1—Formation and Business of the Company of the Notes to the Consolidated Financial Statements.
- (4) Fiscal 2010 net loss includes a \$3.5 million gain resulting from the release of the liability previously recorded as a secured borrowing due to the dismissal of our complaint against a customer.
- (5) Fiscal 2012 includes a \$25.5 million tax benefit from the release of deferred tax asset valuation allowances due to 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. We recorded a deferred tax asset valuation allowance of \$57.7 million in fiscal 2009 against the U.S. excess tax benefits, including prior years, based on our assessment of the realizability of our U.S. deferred tax assets. This charge resulted in an income tax provision, rather than an income tax benefit, for fiscal 2009.
- (6) Fiscal 2011 and 2010 include a \$0.3 million and \$1.1 million net benefit, respectively, from collections on amounts previously reserved as bad debts. Fiscal 2009 and 2008's selling, general and administrative expenses include a provision for bad debts of \$5.0 million and \$4.1 million.
- (7) Fiscal 2012 includes the following as a result of the MicroProbe acquisition: \$19.8 million in revenue, \$5.4 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 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 precision, high performance advanced semiconductor wafer probe card products and solutions. Semiconductor manufacturers use our wafer probe cards to perform wafer sort and test on the semiconductor die, or chips, on the whole semiconductor wafer, which is prior to singulation of the wafer into individual separate chips. We work closely with our customers on product design, as each wafer probe card is a custom product that is specific to the chip and wafer designs of the customer. During wafer sort and test, a wafer probe card is mounted in a prober and connected to a semiconductor tester. The wafer probe card is used as an interface to connect electrically with and test individual chips on a wafer. Our products can be used to test a broad range of semiconductor chips, including DRAM, Flash, SoC, and in-line parametric testing.

During fiscal 2012, we saw revenues increase \$9.2 million from \$169.3 million in 2011 to \$178.5 million in 2012. Revenue growth was driven by SoC and Flash product markets which were up \$17.5 million and \$4.9 million, respectively, when compared with 2011. SoC product revenue increase was driven by \$19.8 million higher sales added in the fourth quarter from our acquisition of MicroProbe. Flash sales growth was driven by increased market share in the NAND Flash market. DRAM revenue was down \$13.2 million versus 2011 as the second half of 2012 saw significantly weaker personal computer demand and a less favorable DRAM device pricing environment.

During fiscal 2012, we continued the activities initiated in 2010 to restructure our operations to simplify our overall structure and better align our operations with the current business environment, streamline our manufacturing structure and reduce both manufacturing cost and cycle times. As part of this simplification, we reduced our workforce by 49 employees, or 7%, during fiscal 2012, without giving effect to the MicroProbe acquisition. We incurred net losses of \$35.5 million and \$66.0 million in fiscal 2012 and fiscal 2011, respectively. Net loss also decreased year over year due to the reduction in operating expenses driven by both our restructuring actions and our continued focus on cost reduction efforts. The net loss for fiscal 2012 includes MicroProbe operating activity from the acquisition date to fiscal 2012 year-end of \$19.8 million in revenue and \$6.4 million of net loss, which includes \$8.2 million of intangible amortization and other expenses. In addition, the net loss includes restructuring charges of \$2.9 million, impairment charges of \$0.4 million, and \$3.0 million in acquisition and integration costs, offset by a benefit of \$25.5 million from the release of the U.S. jurisdiction deferred tax asset valuation allowance resulting from the deferred tax liability recorded for the \$77.6 million of intangible assets acquired in the acquisition of MicroProbe and a benefit from our patent settlement. The net loss for fiscal 2011 was primarily due to lower gross margins on products sold, \$0.5 million of restructuring charges, and the impairment of certain long-lived assets of \$0.5 million, offset by a benefit of \$2.5 million from the release of the deferred tax asset valuation allowance for a non-U.S. jurisdiction.

Recent Acquisition

On October 16, 2012, pursuant to an Agreement and Plan of Merger and Reorganization (the "Acquisition Agreement"), dated as of August 31, 2012, as amended, a wholly-owned subsidiary of FormFactor merged with and into Astria Semiconductor Holding, Inc., including its subsidiary MicroProbe, Inc. (together "MicroProbe"), with Astria continuing as the surviving corporation and as a wholly-owned subsidiary of FormFactor (the "MicroProbe Acquisition"). The Acquisition was accounted for using the acquisition method of accounting under which assets and liabilities of MicroProbe were recorded at their respective fair values including an amount for goodwill representing the difference between the acquisition consideration and the fair value of the identifiable net assets. The total acquisition consideration of \$113.8 million was determined based on the terms of the Acquisition Agreement which consisted of a) \$100 million in cash, subject to a \$3.3 million decrease based on MicroProbe's working capital as of the consummation of the acquisition relative to an agreed upon target, b) 3,020,944 shares of FormFactor's common stock valued at the closing market price of \$4.57 on October 16, 2012, and c) a settlement of \$3.25 million related to patent litigation between the two parties.

MicroProbe is a semiconductor equipment company that designs, develops, manufactures, sells and services high performance, custom designed advanced SoC wafer probe cards and analytical test equipment used in the semiconductor

industry. MicroProbe is a global company with operations in the U.S. and Asia, including China, South Korea, Singapore and Taiwan. The acquisition of MicroProbe enables us to leverage the combination of two advanced wafer probe card manufacturers and expand our SoC product portfolio to meaningfully diversify our business. Our preliminary allocation of the acquisition price at fair value includes intangible assets of \$77.6 million and goodwill of \$31.0 million. We incurred \$3.0 million of acquisition and integration costs which were reported as selling, general and administrative expense in our Consolidated Statement of Operations for fiscal 2012 (see Note 3 - Acquisitions of the Notes to the Consolidated Financial Statements).

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

Fiscal Year. Fiscal years ended December 29, 2012 and December 25, 2010 had 52 weeks each and fiscal year ended December 31, 2011 had 53 weeks. Our fiscal year ends on the last Saturday in December.

Revenues. We derive substantially all of our revenues from product sales of wafer 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, cyclicity 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 and the penetration of new markets. We expect that revenues from the sale of wafer 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 and inventory provisions as cost of revenues.

We design, manufacture and sell custom advanced wafer probe cards into the semiconductor test market, which is subject to significant variability and demand fluctuations. Our wafer 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 wafer probe cards are manufactured in low volumes and must be delivered on relatively short lead-times, 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 wafer probe cards. We record an adjustment to our inventory valuation for estimated 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. Almost all research and development costs are expensed as incurred, and capitalization of such costs have been immaterial in all periods to date. 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, and administrative personnel, provision for doubtful accounts, internal and outside sales representatives' commissions, market research and consulting, and other sales, marketing, administrative activities, and amortization of certain intangible assets. These expenses also include costs for protecting and enforcing our patent 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 assets for which circumstances indicate that the carrying amount of these assets may not be recoverable, 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, business combinations, legal contingencies, realizability of goodwill, the assessment of recoverability of long-lived assets, valuation and recognition of stock-based compensation, provision for income taxes and related deferred tax assets, valuation and tax liabilities and accruals for other liabilities 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 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.

In October 2009, the Financial Accounting Standards Board issued Accounting Standards Update No. 2009-13, “Multiple-Deliverable Revenue Arrangements”. The guidance eliminates the residual method of revenue recognition and allows the use of management's best estimate of selling price (“BESP”) for individual elements of an arrangement when vendor-specific objective evidence (“VSOE”) or third-party evidence (“TPE”) is unavailable. We have adopted this guidance effective with the first quarter of fiscal 2011 and it has been applied on a prospective basis for revenue arrangements entered into or materially modified after December 25, 2010.

This guidance does not generally change the units of accounting for our revenue transactions. We do not have a significant number of product offerings with multiple elements. Our multiple-element arrangements generally include probe cards and product maintenance and repair services. We allocate revenue to the deliverables based upon their relative selling price. Revenue allocated to each unit of accounting is then recognized when persuasive evidence of an arrangement exists, delivery has occurred or services are rendered, the sales price or fee is fixed or determinable and collectability is reasonably assured. Product maintenance and repair services are deferred and recognized ratably over the period during which the services are performed, generally one year, and costs are recorded as incurred.

When applying the relative selling price method, we determine the selling price for each deliverable using VSOE, TPE or BESP. For the vast majority of our arrangements involving multiple deliverables, such as sales of products with services, the entire fee from the arrangement is allocated to each respective element based on its relative selling price, using VSOE. For those deliverables for which we cannot establish VSOE, we have determined our best estimate of selling price, as the Company has determined it is unable to establish TPE of selling price for the deliverables. The objective of BESP is to determine the price at which we would transact a sale if the deliverable were sold on a stand-alone basis. We determine BESP for a deliverable by considering multiple factors including, but not limited to, market conditions, competitive landscape, internal costs, gross margin objectives and pricing practices. The determination of BESP is made through consultation with and formal approval by our management, taking into consideration the go-to-market strategy.

The adoption of the new revenue recognition accounting standards did not have a material impact on our consolidated financial position, results of operations, or cash flows for fiscal 2012 and fiscal 2011. If the new accounting standards for revenue recognition had been applied in the same manner during fiscal 2010, there would not have been a material impact on total net revenues.

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 assets acquired and liabilities assumed. We have determined that we operate in a single segment and have a single reporting unit associated with the design, development, manufacture, sale and support of precision, high performance advanced semiconductor wafer probe cards. In September 2011, the FASB amended its guidance to simplify testing goodwill for impairment, allowing an entity to 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 values of the applicable reporting units with their aggregate carrying values, including goodwill. We generally determine the fair value of our reporting unit using the income approach methodology of valuation that includes the discounted cash flow method as well as other generally accepted valuation methodologies. If the carrying amount of a reporting unit exceeds the reporting unit's fair value, 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. We performed our goodwill impairment test in the fourth fiscal quarter. No impairment charges associated with our goodwill and intangible assets were recorded during fiscal 2012.

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 most assets acquired and liabilities assumed be recognized at their estimated fair values as of the acquisition date, and that the fair value of acquired intangible assets including in-process research and development, or IPR&D, be recorded on the balance sheet. Also, transaction costs are expensed as incurred. Any excess of the purchase price over the assigned 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 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", 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. We measure our cash equivalents and marketable securities at fair value.

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.

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 and which standard applies 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.

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 extensive 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.

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 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.

Allowance for Doubtful Accounts: A 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 for probable credit losses based upon our assessment of the expected collectability of all accounts receivable. The allowance for doubtful accounts is reviewed on a quarterly basis to assess the adequacy of the allowance. 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.

Impairment of Long-Lived Assets: 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. 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 significantly before the end of its estimated useful life.

Recoverability is assessed based on the carrying amounts of the asset and its fair value which is generally determined based on the sum of the undiscounted cash flows expected to result from the use and the eventual disposal of the asset, as well as specific appraisals in certain instances. 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 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.

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 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 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 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 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: Under provisions of accounting standards, stock-based compensation cost is estimated at the grant date based on the fair-value of the award and is recognized as expense ratably over the requisite service period of the award. Determining the appropriate fair-value model and calculating the fair value of stock-based awards at the grant date requires considerable judgment, including estimating stock price volatility, expected option life and forfeiture rates. We develop our estimates based on historical data and market information which can change significantly over time. A small change in the estimates used can result in a relatively large change in the estimated valuation. We use the Black-Scholes option valuation model to value employee stock option awards 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.

The most significant assumptions impacted by management's judgment are the expected volatility and the expected life of the options. The expected dividend yield and expected risk-free interest rate are not as significant to the calculation of fair value. In addition, adjustments to our estimates of the number of share-based payment awards that we expect to vest did have a significant impact on the recorded share-based compensation expense.

Expected volatility: The value of a stock option is derived from its potential for appreciation. The more volatile the stock, the more valuable the option becomes because of the greater possibility of significant changes in stock price. Our computation of expected volatility is based on a blend of historical volatility of our common stock and implied volatility of traded options to purchase shares of our common stock. Our decision to incorporate implied volatility was based on our assessment that implied volatility of publicly traded options in our common stock is expected to be more reflective of market conditions and, therefore, can reasonably be expected to be a better indicator of expected volatility than historical volatility of our common stock alone.

Expected life and forfeiture rate: The expected life also has a significant effect on the value of the option. The longer the term, the more time the option holder has to allow the stock price to increase without a cash investment and thus, the more valuable the option. Further, longer option terms provide more opportunity to exploit market highs. However, employees are not required to wait until the end of the contractual term of a nontransferable option to exercise. Accordingly, we are required to estimate the expected term of the option. We determine the expected life by considering several factors, including historical option exercise behavior, post vesting turnover rates, contractual terms and vesting periods of the options granted. Similarly, we base our estimate of forfeiture on historical option cancellation behavior including pre-vesting turnover rates.

Out of Period Adjustment

In the third quarter of fiscal 2010, we recorded a \$4.1 million adjustment to cost of revenues net of \$0.5 million income tax benefit, which resulted from an error in the calculation of capitalized manufacturing variances starting in the first quarter of fiscal 2009 through the second quarter of fiscal 2010. The error caused the understatement of cost of revenues and the overstatement of the overhead capitalized in inventory for most quarters.

The income tax benefit resulted from a higher net loss in 2009 due to higher costs of revenue. The increase in the 2009 loss allowed us to recover more of our prior year tax payments. Of the total adjustment of \$4.1 million to costs of revenues, \$2.9 million of the adjustment, net of \$0.5 million income tax benefit, was related to fiscal 2009.

Results of Operations

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

	Fiscal 2012	Fiscal 2011	Fiscal 2010
Revenues	100.0 %	100.0 %	100.0 %
Cost of revenues	85.8	87.6	101.2
Gross profit (loss)	14.2	12.4	(1.2)
Operating expenses:			
Research and development	22.5	25.7	29.4
Selling, general and administrative	27.6	27.6	35.7
Restructuring charges, net	1.6	0.3	8.4
Impairment of long lived assets	0.2	0.3	29.9
Gain on settlement of litigation	(1.8)	—	—
Total operating expenses	50.1	53.9	103.4
Operating loss	(35.9)	(41.5)	(104.6)
Interest income	0.4	0.8	1.4
Other income, net	0.8	0.6	2.3
Loss before benefit from income taxes	(34.7)	(40.1)	(100.9)
Benefit from income taxes	(14.8)	(1.1)	(1.0)
Net loss	<u>(19.9)%</u>	<u>(39.0)%</u>	<u>(99.9)%</u>

Fiscal Years Ended December 29, 2012 and December 31, 2011 Revenues

	Fiscal	% of	Fiscal	% of	Change	
	2012	Revenues	2011	Revenues	\$	%
(In thousands)						
<i>Revenues by Market:</i>						
DRAM	\$ 102,499	57.4%	\$ 115,678	68.3%	\$ (13,179)	(11.4)%
SoC	46,586	26.1	29,050	17.2	17,536	60.4
Flash	29,450	16.5	24,597	14.5	4,853	19.7
Total revenues	<u>\$ 178,535</u>	<u>100.0%</u>	<u>\$ 169,325</u>	<u>100.0%</u>	<u>\$ 9,210</u>	<u>5.4 %</u>

For the global semiconductor market, overall device shipments were down in 2012 compared to 2011. Revenues in the memory markets saw the largest reduction compared to the SoC market. The DRAM market weakened, particularly in the second half of the year, as forecasted consumer demand for personal computers, or PC's, did not materialize and device pricing fell to levels resulting in unprofitable business for most suppliers. The NOR and NAND Flash markets also declined, driven by slow growth in bit shipments leading to an inventory oversupply and reduced production capacity by leading producers. SoC revenue reductions were not as severe as those for memory markets, with PC demand-related reductions somewhat offset by growth in mobile processor demand.

Overall, our revenues increased by 5% , or \$9.2 million , in fiscal 2012 as compared to fiscal 2011 , of which \$19.8 million was due to the MicroProbe acquisition. Our revenues increased 60.4% year-over-year in the SoC market and 19.7% in Flash, but were down 11.4% in DRAM. The change in Flash and DRAM revenues was primarily driven by unit volume, while the increase in the SoC revenues was attributed to our acquisition of MicroProbe.

Our revenues for fiscal 2012 were primarily generated by sales of wafer probe cards to manufacturers of DRAM devices. The year-on-year reduction in our revenue from sales to DRAM device manufacturers in fiscal 2012 aligned closely with the overall weakening of the DRAM semiconductor market revenue, particularly in the second half of the year. Forecasted consumer demand for PC's did not materialize and device pricing fell to levels resulting in unprofitable business for most suppliers.

Revenues from sales to Flash memory device manufacturers increased in fiscal 2012 compared to the prior year. The increase was mainly driven by increased market share of our TouchMatrix300 product at a major NAND Flash producer in South Korea. Our NOR Flash revenue decreased at a similar rate to the overall NOR Flash semiconductor market for the year.

The significant increase in the SoC segment is attributed primarily to our acquisition of MicroProbe and accelerated market adoption of advanced SoC probe card technologies in place of the traditional cantilever probe cards. Within MicroProbe's revenue, the Vx-MP MEMS and Apollo vertical products that are primarily used to test leading edge mobile SoC chips and microprocessors, accounted for the majority of its revenues.

Revenues by Geographic Region

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

	Fiscal	% of	Fiscal	% of
	2012	Revenues	2011	Revenues
(In thousands)				
South Korea	\$ 58,515	32.8%	\$ 39,219	23.1%
Taiwan	36,963	20.7	53,844	31.8
North America	27,508	15.4	25,880	15.3
Japan	21,314	11.9	29,467	17.4
Asia-Pacific(1)	22,573	12.7	13,860	8.2
Europe	11,662	6.5	7,055	4.2
Total revenues	<u>\$ 178,535</u>	<u>100.0%</u>	<u>\$ 169,325</u>	<u>100.0%</u>

(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 from fiscal 2011 to 2012 in South Korea and Asia-Pacific revenues were related to market share gains and a growing available market for our SmartMatrix100 product at a major DRAM manufacturer. South Korea revenue also increased due to improved market share of our TouchMatrix300 product at a major NAND Flash producer. North America and Europe revenue increases were primarily driven by our acquisition of MicroProbe and the sales of Vx-MP MEMS and Apollo vertical products. Revenue decreases in Taiwan and Japan were primarily driven by decreased demand for our DRAM products due to a weakening global DRAM market.

Gross Profit

	Fiscal 2012	Fiscal 2011
	(In thousands)	
Gross profit	\$ 25,331	\$ 20,958
Gross margin	14.2%	12.4%

Gross margin fluctuates with revenue levels, product mix, selling prices, factory loading and material costs. For fiscal 2012, gross profit increased \$4.4 million compared to fiscal 2011. The increase was primarily due to the benefit of higher gross margins generated from the product lines obtained from our MicroProbe acquisition in addition to lower material costs, and reduced manufacturing overhead expenses from the existing FormFactor production. Manufacturing overhead costs were lower because of the cessation of assembly and test activities in Japan and our worldwide reduction in workforce, which combined generated a savings of \$0.8 million for fiscal 2012. Our gross margin benefited from lower excess inventory charges.

The gross margin improvements were offset by higher direct labor costs relative to revenue levels, service and warranty costs. Gross margin was also negatively impacted by \$8.5 million of additional amortization and depreciation costs for the tangible and intangible assets associated with our MicroProbe acquisition.

As mentioned above, gross margin for fiscal 2012 also improved compared to the prior year due to a \$0.7 million decrease in inventory provision charges. This improvement is the result of current and ongoing initiatives to improve material planning, procurement and production processes that resulted in the continual reduction in our excess inventory levels. Excess custom inventories are not uncommon for our company because our advanced wafer probe cards are custom designs manufactured in low volumes and must be delivered on relatively short lead times. This requires 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 wafer probe cards. In fiscal 2012, the value of previously reserved materials that were used in manufacturing and shipped was \$1.3 million as compared to \$2.5 million in fiscal 2011.

Gross margin included amortization expense on intangible assets for fiscal 2012 and 2011 of \$6.0 million and \$1.2 million, respectively. Stock-based compensation expense included in gross margin for fiscal 2012 and 2011 was \$2.6 million and \$3.5 million, respectively. The decrease is primarily due to fewer unvested options outstanding being amortized to expense.

In the future, our 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 2012	Fiscal 2011
	(In thousands)	
Research and development	\$ 40,130	\$ 43,544
% of revenues	22.5%	25.7%

Research and development expenses for fiscal 2012 decreased \$3.4 million , or 8% , compared to the prior year. 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 may reflect variations in our research and development spending. As a percent of revenues, research and development expenses decreased in fiscal 2012 to 22.5% as compared to 25.7% in fiscal 2011 primarily due to lower spending.

In fiscal 2012, expenses related to our research and development activities decreased from fiscal 2011 primarily due to lower materials costs of \$3.2 million , licensing and equipment costs of \$0.5 million , decrease in depreciation expense of \$0.2 million , partially offset by increased facility and related costs of \$0.6 million. Stock-based compensation included within research and development expenses remained flat at \$4.3 million for fiscal 2012 as compared to 2011.

We are continuing our strategic investments in research and development, including investments in new vertical technology directed to testing SoC devices, advanced MicroSpring interconnect technology and new process technologies. In our first quarter of fiscal 2013 we announced that we have taken actions to reduce the investments in commodity DRAM test, but are continuing to develop product capabilities focused on mobile DRAM. We suspended development activities specific to our next generation Matrix platform, and are consolidating our development and engineering efforts to extend the capabilities of the current Matrix platform. We remain committed to product development in new and emerging technologies.

Selling, General and Administrative

	Fiscal 2012	Fiscal 2011
	(In thousands)	
Selling, general and administrative	\$ 49,231	\$ 46,705
% of revenues	27.6%	27.6%

Selling, general and administrative expenses increased \$2.5 million , or 5% , for fiscal 2012 compared to the prior year. As a percent of revenues, selling, general and administrative expenses remained flat in fiscal 2012.

For fiscal 2012, the increase in selling, general and administrative expenses was due to \$3.0 million of MicroProbe acquisition and integration costs, \$0.6 million intangible amortization expense, an \$1.2 million increase in certain selling and marketing activities associated with new technology platforms, an \$0.8 million increase in bad debt expense. The increased expenses were offset by a decrease in taxes and license costs of \$2.0 million, including \$0.6 million accrual release of foreign customs and value added tax, a decrease in our legal and outside service fees of \$1.2 million, and a decrease due to workforce reduction of \$0.4 million. Total amortization expense on intangible assets for fiscal 2012 and 2011 were \$0.6 million and \$0.0 million , respectively. Stock-based compensation expenses included within selling, general and administrative expense were \$6.2 million in fiscal 2012 compared to \$6.1 million in fiscal 2011. The increase is primarily due to increase in employee stock awards due to the acquisition.

Restructuring Charges, net

	Fiscal 2012	Fiscal 2011
	(In thousands)	
Restructuring charges	\$ 2,917	\$ 522
% of revenues	1.6%	0.3%

Restructuring charges increased \$2.4 million in fiscal 2012 from fiscal 2011. The restructuring plans we implemented in fiscal 2012 and 2011 are discussed below.

2012 Restructuring Activities

During fiscal 2012, we initiated restructuring plans in our second, third and fourth fiscal quarters which resulted in the reduction of our global workforce by 49 full-time employees across the organization and the cessation of our assembly and test activities in Japan. We reduced our temporary work force as well. We recorded \$2.3 million in charges for severance and related benefits, \$0.2 million in contract termination and \$0.4 million in impairment charges for certain equipment and leasehold improvements that would no longer be utilized related to these plans. As a result of these restructuring plans, we

expect to realize quarterly savings, excluding stock-based compensation expenses, of approximately \$2.7 million in subsequent quarters.

The liabilities we have accrued for the restructuring plans discussed above represent our best estimate of the obligations we expect to incur and could be subject to adjustment as market conditions change. The remaining cash payments associated with our various reductions in force are expected to be paid by the end of the first quarter of fiscal 2013 .

2011 Restructuring Activities

During fiscal 2011, we initiated restructuring plans in each of our fiscal quarters which resulted in the reduction of our global workforce by 38 full-time employees across the organization. We recorded \$2.3 million in charges for severance and related benefits related to this plan. In fiscal 2011 we executed an amendment to the existing lease arrangement for our facility in Singapore which released us from our obligations related to the floor previously utilized for manufacturing in this facility. We were also granted a rent reduction for the remaining occupied facilities in this building. We had previously recorded certain asset retirement obligations of \$1.1 million and accruals related to our cessation of the use of these facilities in connection with a prior restructuring action of \$0.4 million. As a result, we reflected a benefit of \$1.5 million recorded in 2011.

Impairment of Long-Lived Assets

	Fiscal 2012	Fiscal 2011
	(In thousands)	
Impairment of long-lived assets	\$ 421	\$ 549
% of revenues	0.2%	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. Below is a description of the impairment activities for fiscal 2012 and 2011.

In fiscal 2012, we recorded total impairments of \$0.4 million , including \$0.2 million related to terminations of certain construction-in-progress projects and \$0.2 million related to certain assets which were previously held for sale that were determined to no longer be sellable and used for internal purposes.

During the third and fourth quarters of 2012, we reviewed the recoverability of our long lived assets due to a significant change in our business strategy in connection with our 2012 Restructuring Plan, due to recurring operating losses, net cash outflows from operations and continued decline in the Company's stock price. As a result of the review, we concluded our business was able to fully recover the carrying amounts of our assets.

In fiscal 2011 , we recorded total impairments of \$0.5 million related to the termination of certain on-going projects, including certain software development for internal use that had been recorded in construction-in-progress.

Management believes it is reasonably possible that additional impairment charges that would reduce further the carrying amounts of our property and equipment and intangible assets may arise in fiscal 2013 if we are unable to achieve operating results anticipated by our 2013 financial plan.

Gain on Settlement of Litigation

	Fiscal 2012	Fiscal 2011
	(In thousands)	
Gain on settlement of litigation	\$ (3,250)	\$ —
% of revenues	(1.8)%	—

In July 2010, we filed a lawsuit against MicroProbe and a MicroProbe officer who was a former FormFactor employee asserting patent infringement and unfair competition claims against MicroProbe, and trade secret misappropriation and breach of confidence claims. On October 16, 2012, and in connection with the MicroProbe Acquisition, we agreed to settle with Astria, MicroProbe and a former FormFactor employee, all outstanding litigation in favor of FormFactor for \$3.3 million .

Interest Income and Other Income, Net

	Fiscal 2012	Fiscal 2011
	(In thousands)	
Interest income	\$ 691	\$ 1,404
% of revenues	0.4%	0.8%
Other income, net	\$ 1,461	\$ 1,076
% of revenues	0.8%	0.6%

Interest income is primarily earned on our cash, cash equivalents and marketable securities. The decrease in interest income for fiscal 2012 as compared to fiscal 2011 was primarily the result of lower average balances. The reduction in our cash, cash equivalents, restricted cash and marketable securities to \$166.1 million at December 29, 2012 as compared to \$297.0 million at December 31, 2011 was driven by our acquisition of MicroProbe and operating losses. The weighted-average yield on our cash, cash equivalents and marketable securities for fiscal 2012 was 0.30% compared to 0.45% for fiscal 2011.

Other income, net is comprised primarily of foreign currency impact and various other gains and losses. The change in other income, net for fiscal 2012 compared to fiscal 2011 was primarily due to lower foreign currency losses in 2012.

Benefit from Income Taxes

	Fiscal 2012	Fiscal 2011
	(In thousands)	
Benefit from income taxes	\$ (26,420)	\$ (1,901)
Effective tax rate	42.6%	(2.8)%

Included in the \$26.4 million income tax benefit for fiscal 2012 is a \$25.5 million tax benefit from the release of valuation allowances on our deferred tax assets ("DTAs"). In connection with our acquisition of MicroProbe during fiscal 2012, deferred tax liabilities ("DTLs") were established on the acquired identifiable intangible assets. These DTLs exceeded the acquired DTAs by \$25.5 million . The excess DTLs allow us to realize a tax benefit by releasing the valuation allowances associated with our DTAs. Accordingly, the valuation allowances on a portion of our DTAs were released and resulted in an income tax benefit of \$25.5 million .

We recognize interest charges and penalties related to uncertain tax positions as part of the income tax provision. We recognized interest charges and penalties of \$0.3 million and \$12,000 respectively during fiscal 2012 and 2011. As of December 29, 2012 and December 31, 2011 we have accrued total interest charges and penalties of \$0.4 million and \$0.7 million , respectively, related to the 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 29, 2012 , we had Federal, state and foreign net operating loss carryforwards of \$284.2 million , \$266.7 million and \$12.2 million , respectively. The Federal net operating loss carryforwards expire at various dates from 2016 through 2032 , the state net operating loss carryforwards expire at various dates from 2030 through 2032 , and the foreign net operating loss carryforwards 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.

On January 2, 2013, President Obama signed into law the American Taxpayer Relief Act of 2012, which includes retroactive extension of the research credit from January 1, 2012 through December 31, 2013. This enacted tax law will result in an increase in the Company's gross deferred tax asset by approximately \$0.4 million, offset by a valuation allowance, during the first quarter of 2013. The Company concluded this enacted law change has immaterial effect on its financials.

Fiscal Years Ended December 31, 2011 and December 25, 2010

Revenues

	<u>Fiscal</u> <u>2011</u>	<u>% of</u> <u>Revenues</u>	<u>Fiscal</u> <u>2010</u>	<u>% of</u> <u>Revenues</u>	<u>Change</u>	
					<u>\$</u>	<u>%</u>
<i>(In thousands)</i>						
<i>Revenues by Market:</i>						
DRAM	\$ 115,678	68.3%	\$ 131,207	69.6%	\$ (15,529)	(11.8)%
SoC	29,050	17.2	27,290	14.5	1,760	6.4
Flash	24,597	14.5	30,068	15.9	(5,471)	(18.2)
Total revenues	<u>\$ 169,325</u>	<u>100.0%</u>	<u>\$ 188,565</u>	<u>100%</u>	<u>\$ (19,240)</u>	<u>(10.2)%</u>

For the global semiconductor market, overall device shipments were generally flat in 2011 compared to 2010. Moderate revenue growth in the global SoC and NAND Flash device markets was masked by a substantial revenue reduction for producers of DRAM and NOR Flash devices. This global DRAM and NOR weakness was particularly severe in the second half of the year as average selling price erosion for semiconductor devices resulted in unprofitable business for most suppliers and a cut back in production capacity. This weakness in the global DRAM and NOR device market directly resulted in our customers reducing their purchases of, or in some cases canceling existing orders of, our probe cards for DRAM and NOR devices throughout the second half of 2011. Overall, our revenues decreased by 10%, or \$19.2 million, in fiscal 2011 as compared to fiscal 2010. Our revenue increased approximately 6% year-over-year in the SoC market, but was down approximately 12% in DRAM and 18% in Flash. These fluctuations in revenue were primarily driven by unit volume.

Our revenues for fiscal 2011 were primarily generated by sales of wafer probe cards to manufacturers of DRAM devices. Revenues from sales to DRAM device manufacturers in fiscal 2011 decreased significantly as compared to fiscal 2010 as the impact of average selling price erosion of semiconductor devices and the subsequent reduction in production by our customers has limited demand for our advanced wafer probe cards. Our revenues from sales to DRAM device manufacturers were also impacted in fiscal 2011 by flooding in Thailand, which dramatically impacted disc drive production resulting in reduced personal computer output and, as a further result, the demand for DRAM devices.

Revenues from sales to Flash memory device manufacturers decreased significantly in fiscal 2011 compared to the prior year. The decrease was driven primarily by decreased demand in the NOR Flash segment. Moderate growth in the sale of NAND Flash wafer probe cards offset a portion of this decline.

Revenues from sales to SoC device manufacturers increased in fiscal 2011 compared to the prior year, primarily due to market adoption of more complex devices with higher parallelism and the adoption of MEMS in place of traditional cantilever cards, both of which positively impacted revenues from sales of our wafer probe cards. We also qualified an existing customer on our TrueScale Matrix product during fiscal 2011.

Revenue by Geographic Region

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

	Fiscal 2011	% of Revenues	Fiscal 2010	% of Revenues
(In thousands)				
Taiwan	\$ 53,844	31.8%	\$ 72,615	38.5%
South Korea	39,219	23.1	25,984	13.8
Japan	29,467	17.4	28,479	15.1
North America	25,880	15.3	38,334	20.3
Asia-Pacific(1)	13,860	8.2	15,109	8.0
Europe	7,055	4.2	8,044	4.3
Total revenues	\$ 169,325	100.0%	\$ 188,565	100.0%

- (1) Asia-Pacific includes all countries in the region except Taiwan, Japan and South Korea, 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 significant decrease in Taiwan, Asia-Pacific and North America revenues for the fiscal 2011 compared to the prior year was primarily due to decreased demand for our DRAM products associated with overall weakness in the global DRAM semiconductor device market. The increase in South Korea revenues is related to the increased demand for our SmartMatrix product line for DRAM, our TouchMatrix product line for NAND Flash, and Image Sensor products in the SoC segment. The increase in Japan revenue for fiscal 2011 compared to the prior year was primarily due to the qualification of an existing customer on our TrueScale Matrix product, which was partially offset by a decrease in our DRAM product sales. Europe revenue declined in fiscal 2011 due to the reduced demand for our SoC products.

Gross Profit (Loss)

	Fiscal 2011	Fiscal 2010
(In thousands)		
Gross profit (loss)	\$ 20,958	\$ (2,272)
Gross margin	12.4%	(1.2)%

Gross margin fluctuates with revenue levels, product mix, selling prices, factory loading and material costs. For fiscal 2011, gross margin increased compared to fiscal 2010 primarily due to reductions in general overhead cost, lower depreciation expense, reductions in inventory provision charges, higher production yields and favorable changes in product mix to higher margin products.

For fiscal 2011, the increase in gross margin compared to the prior fiscal year included a reduction of \$14.0 million in general overhead expenses resulting from our cost control initiatives and decision to cease manufacturing in Singapore and Korea. The increase in gross margin also included \$6.1 million of lower depreciation expense resulting primarily from the fiscal 2010 enterprise-wide impairment.

For fiscal 2011, gross margin also improved compared to the prior year due to a \$3.5 million decrease in inventory provision charges. This improvement is the result of current and on-going initiatives to improve materials planning, procurement and production processes that resulted in reductions in our excess inventory levels. Excess custom inventories are not uncommon for our company because our advanced wafer probe cards are custom designs manufactured in low volumes and must be delivered on relatively short lead times. This requires 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 wafer probe cards. In fiscal 2011, the value of previously reserved materials that were used in manufacturing and shipped was \$2.5 million as compared to \$2.8 million in fiscal 2010.

Gross margin included stock-based compensation of \$3.5 million and \$3.7 million for fiscal 2011 and 2010, respectively, with the decrease being primarily due to declining stock prices, decreased headcount and a reduction in the number of awards granted, partially offset by expense related to current year grants.

In the future, our 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 2011	Fiscal 2010
	(In thousands)	
Research and development	\$ 43,544	\$ 55,389
% of revenues	25.7%	29.4%

Research and development expenses for fiscal 2011 decreased \$11.8 million, or 21%, compared to the prior year primarily due to the decrease in certain new technology product development related costs and the decrease in other costs as a result of our cost reduction efforts. As a percent of revenues, research and development expenses decreased in fiscal 2011 as compared to fiscal 2010 primarily due to our cost reduction efforts.

In fiscal 2011, costs related to our research and development activities decreased from fiscal 2010 primarily due to reduced payroll and related costs of \$6.1 million, driven by reduced headcount, and reduced materials and related costs of \$2.4 million. Additionally, we had a decrease in depreciation expense and facilities related costs of \$1.1 million, resulting primarily from the fiscal 2010 enterprise-wide impairment as well as the reduction of our facilities footprint during 2010. Stock-based compensation included within research and development expenses was \$4.3 million for fiscal 2011 compared to \$5.6 million for fiscal 2010, with the decrease being primarily due to declining stock prices, decreased headcount and a reduction in the number of awards granted, partially offset by expense related to current year grants.

We are continuing our strategic investments in research and development, including investments in the development of our next generation architecture and products for testing DRAM devices, new vertical technology directed to testing SoC devices, advanced MicroSpring interconnect technology, ATRE wafer test technology and new process technologies. We remain committed to product development in new and emerging technologies.

Selling, General and Administrative

	Fiscal 2011	Fiscal 2010
	(In thousands)	
Selling, general and administrative	\$ 46,705	\$ 67,208
% of revenues	27.6%	35.7%

Selling, general and administrative expenses decreased \$20.5 million, or 31%, for fiscal 2011 compared to the prior year primarily due to a decrease in personnel related costs and other discretionary spending. As a percent of revenues, selling, general and administrative expenses decreased in fiscal 2011 as compared to the prior year, primarily due to the reduction in expenses resulting from our on-going cost reduction efforts.

For fiscal year 2011, salary and payroll related costs, for selling, general and administrative functions, including incentive bonuses, decreased by \$8.1 million from fiscal 2010 due to reduced headcount and a reduction in incentive bonus. We also had a year over year decrease in severance costs of \$1.2 million resulting from severance agreements with certain executives in 2010 that were not recurring. In addition, we experienced a reduction in facilities related costs of \$3.2 million compared to fiscal 2010 resulting from the reduction of our facilities footprint during 2010, as well as decreased depreciation expense resulting from the enterprise-wide impairment recorded during fiscal 2010, of \$2.4 million. Our cost reduction efforts, as well as reduction in on-going legal activities, resulted in a reduction in legal and outside service fees of \$2.2 million during fiscal 2011 versus fiscal 2010. Stock-based compensation expenses included within selling, general and administrative

expense were \$6.1 million compared to \$8.3 million for the prior year. The decrease in stock-based compensation was primarily due to declining stock prices, decreased headcount and a reduction in the number of awards granted, partially offset by expense related to current year grants.

Restructuring Charges

	Fiscal 2011	Fiscal 2010
	(In thousands)	
Restructuring charges	\$ 522	\$ 15,908
% of revenues	0.3%	8.4%

Restructuring charges decreased \$15.4 million , or 97% , from fiscal 2010 to fiscal 2011 . The decrease was primarily due to reduction in the size of the actions taken in 2011 compared to 2010 as our restructuring activities have wound down. Our 2010 actions resulted in a reduction in workforce of 19% , whereas our actions in 2011 reduced the workforce by 5% . Furthermore, in 2010 we recorded an \$8.8 million impairment of property and equipment as part of the restructuring charges of fiscal 2010 , whereas there was no such impairment charge recorded in restructuring in fiscal 2011 . The restructuring plans we implemented in fiscal 2011 and fiscal 2010 are discussed below.

2011 Restructuring Activities

In the first quarter of fiscal 2011 , we implemented a restructuring plan (the “ Q1 2011 Restructuring Plan”) which resulted in the reduction of our global workforce by 13 full-time employees across the organization. We recorded \$1.1 million in charges for severance and related benefits related to this plan. The activities comprising this reduction in workforce were substantially completed by the end of the second quarter of fiscal 2011 . As a result of the Q1 2011 Restructuring Plan, we have realized, and expect to continue to realize, quarterly savings, excluding stock-based compensation expenses, of approximately \$0.6 million in subsequent quarters.

In the second quarter of fiscal 2011 , we implemented a restructuring plan (the “ Q2 2011 Restructuring Plan”) which resulted in the reduction of our global workforce by 13 full-time employees across the organization. We recorded \$0.6 million in charges for severance and related benefits related to this plan. The activities comprising this reduction in workforce were substantially completed by the end of the third quarter of fiscal 2011 . As a result of the Q2 2011 Restructuring Plan we have realized, and expect to continue to realize, quarterly savings, excluding stock-based compensation expenses, of approximately \$0.4 million in subsequent quarters.

Additionally, in the second quarter of fiscal 2011 we executed an amendment to the existing lease arrangement for our facility in Singapore which released us from our obligations related to the floor previously utilized for manufacturing in this facility. We were also granted a rent reduction for the remaining occupied facilities in this building. We had previously recorded certain asset retirement obligations and accruals related to our cessation of the use of these facilities in connection with a prior restructuring action. As a result, our Consolidated Statement of Operations for fiscal 2011 includes a benefit of \$1.5 million recorded to 'Restructuring charges, net'.

In the third quarter of fiscal 2011 , we implemented a restructuring plan (the “ Q3 2011 Restructuring Plan”) which resulted in the reduction of our global workforce by four full-time employees primarily in our procurement and logistics organizations. We recorded \$0.3 million in charges for severance and related benefits related to this plan. The activities comprising this plan were completed during fiscal 2011. As a result of the Q3 2011 Restructuring Plan, we expect to realize quarterly savings, excluding stock-based compensation expenses, of approximately \$0.2 million in subsequent quarters.

In the fourth quarter of fiscal 2011 , we implemented a restructuring plan (the “ Q4 2011 Restructuring Plan”) which resulted in the reduction of our global workforce by eight full-time employees primarily in our finance and procurement and logistics organizations. We recorded \$0.3 million in charges for severance and related benefits related to this plan. The activities comprising this reduction are expected to be completed by the end of the first quarter of fiscal 2012. As a result of the Q4 2011 Restructuring Plan, we expect to realize quarterly savings, excluding stock-based compensation expenses, of approximately \$0.3 million in subsequent quarters.

2010 Restructuring Activities

We recorded \$3.4 million in restructuring charges during the first quarter of fiscal 2010 as part of our then-current regionalization strategy (the “ Q1 2010 Restructuring Plan”). These charges consisted of termination benefits related to reductions in work force of 106 full-time positions, which were all related to severance and related benefits. The activities related to this action were completed during fiscal 2011 . Subsequently, in the second quarter of fiscal 2010 we undertook a plan to rescind the previously issued severance arrangements for certain employees impacted by this plan, resulting in the reversal of \$3.3 million of the accrual for severance costs booked in conjunction with the Q1 2010 Restructuring Plan, including the accrued retention bonus to date. We completed this rescission plan in fiscal 2010 .

In the second quarter of fiscal 2010 , we announced a series of corporate initiatives, including a reduction in workforce, which represented a renewed focus on streamlining and simplifying our operations as well as reducing our quarterly operating costs (the “ Q2 2010 Restructuring Plan”). These actions included a reduction in workforce impacting 67 employees spread across all functions of the organization, as well as a reduction in the scope of the previously contemplated manufacturing operations in Korea, resulting in a reduction of workforce of 16 employees related to the assembly and test function. We recorded \$4.8 million in charges for the Q2 2010 Restructuring Plan during fiscal 2010 for severance and related benefits. Additionally, in conjunction with the Q2 2010 Restructuring Plan we identified certain equipment and software assets related to our assembly and test operations in Korea that would no longer be utilized. As a result, we recorded impairment charges of approximately \$1.0 million during fiscal 2010 , representing the net book value of these assets. The activities comprising this reduction in force were completed during fiscal 2011 .

In the third quarter of fiscal 2010 , we announced a restructuring plan (the “ Q3 2010 Restructuring Plan”) to cease the transition of manufacturing operations to Singapore. This decision resulted in a reduction in force of 58 employees at our Singapore facility. The manufacturing activities that were scheduled to be transitioned to Singapore remained in Livermore, and Livermore continued as the primary manufacturing operating location for the Company. In conjunction with the Q3 2010 Restructuring Plan, we also undertook a reduction in force of two additional individuals in our Livermore operations.

We recorded charges of \$1.0 million for severance and related benefits and impairment charges of \$7.8 million for certain equipment and leasehold improvements in Singapore that would no longer be utilized in conjunction with the Q3 2010 Restructuring Plan. The activities related to this restructuring plan were completed during fiscal 2011 . In addition, due to the combined effect of the significant change in our business strategy in connection with the Q3 2010 Restructuring Plan, recurring operating losses and the sustained decline in the Company's stock price, we reviewed the recoverability of our long-lived assets in the third quarter of fiscal 2010 , as discussed in Note 7 - Impairment of Long-lived Assets of the Notes to Consolidated Financial Statements.

In the fourth quarter of fiscal 2010 , we implemented a restructuring plan (the " Q4 2010 Restructuring Plan") including reducing our global workforce by 10 employees across the organization. We recorded \$0.6 million in charges for severance and related benefits in fiscal 2010 . The activities related to this plan were completed during fiscal 2011 .

Impairment of Long-Lived Assets

	Fiscal 2011	Fiscal 2010
	(In thousands)	
Impairment of long-lived assets	\$ 549	\$ 56,401
% of revenues	0.3%	29.9%

Impairment charges decreased \$55.9 million from fiscal 2011 to fiscal 2010 primarily due to the enterprise-wide asset impairment recorded in the third quarter of fiscal 2010 discussed below.

In fiscal 2011, we recorded total impairments of \$0.5 million related to the termination of certain on-going projects, including certain software development for internal use that had been recorded in construction-in-progress.

In the third quarter of fiscal 2010, we reviewed the recoverability of our long-lived assets due to a significant change in our business strategy in connection with the Q3 2011 Restructuring Plan, recurring operating losses and net cash outflows from operations and the sustained decline in the Company's stock price. As a result of this review, we concluded that our business was not able to fully recover the carrying amounts of our assets. Accordingly, we reviewed the carrying amounts at September 25, 2010 of all of our long-lived assets for impairment. Based on this analysis, an impairment charge of

approximately \$52.0 million was recorded as of September 25, 2010. This impairment charge comprised \$27.7 million for leasehold improvements, \$11.2 million for manufacturing equipment, \$8.5 million for computer equipment and software, \$4.4 million for construction-in-progress and \$0.2 million for purchased intangible assets.

In addition, we recorded impairment charges totaling \$4.4 million in fiscal 2010 as follows:

- \$2.7 million impairment related to certain construction-in-progress projects for the development and build of manufacturing equipment, including additional related equipment that was in-service, that was identified as excess capacity;
- \$1.1 million impairment of certain purchased intangible assets related to precision motion control automation that were acquired in conjunction with our acquisition of certain assets from Electroglas, Inc. in 2009 out of bankruptcy proceedings;
- \$0.5 million related to certain leasehold improvements and furniture and fixtures that was abandoned or held for sale as a result of the consolidation of office space in Livermore; and
- \$0.1 million write down of a building held for sale to its estimated fair value.

Interest Income and Other Income, Net

	Fiscal 2011	Fiscal 2010
	(In thousands)	
Interest income	\$ 1,404	\$ 2,546
% of revenues	0.8%	1.4%
Other income, net	\$ 1,076	\$ 4,426
% of revenues	0.6%	2.3%

Interest income is primarily earned on our cash, cash equivalents and marketable securities. The decrease in interest income for fiscal 2011 as compared to fiscal 2010 was primarily the result of lower average balances. Cash, cash equivalents, restricted cash and marketable securities were \$297.0 million at December 31, 2011 compared to \$347.9 million at December 25, 2010. The weighted-average yield on our cash, cash equivalents and marketable securities for fiscal 2011 was 0.45% compared to 0.70% for fiscal 2010.

Other income, net is composed primarily of foreign currency impact and various other gains and losses. The change in other income, net for fiscal 2011 compared to fiscal 2010 was primarily due to the \$3.5 million gain recorded in the third quarter of fiscal 2011 which resulted from the release of the liability previously recorded as a secured borrowing due to the dismissal of our complaint against a customer.

Benefit from Income Taxes

	Fiscal 2011	Fiscal 2010
	(In thousands)	
Benefit from income taxes	\$ (1,901)	\$ (1,920)
Effective tax rate	(2.8)%	(1.0)%

We recorded an income tax benefit of \$1.9 million for each of the fiscal years 2011 and 2010. The income tax benefit recorded for fiscal 2011 primarily relates to a \$2.5 million release of the deferred tax valuation allowance for a non-U.S. jurisdiction, offset by income tax expense in certain of our non-U.S. operations in foreign jurisdictions. The income tax benefit recorded for fiscal 2010 primarily related to the settlement of a non-U.S. tax jurisdiction audit, offset by tax expense related to our non-U.S. operations in foreign jurisdictions.

During the fiscal quarter ended June 25, 2011, we determined that it is more likely than not that the deferred tax assets of a non-U.S. jurisdiction will be realized after considering all positive and negative evidence. Positive evidence included finalization of our current restructuring activity for the related foreign jurisdiction and conclusion that such location will continue to be in operation for the foreseeable future, as well as a forecast of future taxable income sufficient to realize such

deferred tax assets prior to the expiration of existing net operating loss carry-forwards due to a change in the entity's structure to a cost-plus arrangement. Accordingly, a deferred tax valuation allowance release of \$2.5 million was recorded as an income tax benefit during the quarter. Our conclusion that it is more likely than not that such deferred tax assets will be realized is strongly influenced by the expectation that such location will continue to be in operation for the foreseeable future. We believe such conclusion is reasonable in light of our current operational structure and forecasted operations, both for the foreign jurisdiction and our consolidated operations; however, such conclusion is inherently uncertain. Therefore, if we have material unforeseen losses or are required to restructure our non-U.S. operations to further align our operating expense structure with our expected revenues, then its ability to generate sufficient income necessary to realize a portion of the deferred tax assets may be reduced and an additional charge to increase the valuation allowance may be recorded.

We recognize interest charges and penalties related to uncertain tax positions as part of the income tax provision. During fiscal 2011 we recognized interest charges and penalties of \$12,000 and during fiscal 2010 we recorded an interest benefit of \$0.3 million. As of December 31, 2011 and December 25, 2010 we accrued total interest charges and penalties of \$0.7 million and \$0.6 million, respectively, related to the 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 31, 2011, we had Federal, state and foreign net operating loss carryforwards of approximately \$231.3 million, \$227.6 million and \$13.5 million, respectively. The Federal net operating loss carryforwards expire at various dates from 2015 through 2031, the state net operating loss carryforwards expire at various dates from 2028 through 2031, and the foreign net operating loss carryforwards 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 \$194.1 million at December 29, 2012 and \$308.4 million at December 31, 2011. The decrease in working capital in the year ended December 29, 2012 was primarily due to the net cash used in our operating activities and cash used to acquire MicroProbe.

Cash and cash equivalents consist of deposits held at banks, money market funds, U.S. government securities and commercial papers that at the time of purchase had maturities of 90 days or less. Marketable securities consist of U.S. government and agency securities and commercial papers. 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.

Our cash, cash equivalents and marketable securities totaled \$165.8 million at December 29, 2012 compared to \$296.7 million at December 31, 2011. Cash, cash equivalents and marketable securities included \$12.6 million held by our foreign subsidiaries as of December 29, 2012. The decrease in our cash, cash equivalents and marketable securities balances was primarily due to the net cash used in our operating activities and cash used to acquire MicroProbe in fiscal 2012. We believe that we will be able to satisfy our working capital requirements for the next twelve months with the liquidity provided by our existing cash, cash equivalents and marketable securities. If we are unsuccessful in improving our operating efficiency, reducing our cash outlays or increasing our available cash through financing, our cash, cash equivalents and marketable securities will further decline in fiscal 2013.

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 through debt. If we were to repatriate indefinitely reinvested foreign funds, the United States income tax impact would be zero due to our net operating loss carry forward position. We would be subject to a small withholding tax in certain international countries for a total of approximately \$42,000.

Day Sales Outstanding: Days sales outstanding from receivables, or DSO, were 49 days at December 29, 2012 compared with 42 days at December 31, 2011. Our DSO is calculated using the count-back method and is based on gross

accounts receivable (including accounts receivable for amounts in deferred revenue). The increase in DSO is primarily due to the acquisition of MicroProbe where certain key customers were granted payment terms of up to 60 days which is slightly longer than we have historically provided.

	Fiscal 2012	Fiscal 2011	Fiscal 2010
	(In thousands)		
Net cash used in operating activities	\$ (26,228)	\$ (29,343)	\$ (73,096)
Net cash provided by (used in) investing activities	(40,701)	60,712	69,841
Net cash provided by (used in) financing activities	2,139	(12,902)	3,098

Cash flows from operating activities: Net cash used in operating activities for fiscal 2012 was primarily attributable to our net loss of \$35.5 million, a non-cash \$24.5 million benefit resulting from changes in deferred tax assets and a non-cash \$3.3 million gain on litigation settlement. This was offset by non-cash expenses of \$13.0 million for stock-based compensation, \$16.9 million for depreciation and amortization and \$7.2 million of provision for excess and obsolete inventories.

The net change in operating assets and liabilities for fiscal 2012 was \$2.5 million, net of the operating assets and liabilities assumed from the MicroProbe acquisition. The net change was comprised of a decrease in our accounts receivable of \$5.2 million, excluding the effect of the accounts receivables assumed in the MicroProbe acquisition, due to our improved collection of payments from customers as well as shortened payment terms for certain customers and a \$1.1 million increase in deferred revenues due to shipments to customers for which our revenue recognition criteria have not yet been met, offset in part by a decrease of \$5.9 million in accounts payable driven by payments for vendor obligations assumed in the MicroProbe acquisition which were past due, and a decrease of \$2.1 million in income taxes payable due to the release of a reserve for uncertain tax positions related to the lapsing of the statute of limitations in the U.S. jurisdiction.

Net cash used in operating activities for fiscal 2011 was primarily attributable to our net loss of \$66.0 million offset in part by \$30.1 million of non-cash charges consisting primarily of \$13.8 million of stock-based compensation, \$10.8 million of depreciation and amortization, and \$7.9 million of provision for excess and obsolete inventories. This was offset by a benefit of \$2.0 million resulting from changes in deferred tax assets and a gain of \$1.6 million related to non-cash restructuring activity.

The net change in operating assets and liabilities for fiscal 2011 was \$6.5 million comprising a decrease in our accounts receivable of \$16.8 million due to our improved collection of payments from customers with extended payment terms as well as shortened payment terms for certain customers and a \$5.6 million reduction in prepaid expenses and other current assets primarily due to the collection of certain amounts received in relation to the liquidation of Electroglas as part of the finalization of its bankruptcy proceedings, offset in part by a decrease of \$9.6 million in accrued liabilities, primarily those related to payroll and bonus, as well as our restructuring actions, and a decrease of \$5.1 million in accounts payable driven by the timing of our payments to vendors and reduced spending levels resulting from our cost reduction initiatives.

Cash flows from investing activities: Net cash used in investing activities for fiscal 2012 was primarily related to cash used in the acquisition of MicroProbe of \$96.7 million net of cash acquired, purchases of marketable securities and property and equipment totaling \$82.4 million and \$8.0 million, respectively. These uses of cash were partially offset by proceeds from maturities of marketable securities of \$135.3 million and proceeds from the sales of marketable securities of \$11.0 million. We carefully monitor our investments to minimize risks and have not experienced other than temporary investment losses. Except for experiencing declining yields, our investment portfolio has not been negatively impacted by the economic turmoil in the credit markets in the recent past.

Net cash provided by investing activities for fiscal 2011 was primarily related to \$308.7 million proceeds from maturities and \$6.0 million of sales of marketable securities partially offset by purchases of marketable securities totaling \$246.7 million and \$7.7 million cash used in the acquisition of property and equipment.

Cash flows from financing activities: Net cash provided by financing activities for fiscal 2012 included \$2.3 million in proceeds received from purchases under our Employee Stock Purchase Plan offset by stock withheld in lieu of payment of employee taxes related to the release of restricted stock units.

Net cash used in financing activities for fiscal 2011 included \$16.4 million used for the repurchase and retirement of our common stock partially offset by \$3.5 million in proceeds received from purchases under our 2002 Employee Stock Purchase Plan and net proceeds from the exercise of stock options offset by stock withheld in lieu of payment of employee taxes related

to the release of restricted stock units.

Our cash, cash equivalents and marketable securities declined in fiscal 2012. We continue to focus on improving our operating efficiency to achieve break even operating cash flow. Our actions have included operational expense reduction initiatives, re-timing or eliminating certain capital spending and research and development projects and re-negotiating longer payment terms with our vendors. We believe that we will be able to satisfy our cash requirements for 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 establishing manufacturing and technology partnerships, or to seek short and long-term debt obligations, or to obtain new financing facilities which may not be available on terms favorable to us or at all. Our future capital requirements may vary materially from those now planned. However, if we are unsuccessful in improving our operating efficiency, executing our cost reduction plan, reducing our cash outlays or increasing our available cash through financing, our cash, cash equivalents and marketable securities will further decline in fiscal 2013.

Contractual Obligations and Commitments

The following table summarizes our significant commitments to make future payments in cash under contractual obligations as of December 29, 2012 :

	Payments Due In Fiscal Years				Total
	2013	2014-2015	2016-2017	After 2017	
	(In thousands)				
Operating leases	\$ 3,658	\$ 5,700	\$ 5,016	\$ 10,034	\$ 24,408
Other purchase obligations	12,402	4,950	50	—	17,402
Capital leases	593	321	29	—	943
Total	<u>\$ 16,653</u>	<u>\$ 10,971</u>	<u>\$ 5,095</u>	<u>\$ 10,034</u>	<u>\$ 42,753</u>

Other purchase obligations are primarily for purchases of inventory and manufacturing related service contracts. For the purposes of this table, other 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 29, 2012 . 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 \$17.2 million as of December 29, 2012 and are classified in deferred taxes and other long-term tax liabilities on our consolidated balance sheet. 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 29, 2012 , 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 29, 2012 , 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 wafer 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. 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 29, 2012 .

Recent Accounting Pronouncements

Please refer to the discussion of our recent accounting pronouncements in Note 2—Summary of Significant Accounting Policies of the Notes to the Consolidated Financial Statements under Part II, Item 8 in this Annual Report on Form 10-K.

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. 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 \$0.5 million and a net gain of \$1.6 million for fiscal 2012 and 2011, respectively, from the fluctuation in foreign exchange rates and the valuation of these hedge contracts in our Consolidated Statements of Operations under “Other income, net”.

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 29, 2012 and December 31, 2011 would have affected the fair value of our investment portfolio by less than \$1.2 million and \$2.1 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) during the fiscal quarter ended December 29, 2012, 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, 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 29, 2012. In making this assessment, our management used the criteria set forth in *Internal Control-Integrated Framework* 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 29, 2012, based on the criteria in *Internal Control-Integrated Framework* issued by the COSO.

Management has elected to exclude Astria Semiconductor Holdings, Inc., including its subsidiary MicroProbe, Inc. (together "MicroProbe") from its assessment of internal control over financial reporting as of December 29, 2012, because we acquired MicroProbe in a business purchase combination during fiscal 2012. MicroProbe is a wholly-owned subsidiary of the Company, whose total assets and revenues represent 37.2% and 11.1%, respectively, of the related consolidated financial statement amounts as of and for the year ended December 29, 2012.

The effectiveness of our internal control over financial reporting as of December 29, 2012 has been audited by PricewaterhouseCoopers 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

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 2013 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 Firm
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				
		Form	File No	Date of First Filing	Exhibit Number	Filed Herewith
2.01***	Agreement and Plan of Merger dated as of August 31, 2012 among Astria Semiconductor Holdings, Inc., FormFactor, Inc., 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					X
10.10+	Employee Stock Purchase Plan, as amended and restated April 18, 2012					X
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	10/20/2001	
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	10,010	
10.18+	Employment Letter Agreement, dated September 2, 2010, between Thomas St. Dennis and FormFactor, Inc.	8-K	000-50307	9/17/2010	99.01+	
10.19+	Employment Offer Letter, dated August 29, 2012 to Mike Slessor					X
21.01	List of Registrant's subsidiaries	—	—	—	—	X
23.01	Consent of Independent Registered Public Accounting Firm	—	—	—	—	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

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- * 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.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
Additional Directors:		
<u>/s/ G. CARL EVERETT, JR.</u> G. Carl Everett, Jr.	Director	March 13, 2013
<u>/s/ LOTHAR MAIER</u> Lothar Maier	Director	March 13, 2013
<u>/s/ EDWARD ROGAS, JR</u> Edward Rogas, Jr	Director	March 13, 2013
<u>/s/ MICHAEL W. ZELLNER</u> Michael W. Zellner	Director	March 13, 2013
<u>/s/ RICHARD DELATEUR</u> Richard DeLateur	Director	March 13, 2013

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of FormFactor, Inc:

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of operations, statements of comprehensive loss, stockholders' equity, and cash flows present fairly, in all material respects, the financial position of FormFactor, Inc. and its subsidiaries at December 29, 2012 and December 31, 2011 and the results of their operations and their cash flows for each of the three years in the period ended December 29, 2012 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 29, 2012, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these 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 Management's Report on Internal Control over Financial Reporting appearing under Item 9A of this Annual Report on Form 10-K. Our responsibility is to express opinions on these financial statements and on the Company's internal control over financial reporting based on our integrated 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 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 (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (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 receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) 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.

As described in Management's Report on Internal Control over Financial Reporting, management has excluded Astria Semiconductor Holdings, Inc., including its subsidiary MicroProbe, Inc., (together "MicroProbe") from its assessment of internal control over financial reporting as of December 29, 2012 because it was acquired by the Company in a business purchase combination during the year ended December 29, 2012. We have also excluded MicroProbe from our audit of internal control over financial reporting. MicroProbe is a wholly-owned subsidiary whose total assets and total revenues represent 37.2% and 11.1%, respectively, of the related consolidated financial statement amounts as of and for the year ended December 29, 2012.

/s/ PRICEWATERHOUSECOOPERS LLP
San Jose, California
March 13, 2013

FORMFACTOR, INC.
CONSOLIDATED BALANCE SHEETS

	December 29, 2012	December 31, 2011
	(In thousands, except share and per share data)	
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 72,243	\$ 139,049
Marketable securities	93,545	157,642
Accounts receivable, net	28,919	12,662
Inventories	23,616	18,092
Deferred tax assets	4,613	1,162
Refundable income taxes	5,667	910
Prepaid expenses and other current assets	10,569	7,458
Total current assets	239,172	336,975
Restricted cash	318	317
Property, plant and equipment, net	45,515	35,132
Goodwill	30,994	—
Intangibles, net	74,276	3,242
Deferred tax assets	4,207	5,954
Other assets	1,200	1,451
Total assets	<u>\$ 395,682</u>	<u>\$ 383,071</u>
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 21,015	\$ 9,731
Accrued liabilities	17,270	13,966
Capital leases, current portion	573	—
Income taxes payable	—	100
Deferred revenue	6,189	4,798
Total current liabilities	45,047	28,595
Long-term income taxes payable	3,028	4,112
Capital leases, net of current portion	340	—
Deferred rent and other liabilities	8,009	3,712
Total liabilities	56,424	36,419
Commitments and contingencies (Note 10)		
Stockholders' equity:		
Preferred stock, \$0.001 par value:		
10,000,000 shares authorized; no shares issued and outstanding at December 29, 2012 and December 31, 2011, respectively	—	—
Common stock, \$0.001 par value:		
250,000,000 shares authorized; 53,286,703 and 49,268,479 shares issued and outstanding at December 29, 2012 and December 31, 2011, respectively	54	50
Additional paid-in capital	681,157	652,024
Accumulated other comprehensive income	1,715	2,700
Accumulated deficit	(343,668)	(308,122)
Total stockholders' equity	339,258	346,652
Total liabilities and stockholders' equity	<u>\$ 395,682</u>	<u>\$ 383,071</u>

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

FORMFACTOR, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS

	Fiscal Year Ended		
	December 29, 2012	December 31, 2011	December 25, 2010
	(In thousands, except per share data)		
Revenues	\$ 178,535	\$ 169,325	\$ 188,565
Cost of revenues	153,204	148,367	190,837
Gross profit (loss)	25,331	20,958	(2,272)
Operating expenses:			
Research and development	40,130	43,544	55,389
Selling, general and administrative	49,231	46,705	67,208
Restructuring charges, net	2,917	522	15,908
Impairment of long-lived assets	421	549	56,401
Gain on settlement of litigation	(3,250)	—	—
Total operating expenses	89,449	91,320	194,906
Operating loss	(64,118)	(70,362)	(197,178)
Interest income	691	1,404	2,546
Other income, net	1,461	1,076	4,426
Loss before income taxes	(61,966)	(67,882)	(190,206)
Benefit from income taxes	(26,420)	(1,901)	(1,920)
Net loss	\$ (35,546)	\$ (65,981)	\$ (188,286)
Net loss per share:			
Basic and diluted	\$ (0.70)	\$ (1.31)	\$ (3.75)
Weighted-average number of shares used in per share calculations:			
Basic and diluted	50,551	50,521	50,246

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

FORMFACTOR, INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS

	<u>Fiscal Year Ended</u>		
	<u>December 29, 2012</u>	<u>December 31, 2011</u>	<u>December 25, 2010</u>
	(In thousands)		
Net loss	\$ (35,546)	\$ (65,981)	\$ (188,286)
Other comprehensive income (loss), net of tax:			
Foreign currency translation adjustments	(838)	660	1,009
Unrealized gains (losses) on available-for-sale marketable securities	(147)	13	(235)
Comprehensive loss	<u>\$ (36,531)</u>	<u>(65,308)</u>	<u>(187,512)</u>

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

FORMFACTOR, INC.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income	Accumulated Deficit	Total
	Shares	Amount				
(In thousands, except shares)						
Balances, December 26, 2009	49,762,008	\$ 50	\$ 630,333	\$ 1,253	\$ (53,855)	\$ 577,781
Issuance of common stock pursuant to exercise of options for cash	115,597	—	698	—	—	698
Issuance of common stock pursuant to vesting of restricted stock units, net of stock withheld	414,441	—	(762)	—	—	(762)
Issuance of common stock under the Employee Stock Purchase Plan	365,871	2	3,786	—	—	3,788
Purchase and retirement of common stock	(70,000)	—	(626)	—	—	(626)
Stock-based compensation	—	—	17,834	—	—	17,834
Components of other comprehensive income (loss):						
Change in unrealized gain (loss) on marketable securities, net of tax	—	—	—	(235)	—	(235)
Currency translation adjustments	—	—	—	1,009	—	1,009
Net loss	—	—	—	—	(188,286)	(188,286)
Balances, December 25, 2010	50,587,917	52	651,263	2,027	(242,141)	411,201
Issuance of common stock pursuant to exercise of options for cash	141,280	—	914	—	—	914
Issuance of common stock pursuant to vesting of restricted stock units, net of stock withheld	485,204	—	(219)	—	—	(219)
Issuance of common stock under the Employee Stock Purchase Plan	386,818	—	2,813	—	—	2,813
Purchase and retirement of common stock	(2,332,740)	(2)	(16,409)	—	—	(16,411)
Stock-based compensation	—	—	13,662	—	—	13,662
Components of other comprehensive income (loss):						
Change in unrealized gain (loss) on marketable securities, net of tax	—	—	—	13	—	13
Currency translation adjustments	—	—	—	660	—	660
Net loss	—	—	—	—	(65,981)	(65,981)
Balances, December 31, 2011	49,268,479	50	652,024	2,700	(308,122)	346,652
Issuance of common stock pursuant to exercise of options for cash	—	—	—	—	—	—
Issuance of common stock pursuant to acquisition of business	3,020,944	3	13,802	—	—	13,805
Issuance of common stock pursuant to vesting of restricted stock units, net of stock withheld	464,203	—	(106)	—	—	(106)
Issuance of common stock under the Employee Stock Purchase Plan	533,077	1	2,357	—	—	2,358
Stock-based compensation	—	—	13,080	—	—	13,080
Components of other comprehensive income (loss):						
Change in unrealized gain (loss) on marketable securities, net of tax	—	—	—	(147)	—	(147)
Currency translation adjustments	—	—	—	(838)	—	(838)
Net loss	—	—	—	—	(35,546)	(35,546)
Balances, December 29, 2012	53,286,703	\$ 54	\$ 681,157	\$ 1,715	\$ (343,668)	\$ 339,258

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

FORMFACTOR, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS

	Fiscal Year Ended		
	December 29, 2012	December 31, 2011	December 25, 2010
	(In thousands)		
Cash flows from operating activities:			
Net loss	\$ (35,546)	\$ (65,981)	\$ (188,286)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	16,901	10,838	28,155
Amortization of investments	91	469	469
Stock-based compensation expense	13,049	13,849	17,613
Deferred income tax benefit	(24,460)	(1,988)	(2,105)
Provision for (recovery of) doubtful accounts receivable	52	(276)	(1,071)
Write-down for excess and obsolete inventories	7,232	7,897	11,389
Loss on disposal and write-off of long-lived assets	41	5	431
Non-cash restructuring	462	(1,582)	8,974
Impairment of long-lived assets	421	549	56,401
Gain on settlement of litigation	(3,250)	—	—
Gain on release of secured borrowing	—	—	(3,481)
Foreign currency transaction (gains) losses	1,267	328	(291)
Changes in assets and liabilities:			
Accounts receivable	5,158	16,803	3,225
Inventories	(926)	(1,152)	(16,887)
Prepaid expenses and other current assets	821	5,621	3,700
Refundable income taxes	(27)	(862)	25,843
Other assets	426	1,907	66
Accounts payable	(5,903)	(5,065)	(13,006)
Accrued liabilities	(1,123)	(9,643)	4,634
Income taxes payable	(2,145)	(1,263)	(732)
Deferred revenues	1,064	160	(6,217)
Deferred rent and other liabilities	167	43	(1,920)
Net cash used in operating activities	<u>(26,228)</u>	<u>(29,343)</u>	<u>(73,096)</u>
Cash flows from investing activities:			
Acquisition of property, plant and equipment	(7,952)	(7,700)	(30,914)
Acquisition of MicroProbe, net of cash acquired	(96,652)	—	—
Proceeds from sales of property, plant and equipment	—	33	293
Purchases of marketable securities	(82,437)	(246,665)	(341,292)
Proceeds from maturities of marketable securities	135,340	308,681	432,549
Proceeds from sales of marketable securities	11,000	6,000	9,205
Change in restricted cash	—	363	—
Net cash (used in) provided by investing activities	<u>(40,701)</u>	<u>60,712</u>	<u>69,841</u>
Cash flows from financing activities:			
Proceeds from issuances of common stock	2,251	3,509	3,724
Purchase and retirement of common stock	—	(16,411)	(626)
Payments made on capital leases	(112)	—	—
Net cash provided by (used in) financing activities	<u>2,139</u>	<u>(12,902)</u>	<u>3,098</u>
Effect of exchange rate changes on cash and cash equivalents	(2,016)	(625)	(679)
Net (decrease) increase in cash and cash equivalents	(66,806)	17,842	(836)
Cash and cash equivalents, beginning of year	139,049	121,207	122,043
Cash and cash equivalents, end of year	<u>\$ 72,243</u>	<u>\$ 139,049</u>	<u>\$ 121,207</u>
Non-cash investing and financing activities:			
Fair value of stock issued in connection with the acquisition of MicroProbe	\$ 13,805	\$ —	\$ —

Changes in accounts payable and accrued liabilities related to property, plant and equipment purchases	\$	2,215	\$	(66)	\$	1,997
Working capital adjustment	\$	2,782	\$	—	\$	—

Supplemental disclosure of cash flow information:

Income taxes paid (refunded), net	\$	(40)	\$	1,410	\$	(24,882)
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The accompanying notes are an integral part of these consolidated financial statements.

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 wafer probe cards. We are based in Livermore, California, home to our corporate offices, research and development, and manufacturing locations. We have facilities in the United States, Singapore, Japan, Taiwan, South Korea 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 29, 2012 and December 25, 2010, respectively, consisted of 52 weeks and the fiscal year ended on December 31, 2011 consisted of 53 weeks.

Business Acquisition

On October 16, 2012, we completed the acquisition of Astria Semiconductor Holdings, Inc., including its major subsidiary MicroProbe (together "MicroProbe"), which we refer to as the "MicroProbe Acquisition". As part of the Acquisition, a wholly-owned subsidiary of FormFactor merged with and into MicroProbe, with MicroProbe continuing as the surviving corporation and as a wholly-owned subsidiary of FormFactor. For additional information regarding the Acquisition see Note 3.

Reclassifications

Certain reclassifications have been made to the prior year's Consolidated Balance Sheet to conform to the current year's presentation.

Out of Period Adjustment

In the third quarter of fiscal 2010, we recorded a \$4.1 million adjustment to cost of revenues net of \$0.5 million income tax benefit, which resulted from an error in the calculation of capitalized manufacturing variances starting in the first quarter of fiscal 2009 through the second quarter of fiscal 2010. The error caused the understatement of cost of revenues and the overstatement of the overhead capitalized in inventory for most quarters.

The income tax benefit resulted from a higher net loss in 2009 due to higher costs of revenue. The increase in the 2009 loss allowed us to recover more of our prior year tax payments. Of the total adjustment of \$4.1 million to cost of revenues, \$2.9 million, net of \$0.5 million income tax benefit, was related to fiscal 2009. Management and the Audit Committee believe that such amounts are not material to current and previously reported financial statements.

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 material 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."

Certain other of our foreign subsidiaries in the People's Republic of China, Taiwan, Hong Kong, South Korea and Singapore 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.

FORMFACTOR, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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, business combinations, legal contingencies, realizability of goodwill, the assessment of recoverability of long-lived assets, valuation and recognition of stock-based compensation, provision or benefit for income taxes and related deferred tax assets, valuation and tax liabilities and accruals for other liabilities 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 most 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 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 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", 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. We measure our cash equivalents and marketable securities at fair value.

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. 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. 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.

FORMFACTOR, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

- 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.
- 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 (expense), 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 29, 2012 and December 31, 2011, restricted cash included \$0.3 million and \$0.3 million, respectively, of 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, past usage and forecasted future sales 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 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. 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 material purchases are often subject to minimum purchase 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 wafer probe cards. These factors result in normal recurring inventory valuation adjustments to cost of revenues. Aggregate inventory write downs were \$7.2 million, \$7.9 million and \$11.4 million for fiscal 2012, 2011 and 2010, respectively. We retain a portion of the excess inventory until the customer's design is discontinued. The inventory may be used to satisfy customer warranty demand.

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 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.

FORMFACTOR, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Goodwill

Goodwill represents the excess of the purchase price over the fair value of assets acquired and liabilities assumed. We have determined that we operate in a single segment and have a single reporting unit associated with the design, development, manufacture, sale and support of precision, high performance advanced semiconductor wafer probe cards. In September 2011, the Financial Accounting Standards Board ("FASB") amended its guidance to simplify the testing of goodwill for impairment, allowing an entity to 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 values of the applicable reporting units with their aggregate carrying values, including goodwill. We generally determine the fair value of our reporting units using the income approach methodology of valuation that includes the discounted cash flow method as well as other generally accepted valuation methodologies. If the carrying amount of a reporting unit exceeds the reporting unit's fair value, 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. We acquired MicroProbe and performed a fair value assessment as of the acquisition date, October 16, 2012 resulting in our current goodwill balance. We will perform our annual goodwill impairment test in the fourth fiscal quarter.

Intangible Assets

Intangible assets consists 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, utilizing either an accelerated or straight-line basis of amortization. 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. If such facts and circumstances exist, 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 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 and its fair value which is generally determined as the sum of the undiscounted cash flows expected to result from the use and the eventual disposal of the asset, as well as specific appraisals in certain instances. An impairment loss is recognized when the carrying amount is not recoverable and exceeds fair value.

We performed an enterprise-wide impairment test in the fourth fiscal quarter of 2012. No enterprise-wide impairment charges were recorded during fiscal 2012 and fiscal 2011. We recorded an enterprise-wide charge in 2010 of \$52.0 million. See Note 7 - Impairment of Long-lived Assets for additional information.

Long-Lived Assets Held For Sale

We classify long-lived assets as held for sale when certain criteria are met, including: management's commitment to a plan to sell the assets; the availability of the assets for immediate sale in their present condition; whether an active program to locate buyers and other actions to sell the assets has been initiated; whether the sale of the assets is probable and their transfer is expected to qualify for recognition as a completed sale within one year; whether the assets are being marketed at reasonable prices in relation to their fair value; and whether it is unlikely that significant changes will be made to the plan to sell the assets.

We measure long-lived assets to be disposed of by sale at the lower of the carrying amount or fair value less cost to sell. Fair value is determined using quoted market prices or the anticipated cash flows discounted at a rate commensurate with the risk involved. Changes to our estimated fair values of such assets are recorded in the periods in which such changes are identified.

FORMFACTOR, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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, trade receivables and derivative financial instruments used in hedging activities. Our cash equivalents and marketable securities are held in safekeeping by large, creditworthy 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. In fiscal 2012, two customers accounted for 29% and 12% of revenues. In fiscal 2011, three customers accounted for 16%, 11% and 10% of revenues. In fiscal 2010, three customers accounted for 20%, 13%, and 12% of revenues.

At December 29, 2012, one customer accounted for 29% of accounts receivable. At December 31, 2011, two customers accounted for 12%, and 10% of accounts receivable. We operate in the intensely competitive semiconductor industry, including the DRAM, Flash, and System-on-Chip ("SoC") markets, which have been characterized by price erosion, rapid technological change, short product life, cyclical market patterns and heightened foreign and domestic competition. Significant technological changes in the industry could affect operating results adversely.

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.

Certain components 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 lifecycles may intensify these risks. 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.

In October 2009, the FASB issued Accounting Standards Update No. 2009-13, "Multiple-Deliverable Revenue Arrangements". The guidance eliminates the residual method of revenue recognition and allows the use of management's best estimate of selling price ("BESP") for individual elements of an arrangement when vendor-specific objective evidence ("VSOE") or third-party evidence ("TPE") is unavailable. We adopted this guidance effective with the first quarter of fiscal 2011 and it has been applied on a prospective basis for revenue arrangements entered into or materially modified after December 25, 2010.

This guidance does not generally change the units of accounting for our revenue transactions. We do not have a significant number of product offerings with multiple elements. Our multiple-element arrangements generally include probe cards and product maintenance and repair services. We allocate revenue to the deliverables based upon their relative selling price. Revenue allocated to each unit of accounting is then recognized when persuasive evidence of an arrangement exists, delivery has occurred or services are rendered, the sales price or fee is fixed or determinable and collectability is reasonably assured. Product maintenance and repair services are deferred and recognized ratably over the period during which the services are performed, generally one year, and costs are recorded as incurred.

When applying the relative selling price method, we determine the selling price for each deliverable using VSOE, TPE or BESP. For the vast majority of our arrangements involving multiple deliverables, such as sales of products with services, the entire fee from the arrangement was allocated to each respective element based on its relative selling price, using VSOE. For those deliverables for which we cannot establish VSOE, we have determined our best estimate of selling price, as the Company has determined it is unable to establish TPE of selling price for the deliverables. The objective of BESP is to determine the price at which we would transact a sale if the deliverable were sold on a stand-alone basis. We determine BESP for a deliverable by considering multiple factors including, but not limited to, market conditions, competitive landscape, internal costs, gross margin objectives and pricing practices. The determination of BESP is made through consultation with and formal approval by our management, taking into consideration the go-to-market strategy.

FORMFACTOR, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The adoption of the new revenue recognition accounting standards did not have a material impact on our consolidated financial position, results of operations, or cash flows for the year ended December 31, 2011. The new accounting standards for revenue recognition if applied in the same manner to the year ended December 25, 2010 would not have had a material impact on total net revenues for that fiscal year.

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 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 29, 2012	December 31, 2011
Warranty accrual beginning balance	\$ 330	\$ 433
Accrual of warranties during the year	1,744	666
Settlements made during the year	(1,340)	(769)
Warranty accrual ending balance	<u>\$ 734</u>	<u>\$ 330</u>

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

A 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 are adversely affected and they are unable to meet their financial obligations to us, we may need to take additional allowances, which would result in an increase in our net loss.

The allowance for doubtful accounts consisted of the following activity for fiscal years 2012, 2011, and 2010 (in thousands):

	Balance at Beginning of Year	Additions	Reductions	Balance at End of Year
Allowance for doubtful accounts receivable				
Fiscal year ended December 25, 2010	\$ 9,260	\$ 315	\$ (8,728)	\$ 847
Fiscal year ended December 31, 2011	847	29	(638)	238
Fiscal year ended December 29, 2012	238	202	(151)	289

FORMFACTOR, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

A description of activity recorded in our allowance for doubtful accounts is as follows:

- *Fiscal 2010* : we recorded an additional allowance for doubtful accounts of \$0.3 million for accounts determined to be uncollectible and we released \$8.7 million of allowance for doubtful accounts primarily due to a reduction of \$6.7 million related to the dismissal of a complaint against a customer resulting in the write-off of previously reserved accounts receivable, a write-off of \$0.5 million uncollectible debts that was previously reserved and receipt of payments totaling \$1.4 million for accounts receivable that was previously reserved.
- *Fiscal 2011* : we recorded a reduction in the provision of \$0.6 million primarily due to the receipt of payments totaling \$0.3 million for accounts receivable previously reserved and we wrote-off previously reserved accounts receivable in the amount of \$0.3 million .
- *Fiscal 2012* : we recorded a provision of \$0.2 million and released \$0.2 million of allowance for doubtful accounts that was previously reserved.

Restructuring Charges

Restructuring charges include costs related to employee termination benefits, long-lived assets impaired or abandoned, 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, 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.

The Company recorded restructuring charges of \$2.9 million , \$0.5 million and \$15.9 million for fiscal years 2012, 2011 and 2010 respectively. See Note 5 Restructuring Charges.

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 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.

FORMFACTOR, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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 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 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 29, 2012	December 31, 2011	December 25, 2010
Numerator:			
Net loss used in computing basic and diluted net loss per share	\$ (35,546)	\$ (65,981)	\$ (188,286)
Denominator:			
Weighted-average shares used in computing basic net loss per share	50,551	50,521	50,246
Add potentially dilutive securities	—	—	—
Weighted-average shares used in computing diluted net loss per share	50,551	50,521	50,246

The following table sets forth the weighted-average potentially dilutive securities excluded from the computation in the table above because their effect would have been anti-dilutive (in thousands):

	Fiscal Years Ended		
	December 29, 2012	December 31, 2011	December 25, 2010
Stock options	4,430	4,893	5,021
Restricted stock units	1,246	1,150	869
Employee stock purchase plan	39	135	65
Total potentially dilutive securities	5,715	6,178	5,955

FORMFACTOR, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Accumulated Other Comprehensive Income

Accumulated other comprehensive income includes foreign currency translation adjustments and unrealized gains (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 income was as follows (in thousands):

	December 29, 2012	December 31, 2011
Unrealized loss on marketable securities, net of tax of \$428 and \$384 in fiscal 2012 and fiscal 2011, respectively	\$ (270)	\$ (123)
Cumulative translation adjustments	1,985	2,823
Accumulated other comprehensive income	<u>\$ 1,715</u>	<u>\$ 2,700</u>

Recent Accounting Pronouncements

Fair Value

Effective December 26, 2010, as required, we adopted the guidance to amend the disclosure requirements related to recurring and nonrecurring fair value measurements. Specifically, we have adopted the guidance requiring the disclosure of the roll forward of activities on purchases, sales, issuances and settlements of the assets and liabilities measured using significant unobservable inputs (Level 3 fair value measurements). Other than requiring additional disclosures, adoption of this new guidance in the first quarter of fiscal 2011 did not impact on our consolidated financial statements.

Additionally, in May 2011, updated authoritative guidance to amend existing requirements for fair value measurements and disclosures was issued. The guidance expands the disclosure requirements around fair value measurements categorized in Level 3 of the fair value hierarchy and requires disclosure of the level in the fair value hierarchy of items that are not measured at fair value but whose fair value must be disclosed. It also clarifies and expands upon existing requirements for fair value measurements of financial assets and liabilities as well as instruments classified in stockholders' equity. The guidance was effective for fiscal years, and interim periods within those years, beginning after December 15, 2011, and was applied prospectively. This new guidance impacts how we report on fair value measurements only, and had no effect on our results of operations, financial position or liquidity upon our adoption on January 1, 2012.

Comprehensive Income

In June 2011, authoritative guidance that addresses the presentation of comprehensive income in interim and annual reporting of financial statements was issued. The standard eliminates the option to present components of other comprehensive income as part of the statement of changes in stockholders' equity. Such changes in stockholders' equity will be required to be disclosed in either a single continuous statement of comprehensive income or in two separate but consecutive statements. We have adopted this guidance effective with the first quarter of fiscal 2012 and such adoption did not have a material impact on our consolidated financial statements.

In February 2013, the FASB issued revised guidance on "*Comprehensive Income: Reporting of Amounts Reclassified Out of Accumulated Other Comprehensive Income*." The revised guidance does not change the current requirements for reporting net income or other comprehensive income in financial statements. However, the revised guidance requires an entity to provide information about the amounts reclassified out of accumulated other comprehensive income by component. In addition, an entity is required to present, either on the face of the statement where net income is presented or in the notes, significant amounts reclassified out of accumulated other comprehensive income by the respective line items of net income but only if the amount reclassified is required under U.S. GAAP to be reclassified to net income in its entirety in the same reporting period. For other amounts that are not required under U.S. GAAP to be reclassified in their entirety to net income, an entity is required to cross-reference to other disclosures required under U.S. GAAP that provide additional detail about those amounts. The revised guidance is effective prospectively for reporting periods beginning after December 15, 2012 for public entities. The revised guidance will not have a material effect on the Company's financial position, results of operations or liquidity

Note 3—Acquisition

On October 16, 2012, pursuant to an Agreement and Plan of Merger and Reorganization, or (the “Acquisition Agreement”), dated as of August 31, 2012, as amended, a wholly-owned subsidiary of FormFactor merged with and into Astria Semiconductor Holding, Inc., including its subsidiary MicroProbe, Inc. (together “MicroProbe”), with MicroProbe continuing as the surviving corporation and as a wholly-owned subsidiary of FormFactor (the “MicroProbe acquisition”).

The Acquisition was accounted for using the acquisition method of accounting under which assets and liabilities of MicroProbe were recorded at their respective fair values including an amount for goodwill representing the difference between the acquisition consideration and the fair value of the identifiable net assets.

The total acquisition consideration of \$113.8 million was determined based on the terms of the Acquisition Agreement which consisted of a) \$100.0 million in cash, subject to a \$3.3 million decrease based on MicroProbe's working capital as of the consummation of the Acquisition relative to an agreed upon target and b) 3,020,944 shares of FormFactor's common stock valued at the closing market price of \$4.57 per share on October 16, 2012, and c) the fair value of a settlement related to patent litigation between the two parties of \$3.3 million .

Pursuant to the Acquisition Agreement, \$17.8 million of the cash consideration was placed in escrow (the “Holdback”) for unknown liabilities that may have existed as of the acquisition date. The Holdback, which was included as part of the acquisition consideration, will be paid for such unknown liabilities or to the former MicroProbe shareholders within 18 months from the closing date of the Acquisition.

During fiscal 2012, we incurred \$2.6 million in transaction costs related to the Acquisition, which primarily consisted of investment banking, legal, accounting and valuation-related expenses. These expenses were recorded in selling, general and administrative expense in the accompanying Consolidated Statements of Operations.

The acquisition price was allocated to the tangible and identified intangible assets acquired and liabilities assumed as of the closing date of the Acquisition based upon their respective fair values. Asset categories acquired in the Acquisition included working capital, long-term assets and liabilities and identifiable intangible assets, including in-process research and development (IPR&D). The allocation of the acquisition price has been prepared on a preliminary basis and changes to that allocation may occur as additional information becomes available. The table below summarizes the assets acquired and liabilities assumed as follows (in thousands):

	Amount
Cash and cash equivalents	\$ 2,847
Accounts receivable (1)	21,567
Inventories	11,809
Refundable income taxes	4,885
Prepaid assets	1,544
Deferred tax asset	756
Property, plant and equipment	11,950
Other long-term assets	103
Accounts payable and accrued expenses	(20,586)
Capital leases	(1,025)
Deferred income taxes liabilities	(26,663)
Other long-term liabilities	(2,008)
Total tangible assets acquired and liabilities assumed	5,179
Intangible assets	77,600
Goodwill	30,994
Total intangible and goodwill assets acquired	108,594
Total acquisition price	\$ 113,773

- (1) The estimated fair value of trade receivables acquired was \$21.6 million . The gross contractual amount of trade receivables was \$21.8 million and was recorded net of allowances for doubtful accounts. We expect that \$0.2 million of the gross contractual amount of trade receivables will be uncollectible.

The intangible assets as of the closing date of the Acquisition included (in thousands):

	Amount
Existing developed technologies	\$ 31,100
Trade names	4,500
Customer relationships	17,000
Backlog	3,500
Favorable lease asset	300
Non-compete agreement	100
In-process research and development	21,100
Total intangible assets	<u>\$ 77,600</u>

Indications of fair value of the intangible assets acquired in connection with the Acquisition were determined using either the income, market or replacement cost methodologies. The intangible assets are being amortized over periods which reflect the pattern in which economic benefits of the assets are expected to be realized. The existing developed technologies are being amortized on an accelerated basis over an estimated useful life of one to four years; customer relationships are being amortized on an accelerated or straight-line basis over eight years depending on the product customer base; trade names and non-compete agreements are being amortized on a straight-line basis over ten years and one year, respectively; the favorable lease asset is being amortized on a straight-line basis over the term of the related lease; and the backlog is expected to be fully amortized by the second quarter of fiscal 2013.

The excess of purchase price over the fair value amounts assigned to the assets acquired and liabilities assumed represents the amount of goodwill resulting from the Acquisition. We do not expect any portion of this goodwill to be deductible for tax purposes. The goodwill attributable to the Acquisition has been recorded as a non-current asset and is not amortized, but is subject to an annual review for impairment. We believe the factors that contributed to goodwill include synergies that are specific to our consolidated business, the acquisition of a talented workforce that expands our expertise in business development and commercializing semiconductor test products as well as other intangible assets that do not qualify for separate recognition.

The results of operations of the MicroProbe business and the estimated fair values of the assets acquired and liabilities assumed have been included in our consolidated financial statements since the date of the Acquisition. Since the closing date of the Acquisition, the contribution of the acquired MicroProbe business to our total revenues and net loss were \$19.8 million and \$6.4 million , respectively.

Pro forma financial information (unaudited)

The following unaudited supplemental pro forma information presents the combined historical results of operations of FormFactor and MicroProbe for the fiscal years 2012 and 2011, as if the Acquisition had been completed at the beginning of fiscal 2011. The pro forma financial information includes adjustments to reflect one time charges and amortization of fair value adjustments in the appropriate pro forma periods as though the companies were combined as of the beginning of 2011. These adjustments include:

- An increase in amortization expense of \$6.8 million and \$17.4 million for the fiscal years 2012 and 2011, respectively, related to the fair value of acquired identifiable intangible assets,
- The exclusion of transaction-related expenses of \$6.0 million for the fiscal year ended 2012,
- The exclusion of other non-recurring expenses of \$8.9 million and \$2.7 million for the fiscal years 2012 and 2011, respectively, primarily related to the fair value step-up to acquired inventory, fair value adjustments related to a warrant liability of MicroProbe, provision for income taxes and litigation expenses incurred between the two parties regarding a patent litigation action.
- Exclusion of the deferred tax asset valuation release in 2012 and reflecting the valuation release in 2011 as if the Acquisition had been completed in 2011.

The unaudited pro forma results do not assume any operating efficiencies as a result of the consolidation of operations (in thousands, except per share data):

	Fiscal Years Ended	
	December 29, 2012	December 31, 2011
Revenues	\$ 261,499	\$ 266,862
Net loss before income taxes	(53,702)	(44,665)
Net loss per share - basic	(1.01)	(0.83)
Net loss per share - diluted	(1.01)	(0.83)

Note 4—Balance Sheet Components

Marketable Securities

Marketable securities at December 29, 2012 consisted of the following (in thousands):

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
U.S. Treasury	\$ 43,490	\$ 97	\$ —	\$ 43,587
Agency securities	49,896	63	(1)	49,958
	<u>\$ 93,386</u>	<u>\$ 160</u>	<u>\$ (1)</u>	<u>\$ 93,545</u>

Marketable securities at December 31, 2011 consisted of the following (in thousands):

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
U.S. Treasury	\$ 76,462	\$ 205	\$ (4)	\$ 76,667
Agency securities	78,921	102	(42)	78,981
Commercial paper	1,998	—	—	1,998
	<u>\$ 157,381</u>	<u>\$ 307</u>	<u>\$ (46)</u>	<u>\$ 157,642</u>

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 net unrealized losses on the Company's investments in fiscal 2012 and 2011, respectively, were caused primarily by changes in interest rates.

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. All unrealized losses are due to changes in market interest rates, bond yields and/or credit ratings. We do not have a foreseeable need to liquidate the portfolio and 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 29, 2012, none of our investments had been in a continuous loss position for 12 months or more.

FORMFACTOR, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The contractual maturities of marketable securities as of December 29, 2012 and December 31, 2011 were as follows (in thousands):

	December 29, 2012		December 31, 2011	
	Amortized Cost	Fair Value	Amortized Cost	Fair Value
Due in one year or less	\$ 33,407	\$ 33,500	\$ 52,524	\$ 52,586
Due in one year to five years	59,979	60,045	104,857	105,056
	\$ 93,386	\$ 93,545	\$ 157,381	\$ 157,642

Realized gains on sales or maturities of marketable securities were \$1,422 , \$32,000 and \$0.1 million for each of the fiscal years 2012, 2011, and 2010 , respectively.

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 Taiwan, South Korea, Singapore and Japan to their original condition upon lease termination. We have estimated that as of December 29, 2012 , gross expected future cash flows of \$1.3 million would be required to fulfill these obligations.

The carrying amount of the leasehold improvements resulting from asset retirement obligations is being amortized over the term of the related lease. Leasehold improvements amortization expense was zero for fiscal years 2012 and 2011, and was less than \$0.1 million for fiscal 2010. During fiscal 2012 we updated our estimate for our asset retirement obligation in conjunction with the renewal of leases in certain locations. As a result, we recorded a benefit of \$0.2 million due to the reduction in the estimated future required cash flows related to our obligations at these locations.

In connection with our Q3 2010 Restructuring Plan, we recorded impairment charges of \$1.1 million to write down the carrying amount of leasehold improvements associated with asset retirement obligations in our Singapore manufacturing facility. This impairment charge was included within "Restructuring charges, net" in the Consolidated Statements of Operations for fiscal 2010. Subsequently, in fiscal 2011 we executed an amendment to the existing lease arrangement for our facility in Singapore which released us from our obligations related to the floor previously utilized for manufacturing in this facility. As a result, our Consolidated Statements of Operations for fiscal 2011 includes a benefit of \$1.1 million recorded to "Restructuring charges, net".

The following is a reconciliation of the aggregate retirement liability associated with our commitment to return property to its original condition upon lease termination included in non-current "Deferred rent and other liabilities" in the Consolidated Balance Sheets (in thousands):

	Fiscal Years Ended	
	December 29, 2012	December 31, 2011
Asset retirement obligation beginning balance	\$ 1,581	\$ 3,105
Liabilities settled	—	(1,121)
Increase (decrease) based on revised estimates of asset retirement obligations	(212)	(529)
Accretion expense	—	126
Currency translation	(77)	—
Asset retirement obligation ending balance	\$ 1,292	\$ 1,581

FORMFACTOR, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Inventories

Inventories consisted of the following (in thousands):

	Fiscal Years Ended	
	December 29, 2012	December 31, 2011
Raw materials	\$ 8,702	\$ 5,732
Work-in-progress	8,679	5,938
Finished goods	6,235	6,422
	<u>\$ 23,616</u>	<u>\$ 18,092</u>

Property, Plant and Equipment

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

	Fiscal Years Ended	
	December 29, 2012	December 31, 2011
Buildings	\$ 790	\$ 790
Machinery and equipment	142,687	127,309
Computer equipment and software	38,092	36,323
Furniture and fixtures	6,249	6,073
Leasehold improvements	71,418	70,097
	<u>259,236</u>	<u>240,592</u>
Less: Accumulated depreciation, amortization and enterprise-wide impairment	(227,126)	(217,963)
	<u>32,110</u>	<u>22,629</u>
Construction-in-progress	13,405	12,503
	<u>\$ 45,515</u>	<u>\$ 35,132</u>

In fiscal 2012 and fiscal 2011, we wrote off fully depreciated assets with an acquired cost of \$0.2 million and \$0.6 million, respectively.

As discussed in Note 8 - Fair Value in fiscal 2011, a building previously identified as held for sale, was returned into service at its carrying value of \$0.8 million. This amount represents the lesser of its carrying amount before the building was classified as held for sale, adjusted for any depreciation that would have been recognized had the building been continuously classified as held and used, or the fair value at the date of the subsequent decision not to sell. The building is being depreciated over its estimated remaining useful life of ten years.

As discussed in Note 7 - Impairment of Long-lived Assets in fiscal 2012 and 2011, we recorded aggregated impairment charges of \$0.4 million and \$0.5 million in our long lived assets, respectively. In fiscal 2010, we recorded aggregated impairment charges of \$56.4 million, including \$55.3 million and \$1.1 million to write down the carrying values of certain property and equipment and intangible assets, respectively.

Depreciation and amortization of property, plant and equipment, excluding the impairments charges discussed above, for the fiscal years 2012, 2011 and 2010 was \$10.3 million, \$10.8 million and \$26.4 million, respectively.

FORMFACTOR, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Accrued Liabilities

Accrued liabilities consisted of the following (in thousands):

	Fiscal Years Ended	
	December 29, 2012	December 31, 2011
Accrued compensation and benefits	\$ 7,918	\$ 6,986
Accrued indirect and other taxes	4,382	2,916
Accrued commissions	515	438
Accrued warranty	734	330
Deferred rent	139	133
Accrued restructuring	616	200
Other accrued expenses	2,966	2,963
	\$ 17,270	\$ 13,966

In November 2009 , we sold all rights, title and interest in a customer's bankruptcy claim to a third party in exchange for net proceeds of less than full value of the asserted claim. The proceeds were accounted for as a secured borrowing and included as an accrued liability. On October 8, 2010 , we voluntarily dismissed our complaint against this customer. As a result, we released the amounts previously recorded as a secured borrowing and recorded a gain of \$3.5 million in "Other income, net" in the Consolidated Statement of Operations in fiscal 2010 .

In fiscal 2010 , we ceased the utilization of one facility in Livermore and our facility in Singapore that was expected to be utilized for our manufacturing operations. In connection with these decisions, we accrued liabilities totaling \$0.7 million composed of the remaining lease obligations that will continue to be incurred under operating lease contracts of the Livermore and Singapore facilities of \$0.3 million and \$0.4 million , respectively. The charge relating to our Singapore facility of \$0.4 million was recorded as additional restructuring charges in connection with our Q3 2010 Restructuring Plan, as discussed in Note 5—Restructuring Charges. Subsequently, in fiscal 2011 we executed an amendment to the existing lease arrangement for our facility in Singapore which released us from our obligations related to the space previously utilized for manufacturing in this facility. As a result, our Consolidated Statement of Operations for fiscal 2011 includes a benefit of \$0.4 million recorded to "Restructuring charges, net", reflecting the reduction in the remaining liability as of the date of the newly executed arrangement.

Note 5—Restructuring Charges

We have undertaken several restructuring actions during fiscal 2012 , 2011 , and 2010, the purpose of which were to improve operating efficiency, streamline and simplify our operations and reduce our operating costs. These actions are discussed below:

2010 Restructuring Activities

We recorded \$3.4 million in restructuring charges during the first quarter of fiscal 2010 as part of our then-current regionalization strategy (the "Q1 2010 Restructuring Plan"). These charges consisted of termination benefits related to reductions in work force of 106 full-time positions, which were all related to severance and related benefits. The activities related to this action were completed during fiscal 2011. Subsequently, in the second quarter of fiscal 2010 we undertook a plan to rescind the previously issued severance arrangements for certain employees impacted by this plan, resulting in the reversal of \$3.3 million of the accrual for severance costs booked in conjunction with the Q1 2010 Restructuring Plan, including the accrued retention bonus to date. We completed this rescission plan in fiscal 2010.

In the second quarter of fiscal 2010, we announced a series of corporate initiatives, including a reduction in workforce, which represented a renewed focus on streamlining and simplifying our operations as well as reducing our quarterly operating costs (the "Q2 2010 Restructuring Plan"). These actions included a reduction in workforce impacting 67 employees spread across all functions of the organization, as well as a reduction in the scope of the previously contemplated manufacturing operations in Korea, resulting in a reduction of workforce of 16 employees related to the assembly and test function. We recorded \$4.8 million in charges for the Q2 2010 Restructuring Plan during fiscal 2010, primarily for severance and related benefits. Additionally, in conjunction with the Q2 2010 Restructuring Plan we identified certain equipment and software assets

FORMFACTOR, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

related to our assembly and test operations in Korea that would no longer be utilized. As a result, we recorded impairment charges of \$1.0 million in the fiscal 2010, representing the net book value of these assets.

In the third quarter of fiscal 2010, we announced a restructuring plan (the "Q3 2010 Restructuring Plan") to cease the transition of manufacturing operations to Singapore. This decision resulted in a reduction in force of 58 employees at our Singapore facility. The manufacturing activities that were scheduled to be transitioned to Singapore remained in Livermore, and Livermore continued as the primary manufacturing operating location for the Company. In conjunction with the Q3 2010 Restructuring Plan, we also undertook a reduction in force that involved two additional individuals in our Livermore operations.

We recorded charges of \$1.0 million for severance and related benefits and impairment charges of \$7.8 million for certain equipment and leasehold improvements, including assets related to asset retirement obligations, in Singapore that would no longer be utilized as a result of the Q3 2010 Restructuring Plan. This impairment was composed primarily of \$5.8 million for leasehold improvements, \$0.6 million for manufacturing equipment and \$0.6 million for software and system assets related to the manufacturing operations that will be taken out of service or abandoned, as well as \$0.8 million to adjust the carrying amount of certain equipment determined to be held for sale. In addition, due to the combined effect of the significant change in our business strategy in connection with the Q3 2010 Restructuring Plan, recurring operating losses and the sustained decline in the Company's stock price, we reviewed the recoverability of our long-lived assets in the third quarter of fiscal 2010, as discussed in Note 7-Impairment of Long-lived Assets of the Notes to the Consolidated Financial Statements.

In the fourth quarter of fiscal 2010, we implemented a restructuring plan (the "Q4 2010 Restructuring Plan") including reducing our global workforce by 10 employees across the organization. We recorded \$0.6 million in charges for severance and related benefits in fiscal 2010.

The ending restructuring accrual of \$1.8 million as of December 25, 2010 reflects the unpaid amounts related to these actions as of that date. Unless otherwise noted, the activities comprising the above reductions in force were completed by the end of fiscal 2011.

2011 Restructuring Activities

In the first quarter of fiscal 2011, we implemented a restructuring plan (the "Q1 2011 Restructuring Plan") which resulted in the reduction of our global workforce by 13 full-time employees across the organization. We recorded \$1.1 million in charges for severance and related benefits related to this plan. The activities comprising this reduction in workforce were substantially completed by the end of the second quarter of fiscal 2011. As a result of the Q1 2011 Restructuring Plan, we have realized, and expect to continue to realize, quarterly savings, excluding stock-based compensation expenses, of approximately \$0.6 million in subsequent quarters.

In the second quarter of fiscal 2011, we implemented a restructuring plan (the "Q2 2011 Restructuring Plan") which resulted in the reduction of our global workforce by 13 full-time employees across the organization. We recorded \$0.6 million in charges for severance and related benefits related to this plan. The activities comprising this reduction in workforce were substantially completed by the end of the third quarter of fiscal 2011. As a result of the Q2 2011 Restructuring Plan we have realized, and expect to continue to realize, quarterly savings, excluding stock-based compensation expenses, of approximately \$0.4 million in subsequent quarters.

Additionally, in the second quarter of fiscal 2011 we executed an amendment to the existing lease arrangement for our facility in Singapore which released us from our obligations related to the space previously utilized for manufacturing in this facility. We were also granted a rent reduction for the remaining occupied facilities in this building. We had previously recorded certain asset retirement obligations of \$1.1 million (see Note 4 - Balance Sheet Components) and accruals related to our cessation of the use of these facilities in connection with a prior restructuring action of \$0.4 million. As a result, our Consolidated Statement of Operations for fiscal 2011 includes a benefit of \$1.5 million recorded to "Restructuring charges, net".

In the third quarter of fiscal 2011, we implemented a restructuring plan (the "Q3 2011 Restructuring Plan") which resulted in the reduction of our global workforce by four full-time employees primarily in our procurement and logistics organizations. We recorded \$0.3 million in charges for severance and related benefits related to this plan. The activities comprising this plan were completed during fiscal 2011. As a result of the Q3 2011 Restructuring Plan, we have realized quarterly savings, excluding stock-based compensation expenses, of approximately \$0.2 million in subsequent quarters.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

In the fourth quarter of fiscal 2011 , we implemented a restructuring plan (the “ Q4 2011 Restructuring Plan”) which resulted in the reduction of our global workforce by eight full-time employees primarily in our finance and procurement and logistics organizations. We recorded \$0.3 million in charges for severance and related benefits related to this plan. The activities comprising this reduction were completed in fiscal 2012. As a result of the Q4 2011 Restructuring Plan, we have realized quarterly savings, excluding stock-based compensation expenses, of approximately \$0.3 million in subsequent quarters.

2012 Restructuring Activities

In the second fiscal quarter of 2012 , we recorded \$0.1 million in charges for severance and related benefits related to restructuring activities. This resulted in the reduction of our global workforce by 1 employee across the organization. The activities comprising this restructuring activity were completed in fiscal 2012 .

In the third fiscal quarter of 2012 , we implemented a restructuring plan (the "Q3 2012 Restructuring Plan") which resulted in the reduction of our global workforce by 44 employees across the organization. In conjunction with this action, we also initiated a plan to cease our assembly and test manufacturing operations in Japan. We recorded \$1.8 million in severance and related benefits, \$0.2 million in charges for contract termination, and other costs related to restructuring activities during the quarter related to this plan, and \$0.4 million in impairment charges for certain equipment and leasehold improvements that would no longer be utilized. The activities comprising this reduction in workforce were completed by the end of fiscal 2012 . As a result of the Q3 2012 Restructuring Plan, we have realized quarterly savings, excluding stock-based compensation, of approximately \$2.6 million in subsequent quarters.

In the fourth fiscal quarter of 2012 , we implemented a restructuring plan (the "Q4 2012 Restructuring Plan") which resulted in the reduction of our global workforce by 4 employees across the organization. We recorded \$0.4 million in severance and related benefits related to restructuring activities. The activities comprising this reduction in workforce are expected to be substantially completed by the end of the first quarter of fiscal 2013. As a result of the Q4 2012 Restructuring Plan, we have realized quarterly savings, excluding stock-based compensation, of approximately \$0.1 million in subsequent quarters.

The following table summarizes the activities related to the restructuring actions of fiscal 2010 to 2012 (in thousands):

	Employee Severance and Benefits	Property and Equipment Impairment	Contract Termination and Other Costs	Total
Accrual at December 26, 2009	\$ 973	\$ —	\$ 76	\$ 1,049
Restructuring charges	10,057	8,787	411	19,255
Reversal of charges for Q1 2010 Restructuring Plan	(3,282)	—	—	(3,282)
Adjustments to restructuring charges	—	—	(76)	(76)
Cash payments	(6,184)	—	—	(6,184)
Non-cash settlements	(182)	(8,787)	40	(8,929)
Accrual at December 25, 2010	1,382	—	451	1,833
Restructuring charges	2,300	—	—	2,300
Adjustments to restructuring charges	—	—	(374)	(374)
Cash payments	(3,039)	—	(77)	(3,116)
Non-cash settlements	(443)	—	—	(443)
Accrual at December 31, 2011	200	—	—	200
Restructuring charges	2,261	462	194	2,917
Adjustments to restructuring charges	—	—	31	31
Cash payments	(1,913)	—	(157)	(2,070)
Non-cash settlements	—	(462)	—	(462)
Accrual at December 29, 2012	<u>\$ 548</u>	<u>\$ —</u>	<u>\$ 68</u>	<u>\$ 616</u>

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The liabilities we have accrued represent our best estimate of the obligations we expect to incur and could be subject to adjustment as market conditions change. The remaining cash payments associated with our various reductions in workforce are expected to be completed by the end of the first quarter of fiscal 2013.

Note 6—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, which are generally settled in the same quarter, are not designated as hedging instruments. 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 29, 2012, there were three outstanding foreign exchange forward contracts to buy Japanese Yen, Korean Won and Taiwan Dollars. The following tables provide information about our foreign currency forward contracts outstanding as of December 29, 2012 and December 31, 2011 (in thousands):

<u>December 29, 2012</u>	<u>Contract Position</u>	<u>Contract Amount (Local Currency)</u>	<u>Contract Amount (U.S. Dollar)</u>
(In thousands)			
Japanese Yen	Buy	(63,741)	\$ (741)
Taiwan Dollar	Buy	(30,461)	(1,061)
Korean Won	Buy	(721,426)	(677)
Total USD notional amount of outstanding foreign exchange contracts			<u>\$ (2,479)</u>
<u>December 31, 2011</u>	<u>Contract Position</u>	<u>Contract Amount (Local Currency)</u>	<u>Contract Amount (U.S. Dollar)</u>
(In thousands)			
Japanese Yen	Sell	440,354	\$ 5,661
Taiwan Dollar	Buy	(69,959)	(2,315)
Korean Won	Buy	(703,506)	(609)
Total USD notional amount of outstanding foreign exchange contracts			<u>\$ 2,737</u>

The contracts outstanding at December 29, 2012 were entered into on December 29, 2012 and matured on January 25, 2013 for the Taiwan Dollar, Korean Won and for the Japanese Yen. 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 zero change in the value of these contracts as of December 29, 2012. Additionally, zero gains or losses relating to the outstanding derivative contracts as of December 29, 2012 and December 31, 2011 were recorded during the respective fiscal periods.

The location and amount of losses related to non-designated derivative instruments that matured in fiscal 2012 and 2011 in the Consolidated Statements of Operations are as follows (in thousands):

<u>Derivatives Not Designated as Hedging Instruments</u>	<u>Location of Loss Recognized on Derivatives</u>	<u>Fiscal Years Ended</u>	
		<u>December 29, 2012</u>	<u>December 31, 2011</u>
Foreign exchange forward contracts	Other income, net	<u>\$ (290)</u>	<u>\$ (579)</u>

FORMFACTOR, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Note 7—Impairment of Long-lived Assets

The following table summarizes the components of the impairments that we recorded in fiscal 2012 , 2011 and 2010 (in thousands):

	Fiscal Years Ended		
	December 29, 2012	December 31, 2011	December 25, 2010
Impairment of long-lived assets:			
Assets held for sale	\$ 168	\$ —	\$ 342
Assets to be disposed of other than by sale	253	549	2,956
Intangible assets	—	—	1,082
Enterprise-wide impairment	—	—	52,021
Total	<u>\$ 421</u>	<u>\$ 549</u>	<u>\$ 56,401</u>

Assets held for sale

In fiscal 2012, we recorded a \$0.2 million charge related to certain assets which were previously held for sale that were determined to be no longer saleable and used for internal purposes.

In fiscal 2011 , we did not record impairment charges related to our assets held for sale.

In fiscal 2010 , we recorded aggregated impairment charges of \$0.3 million in conjunction with the write down of a building held for sale to its estimated fair value and certain furniture and fixtures at our Livermore facility that were determined to be held for sale.

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

Assets to be disposed of other than by sale

In fiscal 2012 , we recorded \$0.2 million related to the termination of on-going construction-in-progress projects.

During fiscal 2011, we recorded impairment charges totaling \$0.5 million related to certain assets to be disposed of other than by sale, all of which related to the termination of certain on-going projects that had been recorded in construction-in-progress, including aspects of certain software development for internal use.

During fiscal 2010, we recorded impairment charges totaling \$3.0 million related to certain assets to be disposed of other than by sale. These charges were composed of \$2.7 million related to the termination of on-going construction-in progress projects, including those related to certain projects for the development and build of manufacturing equipment, as well as additional equipment that was in-service and identified as excess capacity. Additionally, these charges included \$0.3 million related to certain leasehold improvements that were abandoned as a result of the consolidation of office space in Livermore.

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

Intangible assets

We did not record impairment charges related to our intangible assets during fiscal 2012 and 2011 .

During fiscal 2010 , our renewed focus on simplifying and refocusing our operations on our core competencies resulted in our decision to reduce efforts to license and market software underlying certain intangible assets that were acquired in conjunction with our acquisition of certain assets from Electroglas, Inc. in 2010 through a bankruptcy proceeding. As a result, we performed an impairment analysis of these purchased intangible assets during the third quarter of fiscal 2010 and recorded an impairment charge of \$1.1 million for the carrying amount of the impaired assets. The impairment charge was included in "Impairment of long-lived assets" in the Consolidated Statements of Operations in fiscal 2010.

Enterprise-wide impairment

At the end of the third quarter of fiscal 2010 , in addition to the specific impairments discussed above, we determined that an enterprise-wide impairment analysis of our long-lived assets was required due to the combined effect of a sustained decline in the Company's stock price, a significant change in our business strategy in connection with the Q3 2010 Restructuring Plan,

FORMFACTOR, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

and recurring operating losses and net cash outflows from operations. Accordingly, management reviewed the recoverability of its long-lived assets in the third quarter of fiscal 2010 .

We determined our long-lived asset group to be our consolidated long-lived assets as we had determined that we operate as one reporting unit and segment. This asset group included property and equipment, as well as purchased intangible assets. The recoverability of assets to be held and used was measured by comparing the carrying amount of these assets, after adjustment for the various specific impairments discussed above, to the estimated undiscounted future cash flows expected to be generated by the assets. If the carrying amount of the asset exceeds its estimated undiscounted future net cash flows, an impairment charge is recognized by the amount by which the carrying amount of the asset exceeds the fair value of the asset.

As a result, we concluded that our business was not able to fully recover the carrying amount of our assets. Accordingly, we reviewed the carrying amounts at September 25, 2010 of all of our long-lived assets for impairment. The review involved estimating the fair value in an exchange transaction of our asset group, comparing such fair value to the carrying amount of the asset group, after adjustment for the various specific impairments discussed above, and recording impairment charges to reduce the pre-impairment carrying amount of the asset group to its estimated fair value.

Determining the fair value of an asset group unit is judgmental in nature and requires the use of significant estimates and assumptions, including current replacement costs, revenue growth rates and operating margins, and discount rates, among others. Accordingly, we were required to make various estimates in determining the fair values of our asset group at September 25, 2010 . Where appropriate, we utilized a market approach to estimate the fair value of our property and equipment. This approach included the identification of market prices in actual transactions for similar assets based on asking prices for assets currently available for sale, as well as obtaining and reviewing certain direct market values based quoted prices with manufacturers and secondary market participants for similar equipment. However, due to the highly customized nature of our manufacturing equipment we primarily utilized the cost approach to estimate the fair value of our property and equipment. To determine the estimated fair value of our property and equipment at September 25, 2010 , adjustment factors, including cost trend factors, were applied to each individual asset's original cost in order to estimate current replacement cost. The current replacement cost was then adjusted for estimated deductions to recognize the effects of deterioration and obsolescence from all causes, as well as indirect costs such as installation.

The estimated fair value of the purchased intangible assets was determined based on a combination of two income-based approaches, as this combination was deemed to be the most indicative of the Company's fair value in an orderly transaction between market participants. Under these two income approaches we determined fair value based on both the estimated future cash flows resulting from the licensing of the technology underlying the intangible asset, as well as the estimated future cash savings achieved due to the avoidance of costs resulting from the internal use of the underlying technology. The estimated cash flows in each approach were discounted by an estimated weighted-average cost of capital which reflects the overall level of inherent risk of the enterprise and the rate of return an outside investor would expect to earn.

For each asset, we then compared the estimated fair value to the individual asset's carrying amount to determine the amount of the impairment charge. Based on this analysis, we recorded an impairment charge of \$52.0 million in the third quarter of fiscal 2010 . This charge, which was included in "Impairment of long-lived assets" in the Consolidated Statements of Operations, was comprised of \$27.7 million for leasehold improvements, \$11.2 million for manufacturing equipment, \$8.5 million for computer equipment and software, \$4.4 million for construction-in-progress and \$0.2 million for purchased intangible assets.

Note 8—Fair Value

We use fair value measurements to record fair value 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 define fair value, establish a framework for measuring fair value in generally accepted accounting principles, and require 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 for fair value 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

FORMFACTOR, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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, that may be used to measure fair value:

- 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.
- 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 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.

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

We obtain 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.

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. government securities, agency securities, commercial papers and foreign currency derivatives. The following tables represent the fair value hierarchy for our financial assets (cash equivalents and marketable securities):

Fair value measured on a recurring basis as of December 29, 2012 (in thousands):

	Level 1	Level 2	Total
	(In thousands)		
Cash equivalents			
Money market funds	\$ 54,732	\$ —	\$ 54,732
Marketable securities			
U. S. treasury	—	43,587	43,587
Agency securities	—	49,958	49,958
	<u>\$ 54,732</u>	<u>\$ 93,545</u>	<u>\$ 148,277</u>

Fair value measured on a recurring basis as of December 31, 2011 (in thousands):

	Level 1	Level 2	Total
	(In thousands)		
Cash equivalents			
Money market funds	\$ 106,147	\$ —	\$ 106,147
Commercial paper	—	8,999	8,999
Marketable securities			
U. S. treasury	—	76,663	76,663
Agency securities	—	78,981	78,981
Commercial paper	—	1,998	1,998
	<u>\$ 106,147</u>	<u>\$ 166,641</u>	<u>\$ 272,788</u>

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 judgments. Broker's pricing is used mainly when a

FORMFACTOR, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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 2012 and 2011.

Assets Measured at Fair Value on a Nonrecurring Basis

The following table represents the fair value hierarchy for our long-lived assets measured at fair value on a nonrecurring basis at their respective measurement dates (in thousands) at December 29, 2012 :

	Level 3	Total Losses Fiscal 2012
Long-lived assets held for sale at December 31, 2011	\$ 389	\$ —
Equipment impairment	(168)	(168)
Equipment returned to held and used	(155)	—
Equipment sold	(66)	—
Long-lived assets held for sale at December 29, 2012	<u>\$ —</u>	<u>\$ (168)</u>

During fiscal 2012, equipment with a carrying value of \$0.2 million was determined to be unusable and was written-off, \$0.2 million of equipment was returned to held and used, and less than \$0.1 million of equipment was sold.

At the end of fiscal 2010 , we reflected a building in Livermore, California as held for sale, which was classified as a Level 2 asset because the estimated fair value of the building was determined using inputs developed from market data sources independent of us, that reflected the assumptions market participants would use in pricing the building. During fiscal 2011, this building was returned into service at its carrying value of \$0.8 million , resulting in a reclassification of the balance from 'Prepaid expenses and other current assets' to 'Property, plant and equipment, net' in the Consolidated Balance Sheet. See Note 4 - Balance Sheets Components for more information.

Other than the building previously held for sale that was returned to service during 2011, we did not have any assets measured at fair value on a nonrecurring basis that were transferred to or from Level 2 or 3 during fiscal 2012 or 2011.

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, and analysis of period-over-period fluctuations and independent recalculation of prices.

Note 9—Intangible Assets and Goodwill

The changes in the carrying amount of goodwill, which is not deductible for tax purposes for fiscal 2012 and 2011 were as follows (in thousands):

Goodwill	Amount
Balance as of December 31, 2011	\$ —
Acquisition of MicroProbe	30,994
Balance as of December 29, 2012	<u>\$ 30,994</u>

FORMFACTOR, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The changes in intangible assets for fiscal 2012 and the net book value of intangible assets at December 29, 2012 and December 31, 2011 were as follows (in thousands):

Other Intangible Assets	Intangible Assets, Gross Amount			Accumulated Amortization			Intangible Assets, Net		Weight Average Useful Life
	December 31, 2011	Additions	December 29, 2012	December 31, 2011	Expense	December 29, 2012	December 31, 2011	December 29, 2012	
Existing developed technologies	\$ 5,948	\$ 31,100	\$ 37,048	\$ 2,706	\$ 3,349	\$ 6,055	\$ 3,242	\$ 30,993	2.2
Trade name	—	4,500	4,500	—	94	94	—	4,406	10.0
Customer relationships	—	17,000	17,000	—	445	445	—	16,555	8.0
Non-compete agreement	—	100	100	—	21	21	—	79	1.0
Backlog	—	3,500	3,500	—	2,594	2,594	—	906	0.3
Favorable lease asset	—	300	300	—	63	63	—	237	1.0
Total finite-lived intangible assets	5,948	56,500	62,448	2,706	6,566	9,272	3,242	53,176	
In-process research and development	—	21,100	21,100	—	—	—	—	21,100	
Total intangible assets	\$ 5,948	\$ 77,600	\$ 83,548	\$ 2,706	\$ 6,566	\$ 9,272	\$ 3,242	\$ 74,276	

Other Intangible Assets	Intangible Assets, Gross Amount			Accumulated Amortization			Intangible Assets, Net		Weight Average Useful Life
	December 25, 2010	Additions	December 31, 2011	December 25, 2010	Expense	December 31, 2011	December 25, 2010	December 31, 2011	
Existing developed technologies	\$ 5,948	\$ —	\$ 5,948	\$ 1,527	\$ 1,179	\$ 2,706	\$ 4,421	\$ 3,242	2.7
Total intangible assets	\$ 5,948	\$ —	\$ 5,948	\$ 1,527	\$ 1,179	\$ 2,706	\$ 4,421	\$ 3,242	

The in-process research and development (“IPR&D”) intangible assets are classified as indefinite lived assets that are not currently subject to amortization but are reviewed for impairment whenever events or changes in circumstances indicate that the carrying value of an asset may not be recoverable. The IPR&D assets will be subject to amortization upon completion of their respective research projects and commercialization begins. The fair value assigned to IPR&D assets was determined using the income approach based on estimates and judgments regarding risks inherent in the development process, including the likelihood of achieving technological success and market acceptance. If an IPR&D project is abandoned, the acquired technology attributable to the project will be written-off.

We recorded \$6.6 million , \$1.2 million , and \$1.7 million , in amortization expense related to our intangible assets in fiscal 2012 , 2011, and 2010, respectively. Of the total amortization expense for fiscal 2012, 2011, and 2010, \$6.0 million , \$1.2 million , and \$1.3 million were charged to cost of revenues, respectively, and \$0.6 million , zero , and \$0.4 million were charged to selling, general and administrative expense, respectively. Based on the carrying value of the finite-lived intangible assets recorded as of December 29, 2012 , 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
2013	\$ 15,385
2014	14,187
2015	7,332
2016	5,878
2017	2,562
thereafter	7,832
Total	\$ 53,176

FORMFACTOR, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Note 10—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 2012, 2011, and 2010, was \$4.7 million , \$4.8 million and \$5.4 million , respectively.

We lease certain equipment under capital leases. The cost and accumulated depreciation for assets under capital leases, which were included in property, plant and equipment in the accompanying Consolidated Balance Sheets are as follows (in thousands):

	Fiscal Years Ended	
	December 29, 2012	December 31, 2011
Cost	\$ 2,367	\$ —
Accumulated depreciation	255	—
Net book value	\$ 2,112	\$ —

The depreciation expense of these leased assets was \$0.2 million in fiscal 2012 and zero for both fiscal 2011 and 2010, respectively.

Future minimum payments under capital leases and non-cancelable operating leases are as follows as of December 29, 2012 (in thousands):

	Capital Leases	Operating Leases
Fiscal years:		
2013	\$ 593	\$ 3,658
2014-15	321	5,700
2016-17	29	5,016
Thereafter	—	10,034
Total minimum lease payments	943	\$ 24,408
Less: amount representing interest and executory costs	(30)	
Present value of capital lease amounts	913	
Less: current portion	(573)	
Non-current portion	\$ 340	

The current and non-current portions of the capital lease obligations are included in the accompanying Consolidated Balance Sheets.

FORMFACTOR, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Other Contractual Obligations

The following table sets forth our commitments to settle other contractual obligations in cash as of December 29, 2012 :

	Payments Due In Fiscal Years				
	2013	2014-2015	2016-2017	After 2017	Total
	(In thousands)				
Purchase obligations	\$ 12,402	\$ 4,950	\$ 50	\$ —	\$ 17,402

Other purchase obligations are primarily for purchases of inventory and manufacturing related service contracts. For the purposes of this table, other 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 29, 2012 . 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 \$17.2 million as of December 29, 2012 and are classified in deferred taxes and other long-term tax liabilities on our consolidated balance sheet. 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 29, 2012 , 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.

Indemnification Arrangements

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 wafer probe cards infringe a third party's intellectual property 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 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 29, 2012 .

Legal Matters

From time to time, we may be subject to legal proceedings and claims in the ordinary course of business. As of the filing of this Annual Report on Form 10-K, we were not involved in any material legal proceedings, other than the proceedings 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 and to collect past due accounts receivable from our customers.

Customs and Trade Matters

From time to time, we receive communications from certain jurisdictions regarding customs and indirect tax matters such as customs duties and value added taxes. In fiscal 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. During fiscal 2011, we accrued \$1.0 million for potential exposures related to these tax and customs matters. During the third quarter of 2012 , we received what we believe are final communications on these tax and customs matters indicating we owed \$0.3 million

FORMFACTOR, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

penalties. In the fourth quarter of fiscal 2012 , we adjusted our accrual to reflect this final conclusion.

Patent Litigation

In July 2010, we filed a lawsuit in the United States District Court for the Northern District of California, case no. 4:10-cv-03095-PJH (the "Action"), against MicroProbe Inc. and a MicroProbe officer who was a former FormFactor employee. In the Action, we asserted patent infringement and unfair competition claims against MicroProbe, and trade secret misappropriation and breach of confidence claims against MicroProbe and the former FormFactor employee. On October 16, 2012, and in connection with an Agreement and Plan of Merger dated August 31, 2012, under which we acquired 100% of the outstanding shares of Astria Semiconductor Holdings, Inc. and its subsidiaries, see Note 3 Acquisitions for further information, FormFactor, Astria Semiconductor Holdings, MicroProbe, and a former FormFactor employee entered into a Confidential Settlement Agreement and these parties along with certain other entities entered into a Confidential Release Agreement, both to resolve the Action in favor of FormFactor for \$3.3 million .

One or more third parties have initiated challenges in the U.S. Patent and Trademark Office, or USPTO, against certain of our patents, including requests for reexamination directed to all of the patents-in-suit in the Action. The USPTO granted the re-examination requests directed to U.S. Patent Nos. 6,246,247, 6,825,422, 6,441,315, and 7,225,538, and granted in part the requests directed to U.S. Patent Nos. 6,965,244, 7,227,371 and 7,671,614. Requests for reexamination of the Company's U.S. Patent Nos. 6,615,485 and 6,624,648 and 5,994,152 were also granted by the USPTO. With respect to US Patent No. 5,994,152, the re-examination proceeding has concluded and a re-examination certificate was issued. With respect to US Patent No. 6,624,648, the re-examination proceeding has concluded and a re-examination certificate was issued February 28, 2012. The Company did not appeal the adverse USPTO decision regarding US Patent No. 6,615,485. The foreign actions include proceedings in Taiwan against several of our Taiwan patents.

No provision has been made for patent-related litigation because we believe that it is not probable that a liability had been incurred as of December 29, 2012 . We will incur material attorneys' fees in prosecuting and defending the various identified actions.

Note 11—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 29, 2012 .

Common Stock Repurchase Program

On October 20, 2010, our Board of Directors authorized a program to repurchase up to \$50.0 million of outstanding common stock. Under the authorized stock repurchase program, we were authorized to repurchase shares from time to time on the open market; the pace of repurchase activity depended on levels of cash generation, current stock price, and other factors. The stock repurchase program was announced on October 26, 2010 and had a scheduled expiration of October 19, 2011 . The program could have been modified or discontinued at any time.

On October 12, 2011, our Board of Directors authorized the extension of this repurchase program through October 19, 2012. Under the program, we were authorized to repurchase up to a total of \$40.5 million of outstanding common stock during the program period. The terms and conditions of the extended repurchase program remained the same as those in the original program approved in fiscal 2010. All of our repurchases were made under the authorized repurchase program.

During fiscal year 2010, we repurchased and retired 70,000 shares of common stock at a cost of \$0.6 million . During fiscal 2011 , we repurchased and retired 2,332,740 shares of common stock for \$16.4 million . We did not repurchase any shares

FORMFACTOR, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

of common stock under the program during fiscal 2012 .

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.

The repurchase program ended effective October 19, 2012 and was not extended.

Equity Incentive Plans

During the fiscal quarter ended March 31, 2012 we had four equity incentive plans for which we have reserved shares for issuance upon the exercise of stock options: the 1996 Stock Option Plan, the Incentive Option Plan and the Management Incentive Option Plan (together, the "Prior Plans"), and the 2002 Equity Incentive Plan (the "2002 Plan"), which became effective in April 2002.

At our Annual Meeting of Stockholders on April 18, 2012 (the "2012 Annual Meeting"), our stockholders approved an amended and restated Equity Incentive Plan (the "2012 Plan"), reserving 7.4 million shares for future grants, less any shares granted between February 28, 2012 and April 18, 2012. In addition, shares underlying any outstanding stock award or stock option grant previously awarded under the Prior Plans and the 2002 Plan canceled or forfeited prior to vesting or exercise become available for use under the 2012 Plan. The 2002 Plan was terminated on April 18, 2012 , except for outstanding awards. Upon the effectiveness of the 2012 Plan, we ceased granting any equity awards under the 2002 Plan. Subsequent awards have been and will be granted under the 2012 Plan.

The 2012 Plan provides for the grant of incentive stock options and nonqualified stock options, stock appreciation rights, restricted stock and restricted stock units. 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, restricted stock and restricted stock units granted under the 2012 Plan will generally vest over four years in annual tranches. Additionally, restricted shares reduce the shares available for issuance at 1.55 shares for every one share issued.

At December 29, 2012, there were 6.5 million shares available for grant under the 2012 Plan.

FORMFACTOR, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Stock Options

Stock option activity under our equity plans 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 26, 2009	5,859,820	\$ 26.17		
Options granted (1)	3,425,309	10.15		
Options exercised	(115,597)	5.99		
Options canceled (2)	(3,851,145)	28.60		
Outstanding at December 25, 2010	5,318,387	14.53		
Options granted	459,750	9.72		
Options exercised	(141,280)	6.47		
Options canceled	(1,017,835)	19.92		
Outstanding at December 31, 2011	4,619,022	13.11		
Options granted	70,000	5.34		
Options exercised	—	—		
Options canceled	(480,175)	11.94		
Outstanding at December 29, 2012	4,208,847	\$ 13.11	3.69	\$ —
Vested and expected to vest at December 29, 2012	4,133,743	\$ 13.18	3.66	\$ —
Exercisable at December 29, 2012	3,040,747	\$ 14.55	3.3	\$ —

- (1) Options granted in fiscal 2010 included 679,864 shares of re-granted stock options with an exercise price of \$8.61 per share as a result of our stock option exchange program effective October 1, 2010.
- (2) Options canceled in fiscal 2010 included 2,779,782 shares with a weighted average exercise price of \$29.58 per share as a result of our stock option exchange program effective October 1, 2010.

The intrinsic value of option exercises during fiscal 2011 and 2010 was \$0.2 million and \$0.5 million, respectively. Cash received from stock option exercises in fiscal 2011 and 2010 was \$0.9 million and \$0.7 million respectively. We did not realize any gross tax benefits in connection with these exercises.

FORMFACTOR, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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 under our equity plans is set forth below:

	Number of Shares	Weighted Average Grant Date Fair Value
Restricted stock units at December 26, 2009	1,491,678	\$ 18.51
Granted	776,318	14.57
Vested	(464,050)	18.95
Canceled	(431,034)	17.99
Restricted stock units at December 25, 2010	1,372,912	16.29
Granted	687,645	9.94
Vested	(510,330)	16.70
Canceled	(242,924)	15.82
Restricted stock units at December 31, 2011	1,307,303	12.88
Granted	1,630,210	5.50
Vested	(484,540)	13.99
Canceled	(224,027)	8.78
Restricted stock units at December 29, 2012	2,228,946	\$ 7.66

On May 4, 2012, we granted 405,000 restricted stock units to certain of our senior executives that will vest upon achievement of specified performance criteria based on the Company's 2013 operating cash flow levels. The restricted stock units will be earned only if performance targets established by the Compensation Committee are met. Compensation cost associated with these awards are recognized on an accelerated attribution model and ultimately based on whether or not satisfaction of the performance criteria is probable.

On November 6, 2012, we granted 120,000 restricted stock units to certain of our senior executives of MicroProbe that will vest upon achievement of specified performance criteria based on the Company's 2013 and 2014 revenue and gross profits levels. The restricted stock units will be earned only if the performance targets established by the Compensation Committee are met. Compensation cost associated with these awards are recognized on an accelerated attribution model and ultimately based on whether or not satisfaction of the performance criteria is probable.

During fiscal 2012, we recorded \$0.4 million, of stock-based compensation expense related to these awards based on the assessed probability of attainment of the performance criteria.

The total fair value of restricted stock units vested during fiscal 2012, 2011 and 2010 was \$2.9 million, \$4.6 million and \$6.0 million, respectively.

Employee Stock Purchase Plan

At our 2012 Annual Meeting, our stockholders also approved an amended and restated Employee Stock Purchase Plan (the "2012 ESPP"). The 2012 ESPP does not significantly change the provisions of the 2002 Employee Stock Purchase Plan (the "2002 ESPP"), however, it does remove the annual increase to shares available for issuance and fixes the number of shares reserved for issuance under the 2012 ESPP at 4.0 million shares. The offering periods under the 2012 ESPP are a 12 month fixed offering period 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 2012, 2011, and 2010, employees purchased 533,077 shares, 386,818 shares and 365,871 shares under this program at a weighted average exercise price of \$4.42, \$7.27 and \$10.35, respectively.

FORMFACTOR, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Note 12—Stock-Based Compensation

We account for all stock-based compensation to employees and directors, including grants of 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 29, 2012	December 31, 2011	December 25, 2010
Stock-based compensation expense included in:			
Cost of revenues(1)	\$ 2,588	\$ 3,473	\$ 3,733
Research and development	4,262	4,293	5,610
Selling, general and administrative(2)	6,199	6,083	8,270
Restructuring charges, net	—	—	190
Total stock-based compensation	13,049	13,849	17,803
Tax effect on stock-based compensation	—	—	—
Total stock-based compensation, net of tax	<u>\$ 13,049</u>	<u>\$ 13,849</u>	<u>\$ 17,803</u>

- (1) Fiscal 2011 includes \$0.3 million of net stock-based compensation expense resulting from the modification and acceleration of certain stock options and restricted stock units to a former executive in conjunction with a separation agreement and mutual release.
- (2) Fiscal 2010 includes \$0.5 million of stock-based compensation expense and an offsetting benefit of \$0.7 million related to the reversal of previously recognized expense for unvested stock options resulting from the modification and acceleration of the vesting of certain stock options and restricted stock units awarded to our former executive members in conjunction with their departure from the Company (See Note 16—Departure of Executive Officers). Additionally, fiscal 2010 includes \$0.1 million of net stock-based compensation expense resulting from the modification and acceleration of the vesting of certain stock options and restricted stock units awarded to former members of the Board of Directors in conjunction with their departure from the Company.

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.

FORMFACTOR, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The following weighted-average assumptions were used in the estimated grant-date fair value calculations for stock options granted in fiscal 2012 , 2011 and 2010 . The re-granted options from our stock exchange program are excluded from this table.

	Fiscal Years Ended		
	December 29, 2012	December 31, 2011	December 25, 2010
Stock Options:			
Dividend yield	—%	—%	—%
Expected volatility	48.44%	50.30%	50.89%
Risk-free interest rate	0.67%	1.67%	1.23%
Expected life (in years)	4.75	4.26	4.42

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. In fiscal 2010, we granted 2.0 million stock options to employees with vesting periods that range from two to three years and contractual terms that range from five to seven years. Because we did not have sufficient historical data for stock options with similar vesting or contractual terms, the simplified method was applied for deriving the expected term for these stock options. The simplified method is based on the vesting period and the contractual term for each grant, or for each vesting-tranche for awards with graded vesting. The mid-point between the vesting date and the expiration date is used for the expected term under this method.

During fiscal 2012 , we granted 70,000 stock options under our approved plans with a weighted average grant-date fair value of \$2.17 per share. During fiscal 2011 , we granted 459,750 stock options under our approved plans with a weighted average grant-date fair value of \$4.06 per share. Excluding the 679,864 stock options that were re-granted on October 1, 2010, we granted 2,745,445 stock options in fiscal 2010 with the weighted average grant-date fair value of \$4.46 per share.

As of December 29, 2012 , the unamortized stock-based compensation balance related to stock options was \$3.8 million after estimated forfeitures, which will be recognized over an estimated period of 1.3 years based on the weighted average days to vest.

Stock Option Exchange

On October 1, 2010, we completed an offer to exchange certain outstanding employee stock options to purchase shares of the Company's common stock. Eligible for the exchange were outstanding options, vested or unvested, held by current employees (excluding directors and executive officers) with an exercise price greater than or equal to \$13.63 per share. Subject to the terms and conditions of the exchange offer, we accepted for exchange and cancelled options to purchase an aggregate of 2,779,782 shares with a weighted average exercise price of \$29.58 per share, and issued new options to purchase an aggregate of 679,864 shares with an exercise price of \$8.61 per share, the closing stock price of our common stock on October 1, 2010. The new options were granted under our 2002 Plan and vest 33% on the first anniversary of the vesting commencement date and on a monthly basis thereafter for a period of an additional two years. The assumptions that were used in estimating grant-date fair value for these re-granted stock options were 0% dividend yield, 52.61% of expected volatility, 3.35 years of expected life and 0.74% of risk-free interest rate. The grant-date fair value of the re-granted stock options was \$3.25 per share. The incremental compensation expense resulting from the completion of the exchange offer did not have a material impact on our consolidated financial position, results of operations and cash flows.

FORMFACTOR, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Employee Stock Purchase Plan

During the fiscal 2012, we issued 533,077 shares under our approved employee stock purchase plans. As of December 29, 2012, 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. 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 29, 2012	December 31, 2011	December 25, 2010
Employee Stock Purchase Plan:			
Dividend yield	—%	—%	—%
Expected volatility	46.44%	53.47%	41.25%
Risk-free interest rate	0.11%	0.23%	0.24%
Expected life (in years)	0.8	0.8	0.7

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.

During fiscal 2012, 2011 and 2010, we granted 1,630,210 shares, 687,645 shares and 776,318 shares of restricted stock units under our 2002 and 2012 Plans with the weighted average grant-date fair values of \$5.50, \$9.94 and \$14.57 per share, respectively. As of December 29, 2012, the unamortized stock-based compensation balance related to restricted stock units was \$7.8 million after estimated forfeitures, which will be recognized over an estimated period of 1.7 years based on the weighted average days to vest.

FORMFACTOR, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Note 13—Income Taxes

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

	Fiscal Years Ended		
	December 29, 2012	December 31, 2011	December 25, 2010
United States	\$ (64,252)	\$ (71,172)	\$ (178,849)
Foreign	2,286	3,290	(11,357)
	<u>\$ (61,966)</u>	<u>\$ (67,882)</u>	<u>\$ (190,206)</u>

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

	Fiscal Years Ended		
	December 29, 2012	December 31, 2011	December 25, 2010
Current provision (benefit):			
Federal	\$ (1,929)	\$ (157)	\$ (2,436)
State	60	1	(107)
Foreign	(81)	(546)	2,728
	<u>(1,950)</u>	<u>(702)</u>	<u>185</u>
Deferred provision (benefit):			
Federal	(25,520)	(37)	(85)
State	—	—	—
Foreign	1,050	(1,162)	(2,020)
	<u>(24,470)</u>	<u>(1,199)</u>	<u>(2,105)</u>
Total benefit from income taxes	<u>\$ (26,420)</u>	<u>\$ (1,901)</u>	<u>\$ (1,920)</u>

The following is a reconciliation of the difference between income taxes computed by applying the federal statutory rate of 35% and the benefit from income taxes for fiscal 2012, 2011 and 2010 (in thousands):

	Fiscal Years Ended		
	December 29, 2012	December 31, 2011	December 25, 2010
U.S. statutory Federal tax rate	\$ (21,687)	\$ (23,759)	\$ (66,571)
State taxes and credits, net of Federal benefit	(1,991)	(1,890)	(5,776)
Amortization of stock-based compensation, net of tax benefit	376	287	606
Research and development credits	(674)	(2,499)	(2,622)
Foreign taxes at rates different than the U.S.	598	(294)	2,765
Other permanent differences	(1,164)	126	1,829
Change in valuation allowance	(1,818)	25,622	68,634
Other	(60)	506	(785)
Total	<u>\$ (26,420)</u>	<u>\$ (1,901)</u>	<u>\$ (1,920)</u>

FORMFACTOR, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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 29, 2012	December 31, 2011
Tax credits	\$ 25,223	\$ 25,168
Inventory reserve	18,871	20,028
Other reserves and accruals	6,403	4,241
Non-statutory stock options	20,418	19,708
Depreciation and amortization	7,570	10,682
Net operating loss carryforwards	117,049	96,219
Gross deferred tax assets	195,534	176,046
Valuation allowance	(163,265)	(168,875)
Total deferred tax assets	32,269	7,171
Acquired intangibles & fixed assets	(27,879)	—
Unrealized investment gains	(42)	(102)
Total deferred tax liabilities	(27,921)	(102)
Net deferred tax assets	\$ 4,348	\$ 7,069

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 in accordance with GAAP to determine whether there is a need for a valuation allowance with respect to such deferred tax assets. During fiscal 2012 and 2011, 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.

Included in the \$26.4 million income tax benefit for the year ended December 29, 2012 is a \$25.5 million tax benefit from the release of valuation allowance of our deferred tax assets ("DTAs"). In connection with our acquisition of MicroProbe during the year ended December 29, 2012, deferred tax liabilities ("DTLs") were established on the acquired identifiable intangible assets. These DTLs exceeded the acquired DTAs by \$25.5 million. These DTLs exceeded the acquired DTAs by \$25.5 million and created additional sources of income to realize a tax benefit for our DTAs. As such, authoritative guidance requires the impact on the acquiring company's deferred tax assets and liabilities caused by an acquisition be recorded in the acquiring company's financial statements outside of acquisition accounting. Accordingly, the valuation allowance on a portion of our DTAs was released and resulted in an income tax benefit of \$25.5 million.

During fiscal 2011, we determined that it is more likely than not that the deferred tax assets of a non-U.S. jurisdiction will be realized after considering all positive and negative evidence. Positive evidence included finalization of our current restructuring activity for the related foreign jurisdiction. It also included conclusion that such location would continue to be in operation for the foreseeable future and future taxable income sufficient to realize such deferred tax assets prior to the expiration of existing net operating loss carryforwards due to a change in the entity's structure to a cost-plus arrangement. Our conclusion that it is more likely than not that such deferred tax assets will be realized is strongly influenced by the expectation that such location will continue to be in operation for the foreseeable future. We believe such conclusion is reasonable in light of our current operational structure and forecasted operations, both for the foreign jurisdiction and our consolidated operations; however, such conclusion is inherently uncertain. Therefore, if we have material unforeseen losses or are required to restructure our non-U.S. operations to further align our operating expense structure with our expected revenues, then its ability to generate sufficient income necessary to realize a portion of the deferred tax assets may be reduced and an additional charge to increase the valuation allowance may be recorded.

FORMFACTOR, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The valuation allowance against deferred tax assets consisted of the following activity for the fiscal years 2012, 2011 and 2010 (in thousands):

Description	Balance at Beginning of Year	Additions	Reduction	Balance at End of Year
Allowance against deferred tax assets				
Year ended December 25, 2010	\$ 59,097	\$ 68,634	\$ —	\$ 127,731
Year ended December 31, 2011	127,731	44,520	(3,376)	168,875
Year ended December 29, 2012	168,875	19,910	(25,520)	163,265

At December 29, 2012, we had Federal research and development tax credit, net operating loss, and foreign tax credit carryforwards of \$18.5 million, \$284.2 million and \$1.6 million, which will expire at various dates from 2016 through 2032. We had alternative minimum tax credits of \$2.2 million which do not expire. We had California research credit and net operating loss carryforwards of \$22.7 million and \$266.7 million, respectively. The California research credit can be carried forward indefinitely while California net operating loss carryforwards will expire at various dates from 2030 through 2032. We had Singapore net operating loss carryforwards of \$12.2 million which can be carried forward indefinitely.

U.S. income taxes and foreign withholding taxes associated with the repatriation of earnings of foreign subsidiaries were not provided for \$6.5 million of undistributed earnings of its foreign subsidiaries. We intend to reinvest these earnings indefinitely in our foreign subsidiaries. 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 \$42,000. Determination of the amount of unrecognized deferred income tax liability related to these earnings is not practicable.

During fiscal 2012, 2011 and 2010, 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 29, 2012	December 31, 2011	December 25, 2010
Unrecognized tax benefit beginning balance	\$ 17,752	\$ 17,500	\$ 17,925
Additions based on tax positions related to the current year	2,237	751	1,610
Reductions for tax positions of prior years	9	(270)	—
Reductions to unrecognized tax benefits due to lapse of the applicable statute of limitations	(2,817)	(148)	(35)
Settlements	—	(81)	(2,000)
Unrecognized tax benefit ending balance	<u>\$ 17,181</u>	<u>\$ 17,752</u>	<u>\$ 17,500</u>

At December 29, 2012, we had gross tax-effected unrecognized tax benefits of \$17.2 million of which \$2.7 million if recognized, would impact the effective tax rate.

We recognize interest charges and penalties related to uncertain tax positions as part of the income tax provision. We recognized interest charges and penalties of \$0.3 million and \$12,000 in fiscal 2012 and fiscal 2011, respectively, and an interest benefit of \$0.3 million for fiscal 2010. As of December 29, 2012 and December 31, 2011, we have accrued total interest charges and penalties of \$0.4 million and \$0.7 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 made or resolved or when statutes of limitation on potential assessments expire. As of December 29, 2012 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.

FORMFACTOR, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

We and our subsidiaries file income tax returns in the U.S. Federal jurisdiction, various states and non U.S jurisdictions. The material jurisdictions in which we are subject to potential examination by tax authorities for the tax years after 2003 include, among others, the U.S. (Federal and California), Singapore, and Japan.

On January 2, 2013, President Obama signed into law the American Taxpayer Relief Act of 2012, which includes retroactive extension of the research credit from January 1, 2012 through December 31, 2013. This enacted tax law will result in an increase in the Company's gross deferred tax asset by approximately \$0.4 million, offset by a valuation allowance, during the first quarter of 2013.

Note 14—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 3% of the eligible employee's contributions through a fiscal year. As part of the acquisition, MicroProbe matches up to 25% of an eligible employee's contributions to a maximum of the first 6% 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.

We suspended our match under the 401(k) plan in the second quarter of fiscal 2009 as part of our cost reduction efforts. During the third quarter of fiscal 2010, we reinstated the employer match feature due to the progress that we had made in streamlining and simplifying our operations and reducing operating costs as we continue to focus on returning the Company to profitability. The total charge to operations under the 401(k) and the profit sharing retirement plans for fiscal 2012, 2011 and 2010 aggregated \$0.8 million, \$0.6 million and \$0.2 million, respectively.

Note 15—Operating Segment and Geographic Information

We operate in one segment consisting of the design, development, manufacture, sale and support of precision, high performance advanced semiconductor wafer probe cards. 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. Since we operate in one segment and in one group of similar products and services, all financial segment and product line information required can be found in the consolidated financial statements.

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

	Fiscal Years Ended		
	December 29, 2012	December 31, 2011	December 25, 2010
South Korea	32.8%	23.1%	13.8%
Taiwan	20.7	31.8	38.5
North America	15.4	15.3	20.3
Japan	11.9	17.4	15.1
Asia-Pacific (1)	12.7	8.2	8.0
Europe / Israel	6.5	4.2	4.3
Total	100.0%	100.0%	100.0%

(1) Asia-Pacific includes all countries in the region except Taiwan, South Korea and Japan, 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 29, 2012	December 31, 2011	December 25, 2010
DRAM	\$ 102,499	\$ 115,678	\$ 131,207
SoC	46,586	29,050	27,290
Flash	29,450	24,597	30,068
Total revenues	<u>\$ 178,535</u>	<u>\$ 169,325</u>	<u>\$ 188,565</u>

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

	December 29, 2012	December 31, 2011
North America	\$ 41,592	\$ 31,291
South Korea	1,691	834
Asia-Pacific (1)	1,246	499
Japan	691	1,967
Singapore	258	485
Europe	37	56
Total	<u>\$ 45,515</u>	<u>\$ 35,132</u>

- (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 2012, fiscal 2011 and fiscal 2010:

	Fiscal 2012	Fiscal 2011	Fiscal 2010
SK hynix Semiconductor(1)	29.4%	16.3%	12.8%
Elpida(2)	*	*	20.0
Samsung(3)	12.4	11.2	12.0
Micron Technology(4)	*	10.2	*
Total	<u>41.8%</u>	<u>37.7%</u>	<u>44.8%</u>

- (1) Includes SK hynix and its consolidated subsidiary SK hynix Semiconductor (China) Ltd.
(2) Includes Elpida Memory, Inc. and its consolidated subsidiary Rexchip Electronics Corporation
(3) Includes Samsung Semiconductor, Inc. and its consolidated subsidiary Samsung Austin Semiconductor
(4) Includes Micron Technology, Inc. and its consolidated subsidiaries, including Micron Semiconductor Asia Pte. Ltd., Micron Semiconductor Italia S.r.L., Micron Semiconductor Israel Ltd. and Micron Japan Ltd.
* Less than 10% of revenues.

The percentages above reflect customer constellations as of December 29, 2012. Prior period constellations have been updated to reflect the current customer compositions.

Note 16—Departure of Executive Officers

In the second quarter of fiscal 2010, we entered into Separation Agreements with Mario Ruscev and Jean Bernard Vernet in connection with their resignations on May 19, 2010 as Chief Executive Officer and Chief Financial Officer, respectively. As a result, we recorded a net charge of \$0.7 million within "Selling, general and administrative" expenses in the Consolidated Statement of Operations for fiscal 2010, comprised of \$0.8 million of severance expenses net of \$0.1 million benefits from stock-based compensation. They have each signed a general release and waiver of claims in favor of the Company, and continue to be bound by the Company's employment, confidential information and

FORMFACTOR, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Additionally, in December 2010, we entered into a Separation Agreement and General Release with a former Senior Vice President. As a result, we recorded a net charge of \$0.2 million within "Selling, general and administrative" expenses in the Consolidated Statements of Operations for fiscal 2010, which comprised \$0.3 million of severance expenses net of \$0.1 million benefit from stock-based compensation.

In October 2011, we entered into a Separation Agreement and General Release with a former Senior Vice President. As a result, we recorded charges of \$0.8 million within "Cost of revenues" in the Consolidated Statements of Operations for fiscal 2011, such charge being composed of \$0.5 million of payroll and related expenses and \$0.3 million of stock-based compensation expense related to the modification of certain stock-based compensation awards.

Note 17—Related Party Transactions

We engaged the law firm of Orrick, Herrington & Sutcliffe LLP ("Orrick") in fiscal 2007, and continuing through our fiscal 2012, to provide us with certain legal services, including matters related to compensation and benefits, and to represent us and certain of our then directors and officers in the securities class action litigation and the stockholder derivative litigation. A partner at Orrick, who is not involved in the above matters, is the brother-in-law of Stuart L. Merkadeau, our Senior Vice President, General Counsel and Secretary. Mr. Merkadeau does not have a financial or other interest in Orrick's engagement and Mr. Merkadeau's brother-in-law does not provide any legal services to us. Prior to engaging Orrick, our management discussed the potential engagement with our Governance Committee of the Board of Directors under the Statement of Policy regarding Related Person Transactions. The Governance Committee reviewed and approved the Orrick engagement, and continues to monitor the engagement, which in fiscal 2012 also included certain compensation and benefits matters, as well as certain labor and employment matters, as necessary. We paid Orrick \$0.2 million and \$0.2 million in fiscal 2012 and in fiscal 2011, respectively, for legal services rendered. As of the date of this Annual Report on Form 10-K, Orrick continues to provide legal services in the above matters.

Note 18—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. 29, 2012 (3)	Sep. 29, 2012	June. 30, 2012 (2)	March 31, 2012	Dec. 31, 2011	Sep. 24, 2011	June 25, 2011 (1)	March 26, 2011
	(in thousands, except per share data)							
Revenues	\$ 47,654	\$ 41,262	\$ 54,813	\$ 34,806	\$ 30,224	\$ 52,115	\$ 46,558	\$ 40,428
Cost of revenues	50,798	33,110	38,646	30,650	35,199	40,141	36,668	36,359
Gross profit (loss)	(3,144)	8,152	16,167	4,156	(4,975)	11,974	9,890	4,069
Operating Expenses:								
Research and development	9,775	8,573	10,935	10,847	10,683	10,423	10,878	11,560
Selling, general and administrative	14,958	11,594	11,531	11,148	11,964	11,200	11,154	12,387
Restructuring charges, net	333	2,481	136	(33)	325	258	(1,099)	1,038
Impairment of long lived assets	49	143	61	168	98	100	—	351
Gain on settlement of litigation	(3,250)	—	—	—	—	—	—	—
Total operating expenses	21,865	22,791	22,663	22,130	23,070	21,981	20,933	25,336
Operating loss	(25,009)	(14,639)	(6,496)	(17,974)	(28,045)	(10,007)	(11,043)	(21,267)
Interest income, net	134	163	182	212	276	335	369	424
Other income (expense), net	334	171	546	410	941	(75)	584	(374)
Loss before income taxes	(24,541)	(14,305)	(5,768)	(17,352)	(26,828)	(9,747)	(10,090)	(21,217)
Provision for (benefit from) income taxes	(25,144)	173	(1,551)	102	147	157	(2,412)	207
Net income (loss)	\$ 603	\$ (14,478)	\$ (4,217)	\$ (17,454)	\$ (26,975)	\$ (9,904)	\$ (7,678)	\$ (21,424)
Net income (loss) per share:								
Basic	\$ 0.01	\$ (0.29)	\$ (0.08)	\$ (0.35)	\$ (0.54)	\$ (0.20)	\$ (0.15)	\$ (0.42)
Diluted	\$ 0.01	\$ (0.29)	\$ (0.08)	\$ (0.35)	\$ (0.54)	\$ (0.20)	\$ (0.15)	\$ (0.42)
Weighted average number of shares used in per share calculations:								
Basic	52,745	50,154	49,817	49,487	49,967	50,747	50,773	50,636
Diluted	52,921	50,154	49,817	49,487	49,967	50,747	50,773	50,636

- (1) In the second quarter of fiscal 2011 , we recorded a tax benefit in the amount of \$2.5 million from the release of a deferred tax valuation allowance recorded in a non-U.S. jurisdiction. This benefit resulted in an overall income tax benefit, rather than an income tax provision in the second quarter of fiscal 2011 .
- (2) In the second quarter of fiscal 2012 , we recorded a tax benefit in the amount of \$1.6 million from the release of a deferred tax valuation allowance recorded in a non-U.S. jurisdiction. This benefit resulted in an overall income tax benefit, rather than an income tax provision in the second quarter of fiscal 2012 .
- (3) In the fourth quarter of fiscal 2012 , we recorded an income tax benefit in the amount of \$25.5 million from the release of deferred tax asset valuation allowances due to deferred tax liabilities established on the acquired identifiable intangible assets from our acquisition of MicroProbe and \$3.3 million benefit from the settlement of patent litigation in conjunction with the acquisition of MicroProbe. The fourth quarter of fiscal 2012 includes the following Microprobe operating activity: \$19.8 million in revenue, \$5.4 million amortization of intangibles, \$2.6 million release of pre-existing backlog, \$3.5 million release of inventory fair value step-up and \$0.2 million charge for step-up depreciation on fixed assets resulting in a net loss of \$6.4 million .

Note 19 — Subsequent Events

In the first fiscal quarter of 2013, we implemented a restructuring plan (the "Q1 2013 Restructuring Plan") which resulted in the reduction of our global workforce by 32 employees across the organization. Total restructuring charges for the quarter will be in the range of \$2.6 million to \$3.2 million for severance and related benefits and impairment charges for certain equipment. The activities comprising this reduction in workforce will be completed by the end of second quarter fiscal 2013.

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., FormFactor, Inc., 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					X
10.10+	Employee Stock Purchase Plan, as amended and restated April 18, 2012					X
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+	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 Letter Agreement, dated September 2, 2010, between Thomas St. Dennis and FormFactor, Inc.	8-K	000-50307	9/17/2010	99.01+	
10.19+	Employment Offer Letter, dated August 29, 2012 to Mike Slessor					X
21.01	List of Registrant's subsidiaries	—	—	—	—	X
23.01	Consent of Independent Registered Public Accounting Firm	—	—	—	—	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,

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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.

FORMFACTOR, INC.
EQUITY INCENTIVE PLAN
(As Amended and Restated Effective April 18, 2012)

SECTION 1. ESTABLISHMENT AND PURPOSE.

The purpose of the Plan is to promote the long-term success of the Company and the creation of stockholder value by (a) encouraging Participants to focus on critical long-range objectives, (b) encouraging the attraction and retention of individuals with exceptional qualifications and (c) linking Participants directly to stockholder interests through increased stock ownership. The Plan seeks to achieve this purpose by providing for Awards in the form of Restricted Shares, Stock Units, Options (which may constitute incentive stock options or nonstatutory stock options) or Stock Appreciation Rights. Subject to approval by the Company's stockholders, this Plan supersedes the plan in effect prior to the Effective Date.

SECTION 2. DEFINITIONS.

"*Affiliate*" shall mean any entity other than a Subsidiary, if the Company and/or one of more Subsidiaries own not less than fifty percent (50%) of such entity.

"*Award*" shall mean any award of an Option, a SAR, a Restricted Share or a Stock Unit under the Plan.

"*Board of Directors*" shall mean the Board of Directors of the Company, as constituted from time to time.

"*Cause*" shall mean (a) the commission of an act of theft, embezzlement, fraud, dishonesty, (b) a breach of fiduciary duty to the Company or a Parent or Subsidiary of the Company or (c) a failure to materially perform the customary duties of employee's employment.

"*Certification Date*" means the date that the Committee makes its written certification of a Final Award.

"*Code*" shall mean the Internal Revenue Code of 1986, as amended.

"*Committee*" shall mean a committee of one or more members of the Board of Directors appointed by the Board of Directors (or, as the context permits, a subcommittee of one or more members of the Board appointed by the Committee) to administer the Plan in accordance with the provisions hereof.

"*Company*" shall mean FormFactor, Inc., a Delaware corporation, and its Subsidiaries.

"*Consultant*" shall mean a consultant or advisor who provides bona fide services to the Company or an Affiliate as an independent contractor.

"*Eligible Participant*" shall mean (i) any individual who is a common-law employee of the Company or an Affiliate; (ii) a member of the Board of Directors; (iii) a member of the board of directors of a Subsidiary or an Affiliate; or (iv) a Consultant.

"*Exchange Act*" shall mean the Securities Exchange Act of 1934, as amended.

"*Executive Officer*" shall mean an officer as defined in Rule 16a-1(f) under the Exchange Act, or any successor provision.

"*Exercise Price*" shall mean, in the case of an Option, the amount for which one Share may be purchased upon exercise of such Option, as specified in the applicable Stock Option Award. "Exercise Price," in the case of a SAR, shall mean an amount, as specified in the applicable SAR Award, which is subtracted from the Fair Market Value of a Share in determining the amount payable upon exercise of such SAR.

"*Fair Market Value*" shall mean the closing price on the Nasdaq Global Market on the date the value is to be determined as reported at www.nasdaq.com. If there are no trades on such date, the closing price on the next business day upon which trades occurred shall be the Fair Market Value.

"*ISO*" shall mean an employee incentive stock option described in Code Section 422.

"*Nonstatutory Option*" or "*NSO*" shall mean an employee stock option that is not an ISO.

“ *Option* ” shall mean an ISO or Nonstatutory Option granted under the Plan and entitling the holder to purchase Shares.

“ *Outside Director* ” shall mean a member of the Board of Directors who is not a common-law employee of the Company.

“ *Parent* ” shall mean any corporation (other than the Company) in an unbroken chain of corporations ending with the Company if each of such corporations other than the Company owns stock possessing 50% or more of the total combined voting power of all classes of stock in one of the other corporations in such chain.

“ *Participant* ” shall mean an individual or estate who holds an Award.

“ *Performance Condition* ” shall mean a performance condition established with respect to an Award in accordance with the provisions hereof.

“ *Performance Goal* ” shall mean one or more objective measurable performance factors as determined by the Committee with respect to each Performance Period based upon one or more factors and any objectively verifiable adjustment(s) thereto permitted and preestablished by the Committee in accordance with Code Section 162(m): (i) operating income; (ii) net income; (iii) economic value added; (iv) earnings; (v) earnings before income taxes and amortization and/or earnings before income taxes and amortization growth; (vi) cash flow; (vii) sales or revenue; (viii) expenses; (ix) profit margin; (x) working capital; (xi) return on equity or assets; (xii) earnings per share; (xiii) stock price; (xiv) total shareholder return or total shareholder return growth; (xv) price/earnings ratio; (xvi) debt or debt-to-equity; (xvii) writeoffs; (xviii) cash; (xix) assets; and/or (xx) liquidity, each with respect to the Company and/or one or more of its operating units. Awards to Participants who are not subject to the limitations of Code Section 162(m) may be determined without regard to Performance Goals and may involve Committee discretion.

“ *Performance Period* ” shall mean the period of service to which the Performance Condition relates.

“ *Plan* ” shall mean this Equity Incentive Plan of FormFactor, Inc., as amended from time to time.

“ *Prior Plans* ” shall mean the Company’s 1996 Stock Option Plan, Incentive Option Plan and Management Incentive Option Plan.

“ *Restricted Share* ” shall mean a Share awarded under the Plan.

“ *Restricted Share Award* ” shall mean the agreement between the Company and the recipient of a Restricted Share, or the notice to the recipient, which contains the terms, conditions and restrictions pertaining to such Restricted Shares.

“ *SAR* ” shall mean a stock appreciation right granted under the Plan.

“ *SAR Award* ” shall mean the agreement between the Company and a Participant, or the notice to the Participant, which contains the terms, conditions and restrictions pertaining to his or her SAR.

“ *Securities Act* ” shall mean the Securities Act of 1933, as amended.

“ *Service* ” shall mean service as an Eligible Participant.

“ *Share* ” shall mean one share of Stock, as adjusted in accordance with the adjustment provisions of the Plan (if applicable).

“ *Stock* ” shall mean the Common Stock of the Company.

“ *Stock Option Award* ” shall mean the agreement between the Company and a Participant, or the notice to the Participant, which contains the terms, conditions and restrictions pertaining to his Option.

“ *Stock Unit* ” shall mean a bookkeeping entry representing the equivalent of one Share, as awarded under the Plan.

“ *Stock Unit Award* ” shall mean the agreement between the Company and the recipient of a Stock Unit, or the notice to the recipient, which contains the terms, conditions and restrictions pertaining to such Stock Unit.

“ *Subsidiary* ” shall mean any corporation, if the Company and/or one or more other Subsidiaries own not less than fifty percent (50%) of the total combined voting power of all classes of outstanding stock of such corporation. A corporation that attains the status of a Subsidiary on a date after the adoption of the Plan shall be considered a Subsidiary commencing as of such date.

“*Total and Permanent Disability*” shall mean a (i) a physical or mental condition which, in the judgment of the Committee based on competent medical evidence satisfactory to the Committee (including, if required by the Committee, medical evidence obtained by an examination conducted by a physician selected by the Committee), renders the Participant unable to engage in any substantial gainful activity for the Company and which condition is likely to result in death or to be of long, continued and indefinite duration, or (ii) a judicial declaration of incompetence.

SECTION 3. ADMINISTRATION.

(a) *Committee Procedures* . One or more Committees appointed by the Board of Directors shall administer the Plan. The Board of Directors shall designate one of the members of the Committee as chairperson. Unless the Board of Directors provides otherwise, the Compensation Committee shall be the Committee. The Board of Directors may also at any time terminate the functions of the Committee and reassume all powers and authority previously delegated to the Committee.

The Committee shall have membership composition which enables (i) Awards to qualify for exemption under Rule 16b-3 with respect to persons who are subject to Section 16 of the Exchange Act and (ii) Awards that are intended to qualify as “performance-based compensation” under Section 162(m) of the Code to so qualify.

The Compensation Committee may also appoint one or more separate subcommittees composed of one or more directors of the Company who need not qualify under either Rule 16b-3 or Section 162(m) of the Code, who may administer the Plan with respect to persons who are not subject to Section 16 of the Exchange Act and/or Awards that are not intended to qualify as “performance-based compensation” under Section 162(m) of the Code.

(b) *Committee Responsibilities* . Subject to the provisions of the Plan, the Committee shall have full authority and discretion to take the following actions:

- (i) To interpret the Plan and to apply its provisions;
- (ii) To adopt, amend or rescind rules, procedures and forms relating to the Plan;
- (iii) To authorize any person to execute, on behalf of the Company, any instrument required to carry out the purposes of the Plan;
- (iv) To determine when Awards are to be granted under the Plan;
- (v) To select the Eligible Participants who are to receive Awards under the Plan;
- (vi) To determine the number of Shares to be made subject to each Award;
- (vii) To prescribe the terms and conditions of each Award, including (without limitation) the Exercise Price, the vesting of the Award (including accelerating the vesting of Awards) and to specify the provisions of the agreement relating to such Award;
- (viii) To amend any outstanding Restricted Share Award, Stock Option Award, SAR Award or Stock Unit Award subject to applicable legal restrictions and to the consent of the Participant who entered into such agreement;
- (ix) To prescribe the consideration for the grant of each Award under the Plan and to determine the sufficiency of such consideration;
- (x) To determine whether Awards under the Plan will be granted in replacement of other grants under an incentive or other compensation plan of an acquired business;
- (xi) To correct any defect, supply any omission, or reconcile any inconsistency in the Plan, any Restricted Share Award, Stock Option Award, SAR Award, or Stock Unit Award;
- (xii) To take any other actions deemed necessary or advisable for the administration of the Plan;
- (xiii) To determine, at the time of granting an Award or thereafter, that such Award shall vest as to all or part of the Shares subject to such Award in the event of a corporate transaction.
- (xiv) To accelerate the vesting, or extend the post-termination exercise term, of Awards at any time and under such terms and conditions as it deems appropriate.

In addition, without amending the Plan, the Committee may grant awards under the Plan to eligible employees or consultants who are foreign nationals on such terms and conditions different from those specified in this Plan as may in the judgment of the Committee be necessary or desirable to foster and promote achievement of the purposes of the Plan, and, in furtherance of such purposes the Committee may make such modifications, amendments, procedures, subplans and the like as may be necessary or advisable to comply with provisions of laws in other countries in which the Company operates or has employees.

Subject to the requirements of applicable law, the Board of Directors may authorize one or more officers of the Company to grant Awards and the Committee may designate persons other than members of the Committee to carry out its responsibilities, and the Committee may prescribe such conditions and limitations as it may deem appropriate, except that the Board of Directors or the Committee may not delegate its authority with regard to Awards to persons subject to Section 16 of the Exchange Act or Awards intended to qualify as “performance-based compensation” under Section 162(m) of the Code. All decisions, interpretations and other actions of the Committee shall be final and binding on all Participants, and all persons deriving their rights from a Participant. No member of the Committee shall be liable for any action that he has taken or has failed to take in good faith with respect to the Plan or any Award.

Except arising from any action taken, or failure to act, in bad faith, each member of the Committee, or of the Board of Directors, shall be indemnified and held harmless by the Company against and from (i) any loss, cost, liability, or expense that may be imposed upon or reasonably incurred by him or her in connection with or resulting from any claim, action, suit, or proceeding to which he or she may be a party or in which he or she may be involved by reason of any action taken or failure to act under the Plan or any agreement under the Plan, and (ii) from any and all amounts paid by him or her, with the Company’s prior approval, in settlement thereof or paid by him or her in satisfaction of any judgment in any such claim, action, suit, or proceeding against him or her, provided he or she shall have given the Company a reasonable opportunity, at its own expense, to handle and defend the same before he or she undertakes to handle and defend it on his or her own behalf. The foregoing right of indemnification shall not be exclusive of any other rights of indemnification to which such persons may be entitled under the Company’s Certificate of Incorporation or Bylaws, by contract, as a matter of law, or otherwise, or under any power that the Company may have to indemnify them or hold them harmless.

SECTION 4. ELIGIBILITY.

(a) *General Rule* . Only Eligible Participants may be granted Restricted Shares, Stock Units, NSOs or SARs. In addition, only individuals who are employed as common-law employees by the Company may be granted ISOs.

(b) *Limitation on Awards* . In any fiscal year of the Company, no individual shall receive Options, SARs, Restricted Shares and/or Stock Units covering in excess of 2,000,000 Shares in the aggregate; provided, however, that Outside Directors may only receive Awards covering up to 50,000 Shares in the aggregate per Outside Director in any fiscal year of the Company. The limitations under this Subsection shall be subject to adjustment pursuant to the adjustment provisions of the Plan.

(c) *Director Fees*. Each Outside Director may elect to receive Restricted Shares or Stock Units under the Plan in lieu of payment of a portion of his or her regular annual retainer based on the Fair Market Value of the Shares on the date any regular annual retainer would otherwise be paid. For purposes of the Plan, an Outside Director’s regular annual retainer shall include any additional retainer paid in connection with service on any committee of the Board or paid for any other reason. Such an election may be for any dollar or percentage amount equal to at least 25% of the Outside Director’s regular annual retainer (up to a limit of 100% of the Outside Director’s regular annual retainer). The election must be made prior to the beginning of the annual board of directors cycle which shall be any twelve month continuous period designated by the Board. Any amount of the regular annual retainer not elected to be received as a Restricted Stock Award or Restrict Stock Unit shall be payable in cash in accordance with the Company’s standard payment procedures.

SECTION 5. STOCK SUBJECT TO PLAN.

(a) *Basic Limitation* . Shares offered under the Plan shall be authorized but unissued Shares or treasury Shares. The maximum aggregate number of Options, SARs, Stock Units and Restricted Shares awarded under the Plan shall not exceed 7,400,000 Shares, less all Shares granted between February 28, 2012 and April 18, 2012 with any Shares issued as restricted shares, pursuant to stock units or pursuant to the settlement of dividend equivalents counting against the shares available for issuance as 1.55 Shares for every 1 Share issued in connection with the Award. After April 18, 2012, Shares issued as Restricted Shares, pursuant to Stock Units or pursuant to the settlement of dividend equivalents will continue to count against the shares available for issuance under the Plan as 1.55 Shares for every 1 Share issued in connection with the Award or dividend equivalent. This limit shall be subject to the provisions of the next Subsection and shall be subject to adjustment pursuant to the adjustment provisions of the Plan. No fractional Shares shall be issued under the Plan.

(b) *Additional Shares* . If Awards are forfeited or are terminated for any other reason before being exercised or settled, then the Shares underlying the Awards, plus the number of additional Shares, if any, that counted against shares available for issuance under the Plan in respect thereof at the time of grant, shall again become available for Awards under the Plan. In addition, any authorized shares not issued pursuant to outstanding grants under the Prior Plans that are forfeited or are terminated for any other reason before being exercised will again be available for grant and issuance under this Plan. If Stock Units are settled, then such Stock Units shall be counted in full against the number of Shares available for Awards under the Plan, regardless of the number of Shares (if any) actually issued in settlement of such Stock Units. If SARs are exercised, then

such SARs shall be counted in full against the number of Shares available for Awards under the Plan, regardless of the number of Shares (if any) actually issued in settlement of such SARs.

(c) *Dividend Equivalents* . Any dividend equivalents paid or credited under the Plan shall be applied against the number of Restricted Shares, Stock Units, Options or SARs available for Awards, whether or not such dividend equivalents are converted into Stock Units.

SECTION 6. RESTRICTED SHARES.

(a) *Restricted Share Award* . Each grant of Restricted Shares under the Plan shall be evidenced by a Restricted Share Award between the recipient and the Company. Such Restricted Shares shall be subject to all applicable terms of the Plan and may be subject to any other terms that are not inconsistent with the Plan. The provisions of the various Restricted Share Awards entered into under the Plan need not be identical.

(b) *Payment for Awards* . Subject to the following sentence and applicable law, Restricted Shares may be sold or awarded under the Plan for such consideration as the Committee may determine, including (without limitation) cash, cash equivalents, past services and future services. To the extent that an Award consists of newly issued Restricted Shares, the Award recipient shall furnish consideration with a value not less than the par value of such Restricted Shares in the form of cash, cash equivalents, or past services rendered to the Company, as the Committee may determine. To the extent an Award of Restricted Shares consists solely of treasury shares, the Award may be made without consideration furnished by the recipient.

(c) *Vesting* . Each Award of Restricted Shares shall be subject to vesting. Vesting shall occur, in full or in installments, upon satisfaction of the conditions specified in the Restricted Share Award. Unless the Restricted Share Award provides otherwise, each grant of Restricted Shares shall vest with respect to twenty-five percent (25%) of the Shares covered by the grant on each of the first through fourth anniversaries of the date of grant, provided that the Participant's Service has not terminated on the applicable vesting date. A Restricted Share Award may provide for accelerated vesting in the event of a corporate transaction or otherwise (if specified by the Committee at the time of grant). To the extent that an Award of Restricted Shares has not vested prior to, or concurrently with, termination of a Participant's Service, such Award shall immediately terminate.

(d) *Voting and Dividend Rights* . The holders of vested Restricted Shares awarded under the Plan shall have the same voting, dividend and other rights as the Company's other stockholders.

(e) *Assignment or Transfer of Restricted Shares* . Except as provided herein, or in a Restricted Share Award, or as required by applicable law, Restricted Shares shall not be anticipated, assigned, attached, garnished, optioned, transferred or made subject to any creditor's process, whether voluntarily, involuntarily or by operation of law. Any act in violation of this Subsection shall be void. However, this Subsection shall not preclude a Participant from designating a beneficiary who will receive any outstanding Restricted Shares in the event of the Participant's death, nor shall it preclude a transfer of Restricted Shares by will or by the laws of descent and distribution.

SECTION 7. TERMS AND CONDITIONS OF OPTIONS.

(a) *Stock Option Award* . Each grant of an Option under the Plan shall be evidenced by a Stock Option Award between the Participant and the Company. Such Option shall be subject to all applicable terms and conditions of the Plan and may be subject to any other terms and conditions which are not inconsistent with the Plan. The Stock Option Award shall specify whether the Option is an ISO or an NSO. The provisions of the various Stock Option Awards entered into under the Plan need not be identical. A Stock Option Award may not provide that a new Option will be granted automatically to the Participant when he or she exercises a prior Option and pays the Exercise Price.

(b) *Number of Shares* . Each Stock Option Award shall specify the number of Shares that are subject to the Option and shall provide for the adjustment of such number in accordance with the adjustment provisions of the Plan. The maximum aggregate number of ISOs awarded under the Plan shall not exceed the number of Shares subject to the Plan under Section 5(a). The limitation of this Subsection shall be subject to adjustment pursuant to the adjustment provisions of the Plan.

(c) *Exercise Price* . Each Stock Option Award shall specify the Exercise Price. The Exercise Price of an Option shall not be less than 100 percent (100%) of the Fair Market Value of a Share on the date of grant. Subject to the foregoing in this Subsection, the Exercise Price under any Option shall be determined by the Committee at its sole discretion. The Exercise Price shall be payable in one of the forms permitted under the Plan.

(d) *Exercisability and Term* . Unless the Stock Option Award provides otherwise, each Option shall become exercisable with respect to twenty-five percent (25%) of the Shares covered by such Option on each of the first through fourth anniversaries of the date of grant, provided that the Participant's Service has not terminated on the applicable vesting date. The

term of an Option shall be ten (10) years from the date of grant unless the Stock Option Award provides for a shorter term. A Stock Option Award may provide for accelerated vesting in the event of a corporate transaction or otherwise as specified by the Committee. Options may be awarded in combination with SARs, and such an Award may provide that the Options will not be exercisable unless the related SARs are forfeited. Subject to the foregoing in this Subsection, the Committee at its sole discretion shall determine when all or any installment of an Option is to become exercisable and when an Option is to expire.

(e) *Nontransferability* . Except as set forth in a Stock Option Award, during a Participant's lifetime, his Option(s) shall be exercisable only by him and shall not be transferable, and in the event of a Participant's death, his Option(s) shall not be transferable other than by will or by the laws of descent and distribution.

(f) *Exercise of Options Upon Termination of Service* . Each Stock Option Award shall set forth the extent to which the Participant shall have the right to exercise the Option following termination of the Participant's Service, and the right to exercise the Option by any executors or administrators of the Participant's estate or any person who has acquired such Option(s) directly from the Participant by bequest or inheritance. Such provisions shall be determined in the sole discretion of the Committee, need not be uniform among all Options issued pursuant to the Plan, and may reflect distinctions based on the reasons for termination of Service. Unless the Stock Option Award provides otherwise, Options which are unvested at the time of a Participant's termination of Service shall expire upon such termination, and any vested Options shall remain outstanding and exercisable until the earlier of 3 months following such termination and the expiration of the Option's term. Notwithstanding the foregoing, in the event of a Participant's termination for Cause, effective as of the date notice of such termination is given by the Committee to the Participant, all of the Participant's vested and unvested Options shall automatically terminate and lapse, unless the Committee shall determine otherwise.

(g) *Modification, Extension and Renewal of Options* . Within the limitations of the Plan, the Committee may modify, extend or renew outstanding Options. The foregoing notwithstanding, no modification of an Option shall, without the consent of the Participant, impair his rights or increase his obligations under such Option. Options may not be repriced or cashed out without the approval of the Company's stockholders.

SECTION 8. PAYMENT FOR OPTION SHARES.

(a) *General Rule* . The entire Exercise Price of Shares issued under the Plan shall be payable in lawful money of the United States of America, as permitted under this Section. Payment may be made by any combination of the methods described in this Section.

(b) *Cash* . Payment may be made by cash, check, wire transfer or similar means, subject to the requirements of applicable law.

(c) *Surrender of Stock* . Payment may be made all or in part by surrendering, or attesting to the ownership of, Shares which have been owned by the Participant or his representative for such period of time required to avoid the Company's recognition of additional compensation expense with respect to the Option for financial reporting purposes as a result of the surrender or attestation of such previously owned shares. Such Shares shall be valued at their Fair Market Value on the date when the new Shares are purchased under the Plan.

(d) *Cashless Exercise* . To the extent permitted by applicable law, payment may be made all or in part by delivery (on a form prescribed by the Committee) of an irrevocable direction to a securities broker to sell Shares and to deliver all or part of the sale proceeds to the Company in payment of the aggregate Exercise Price and applicable tax withholding.

(e) *Other Forms of Payment* . To the extent that a Stock Option Award so provides, payment may be made in any other form that is consistent with applicable laws, regulations and rules.

Notwithstanding anything to the contrary in this Section or in any agreement under the Plan, the Committee may disallow the use of any type of payment that the Committee determines, in its sole discretion, would result in adverse accounting or legal consequences to the Company or Affiliate.

SECTION 9. STOCK APPRECIATION RIGHTS.

(a) *SAR Award* . Each grant of a SAR under the Plan shall be evidenced by a SAR Award between the Participant and the Company. Such SAR shall be subject to all applicable terms of the Plan and may be subject to any other terms that are not inconsistent with the Plan, including those specified. The provisions of the various SAR Awards entered into under the Plan need not be identical. A SAR Award may not provide that a new SAR will be granted automatically to the holder thereof when he or she exercises a prior SAR.

(b) *Number of Shares* . Each SAR Award shall specify the number of Shares to which the SAR pertains and shall provide for the adjustment of such number in accordance with the adjustment provisions of the Plan.

(c) *Exercise Price* . Each SAR Award shall specify the Exercise Price, which may not be less than 100 percent (100%) of the Fair Market Value of a Share on the date of grant. A SAR Award may specify an Exercise Price that varies in accordance with a predetermined formula while the SAR is outstanding.

(d) *Exercisability and Term* . Unless the SAR Award provides otherwise, each SAR shall become exercisable with respect to twenty-five percent (25%) of the Shares covered by such SAR on each of the first through fourth anniversaries of the date of grant, provided that the Participant's Service has not terminated on the applicable vesting date. The term of the SAR shall be ten (10) years from the date of grant unless the SAR Award provides for a shorter term. A SAR Award may provide for accelerated exercisability in the event of a corporate transaction or otherwise as specified by the Committee. SARs may be awarded in combination with Options, and such an Award may provide that the SARs will not be exercisable unless the related Options are forfeited. A SAR may be included in an ISO only at the time of grant but may be included in an NSO at the time of grant or thereafter. A SAR granted under the Plan may provide that it will be exercisable only in the event of a Corporate transaction.

(e) *Exercise of SARs* . The SAR Award may provide that, upon exercise of a SAR, the Participant (or any person having the right to exercise the SAR after his or her death) shall receive from the Company (a) Shares, (b) cash or (c) a combination of Shares and cash. Unless otherwise provided in the SAR Award, upon exercise of a SAR, the Participant (or any person having the right to exercise the SAR after his or her death) shall receive Shares from the Company. The amount of cash and/or the Fair Market Value of Shares received upon exercise of SARs shall, in the aggregate, be equal to the amount by which the Fair Market Value (on the date of surrender) of the Shares subject to the SARs exceeds the Exercise Price. Unless the SAR Award provides otherwise, SARs which are unvested at the time of a Participant's termination of Service shall expire upon such termination, and any vested SARs which have not been exercised shall remain outstanding and exercisable until the earlier of 3 months following such termination and the expiration of the SAR's term. Notwithstanding the foregoing, in the event of a Participant's termination for Cause, effective as of the date notice of such termination is given by the Committee to the Participant, all of the Participant's vested and unvested SARs shall automatically terminate and lapse, unless the Committee shall determine otherwise.

(f) *Modification or Assumption of SARs* . Within the limitations of the Plan, the Committee may modify, extend or renew outstanding SARs. The foregoing notwithstanding, no modification of a SAR shall, without the consent of the Participant, impair his rights or increase his obligations under such SAR. SARs may not be repriced without the approval of the Company's stockholders.

SECTION 10. STOCK UNITS.

(a) *Stock Unit Award* . Each grant of Stock Units under the Plan shall be evidenced by a Stock Unit Award between the recipient and the Company. Such Stock Units shall be subject to all applicable terms of the Plan and may be subject to any other terms that are not inconsistent with the Plan, including those specified. The provisions of the various Stock Unit Awards entered into under the Plan need not be identical.

(b) *Payment for Awards* . To the extent that an Award is granted in the form of Stock Units, no cash consideration shall be required of the Award recipients.

(c) *Vesting Conditions* . Each Award of Stock Units shall be subject to vesting. Vesting shall occur, in full or in installments, upon satisfaction of the conditions specified in the Stock Unit Award. Unless the Stock Unit Award provides otherwise, each grant of Stock Units shall become exercisable with respect to twenty-five percent (25%) of the Shares covered by the grant on each of the first through fourth anniversaries of the date of grant, provided that the Participant's Service has not terminated on the applicable vesting date. A Stock Unit Award may provide for accelerated vesting in the event of a corporate transaction or otherwise as specified by the Committee. To the extent that an Award of Stock Units has not vested prior to, or concurrently with, termination of a Participant's Service, such Award shall immediately terminate.

(d) *Voting and Dividend Rights* . The holders of Stock Units shall have no voting rights. Prior to settlement or forfeiture, any Stock Unit awarded under the Plan may, at the Committee's discretion, carry with it a right to dividend equivalents. Such right entitles the holder to be credited with an amount equal to all cash dividends paid on one Share while the Stock Unit is outstanding. Dividend equivalents may be converted into additional Stock Units. Settlement of dividend equivalents may be made in the form of cash, in the form of Shares, or in a combination of both. Prior to distribution, any dividend equivalents which are not paid shall be subject to the same conditions and restrictions as the Stock Units to which they attach.

(e) *Form and Time of Settlement of Stock Units* . Settlement of vested Stock Units may be made in the form of (a) cash, (b) Shares or (c) any combination of both, as determined by the Committee. Methods of converting Stock Units into cash may include (without limitation) a method based on the average Fair Market Value of Shares over a series of trading days. Vested Stock Units may be settled in a lump sum or in installments. The distribution shall occur or commence when all vesting conditions applicable to the Stock Units have been satisfied or have lapsed, or it may be deferred, in accordance with such rules as may be established by the Committee and applicable law, to any later date. The amount of a deferred distribution may be increased by an interest factor or by dividend equivalents. Until an Award of Stock Units is settled, the number of such Stock Units shall be subject to adjustment pursuant to the adjustment provisions of the Plan. Notwithstanding anything to the contrary in any Award agreement or the Plan, any Stock Units that, by their terms, are settled on the applicable vesting date(s) shall be settled no later than the fifteenth (15th) day of the third (3rd) month following the end of the calendar year containing the applicable vesting date (or, if later, the fifteenth (15th) day of the third (3rd) month following the end of the Company's taxable year). In addition, notwithstanding anything to the contrary in any Award agreement or the Plan, references to "termination of the Participant's Service," "Termination Date" and similar references for Stock Units that are subject to Code Section 409A shall mean the date of the Participant's "separation from service" within the meaning of Code Section 409A and such Stock Units shall be settled no later than the time permitted by Treasury Regulation Section 1.409A-3 (d).

(f) *Death of Recipient* . Any Stock Units Award that becomes payable after the recipient's death shall be distributed to the recipient's beneficiary or beneficiaries. Each recipient of a Stock Units Award under the Plan shall designate one or more beneficiaries for this purpose by filing the prescribed form with the Company. A beneficiary designation may be changed by filing the prescribed form with the Company at any time before the Award recipient's death. If no beneficiary was designated or if no designated beneficiary survives the Award recipient, then any Stock Units Award that becomes payable after the recipient's death shall be distributed to the recipient's estate.

(g) *Creditors' Rights* . A holder of Stock Units shall have no rights other than those of a general creditor of the Company. Stock Units represent an unfunded and unsecured obligation of the Company, subject to the terms and conditions of the applicable Stock Unit Award.

(h) *Assignment or Transfer of Stock Units* . Except as provided herein, or in a Stock Unit Award, or as required by applicable law, Stock Units shall not be anticipated, assigned, attached, garnished, optioned, transferred or made subject to any creditor's process, whether voluntarily, involuntarily or by operation of law. Any act in violation of this Subsection shall be void. However, this Subsection shall not preclude a Participant from designating a beneficiary who will receive any outstanding Stock Units in the event of the Participant's death, nor shall it preclude a transfer of Stock Units by will or by the laws of descent and distribution.

SECTION 11. NO RIGHTS AS A STOCKHOLDER

A Participant shall have no rights as a stockholder with respect to any Award until the date of the issuance of a stock certificate for any Shares covered by such award. No adjustments shall be made, except as provided in the adjustment provisions of the Plan.

SECTION 12. PERFORMANCE CONDITIONS.

(a) Awards may, but need not, be made subject to a Performance Condition utilizing any Performance Goal in addition to any vesting requirements imposed upon such grant. The determination as to whether any such grant is subject to a Performance Condition shall be made on or prior to the date of grant.

(b) Except in the case of Awards not intended to qualify as "performance-based compensation" under Code Section 162(m), if an Award is made subject to a Performance Condition, the Committee shall be required to establish the Performance Period and Target Performance Goal for such award no later than the time permitted by Section 162(m) of the Internal Revenue Code.

(c) If all or a portion of an Award made subject to a Performance Condition shall vest prior to the Certification Date by reason of death, Total and Permanent Disability or, if applicable, a corporate transaction, then the Performance Condition shall be cancelled and none of such Award shall be subject to reduction or forfeiture as provided by the Performance Condition. Such Award shall be treated in accordance with the terms of this plan relating to vested shares.

(d) If all or a portion of an Award made subject to a Performance Condition shall vest prior to the Certification Date for any reason other than death, Total and Permanent Disability or a corporate transaction, no portion of the Award shall be released to or exercised by the Participant until after the Certification Date. No such vesting prior to the Certification Date shall in any way be deemed a satisfaction, waiver or cancellation of the Performance Condition, and such Award shall remain subject to reduction and forfeiture as provided by the Performance Condition.

(e) Once established, a Performance Condition for an Executive Officer may not be waived or cancelled by the Committee.

SECTION 13. TERMINATION OF SERVICE; LEAVES OF ABSENCE.

Subject to the last sentence of this Section, a Participant's Service shall terminate when such person ceases to be an Eligible Participant as determined in the sole discretion of the Committee. A Participant's Service does not terminate if he or she is a common-law employee and goes on a bona fide leave of absence as outlined in the Company's Guidelines for Equity Plans. Notwithstanding the foregoing, an Outside Director's Service shall terminate when he or she is neither a member of the Board of Directors or a consultant to the Company.

SECTION 14. ADJUSTMENT OF SHARES.

(a) *Adjustments* . In the event of a subdivision of the outstanding Stock, or stock split or reverse stock split, a declaration of a dividend payable in Shares, a declaration of a dividend payable in a form other than Shares in an amount that has a material effect on the price of Shares, a combination or consolidation of the outstanding Shares (by reclassification or otherwise) into a lesser number of Shares, a recapitalization, reorganization, merger, liquidation, a spin-off, exchange of shares or a similar occurrence (as determined by the Committee in its sole discretion), the Committee shall make such adjustments as it, in its sole discretion, deems appropriate in one or more of:

- (i) The number of Shares, Options, SARs, Restricted Shares and Stock Units available for future Awards under the Plan;
- (ii) The per person per fiscal year limitations on Awards under the Plan and the maximum aggregate number of ISOs that may be awarded under the Plan;
- (iii) The number of Shares covered by each outstanding Award;
- (iv) The Exercise Price under each outstanding Option and SAR; or
- (v) The number of Stock Units included in any prior Award which has not yet been settled.

Except as provided in this Section, a Participant shall have no rights by reason of any issue by the Company of stock of any class or securities convertible into stock of any class, any subdivision or consolidation of shares of stock of any class, the payment of any dividend or any other increase or decrease in the number of shares of stock of any class.

(b) *Dissolution or Liquidation* . To the extent not previously exercised or settled, Options, SARs and Stock Units shall terminate immediately prior to the dissolution or liquidation of the Company.

(c) *Corporate Transactions* . In the event that the Company is a party to a merger or other reorganization, sale of all or substantially all of the assets of the Company or the acquisition, sale or transfer of more than 50% of the outstanding shares of the Company by tender offer or similar transaction, outstanding Awards shall be subject to the corporate transaction agreement. Such agreement may provide for:

- (i) The continuation of the outstanding Awards by the Company, if the Company is a surviving corporation;
- (ii) The assumption of the outstanding Awards by the surviving corporation or its parent or subsidiary;
- (iii) The substitution by the surviving corporation or its parent or subsidiary of its own awards for the outstanding Awards;
- (iv) Full exercisability or vesting and accelerated expiration of the outstanding Awards; or
- (v) Settlement of the full value of the outstanding Awards in cash or cash equivalents followed by cancellation of such Awards.

(d) *Reservation of Rights* . Except as provided in this Section, a Participant shall have no rights by reason of any subdivision or consolidation of shares of stock of any class, the payment of any dividend or any other increase or decrease in the number of shares of stock of any class. Any issue by the Company of shares of stock of any class, or securities convertible into shares of stock of any class, shall not affect, and no adjustment by reason thereof shall be made with respect to, the number of Shares subject to an Award or the Exercise Price. The grant of an Award pursuant to the Plan shall not affect in any way the right or power of the Company to make adjustments, reclassifications, reorganizations or changes of its capital or business structure, to merge or consolidate or to dissolve, liquidate, sell or transfer all or any part of its business or assets.

SECTION 15. AWARDS UNDER OTHER PLANS.

The Company may grant awards under other plans or programs. Such awards may be settled in the form of Shares issued under this Plan. Such Shares shall be treated for all purposes under the Plan like Shares issued in settlement of Stock Units and shall, when issued, reduce the number of Shares available under the Plan.

SECTION 16. LEGAL AND REGULATORY REQUIREMENTS.

No Option may be exercised and no Stock may be issued pursuant to an Option or transferred pursuant to a Restricted Share award unless the Committee shall determine that such exercise, issuance or transfer complies with all relevant provisions of law, including, without limitation, the Securities Act, the Exchange Act, applicable state securities laws, and rules and regulations promulgated under each of the foregoing, and the requirements of any stock exchange upon which the Stock may then be listed or quotation system upon which the Stock may be quoted. If the Stock subject to this Plan is not registered under the Securities Act and under applicable state securities laws, the Committee may require that the Participant deliver to the Company such documents as counsel for the Company may determine are necessary or advisable in order to substantiate compliance with applicable securities laws and the rules and regulations promulgated thereunder. In no event shall the Company deliver, or be deemed obligated to deliver, cash in lieu of any Share by reason of any failure to satisfy the foregoing provisions.

So long as any restrictions or obligations imposed pursuant to this Plan shall apply to a share, each certificate evidencing such share shall bear an appropriate legend referring to the terms, conditions and restrictions. In addition, the Company may instruct its transfer agent that shares of Stock evidenced by such certificates may not be transferred without the written consent of the Company. Any attempt to dispose of such shares of Stock in contravention of such terms, conditions and restrictions shall be invalid. Certificates representing shares that have not vested or with respect to which minimum withholding taxes have not been paid will be held in custody by the Company or such bank or other institution designated by the Committee.

SECTION 17. WITHHOLDING TAXES.

(a) *General* . To the extent required by applicable federal, state, local or foreign law, a Participant or his or her successor shall make arrangements satisfactory to the Company for the satisfaction of any withholding tax obligations that arise in connection with the Plan. The Company shall not be required to issue any Shares or make any cash payment under the Plan until such obligations are satisfied. In the event that such withholding taxes are not paid on a timely basis, as determined by the Company in its sole discretion, to the extent permitted by law the Company shall have the right, but not the obligation, to cause such withholding taxes to be satisfied by reducing the number of Shares or cash (if applicable) deliverable or by offsetting such withholding taxes against amounts otherwise due from the Company to the Participant. If withholding taxes are paid by reduction of the number of Shares deliverable to the Participant, such shares shall be valued at the Fair Market Value as of the date of exercise.

(b) *Share Withholding* . Unless otherwise provided by the Committee, a Participant may satisfy all or part of his or her minimum withholding or income tax obligations by having the Company withhold all or a portion of any Shares that otherwise would be issued to him or her or by surrendering all or a portion of any Shares that he or she previously acquired. Subject to applicable law and accounting considerations, such Shares shall be valued at their Fair Market Value on the date when the amount of tax to be withheld is to be determined. A Participant may elect to surrender, or attest to the ownership of, previously acquired Shares in excess of the amount required to satisfy all or a part of his or her minimum withholding or income tax obligations provided that such Shares have been held by the Participant for such period of time required to avoid the Company's recognition of additional compensation expense for financial reporting purposes as a result of the surrender or attestation of such previously owned shares.

SECTION 18. NO EMPLOYMENT OR REELECTION RIGHTS.

No provision of the Plan, nor any right or Award granted under the Plan, shall be construed to give any person any right to become, to be treated as, or to remain an Eligible Participant. The Company and its Subsidiaries and Affiliates reserve the right to terminate any person's Service at any time and for any reason, with or without notice. No provision of the Plan nor any right or Award granted under the Plan shall be construed to create any obligation on the part of the Board of Directors to nominate any Outside Director for reelection by the Company's stockholders, or confer upon any Outside Director the right to remain a member of the Board of Directors for any period of time, or at any particular rate of compensation.

SECTION 19. DURATION AND AMENDMENTS.

(a) *Term of the Plan* . The Plan, as set forth herein, shall terminate automatically on the meeting of the stockholders of the Company in 2022, unless re-adopted or extended by the Company's stockholders prior to or on such date and may be terminated on any earlier date by the Board of Directors or the Compensation Committee, as described in the next Subsection.

(b) *Right to Amend or Terminate the Plan* . The Compensation Committee may amend or terminate the Plan at any time and from time to time. Rights and obligations under any Award granted before amendment or termination of the Plan shall not be materially impaired by such amendment or termination, except with consent of the person to whom the Award was granted. An amendment of the Plan shall be subject to the approval of the Company's stockholders to the extent required by applicable laws, regulations or rules, including, but not limited to, any applicable rules or regulations of the Nasdaq Global Market. In addition, no material amendment may be made to the plan without the approval of the Company's stockholders.

(c) *Effect of Amendment or Termination* . No Shares shall be issued or sold under the Plan after the termination thereof, except upon exercise of an Award granted prior to such termination. The termination of the Plan, or any amendment thereof, shall not adversely affect any Shares previously issued or any Awards previously granted under the Plan.

SECTION 20. PLAN EFFECTIVENESS.

This Plan shall become effective upon its approval by the Company's stockholders. Upon its effectiveness, the Plan shall supersede the prior plan such that no further awards shall be made under the prior plan. This Plan shall not, in any way, affect awards under the prior plan that are outstanding as of the date this Plan becomes effective. If the Company's stockholders do not approve this Plan, no Awards will be made under this Plan.

SECTION 21. GOVERNING LAW

The Plan shall be governed by the substantive laws (excluding the conflict of law rules) of the State of Delaware.



FORMFACTOR, INC.
EMPLOYEE STOCK PURCHASE PLAN
 (As Amended and Restated April 18, 2012)

1. Establishment of Plan . FormFactor, Inc. (the “*Company*”) proposes to grant options for purchase of the Company's Common Stock to eligible employees of the Company and its Participating Subsidiaries (as hereinafter defined) pursuant to this Employee Stock Purchase Plan (this “*Plan*”). For purposes of this Plan, “*Parent Corporation*” and “*Subsidiary*” shall have the same meanings as “parent corporation” and “subsidiary corporation” in Sections 424(e) and 424(f), respectively, of the Internal Revenue Code of 1986, as amended (the “*Code*”). “*Participating Subsidiaries*” are Parent Corporations or Subsidiaries that the Board of Directors of the Company (the “*Board*”) designates from time to time as corporations that shall participate in this Plan. The Company intends this Plan to qualify as an “employee stock purchase plan” under Section 423 of the Code (including any amendments to or replacements of such Section), and this Plan shall be so construed. Any term not expressly defined in this Plan but defined for purposes of Section 423 of the Code shall have the same definition herein. A total of 4,000,000 shares of the Company's Common Stock are reserved for issuance under this Plan. Such number shall be subject to adjustments effected in accordance with Section 14 of this Plan.

2. Purpose . The purpose of this Plan is to provide eligible employees of the Company and Participating Subsidiaries with a convenient means of acquiring an equity interest in the Company through payroll deductions, to enhance such employees' sense of participation in the affairs of the Company and Participating Subsidiaries, and to provide an incentive for continued employment.

3. Administration . This Plan shall be administered by the Compensation Committee of the Board (the “*Committee*”). Subject to the provisions of this Plan and the limitations of Section 423 of the Code or any successor provision in the Code, or limitations imposed by other taxing jurisdictions, as applicable, all questions of interpretation or application of this Plan shall be determined by the Committee and its decisions shall be final and binding upon all participants. Members of the Committee shall receive no compensation for their services in connection with the administration of this Plan, other than standard fees as established from time to time by the Board for services rendered by Board members serving on Board committees. All expenses incurred in connection with the administration of this Plan shall be paid by the Company.

4. Eligibility . Any employee of the Company or the Participating Subsidiaries is eligible to participate in an Offering Period (as hereinafter defined) under this Plan except the following:

(a) employees who are not employed by the Company or a Participating Subsidiary prior to the beginning of such Offering Period or prior to such other time period as specified by the Committee, under the Plan;

(b) employees who, together with any other person whose stock would be attributed to such employee pursuant to Section 424 (d) of the Code, own stock or hold options to purchase stock possessing five percent (5%) or more of the total combined voting power or value of all classes of stock of the Company or any of its Participating Subsidiaries or who, as a result of being granted an option under this Plan with respect to such Offering Period, would own stock or hold options to purchase stock possessing five percent (5%) or more of the total combined voting power or value of all classes of stock of the Company or any of its Participating Subsidiaries; and

(c) individuals who provide services to the Company or any of its Participating Subsidiaries as independent contractors who are reclassified as common law employees for any reason except for federal income and employment tax purposes.

Participating in the Plan does not change the status of an employee from being an “at will” employee.

5. Offering Dates. The offering periods of this Plan (each, an “*Offering Period*”) shall be of twelve (12) months fixed duration commencing on February 1 of each calendar year and ending on January 31 of the subsequent calendar year and of six (6) months fixed duration commencing on August 1 of each calendar year and ending on January 31 of the subsequent calendar year.

The twelve (12) month Offering Periods shall consist of two (2) six month purchase periods and the six (6) month Offering Periods shall consist of one (1) six month purchase period (individually, an appropriate “*Purchase Period*”) during which payroll deductions of the participants are accumulated under this Plan. The first market trading day of each Offering Period is referred to as the “*Offering Date*”. The

last market trading day of each Purchase Period is referred to as the “ **Purchase Date** ”. The Committee shall have the power to change the Offering Dates, the Purchase Dates and the duration of Offering Periods or Purchase Periods without stockholder approval if such change is announced prior to the relevant Offering Period or prior to such other time period as specified by the Committee.

6. Participation in this Plan . Eligible employees may become participants in an Offering Period under this Plan after satisfying the eligibility requirements and by delivering a subscription agreement to the Company prior to the commencement of such Offering Period (or such other time as may be specified by the Company or the Committee). Once an employee becomes a participant in an Offering Period by filing a subscription agreement, such employee will automatically participate in the Offering Period commencing immediately following the last day of the prior Offering Period unless the employee withdraws or terminates participation. Such participant is not required to file any additional subscription agreement in order to continue participation in this Plan.

7. Grant of Option on Enrollment . Enrollment by an eligible employee in this Plan with respect to an Offering Period will constitute the grant (as of the Offering Date) by the Company to such employee of an option to purchase on the Purchase Date up to that number of shares of Common Stock of the Company determined by a fraction, the numerator of which is the amount accumulated in such employee's payroll deduction account during such Purchase Period and the denominator of which is the lower of (i) eighty-five percent (85%) of the fair market value of a share of the Company's Common Stock on the Offering Date (but in no event less than the par value of a share of the Company's Common Stock), or (ii) eighty-five percent (85%) of the fair market value of a share of the Company's Common Stock on the Purchase Date (but in no event less than the par value of a share of the Company's Common Stock), and provided, further, that the number of shares of the Company's Common Stock subject to any option granted pursuant to this Plan shall not exceed the lesser of (x) the maximum number of shares which may be purchased pursuant to Section 10(a) below with respect to the applicable Purchase Date, or (y) the maximum number of shares which may be purchased pursuant to Section 10(c) below with respect to the applicable Purchase Date. The fair market value of a share of the Company's Common Stock shall be determined as provided in Section 8 below.

8. Purchase Price . The purchase price per share at which a share of Common Stock will be sold in any Offering Period shall be eighty-five percent (85%) of the lesser of:

- (a) The fair market value on the Offering Date; or
- (b) The fair market value on the Purchase Date .

The term “ **fair market value** ” means, as of any date, the value of a share of the Company's Common Stock determined as follows:

- (a) if such Common Stock is then quoted on the Nasdaq Global Market, the last transaction's price quoted on the Nasdaq Global Market on the date of determination as reported at www.nasdaq.com ;
- (b) if such Common Stock is publicly traded and is then listed on a national securities exchange, its closing price on the date of determination on the principal national securities exchange on which the Common Stock is listed or admitted to trading as reported at www.nasdaq.com ; or
- (c) if such Common Stock is publicly traded but is not quoted on the Nasdaq Global Market nor listed or admitted to trading on a national securities exchange, the average of the closing bid and asked prices on the date of determination at www.nasdaq.com .

9. Payment Of Purchase Price; Changes In Payroll Deductions; Issuance Of Shares.

(a) The purchase price of the shares is accumulated by regular payroll deductions made during each Purchase Period. The deductions are made as a percentage of the participant's compensation in one percent (1%) increments not less than one percent (1%), nor greater than fifteen percent (15%) or such lower limit set by the Committee. Compensation shall mean all W-2 cash compensation, including, but not limited to, base salary, wages, commissions, overtime, shift premiums, plus draws against commissions (determined consistently for the Company and Participating Subsidiaries), provided, however, that for purposes of determining a participant's compensation, any election by such participant to reduce his or her regular cash remuneration under Sections 125 or 401(k) of the Code shall be treated as if the participant did not make such election. Payroll deductions shall commence on the first payday of the Offering Period and shall continue to the end of the Offering Period unless sooner altered or terminated as provided in this Plan.

(b) A participant may not increase the rate of payroll deductions at any time during an Offering Period. A participant may decrease the rate of payroll deductions during an Offering Period by filing with the Company a new authorization for payroll deductions, in which case the new rate shall become effective as soon as practicable commencing after the Company's receipt of the authorization and shall continue unless otherwise instructed by the Participant. Such decrease in the rate of payroll deductions may be made at any time during an Offering

Period, but not more than one (1) change may be made effective during any Purchase Period. A participant may increase the rate of payroll deductions for the subsequent Offering Period beginning in February and a participant may decrease the rate of payroll deductions for any subsequent Offering Period by filing with the Company a new authorization for payroll deductions prior to the beginning of such Offering Period, or such other time period as specified by the Company or the Committee.

(c) A participant may reduce his or her payroll deduction percentage to zero during an Offering Period by filing with the Company a request for cessation of payroll deductions. Such reduction shall be effective beginning as soon as practicable after the Company's receipt of the request and no further payroll deductions will be made for the duration of the Offering Period. Payroll deductions credited to the participant's account prior to the effective date of the request shall be used to purchase shares of Common Stock of the Company in accordance with Section (e) below. A participant may not resume making payroll deductions during the Offering Period in which he or she reduced his or her payroll deductions to zero.

(d) All payroll deductions made for a participant are credited to his or her account under this Plan and are deposited with the general funds of the Company. No interest accrues on the payroll deductions. All payroll deductions received or held by the Company may be used by the Company for any corporate purpose, and the Company shall not be obligated to segregate such payroll deductions.

(e) On each Purchase Date, so long as this Plan remains in effect and provided that the participant has not submitted a signed and completed withdrawal form before that date which notifies the Company that the participant wishes to withdraw from that Offering Period under this Plan and have all payroll deductions accumulated in the account maintained on behalf of the participant as of that date returned to the participant, the Company shall apply the funds then in the participant's account to the purchase of whole shares of Common Stock reserved under the option granted to such participant with respect to the Offering Period to the extent that such option is exercisable on the Purchase Date. The purchase price per share shall be as specified in Section 8 of this Plan. Any cash remaining in a participant's account after such purchase of shares shall be refunded to such participant in cash, without interest; provided, however that any amount remaining in such participant's account on a Purchase Date which is less than the amount necessary to purchase a full share of Common Stock of the Company shall be carried forward, without interest, into the next Purchase Period or Offering Period, as the case may be. In the event that this Plan has been oversubscribed, all funds not used to purchase shares on the Purchase Date shall be returned to the participant, without interest. No Common Stock shall be purchased on a Purchase Date on behalf of any employee whose participation in this Plan has terminated prior to such Purchase Date.

(f) As promptly as practicable after the Purchase Date, the Company shall issue shares for the participant's benefit representing the shares purchased upon exercise of his or her option.

(g) During a participant's lifetime, his or her option to purchase shares hereunder is exercisable only by him or her. The participant will have no interest or voting right in shares covered by his or her option until such option has been exercised.

10. Limitations on Shares to be Purchased.

(a) The maximum number of shares purchasable by any participant on any one Purchase Date shall not exceed 10,000 shares. Such number shall be subject to adjustments in accordance with Section 14 of this Plan and shall be further subject to other limits as described in Sections 10(b) and 10(c) below.

(b) No participant shall be entitled to purchase stock under this Plan at a rate which, when aggregated with his or her rights to purchase stock under all other employee stock purchase plans of the Company or any Subsidiary, exceeds \$25,000 in fair market value, determined as of the Offering Date (or such other limit as may be imposed by the Code) for each calendar year in which the employee participates in this Plan. The Company shall automatically suspend the payroll deductions of any participant as necessary to enforce such limit provided that when the Company automatically resumes such payroll deductions, the Company must apply the rate in effect immediately prior to such suspension.

(c) No more than two hundred percent (200%) of the number of shares determined by using eighty-five percent (85%) of the fair market value of a share of the Company's Common Stock on the Offering Date as the denominator may be purchased by a participant on any single Purchase Date.

(d) If the number of shares to be purchased on a Purchase Date by all employees participating in this Plan exceeds the number of shares then available for issuance under this Plan, then the Company will make a pro rata allocation of the remaining shares in as uniform a manner as shall be reasonably practicable and as the Committee shall determine to be equitable. In such event, the Company shall give written notice of such reduction of the number of shares to be purchased under a participant's option to each participant affected.

(e) Any payroll deductions accumulated in a participant's account which are not used to purchase stock due to the limitations in this Section 10 shall be returned to the participant as soon as practicable after the end of the applicable Purchase Period, without interest.

11. Withdrawal.

(a) Each participant may withdraw from an Offering Period under this Plan by signing and delivering to the Company a written notice to that effect on a form provided for such purpose. Such withdrawal may be elected at any time prior to the end of a Purchase Period, or such other time period as specified by the Committee or the Company.

(b) Upon withdrawal from this Plan, the accumulated payroll deductions shall be returned to the withdrawn participant, without interest, and his or her interest in this Plan shall terminate. In the event a participant voluntarily elects to withdraw from this Plan, he or she may not resume his or her participation in this Plan during the same Offering Period, but he or she may participate in any Offering Period under this Plan which commences on a date subsequent to such withdrawal by filing a new subscription agreement in the same manner as set forth in Section 6 above for initial participation in this Plan.

12. Termination of Employment. Termination of a participant's employment for any reason, including retirement, death or the failure of a participant to remain an eligible employee of the Company or of a Participating Subsidiary, immediately terminates his or her participation in this Plan. In such event, the payroll deductions credited to the participant's account will be returned to him or her or, in the case of his or her death, to his or her legal representative, without interest. For purposes of this Section 12, an employee will not be deemed to have terminated employment or failed to remain in the continuous employ of the Company or of a Participating Subsidiary in the case of sick leave, military leave, or any other leave of absence approved by the Board; provided that such leave is for a period of not more than ninety (90) days or reemployment upon the expiration of such leave is guaranteed by contract or statute.

13. Return of Payroll Deductions . In the event a participant's interest in this Plan is terminated by withdrawal, termination of employment or otherwise, or in the event this Plan is terminated by the Board, the Company shall deliver to the participant all payroll deductions credited to such participant's account. No interest shall accrue on the payroll deductions of a participant in this Plan.

14. Capital Changes . Subject to any required action by the stockholders of the Company, the number of shares of Common Stock covered by each option under this Plan which has not yet been exercised and the number of shares of Common Stock which have been authorized for issuance under this Plan but have not yet been placed under option (collectively, the “*Reserves*”), as well as the price per share of Common Stock covered by each option under this Plan which has not yet been exercised and the maximum number of shares of Common Stock purchasable per participant on any one Purchase Date, shall be proportionately adjusted for any increase or decrease in the number of issued and outstanding shares of Common Stock of the Company resulting from a stock split or the payment of a stock dividend (but only on the Common Stock) or any other increase or decrease in the number of issued and outstanding shares of Common Stock effected without receipt of any consideration by the Company; provided, however, that conversion of any convertible securities of the Company shall not be deemed to have been “effected without receipt of consideration”. Such adjustment shall be made by the Committee, whose determination shall be final, binding and conclusive. Except as expressly provided herein, no issue by the Company of shares of stock of any class, or securities convertible into shares of stock of any class, shall affect, and no adjustment by reason thereof shall be made with respect to, the number or price of shares of Common Stock subject to an option.

In the event of the proposed dissolution or liquidation of the Company, the Offering Period will terminate immediately prior to the consummation of such proposed action, unless otherwise provided by the Committee. The Committee may, in the exercise of its sole discretion in such instances, declare that this Plan shall terminate as of a date fixed by the Committee and give each participant the right to purchase shares under this Plan prior to such termination. In the event of (i) a merger or consolidation in which the Company is not the surviving corporation (other than a merger or consolidation with a wholly-owned subsidiary, a reincorporation of the Company in a different jurisdiction, or other transaction in which there is no substantial change in the stockholders of the Company or their relative stock holdings and the options under this Plan are assumed, converted or replaced by the successor corporation, which assumption will be binding on all participants), (ii) a merger in which the Company is the surviving corporation but after which the stockholders of the Company immediately prior to such merger (other than any stockholder that merges, or which owns or controls another corporation that merges, with the Company in such merger) cease to own their shares or other equity interest in the Company, (iii) the sale of all or substantially all of the assets of the Company or (iv) the acquisition, sale, or transfer of more than 50% of the outstanding shares of the Company by tender offer or similar transaction, the Plan will continue with regard to Offering Periods that commenced prior to the closing of the proposed transaction and shares will be purchased based on the Fair Market Value of the surviving corporation's stock on each Purchase Date, unless otherwise provided by the Committee.

The Committee may, if it so determines in the exercise of its sole discretion, also make provision for adjusting the Reserves, as well as the price per share of Common Stock covered by each outstanding option, in the event that the Company effects one or more reorganizations, recapitalizations, rights offerings or other increases or reductions of shares of its outstanding Common Stock, or in the event of the Company being consolidated with or merged into any other corporation.

15. Nonassignability . Neither payroll deductions credited to a participant's account nor any rights with regard to the exercise of an option or to receive shares under this Plan may be assigned, transferred, pledged or otherwise disposed of in any way (other than by will, the laws of descent and distribution or as provided in Section 22 below) by the participant. Any such attempt at assignment, transfer, pledge or other disposition shall be void and without effect.

16. Reports . Individual accounts will be maintained for each participant in this Plan. Each participant shall receive promptly after the end of each Purchase Period a report of his or her account setting forth the total payroll deductions accumulated, the number of shares purchased, the per share price thereof and the remaining cash balance, if any, carried forward to the next Purchase Period or Offering Period, as the case may be.

17. Notice of Disposition . Each participant shall notify the Company in writing if the participant disposes of any of the shares purchased in any Offering Period pursuant to this Plan if such disposition occurs within two (2) years from the Offering Date or within one (1) year from the Purchase Date on which such shares were purchased (the “*Notice Period*”). The Company may, at any time during the Notice Period, place a legend or legends on any certificate representing shares acquired pursuant to this Plan requesting the Company's transfer agent to notify the Company of any transfer of the shares. The obligation of the participant to provide such notice shall continue notwithstanding the placement of any such legend on the certificates.

18. No Rights to Continued Employment . Neither this Plan nor the grant of any option hereunder shall confer any right on any employee to remain in the employ of the Company or any Participating Subsidiary, or restrict the right of the Company or any Participating Subsidiary to terminate such employee's employment.

19. Equal Rights And Privileges . All eligible employees shall have equal rights and privileges with respect to this Plan so that this Plan qualifies as an “employee stock purchase plan” within the meaning of Section 423 or any successor provision of the Code and the related regulations. Any provision of this Plan which is inconsistent with Section 423 or any successor provision of the Code shall, without further act or amendment by the Company, the Committee or the Board, be reformed to comply with the requirements of Section 423. This Section 19 shall take precedence over all other provisions in this Plan.

20. Notices . All notices or other communications by a participant to the Company under or in connection with this Plan shall be deemed to have been duly given when received in the form specified by the Company at the location, or by the person, designated by the Company for the receipt thereof.

21. Term; Stockholder Approval. This Plan shall be approved by the stockholders of the Company, in any manner permitted by applicable corporate law, within twelve (12) months before or after the date this Plan is adopted by the Board. This Plan shall continue until the earlier to occur of (a) termination of this Plan by the Board (which termination may be effected by the Board at any time), (b) issuance of all of the shares of Common Stock reserved for issuance under this Plan, or (c) the Company's annual meeting in 2022.

22. Designation of Beneficiary .

(a) A participant may file a written designation of a beneficiary who is to receive any shares and cash, if any, from the participant's account under this Plan in the event of such participant's death subsequent to the end of a Purchase Period but prior to delivery to him of such shares and cash. In addition, a participant may file a written designation of a beneficiary who is to receive any cash from the participant's account under this Plan in the event of such participant's death prior to a Purchase Date.

(b) Such designation of beneficiary may be changed by the participant at any time by written notice. In the event of the death of a participant and in the absence of a beneficiary validly designated under this Plan who is living at the time of such participant's death, the Company shall deliver such shares or cash to the executor or administrator of the estate of the participant, or if no such executor or administrator has been appointed (to the knowledge of the Company), the Company, in its discretion, may deliver such shares or cash to the spouse or to any one or more dependents or relatives of the participant, or if no spouse, dependent or relative is known to the Company, then to such other person as the Company may designate.

23. Conditions Upon Issuance of Shares; Limitation on Sale of Shares . Shares shall not be issued with respect to an option unless the exercise of such option and the issuance and delivery of such shares pursuant thereto shall comply with all applicable provisions of law, domestic or foreign, including, without limitation, the Securities Act, the Securities Exchange Act of 1934, as amended, the rules and regulations promulgated thereunder, and the requirements of any stock exchange or automated quotation system upon which the shares may then be listed, and shall be further subject to the approval of counsel for the Company with respect to such compliance.

24. Applicable Law . The Plan shall be governed by the substantive laws (excluding the conflict of laws rules) of the State of Delaware.

25. Amendment or Termination of this Plan . The Board may at any time amend, terminate or extend the term of this Plan, except that any such termination cannot affect options previously granted under this Plan, nor may any amendment make any change in an option previously granted which would adversely affect the right of any participant, nor may any amendment be made without approval of the stockholders of the Company obtained in accordance with Section 21 above within twelve (12) months of the adoption of such amendment (or earlier if required by Section 21) if such amendment would:

- (a) increase the number of shares that may be issued under this Plan; or
- (b) change the designation of the employees (or class of employees) eligible for participation in this Plan.

Notwithstanding the foregoing, the Board may make such amendments to the Plan as the Board determines to be advisable, if the continuation of the Plan or any Offering Period would result in financial accounting treatment for the Plan that is different from the financial accounting treatment in effect on the date this Plan is adopted by the Board.

August 29, 2012

Mike Slessor

Dear Mike,

We welcome the opportunity to offer you a salaried, exempt position with FormFactor, Inc. (the “Company” or “FormFactor”) as a Senior Vice President and General Manager of the SOC business, subject to the completion of the acquisition of Astria Semiconductor Holdings, Inc. and its subsidiaries including MicroProbe, Inc. (collectively, “Astria”) by the Company (the “Acquisition”) pursuant to a merger agreement expected to be executed by the Company and certain other parties thereto (the “Merger Agreement”). Your starting date will be the closing date of the Acquisition (the “Closing Date”), if you remain employed by Astria until such date. If the Acquisition is not completed, this offer will be null and void.

You will report to the Chief Executive Officer of FormFactor and will receive an annual salary of \$275,000, which will be paid bi-weekly in accordance with, and subject to, the Company’s normal payroll procedures. Additionally, you will be eligible to participate in a cash incentive plan at an annualized target rate of 60% of your earned annual salary, subject to meeting specified performance objectives. Regular full-time employees of the Company are eligible to receive certain employee benefits, which may from time to time change at the Company’s discretion. These currently include:

- Medical, Dental and Vision Insurance Benefits
- Short-Term and Long-Term Disability Insurance Coverage
- Group Life Insurance
- Paid Time-Off (or vacation and sick leave, as applicable)
- 401k Plan with match
- Section 125 Flex Spending Plan
- Employee Assistance Program
- Employee Stock Purchase Plan

Employee and dependent contributions are outlined in our Benefit Plan Summary. Please note that for most purposes under the FormFactor benefit and compensation plans, your service date will be reflected as your hire date at Astria. Prior to the Closing Date, you will receive further information about continuation of Astria benefits and of applicable FormFactor benefits.

We will recommend that the Company’s Compensation Committee approve the following equity awards, which will be subject to the terms and conditions of the Company’s Equity Incentive Plan and award agreement:

- On or following the Closing Date, a restricted stock unit award for 60,000 Company shares, which will vest in three equal annual installments from the grant date.
 - On or following the Closing Date, a performance-based restricted stock unit award for 30,000 Company shares at target, that will be earned (between 0% and 125% of such target) based on 2013 performance, as set forth on Exhibit A hereto. If earned, the award will be eligible for service-based vesting in an amount equal to 50% of the earned award in the first quarter of 2014 after the Compensation Committee determines whether the 2013 performance criteria were met and 50% on the one-year anniversary of such determination.
 - In addition, at a later date, we expect that the Compensation Committee will grant you a performance-based restricted stock unit award for 50,000 Company shares at target, that will be earned based on 2014 performance, as set forth on Exhibit A hereto. If earned, the award will be eligible for service-based vesting in an amount equal to 50% of the earned award in the first quarter of 2015 after the
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Compensation Committee determines whether the 2014 performance criteria were met and 50% on the one-year anniversary of such determination.

Your agreement to accept this offer is contingent upon your ability to show proof of your legal right to work for the Company in the United States as well as successfully completing a background check required for all new hires.

As a condition of your employment you are required to sign and return to the company our standard Agreement Regarding Employment, Confidential Information, Invention Assignment, and Arbitration (the "Confidentiality Agreement"). A copy for your signature is enclosed. We will not be able to commence your employment until we have received a signed copy of this document. If you accept this offer, please return a signed copy to me, along with your signed Equityholder Non-Compete Agreement.

You should be aware that your employment with the Company is for no specified period and constitutes at-will employment. As a result, you are free to resign at any time, for any reason or for no reason. Similarly, the Company is free to conclude its employment relationship with you at any time, with or without cause.

By accepting this offer and if the Acquisition is completed, you agree that any existing offer letter or employment agreement between you and Astria, including without limitation the Executive Employment Agreement dated August 6, 2008 (the "Existing Employment Agreement"), will terminate and will be superseded by this offer letter and the Confidentiality Agreement.

Notwithstanding the foregoing, if, prior to the first anniversary of the Closing Date, you are terminated by the Company without Cause (as defined in the Existing Employment Agreement) or you resign for Good Reason (as defined in the Existing Employment Agreement), then you will be eligible to receive severance benefits equal to six months of your base salary, payable in a lump sum on the 45th day following your "separation from service" (within the meaning of Section 409A of the Code), if you sign and let become effective on or before such 45th day a general release of claims, releasing all claims, known or unknown, that you may have arising out of or in any way related to your employment or termination of employment with the Company, Astria or their affiliates, and if you continue to comply with the Confidentiality Agreement (as defined below) and the Equityholder Non-Compete Agreement that you are executing in connection with the Merger Agreement. The foregoing severance shall be in lieu of any severance provided under any other Company or Astria plan, policy or agreement and shall be reduced by any notice period (or pay in lieu thereof) required by applicable federal or state law. You acknowledge and agree that this offer by the Company and the closing of the Acquisition do not constitute "Good Reason" under this offer letter or your Existing Employment Agreement.

If you accept this offer and remain employed by Astria until immediately prior to the closing of the Acquisition, we will consent to Astria accelerating your unvested Astria stock options immediately prior to such closing. After the Merger Agreement is signed, you will separately receive further information about the consideration you will receive under the Merger Agreement for your Astria shares and/or vested stock options, as applicable.

You hereby agree that if any payment or benefits under this offer letter or any other agreement with Astria or the Company would be subject to any excise tax pursuant to Section 4999 of the Internal Revenue Code of 1986, as amended (the "Code"), such payments and/or benefits shall be reduced (to the least extent possible) in order to avoid any "excess parachute payment" under Section 280G(b)(1) of the Code, unless Astria obtains shareholder approval of such payments and/or benefits in compliance with Section 280G of the Code.

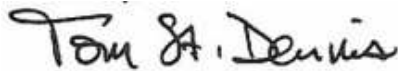
As a FormFactor employee you are required to comply at all times with the Company's various rules, policies and procedures, including those set forth in our Statement of Corporate code of Business Conduct (the "Code"), and our Statement of Policy Regarding Insider Trading ("Policy Statement"). Copies of these documents are available via the Corporate Governance section of www.FormFactor.com. Please access www.FormFactor.com and select Investors, Stockholder Information, Corporate Governance. As a condition of employment you are required to sign and return to the Company the enclosed Acknowledgement relating to the Policy Statement and the Code.

You should understand that, while referenced in this offer letter, the Company rules, policies and procedures are not incorporated by reference into this offer letter, and they can be changed, replaced or withdrawn at any time at the discretion of the Company.

To indicate your acceptance of the Company's offer, please sign and date this letter in the space provided below and return it with all other new hire forms in the enclosed envelope. A duplicate original is enclosed for your records. This letter, along with the Confidentiality Agreement, set forth the terms of your employment with the Company and supersede any prior representations or agreements, whether written or oral. This letter may not be modified or amended except by a written agreement, signed by an officer of the Company and by you. This offer, if not accepted, will expire five (5) days from the offer date. Please call me if you have any questions.

We look forward to your favorable reply and to a productive, fun and exciting work relationship.

Sincerely,



Tom St. Dennis
CEO
FormFactor, Inc.

ACCEPTED AND AGREED TO this 31st day of August, 2012



NAME

Enclosures:

- Agreement Regarding Employment, Confidential Information, Invention Assignment, and Arbitration
 - Equityholder Non-Compete Agreement
 - Acknowledgements
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Exhibit A
Performance RSU Goals

The Performance Goal Multiplier for FY 2013 performance (measured on the current MicroProbe products and their derivatives) if **both** Revenue and Gross Margin goals are met as follows:

Revenue	Gross Margin	% PRSUs Earned	Gross Margin	% PRSUs Earned
\$115M	40%	30%	43%	50%
\$120M	40%	80%	43%	100%
\$125M	40%	105%	43%	125%

- Below \$115M Revenue, **or** below 40% Gross Margin, results in 0% of the PRSUs being earned.
- If a Revenue goal in the table above is achieved, then for Gross Margin achievement between 40% and 43%, linear interpolation will be used to determine the percentage of PRSUs earned between the amounts set forth in the applicable line item in the table above.
- 125% is the maximum Multiplier.

The Performance Goal Multiplier for FY 2014 performance (measured on the current MicroProbe products and their derivatives) if **both** Revenue and Gross Margin goals are met as follows::

Revenue	Gross Margin	% PRSUs Earned	Gross Margin	% PRSUs Earned
\$130M	40%	30%	43%	50%
\$135M	40%	80%	43%	100%
\$140M	40%	105%	43%	125%

- Below \$130M Revenue, **or** below 40% Gross Margin, results in 0% of the PRSUs being earned.
 - If a Revenue goal in the table above is achieved, then for Gross Margin achievement between 40% and 43%, linear interpolation will be used to determine the percentage of PRSUs earned between the amounts set forth in the applicable line item in the table above.
 - 125% is the maximum Multiplier.
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EQUITYHOLDER NON-COMPETE AGREEMENT

August 29, 2012

Mike Slessor

This letter agreement (this "**Agreement**") between you and Form Factor, Inc. (the "**Acquiror**") is being entered into in connection with the Agreement and Plan of Merger (as may be amended, the "**Merger Agreement**") dated on or about August 31, 2012 among Astria Semiconductor Holdings, Inc. (the "**Company**"), Acquiror, and certain other parties (the "**Merger Agreement**").

You understand that the Company will become a wholly owned subsidiary of Acquiror (the "Acquisition") if and when the transactions contemplated by the Merger Agreement are consummated (the effective date of the Acquisition, the "Closing Date"), and that you are entering this Agreement in your capacity as an equityholder of the Company with a key and significant role with the Company.

In order to induce Acquiror to enter into the Merger Agreement, and to preserve the goodwill and proprietary rights of the Company for Acquiror's benefit, you hereby covenant and agree as follows:

1. Commencing on the Effective Time and continuing until the first anniversary of the Closing Date, you shall not own, assist or have any interest in, whether alone or as a partner, officer, director, employee, consultant, agent, independent contractor, stockholder or equity owner of any company or business organization, any business or enterprise engaged in the Company's business (such business, together with any other business of the Company reasonably contemplated as of the Closing Date being collectively referred to herein as the "**Competitive Business**"). Notwithstanding the foregoing, you may own, solely as a passive investment, securities in any corporation or other business entity whose securities are traded on a national securities exchange so *long* as you do not beneficially own, directly or indirectly, 1% or more of the equity securities of any such corporation or business entity.

2. If any restriction set forth in this Agreement is found by a court to be unenforceable, then you agree, and hereby submit, to the reduction and limitation of such prohibition to such area, time period or other extent as shall be deemed enforceable.

3. You acknowledge and agree that Acquiror's remedy at law for a breach or threatened breach of paragraph I above would be inadequate. In recognition of this fact, in the event of a breach by you thereof, you agree that, in addition to Acquiror's remedy at law, Acquiror shall be entitled to obtain equitable relief in the form of specific performance, temporary restraining order, temporary or permanent injunction or any other equitable remedy which may then be available. Nothing herein contained shall be construed as prohibiting Acquiror from pursuing any other remedies available to it for such breach or threatened breach.

4. This Agreement may be amended or altered only in a writing signed by you and Acquiror. This Agreement shall be construed and interpreted in accordance with the laws of the State of California. In case anyone or more of the provisions or parts of a provision contained in this Agreement shall, for any reason, be held to be invalid, illegal or unenforceable in any respect,

such invalidity, illegality or unenforceability shall not affect any other provision or part of a provision of this Agreement; and this Agreement shall, to the fullest extent permitted by law, be reformed and construed as if such invalid or illegal or unenforceable provision, or part of a provision, had never been contained herein, and such provision or part reformed so that it would be valid, legal and enforceable to the maximum extent possible.

5. This Agreement may not be assigned or delegated by you, but may be assigned or delegated by Acquiror (a) to an affiliate of Acquiror, (b) in the event that Acquiror shall be merged with, or consolidated into, any other corporation, to the surviving corporation, or (c) in the event that Acquiror shall sell and transfer substantially all of its assets to, or shall become a subsidiary of, another entity, to such entity.

If the Merger Agreement is terminated without consummation of the Acquisition, this Agreement will be null and void.

Please sign and date this Agreement below and return it to me.

Sincerely,

FormFactor, Inc.

By: Tom St. Dennis
Name: Tom St. Dennis
Title: CEO

I agree to the terms and conditions in this Agreement.

[Signature]
Date: 8/31/12

LIST OF REGISTRANT'S SUBSIDIARIES

SUBSIDIARY NAME	JURISDICTION OF ORGANIZATION
FormFactor Electronics Trading (Shanghai) Co., Ltd.	People's Republic of China
FormFactor Germany GmbH	Germany
FormFactor Hungary Licensing Limited Liability Company	Hungary
FormFactor International, Inc.	Delaware, United States
FormFactor, KK	Japan
FormFactor Korea, Inc.	South Korea
FormFactor Pte. Ltd.	Singapore
FormFactor Singapore Pte. Ltd.	Singapore
Astria Semiconductor Holdings, Inc	Delaware, United States
Micro-Probe Incorporated	California, United States
Microprobe HongKong Limited	Hong Kong
Microprobe Technology (Suzhou) Limited	People's Republic of China
Microprobe Pte. Limited (Singapore)	Singapore
The Micromanipulator Co., Inc	Delaware, United States

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (No. 333-106043, 333-115137, 333-125918, 333-139074, 333-148198, 333-149411, 333-157610, 333-165058, 333-172318, 333-179589 and 333-181450) of FormFactor, Inc. of our report dated March 13, 2013 relating to the financial statements and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PRICEWATERHOUSECOOPERS LLP

San Jose, California

March 13, 2013

**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**

I, Thomas St. Dennis, certify that:

1. I have reviewed the Annual Report on Form 10-K of FormFactor, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 13, 2013

/s/ THOMAS ST. DENNIS

Thomas St. Dennis
Chief Executive Officer
(Principal Executive Officer and Director)

**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**

I, Michael M. Ludwig , certify that:

1. I have reviewed the Annual Report on Form 10-K of FormFactor, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 13, 2013

/s/ MICHAEL M. LUDWIG

Michael M. Ludwig
Chief Financial Officer
(Principal Financial Officer and Principal Accounting Officer)

**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**

In connection with the annual report on Annual Report on Form 10-K of FormFactor, Inc., a Delaware corporation, for the period ended December 29, 2012, as filed with the Securities and Exchange Commission, each of the undersigned officers of FormFactor, Inc. certifies pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to his respective knowledge:

- (1) the annual report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and
- (2) the information contained in the annual report fairly presents, in all material respects, the financial condition and results of operations of FormFactor, Inc. for the periods presented therein.

Date: March 13, 2013

/s/ THOMAS ST. DENNIS

Thomas St. Dennis
Chief Executive Officer
(Principal Executive Officer and Director)

Date: March 13, 2013

/s/ MICHAEL M. LUDWIG

Michael M. Ludwig
Chief Financial Officer
(Principal Financial Officer and Principal Accounting Officer)