

FORMFACTOR INC  
Form 10-K  
February 21, 2012

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 31, 2011

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)

7005 Southfront Road, Livermore, California 94551

(Address of principal executive offices, including zip code)

(925) 290-4000

(Registrant's telephone number, including area code)

13-3711155

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

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  Smaller reporting company   
(Do not check if a smaller reporting company)

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Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the 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 24, 2011 (the last business day of the registrant's most recently completed second quarter) as reported by NASDAQ Global Market on that date: \$308,084,750. 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 February 13, 2012 was 49,574,715 shares.

**DOCUMENTS INCORPORATED BY REFERENCE**

Portions of the registrant's definitive Proxy Statement for the 2012 Annual Meeting of Stockholders, which will be filed within 120 days of the end of the registrant's fiscal year ended December 31, 2011, are incorporated by reference in Part III hereof. Except with respect to information specifically incorporated by reference in this Annual Report on Form 10-K, the Proxy Statement is not deemed to be filed as a part of this Annual Report on Form 10-K.

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FORMFACTOR, INC.

Form 10-K for the Fiscal Year Ended December 31, 2011

Index

	Page
Part I	
<u>Item 1: Business</u>	<u>4</u>
<u>Item 1A: Risk Factors</u>	<u>11</u>
<u>Item 1B: Unresolved Staff Comments</u>	<u>24</u>
<u>Item 2: Properties</u>	<u>24</u>
<u>Item 3: Legal Proceedings</u>	<u>25</u>
<u>Item 4: Mine Safety Disclosures</u>	<u>26</u>
Part II	
<u>Item 5: Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities</u>	<u>27</u>
<u>Item 6: Selected Financial Data</u>	<u>30</u>
<u>Item 7: Management's Discussion and Analysis of Financial Condition and Results of Operations</u>	<u>31</u>
<u>Item 7A: Quantitative and Qualitative Disclosures about Market Risk</u>	<u>51</u>
<u>Item 8: Financial Statements and Supplementary Data</u>	<u>51</u>
<u>Item 9: Changes in and Disagreements with Accountants on Accounting and Financial Disclosure</u>	<u>51</u>
<u>Item 9A: Controls and Procedures</u>	<u>51</u>
<u>Item 9B: Other Information</u>	<u>52</u>
Part III	
<u>Item 10: Directors, Executive Officers, and Corporate Governance</u>	<u>53</u>
<u>Item 11: Executive Compensation</u>	<u>53</u>
<u>Item 12: Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters</u>	<u>53</u>
<u>Item 13: Certain Relationships and Related Transactions, and Director Independence</u>	<u>53</u>
<u>Item 14: Principal Accounting Fees and Services</u>	<u>53</u>
Part IV	
<u>Item 15: Exhibits, Financial Statement Schedules</u>	<u>54</u>
<u>Signatures</u>	<u>57</u>
<u>Consolidated Financial Statements</u>	<u>59</u>

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, are trademarks or registered trademarks of FormFactor, Inc. in the United States and other countries. All other trademarks, trade names or service marks appearing in this Annual Report on Form 10-K are the property of their respective owners.

Throughout this Annual Report on Form 10-K, we refer to FormFactor, Inc. and its consolidated subsidiaries as "FormFactor," "we," "us," and "our". Our fiscal years end on the last Saturday in December. Our last three fiscal years ended on December 26, 2009, December 25, 2010 and December 31, 2011.

Table of Contents

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;
- 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;
- 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; and
- seasonality, principally due to our customers' purchasing cycles.

## Table of Contents

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.

Our business is generally subject to the cyclicity of the semiconductor industry. In fiscal 2008 through 2011, 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. 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.

Our revenue was down 10% in fiscal 2011 as compared to fiscal 2010, reflecting a mix of trends in our customers' markets, with moderate growth in the System on Chip, or SoC, and NAND Flash memory device markets offset by substantial declines in DRAM and NOR Flash memory device markets. The DRAM and NOR Flash memory market 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 as well as a cut back in production capacity and technology investments, including purchases of probe cards. The DRAM weakness was exacerbated by flooding in Thailand, which dramatically impacted disk drive production, in turn reducing personal computer output and DRAM demand. Overall, our revenue increased approximately 6% year-over-year in the SoC market, but was down approximately 12% in DRAM and 18% in Flash memory.

In fiscal 2011, we continued our efforts to improve our operating efficiency, to qualify our next generation products implementing our proprietary Matrix architecture structure, and to better position our company to address our current and expected market opportunities. We resized the organization through a series of restructuring actions that included reductions of our world-wide workforce. These efforts represent a continued focus on streamlining and simplifying our overall structure and better aligning our operations with the current business environment, as well as reducing our manufacturing cost and improving our cycle times.

#### 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.

## Table of Contents

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 50,000 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 x 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.

Our technology investment yielded several advances in fiscal 2011. We achieved a record setting new product ramp with our second generation full wafer contact products, SMART Matrix 100™ for DRAM and TouchMatrix™ for Flash, shipping over 900 units since introduction. These product lines have ramped in volume approximately four times faster than our previous generation Harmony product, and are now being used in production manufacturing for DRAM devices, NAND Flash devices, or both, at the top five memory manufacturers worldwide. The Matrix platform success is based on its unique architecture, a combination of three dimensional MEMS springs, singulated substrates and custom analog ASICs for high density automated test equipment, or ATE, signal sharing. The resulting Matrix solution, which also includes other of our proprietary technologies, delivers precise positioning of contacts on a wafer to improve yield and minimize setup time, rapid temperature scaling to maximize utilization, and extends native ATE parallelism to maximize test cell throughput. Customers are achieving measurable yield benefits, lower repair rates, and substantial cost of ownership improvement with these new products.

### 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, serial data devices, chipsets, microprocessors, microcontrollers and analog devices.





Table of Contents

Four customers accounted for 56% of our revenues in fiscal 2011, three customers accounted for 46% of our revenues in fiscal 2010 and one customer accounted for 49% of our revenues in fiscal 2009, as follows:

	Fiscal 2011	Fiscal 2010	Fiscal 2009	
Elpida Memory(1)	18.2	% 21.2	% 49.1	%
Hynix Semiconductor(2)	16.3	12.8	*	
Samsung(3)	11.2	12.0	*	
Micron Semiconductor(4)	10.2	*	*	
Total	55.9	% 46.0	% 49.1	%

(1)Includes Elpida Memory and its consolidated subsidiaries, Rexchip Electronics Corporation and Tera Probe, Inc.

(2)Includes Hynix Semiconductor and its consolidated subsidiary Hynix-Numonyx Semiconductor.

(3)Includes Samsung Semiconductor and its consolidated subsidiary Samsung Austin Semiconductor.

(4) Includes Micron Semiconductor and its consolidated subsidiaries, including Micron Semiconductor Asia Pte. Ltd., Numonyx Pte. Ltd., Numonyx Israel Ltd. and Micron Japan, Ltd.

\*Less than 10% of revenues.

The percentages above reflect customer constellations as of December 31, 2011. Prior period concentrations 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 14—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 \$14.6 million at December 31, 2011 compared to \$37.5 million at December 25, 2010. 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 produce our products 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 wirebonding, 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. 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 facility is located in Livermore, California. We also perform certain manufacturing operations in our facility in Yokohama City, Japan.

We maintain repair and service capability in Livermore, California, United States. We also provide repair and service capabilities in our service centers in Austin, Texas, United States; Gyeonggi-do, South Korea; Yokohama City, Japan; Jubei



## Table of Contents

City, 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 technology 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 \$43.5 million for fiscal 2011, \$55.4 million for fiscal 2010 and \$57.5 million for fiscal 2009.

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, Taiwan, Japan, South Korea and Singapore, 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 and the California Division of Occupational Safety and Health. We did not receive any notices of violations of environmental laws and regulations in fiscal 2011 or 2010. In fiscal 2009 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 31, 2011.

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.

### 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., Cascade Microtech, Inc.,

7

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## Table of Contents

Feinmetall GmbH, Korea Instrument Co., Ltd., Japan Electronic Materials Corporation, SV Probe, Inc., Micronics Japan Co., Ltd., Microfriend Inc., Micro-Probe, Inc., TSC MEMSYS Corporation, Technoprobe Asia Pte. Ltd., Tokyo Cathode Laboratory Co., Ltd., Tokyo Electron Ltd., TSE Co., Ltd., and Wentworth Laboratories, Inc., 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, or offer both advanced wafer probe cards and vertical or needle probe cards, 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 next-generation 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 31, 2011, we had 646 issued patents, of which 411 are United States patents and 235 are foreign patents. The expiration dates of these patents range from 2012 to 2029. 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 31, 2011, we had 327 patent applications pending worldwide, including 68 United States applications, 252 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, Harmony, MicroSpring, MicroForce, RapidSoak, SmartMatrix, SmartMatrix 100, TouchMatrix, OneTouch, TRE, TrueScale, TrueScale Lite and the FormFactor logo.

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. The ITC initiated an investigation into certain activities of two companies based on a complaint we filed in late 2007, but did not find a violation of Section 337 of the U.S. Tariff Act of 1930 and terminated its investigation in November 2009 without issuing an exclusionary order against any products. 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

Table of Contents

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, including our MicroSpring interconnect technology and design processes, 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 31, 2011, we had 709 regular full-time employees, including 168 in research and development, 74 in sales and marketing, 78 in general and administrative functions, and 389 in operations. By region, 529 of our employees were in North America, 58 in Japan, 35 in South Korea, 64 in Singapore, 19 in Taiwan and 4 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 State Securities and Exchange Commission, or SEC. The reference to our website does not constitute incorporation by reference of the information contained at the site.

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

Directors and Executive Officers

Directors. The names of the members of our board of directors, their ages as of December 31, 2011 and their current occupations are set forth below.

Name of Director	Age	Current Occupation
G. Carl Everett, Jr.(1)	61	Venture Partner at Accel LLP
Lothar Maier	56	Chief Executive Officer and Director of Linear Technology Corporation
James A. Prestridge(2)	79	Director of FormFactor, Inc.
Thomas St. Dennis	58	Chief Executive Officer and Director of FormFactor, Inc.
Edward Rogas, Jr.	70	Director of Vitesse Semiconductor Corporation and Vignani Technologies Pvt Ltd
Michael W. Zellner	56	Chief Financial Officer of PMC-Sierra
Richard DeLateur	63	Director of FormFactor, Inc.

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

(2) Mr. Prestridge will not be standing for re-election to our Board of Directors in fiscal 2012. His decision was not the result of any disagreement with the Company.

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



Table of Contents

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.

James A. Prestridge has served as a Director since April 2002, and has served as Chairman of our Board of Directors from August 2005 to June 2008, and from May 2009 to September 2010. Mr. Prestridge served as our Lead Independent Director from June 2008 to May 2009 and from September 2010 to December 2010. Mr. Prestridge served as a consultant for Empirix Inc., a provider of test and monitoring solutions for communications applications, from October 2001 until October 2003. From June 1997 to January 2001, Mr. Prestridge served as a Director of five private companies that were amalgamated into Empirix. Mr. Prestridge served as a member of the board of directors of Teradyne, Inc., a manufacturer of automated test equipment, which is a publicly traded company, from 1992 until 2000. Mr. Prestridge was Vice-Chairman of Teradyne from January 1996 until May 2000 and served as Executive Vice President of Teradyne from 1992 until May 1997. Mr. Prestridge holds a B.S. in general engineering from the U.S. Naval Academy and an M.B.A. from Harvard University. Mr. Prestridge served as a Captain in the U.S. Marine Corps.

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, the Chief Financial Officer of PMC-Sierra (Nasdaq: PMCS) since March 2007, has over 25 years of financial experience in the high tech industry. 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 31, 2011 are set forth below.

Name	Age	Position
Thomas St. Dennis	58	Chief Executive Officer
Michael M. Ludwig	50	Chief Financial Officer
Stuart L. Merkadeau	50	Senior Vice President, General Counsel and Secretary

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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

10

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Table of Contents

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.

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

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", or EOL, 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 are in, or have completed, the qualification phase of this transition at our customers for DRAM and flash memory applications, we are late to market with these new products and both have lost and expect to continue to lose market share as we make this product transition. This share loss is the result of the time required for SmartMatrix and TouchMatrix product qualifications and of our customers' manufacturing lead times as they move from qualification volumes to full commercial production volumes, which could result in continued lost opportunities for us and negatively impact our business, financial and operating results. Because of this market timing, our products are not being used by certain of our customers in their current high volume production runs for certain devices, which could result in our losing follow-on orders for those devices, and could also result in customers electing to continue purchasing wafer probe cards from suppliers other than us to test their future semiconductor devices, which could result in our loss of market share and have 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 an SoC customer on a next-generation vertical probe technology. If we experience delays in qualifying these next-generation products, we may lose sales and our financial results will be negatively impacted.

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, 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. In fiscal 2009, we recorded a \$5.0 million pre-tax expense to increase our allowance for doubtful accounts as a result of

the heightened non-payment risk of accounts receivable primarily related to three customers.

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.

Table of Contents

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. Four customers represented 56% of total revenues in fiscal 2011, three customers represented 46% of total revenues in fiscal 2010 and one customer represented 49% of total revenues in fiscal 2009. In fiscal 2011, 2010 and 2009, our ten largest customers accounted for 82%, 83% and 88% 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 in the more recent past 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, or a weaker than anticipated recovery, or another downturn in the semiconductor industry, 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., Cascade Microtech, Inc., Feinmetall GmbH, Korea Instrument Co., Ltd., Japan Electronic Materials Corporation, SV Probe, Inc., Micronics Japan Co., Ltd., Microfriend Inc., Micro-Probe, Inc., TSC MEMSYS Corporation, Technoprobe Asia Pte. Ltd., Tokyo Cathode Laboratory Co., Ltd., Tokyo Electron Ltd., TSE Co., Ltd., and Wentworth Laboratories, Inc., 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, or offer both advanced wafer probe cards and needle probe cards. 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. Because we do not offer a needle probe card or other conventional technology wafer probe cards for less advanced applications, it may be difficult for us to introduce our advanced wafer probe cards to these customers and potential customers for certain wafer test applications. It is also possible that one or more of our competitors may be able to increase their relative revenue 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

Table of Contents

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 two or more 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. We have filed a lawsuit in the United States District Court for the Northern District of California against Micro-Probe Incorporated alleging Micro-Probe is willfully infringing several of our U.S. patents that cover aspects of our proprietary technology and wafer probe cards. We are seeking injunctive relief and damages against Micro-Probe for unfair competition and have also asserted claims against a former employee for misappropriation of trade secrets and breach of confidence relative to FormFactor's confidential and propriety information and against the former employee and Micro-Probe for conspiring to breach that confidence. We may not obtain a favorable ruling in this U.S. federal district court action.

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. The USPTO granted requests to re-examine certain claims of each of our U.S. patents that are in the litigation pending in the United States District Court for the Northern District of California against Micro-Probe. 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' transitions to 2x nanometer DRAM and Flash technology nodes, to higher gigabit density devices, and to Double Data Rate III, or DDR3, architecture devices. 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



## Table of Contents

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. 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 2009, fiscal 2010, and fiscal 2011. 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

14

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Table of Contents

material, restructuring charges related to employee terminations or 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 method 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 and any measure of such impairment charge, if any, 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 or asset impairment, 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 2011 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 quarterly savings, excluding stock-based compensation expenses, of approximately \$5.5 million in the quarters commencing in fiscal 2012 as a result of these restructuring actions. If we experience expenses in excess of what we anticipate in connection with these restructuring activities, such as unanticipated costs associated with our decision to focus our manufacturing operations in Livermore and Japan and to not bring up assembly and test operations in Singapore or in Korea, our business, financial condition, or operating results could be adversely and materially affected. Our business, financial condition and operating results could also 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, by the delay in qualifying such Matrix-platform based products, or by our decision to implement an "end of life" plan for our Harmony products. We also cannot assure you that 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 cyclicity 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 2011, 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

Table of Contents

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. If we determine that we may not be able to realize some portion of our deferred tax assets in the future, we would record a valuation allowance against the deferred tax assets that could result in additional income tax expense. This valuation allowance will 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, our manufacturing and repair facility in Yokohama, Japan and our repair operations in 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, for example, the nuclear power plant issues resulting from the earthquake and tsunami in Japan in March 2011, 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 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. For example, our fiscal year 2011 revenues declined 10% from our fiscal 2010 year revenues, in large part due to the softening of the DRAM and the NOR Flash product markets. 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.

Table of Contents

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 landscape 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 an 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 2011, 2010 and 2009 sales to manufacturers of DRAM devices accounted for 68%, 70% and 80%, respectively, of our revenues, sales to

manufacturers of Flash memory devices accounted for 15%, 16% and 5%, respectively, of our revenues and sales to manufacturers of SoC devices accounted for 17%, 14% 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 further penetrate the full wafer contactor Flash memory and SoC markets and 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



Table of Contents

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 facility in Livermore, California, and any disruption in the operations of this facility could adversely impact our business and operating results.

Our manufacturing processes require sophisticated and expensive equipment and a specially designed facility, including a semiconductor clean room. We manufacture the majority of our wafer probe cards at our facility located in

Livermore, California, and we have certain manufacturing capabilities in our Yokohama, Japan facility. Any disruption in our

18

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Table of Contents

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 such manufacturers' relatively short cycle time requirements. We, for example, 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

## Table of Contents

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, 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

20

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Table of Contents

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. For example, in November 2007, we completed a review of our historical practices with respect to inventory valuation. That review indicated that during fiscal 2006 and the first half of fiscal 2007 we did not consistently follow our accounting policies for determining inventory valuation. Specifically, we did not maintain effective controls to ensure that the estimation process to value inventory complied with our accounting policies. As a result, we restated our annual and interim financial statements for fiscal 2006 and interim financial statements for the first and second quarters of fiscal 2007 and made audit adjustments to our annual financial statements for fiscal 2007. As a result of weaknesses that may be identified in our internal controls, we may also identify certain deficiencies in some of our disclosure controls and procedures that we believe require remediation. If we discover weaknesses, we will make efforts to improve our internal and disclosure controls. However, there is no assurance that we will be successful. If we fail to maintain effective controls or timely affect any necessary improvement of our internal and disclosure controls, we may not have accurate information to make management decisions, our operating results could be harmed or we may fail to meet our reporting obligations, which could affect our ability to remain listed with the NASDAQ Global Market. Ineffective internal and disclosure controls could also cause stockholders to lose confidence in our reported financial information and our ability to manage our business, which would likely have a negative effect on the trading price of our securities.

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

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

We may make acquisitions of complementary businesses, products or technologies in the future. In October 2009, we completed the acquisition of intellectual property and certain precision motion control automation assets from Electroglas, a company under Chapter 11 bankruptcy protection in Delaware. Prior to the acquisition, Electroglas was engaged in the supply of semiconductor manufacturing equipment and software to the semiconductor industry. The

assets acquired consisted of manufacturing and testing equipment, spare parts and components related to the purchased equipment and other technology assets related to precision motion control automation and all of the intellectual property rights of Electroglas, with the exception of certain trademark rights.

We may also make certain investments in complementary or supplementary businesses, products or technologies in the future. 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 our 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



Table of Contents

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.

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%, 80% and 82% for fiscal 2011, 2010 and 2009,

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.

Table of Contents

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 in, 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 and business, 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.

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 January 1, 2012 through February 13, 2012, our stock price has ranged from \$4.85 a share to \$5.49 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

Table of Contents

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<sup>2/3</sup>% 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.

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. That building is presently available for sale. 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.

Table of Contents

Information concerning our properties as of December 31, 2011 is set forth below:

Location	Principal Use	Square Footage	Ownership
Livermore, California, United States	Corporate headquarters, sales, marketing, product design, manufacturing, service and repair engineering, distribution, research and development	168,636	Leased
Livermore, California, United States(1)	Storage	13,531	Owned
Austin, Texas, United States	Service and repair	2,025	Leased
Singapore	Sales, finance, design, service, field service, supply chain and stockroom	25,278	Leased
Jubei City, Hsinchu, Taiwan	Sales office, product design, field service and service and repair center	9,309	Leased
Yokohama City, Japan	Field service, service and repair center and manufacturing	8,777	Leased
Gyeonggi-do, South Korea	Sales office, product design, field service, service and repair center	7,979	Leased
Tokyo, Japan	Sales office, marketing, product design, research and development	7,816	Leased
Hiroshima, Japan	Research and development	1,615	Leased
Shanghai, China	Sales office	418	Leased

(1)The property is available for sale.

### 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 2005, we filed a patent infringement lawsuit in the United States District Court for the District of Oregon against Phicom Corporation, a Korea corporation, and its U.S. subsidiary, both collectively "Phicom", charging that it is willfully infringing four U.S. patents that cover key aspects of our wafer probe cards-U.S. Patent Nos. 5,974,662, 6,246,247, 6,624,648, and 5,994,152. In 2006, we also filed an amended complaint in the same Oregon district court adding two additional patents to the litigation-U.S. Patent Nos. 7,073,254 and 6,615,485. The district court action proceeded in parallel with legal action we brought against Phicom in Korea Courts. The district court action was stayed pending resolution of the complaint that we filed with the United States International Trade Commission, or Commission, on or about November 13, 2007, seeking institution of a formal investigation into the activities of Phicom and of Micronics Japan Co., Ltd. An investigation was initiated and, in November 2009, in response to a request for review of prior decisions by the assigned Administrative Law Judge, the Commission issued a decision,

which is termed a “final determination,” finding certain of FormFactor's asserted patent claims valid, but not infringed, and other asserted patent claims invalid. The Commission did not find a violation of Section 337 of the Tariff Act of 1930 and terminated the investigation without issuing an exclusionary order against any products. We did not appeal the final determination to the Court of Appeals for the Federal Circuit. The stay in the district court action against Phicom, now operating under the name TSC MEMSYS Co. Ltd., was lifted. During our fiscal quarter ended September 24,

25

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Table of Contents

2011, we resolved amicably the district court action in Oregon, as well as any continuing infringement proceedings, through a confidential settlement agreement.

In July 2010, we filed a patent infringement lawsuit in the United States District Court for the Northern District of California against Micro-Probe Incorporated charging that it is willfully infringing six U.S. patents that cover aspects of our proprietary technology and wafer probe cards. The complaint sought both injunctive relief and money damages for Micro-Probe's alleged infringement of our U.S. Patent No. 6,441,315 for "Contact Structures With Blades Having A Wiping Motion," U.S. Patent No. 6,825,422 for "Interconnection Element With Contact Blade," U.S. Patent No. 6,965,244 for "High Performance Probe System," U.S. Patent No. 7,227,371 for "High Performance Probe System," U.S. Patent No. 6,246,247 for "Probe Card Assembly and Kit, and Methods of Using Same," and U.S. Patent No. 6,624,648 for "Probe Card Assembly." The complaint also sought injunctive relief and damages against Micro-Probe for unfair competition and further includes claims directed against a former employee for breach of confidence relative to our confidential and propriety information and against the former employee and Micro-Probe for conspiring to breach that confidence. After Micro-Probe and the former employee filed motions to dismiss, we voluntarily filed an amended complaint which was substantially similar to our original complaint except that we added a claim against the former employee alleging misappropriation of trade secrets and we omitted the infringement allegation related to our U.S. Patent No. 6,624,648, which is the subject of a re-examination proceeding before the U.S. Patent and Trademark Office, or USPTO, and for which we received a "Notice of Intent to Issue Inter Partes Reexamination Certificate" in January 2012. Micro-Probe and the former employee have both filed answers to our amended complaint. We have filed a second amended complaint in which we added allegations of infringement based upon two additional patents: U.S. Patent No. 7,671,614 for "Apparatus and Method for Adjusting An Orientation of Probes" and U.S. Patent No. 7,225,538 for "Resilient Contact Structures Formed And Then Attached To A Substrate".

One or more third parties have initiated challenges in the U.S. and in foreign patent offices against certain of the above and other of our patents. These actions include requests for re-examination proceedings filed by Micro-Probe with the USPTO directed to our U.S. Patent Nos. 6,246,247, 6,825,422, 6,441,315, 6,965,244, 7,225,538, 7,227,371 and 7,671,614. The USPTO granted the re-examination requests directed to U.S. Patent Nos. 6,246,247, 6,825,422 and 6,441,315, and granted in part the requests directed to U.S. Patent Nos. 6,965,244, 7,227,371 and 7,671,614. The USPTO has issued a re-examination certificate for U.S. Patent No. 6,246,247. 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 31, 2011. We have incurred and will incur in the future material attorneys' fees in prosecuting and defending the various identified actions.

Securities Litigation

None.

Stockholder Derivative Litigation

None.

Commercial Litigation

No material commercial litigation.

Item 4: Mine Safety Disclosures

Not applicable.

Table of Contents

## 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 sales prices per share as reported on the Nasdaq Global Market for the periods indicated.

Fiscal 2011	High	Low
First Quarter	\$ 10.77	\$ 8.55
Second Quarter	10.70	8.56
Third Quarter	9.63	6.41
Fourth Quarter	6.74	4.69
Fiscal 2010	High	Low
First Quarter	\$ 22.31	\$ 15.20
Second Quarter	20.47	10.67
Third Quarter	11.35	6.95
Fourth Quarter	10.71	8.28

The closing sales price of our common stock on the NASDAQ Global Market was \$5.31 per share on February 13, 2012. As of February 13, 2012, there were 58 registered holders of record of our common stock.

## Repurchase of Common Stock

On October 20, 2010, the Company's Board of Directors authorized a program to repurchase up to \$50.0 million of outstanding common stock. Under the authorized stock repurchase program, the Company may repurchase shares from time to time on the open market; the pace of repurchase activity will depend on levels of cash generation, current stock price, and other factors. The stock repurchase program was announced on October 26, 2010 and had a scheduled expiration date of October 19, 2011. The program may be 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 existing program, we may 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 remain the same as those in the original program approved in fiscal 2010.



Table of Contents

During fiscal year 2010, we repurchased and retired 70,000 shares of common stock for \$0.6 million. During fiscal year 2011, we repurchased and retired 2,332,740 shares for \$16.4 million. All of our repurchases were made under the authorized repurchase program.

Period (Fiscal months)	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Amount that May Yet Be Purchased Under the Plans or Programs
December 26, 2010—January 22, 2011	130,000	\$ 8.95	130,000	\$ 48,209,833
January 23, 2011—February 19, 2011	—	—	—	48,209,833
February 20, 2011—March 26, 2011	132,712	8.76	132,712	47,046,921
March 27, 2011—April 23, 2011	—	—	—	47,046,921
April 24, 2011—May 21, 2011	—	—	—	47,046,921
May 22, 2011—June 25, 2011	117,437	8.85	117,437	46,007,950
June 26, 2011—July 23, 2011	—	—	—	46,007,950
July 24, 2011—August 20, 2011	444,369	8.26	444,369	42,336,890
August 21, 2011—September 24, 2011	250,765	7.41	250,765	40,478,746
September 25, 2011—October 22, 2011	—	—	—	40,478,746
October 23, 2011—November 19, 2011	547,536	6.18	547,536	37,097,309
November 20, 2011—December 31, 2011	709,921	5.82	709,921	\$ 32,963,045
	2,332,740	\$ 7.03	2,332,740	

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, 2006 through December 31, 2011, 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.

Table of Contents

	Cumulative Total Return					
	December 31, 2006	December 31, 2007	December 31, 2008	December 31, 2009	December 31, 2010	December 31, 2011
FormFactor, Inc.	\$ 100.00	\$ 88.86	\$ 39.19	\$ 58.44	\$ 23.84	\$ 13.58
S&P 500	100.00	105.49	66.46	84.05	96.71	98.75
RDG Semiconductor Composite	100.00	108.66	55.09	92.66	107.41	101.03

\*\$100 invested on December 31, 2006, including reinvestment of dividends.  
Fiscal year ending December 31.

Table of Contents

## Item 6: Selected Financial Data

The following selected consolidated financial data are 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 2011 (1)(2)(5)(6)	Fiscal 2010 (1)(2)(3)(4)(6)	Fiscal 2009 (1)(2)(5)(6)	Fiscal 2008 (1)(2)(6)	Fiscal 2007
(in thousands, except per share data)					
Consolidated Statements of Operations					
Data:					
Revenues	\$ 169,325	\$ 188,565	\$ 135,335	\$ 210,189	\$ 462,191
Gross profit (loss)	20,958	(2,272 )	819	36,263	246,707
Net income (loss)	(65,981 )	(188,286 )	(155,653 )	(80,621 )	72,890
Basic earnings per share	\$(1.31 )	\$(3.75 )	\$(3.15 )	\$(1.65 )	\$1.52
Diluted earnings per share	\$(1.31 )	\$(3.75 )	\$(3.15 )	\$(1.65 )	\$1.47
Consolidated Balance Sheets Data:					
Cash, cash equivalents and marketable securities	\$ 296,691	\$ 347,235	\$ 449,235	\$ 522,894	\$ 570,046
Working capital	308,380	370,767	482,607	576,754	622,093
Total assets	383,071	466,054	655,968	785,710	855,322
Total stockholders' equity	346,652	411,201	577,781	706,064	756,950
Number of employees	709	729	808	940	1,124

Fiscal 2011, 2010, 2009 and 2008 net losses include restructuring charges, net of \$0.5 million, \$15.9 million, \$8.8 million and \$9.2 million, respectively, relating to our global restructuring and reorganization actions. See Note 4—Restructuring Charges of the Notes to the Consolidated Financial Statements.

Fiscal 2011, 2010, 2009 and 2008 net losses include impairment charges of \$0.5 million, \$56.4 million, \$1.3 million and \$4.4 million, respectively. See Note 6—Impairment of Long-lived Assets of the Notes to the Consolidated Financial Statements.

Fiscal 2010 gross profit (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.

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.

We recorded a valuation allowance of \$57.7 million in fiscal 2009 against the U.S. excess tax benefits, including prior years, based on our assessment of 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. Additionally, fiscal 2011 includes a \$2.5 million benefit from the release of the deferred tax valuation allowance for a non-U.S. jurisdiction.

Fiscal 2009 and 2008 selling, general and administrative expenses include a provision for doubtful accounts receivable of \$5.0 million and \$4.1 million, respectively. Fiscal 2011 and 2010 include a \$0.3 million and \$1.1 million benefit, respectively, from collections on amounts previously reserved as bad debts.

Table of Contents

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 wafer probe cards are used by our customers in the front end of the semiconductor manufacturing process, as are our image sensor, parametric, or in-line, probe cards. We operate in a single industry segment and have derived substantially all of our revenues from the sale of wafer probe cards incorporating our proprietary technology, including our MicroSpring® interconnect technology.

During fiscal 2011, we saw revenue decline as compared to fiscal 2010 across our DRAM and Flash product markets, offset by revenue growth in our SoC product market. Our revenues decreased by 10%, or \$19.2 million, in fiscal 2011 as compared to fiscal 2010. This decline is attributed primarily to reduced demand for our advanced wafer probe cards in the second half of fiscal 2011 driven by oversupply of memory devices, particularly in the DRAM markets, as well as lost business opportunities due to extended qualification periods for our SmartMatrix platform at certain customers, pricing pressures and quoted lead times, and changing order patterns for our NAND Flash products. However, this revenue decline was partially offset by demand increases in our SoC product.

During fiscal 2011, 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 through these restructuring actions by 38 employees, or 5%, during fiscal 2011. We incurred net losses of \$66.0 million and \$188.3 million in fiscal 2011 and fiscal 2010, respectively. The reduction in net loss year over year is primarily attributable to the enterprise-wide impairment of \$52.0 million recorded in the third quarter of fiscal 2010, as well as a reduction in depreciation resulting from this enterprise-wide impairment. Net loss also decreased year over year due to the reduction in operating expenses driven by both our restructuring actions undertaken throughout 2010 and 2011, as well as our continued focus on cost reduction efforts. The net loss for fiscal 2011 includes restructuring charges of \$0.5 million and impairment charges of \$0.5 million, offset by a benefit of \$2.5 million from the release of the deferred tax valuation allowance for a non-U.S. jurisdiction. The net loss for fiscal 2010 was primarily due to lower gross margins on products sold, \$15.9 million of restructuring charges, and the impairment of certain long-lived assets of \$56.4 million, offset by a \$3.5 million gain resulting from the release of a liability previously recorded as a secured borrowing due to the dismissal of our complaint against a customer.

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 year ended December 31, 2011 had 53 weeks and fiscal years ended December 25, 2010 and December 26, 2009 had 52 weeks each. 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

31

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## Table of Contents

and, manufacturing related overhead. 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-saleable inventories based on assumptions about future demand, 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, and administrative activities. 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. Significant items that are subject to such estimates include the fair value of revenue elements, fair value of marketable securities, allowance for doubtful accounts, reserves for product warranty, valuation of obsolete and slow moving inventory, valuation of our long-lived assets, the assessment of recoverability of long-lived assets, valuation and recognition of stock-based compensation, provision for income taxes and valuation allowance for deferred tax assets and tax liabilities and accruals for other liabilities.

### **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

Table of Contents

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 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.

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. **Marketable Securities:** Our 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 (loss), a component of stockholder's equity, net of tax. Any unrealized losses which are considered to be other-than-temporary impairments are recorded in "Other income (expense), 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 (expense), net" in the Consolidated Statements of Operations. We measure our cash equivalents and marketable securities at fair value. 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. Level 1 valuations are obtained from real-time quotes for transactions in active exchange markets involving identical assets. Level 2 valuations are obtained from quoted market prices in active markets involving similar assets. 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.

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 in earnings 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, costs of long-lived assets abandoned or impaired, as well as 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

Table of Contents

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 past 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 provide for the estimated cost of product warranties at the time revenue is recognized. 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 value our inventories at the lower of cost (principally standard cost which approximates actual cost on a first in, first out basis) or market. 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 future demand 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 estimated forecast of product demand for the next six months to determine what inventory, if any, are not 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

Table of Contents

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 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.

**Accounting for 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 awards.

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

Table of Contents

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 and 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 higher net losses in 2009 due to higher cost of revenue expenses. We are able to carry back the increase in the 2009 loss to recover more prior year tax payments. Out of the total adjustment, a \$2.9 million adjustment to cost of revenues 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.

Results of Operations

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

	Fiscal 2011		Fiscal 2010		Fiscal 2009	
Revenues	100.0	%	100.0	%	100.0	%
Cost of revenues	87.6		101.2		99.4	
Gross profit (loss)	12.4		(1.2	)	0.6	
Operating expenses:						
Research and development	25.7		29.4		42.5	
Selling, general and administrative	27.6		35.7		58.0	
Restructuring charges, net	0.3		8.4		6.5	
Impairment of long lived assets	0.3		29.9		0.9	
Total operating expenses	53.9		103.4		107.9	
Operating loss	(41.5	)	(104.6	)	(107.3	)
Interest income, net	0.8		1.4		2.4	
Other income (expense), net	0.6		2.3		(0.4	)
Loss before income taxes	(40.1	)	(100.9	)	(105.3	)
Provision for (benefit from) income taxes	(1.1	)	(1.0	)	9.8	
Net loss	(39.0	)%	(99.9	)%	(115.1	)%

Table of Contents

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

## Revenues

	Fiscal 2011 (In thousands)	% of Revenues	Fiscal 2010	% of Revenues	Change \$	%
Revenues by Market:						
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	\$ 169,325	100.0 %	\$ 188,565	100.0 %	\$(19,240)	(10.2)%

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 the year ended December 31, 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 at our customers 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 the year ended December 31, 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 the year ended December 31, 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 (In thousands)	% of Revenues	Fiscal 2010	% of Revenues
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, South Korea and Japan, which are





Table of Contents

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 year ended December 31, 2011 compared to the prior year was primarily due 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 the year ended December 31, 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 the year ended December 31, 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 the year ended December 31, 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 the years ended December 31, 2011 and December 25, 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            Fiscal  
2011            2010

(In thousands)

Research and development  
% of revenues

\$43,544            \$55,389  
25.7            %    29.4            %

38

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Table of Contents

Research and development expenses for the year ended December 31, 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 our cost reduction efforts. In the year ended December 31, 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 the year ended December 31, 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 the year ended December 31, 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 have 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

39

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## Table of Contents

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 the year ended December 31, 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.

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 2012.

### 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

Table of Contents

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 6 - 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 2010 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.

41

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Table of Contents

Management believes it is reasonably possible that additional impairment charges that would reduce further the carrying amounts of the Company's property and equipment and intangible assets may arise in fiscal 2012 if the Company is unable to achieve operating results anticipated by the Company's 2012 financial plan.

## Interest Income and Other Income (Expense), Net

	Fiscal 2011	Fiscal 2010		
	(In thousands)			
Interest income, net	\$ 1,404	\$ 2,546		
% of revenues	0.8	% 1.4		%
Other income (expense), 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 the year ended December 31, 2011 was 0.45% compared to was 0.70% for the year ended December 25, 2010.

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

## Provision for (Benefit from) Income Taxes

	Fiscal 2011	Fiscal 2010		
	(In thousands)			
Provision for (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 the fiscal years ending December 31, 2011 and December 25, 2010, respectively. 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 have accrued total interest charges and penalties of \$0.7

Table of Contents

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.

Fiscal Years Ended December 25, 2010 and December 26, 2009

## Revenues

	Fiscal 2010 (In thousands)	% of Revenues	Fiscal 2009	% of Revenues	Change \$	%		
Revenues by Market:								
DRAM	\$ 131,207	69.6 %	\$ 108,820	80.4 %	\$ 22,387	20.6 %		
Flash	30,068	15.9	7,282	5.4	22,786	312.9		
SoC	27,290	14.5	19,233	14.2	8,057	41.9		
Total revenues	\$ 188,565	100.0 %	\$ 135,335	100 %	\$ 53,230	39.3 %		

The increase in revenue for the year ended December 25, 2010 was primarily due to increased demand for our advanced wafer probe cards caused by an overall improvement in the semiconductor market, in particular the memory segment, as well as increased average selling price of our products.

Our revenues for the year ended December 25, 2010 were primarily generated by sales of wafer probe cards to manufacturers of DRAM devices. Revenues in fiscal 2010 increased significantly from fiscal 2009 primarily due to the industry ramp of DDR3, the introduction of our SmartMatrix products and the increased sales of higher priced products as a percentage of total DRAM sales, as well as the overall improvement in the semiconductor market in the current year.

Revenues from sales to Flash memory device manufacturers increased significantly in the year ended December 25, 2010 compared to the prior year. The increase was partly driven by an \$8.1 million increase in the sale of NAND Flash wafer probe cards, resulting from further expansion of our NAND Flash market penetration via the recent qualification of TouchMatrix at one of our largest customers. NOR Flash also saw a substantial year over year increase of \$14.7 million driven by customer demand across our probe cards that service this market. The increases were also partially the result of the overall improvement in the memory segment of the semiconductor market. Revenues from sales to SoC device manufacturers increased in the year ended December 25, 2010 compared to the prior year, primarily due to the overall upturn in the semiconductor industry and market trends to more complex devices which positively impacted revenues from sales of our wafer probe cards.

Table of Contents

## Revenue by Geographic Region

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

	Fiscal 2010	% of Revenues	Fiscal 2009	% of Revenues	
	(In thousands)				
Taiwan	\$72,615	38.5	% \$26,964	19.9	%
North America	38,334	20.3	24,533	18.1	
Japan	28,479	15.1	64,575	47.7	
South Korea	25,984	13.8	5,459	4.0	
Asia-Pacific(1)	15,109	8.0	5,603	4.2	
Europe	8,044	4.3	8,201	6.1	
Total revenues	\$188,565	100.0	% \$135,335	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 increase in Taiwan, South Korea, Asia-Pacific and North America revenues for the year ended December 25, 2010 compared to the prior year was primarily due to the industry ramp up of DDR3 and the introduction of our SmartMatrix and TouchMatrix products. The decrease in Japan revenue for the year ended December 25, 2010 compared to the prior year was primarily due to the decrease in our DRAM product sales, caused by the lack of qualification of the SmartMatrix product line due to extended qualification periods. Europe revenue remained flat in fiscal 2010 due to the consistent demand for all of our products in this region.

## Gross Profit (Loss)

	Fiscal 2010	Fiscal 2009
	(In thousands)	
Gross profit (loss)	\$(2,272 )	\$819
Gross margin	(1.2 )%	0.6 %

Gross margin fluctuates with revenue levels, product mix, selling prices, factory loading, and material costs. For the year ended December 25, 2010, gross margin declined compared to the prior year primarily due to a \$4.4 million increase in inventory provision charges, an out of period adjustment to cost of revenues of \$2.9 million that was recorded in the third quarter of fiscal 2010, an increase of temporary personnel costs of \$2.9 million to support increased shipment volumes at various times during the year, and the expense for incentive bonuses of \$2.1 million. This decline was partially mitigated by the favorable changes in product mix from lower margin to higher margin products, the increased selling prices of our products and the decreased depreciation expense resulting from the enterprise-wide asset impairment and the multiple restructuring actions during fiscal 2010.

Inventory provision charges increased from \$7.0 million in fiscal 2009, to \$11.4 million in fiscal 2010. The total inventory provision charge of \$11.4 million in fiscal 2010 was the result of lower customer demand for certain products, low production yields and minimum purchase order quantities. Excess custom inventories are not uncommon for us as our advanced wafer probe cards are custom designs manufactured in low volumes and must be delivered on relatively short lead times, which 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 2010, the value of previously reserved materials that were used in manufacturing and shipped was \$2.8 million.



Table of Contents

## Research and Development

	Fiscal 2010	Fiscal 2009
	(In thousands)	
Research and development	\$ 55,389	\$ 57,509
% of revenues	29.4	% 42.5

Research and development expenses for the year ended December 25, 2010 decreased \$2.1 million, or 4%, 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 offset by the increase in personnel costs. As a percent of revenues, research and development expenses decreased in fiscal 2010 as compared to fiscal 2009 primarily due to the increased revenue base.

In the year ended December 25, 2010, costs related to new technology projects decreased by approximately \$8.8 million from fiscal 2009 as a result of our decision to terminate certain non-strategic research and development activities in the second and third quarter of fiscal 2010. Additionally, depreciation expense decreased by \$1.3 million year over year due to the lower carrying amount of our fixed assets resulting from impairments recorded in the second and third quarters of fiscal 2010. Offsetting these decreases was a \$6.3 million increase in personnel costs primarily due to headcount increases as well as costs of employee incentive programs for which we did not record any charges in fiscal 2009. Stock based compensation included within research and development expenses was \$5.6 million for the year ended December 25, 2010 compared to \$4.4 million for fiscal 2009, with the increase being primarily due to the increase in employee stock awards.

## Selling, General and Administrative

	Fiscal 2010	Fiscal 2009
	(In thousands)	
Selling, general and administrative	\$ 67,208	\$ 78,428
% of revenues	35.7	% 58.0

Selling, general and administrative expenses decreased \$11.2 million, or 14%, for the year ended December 25, 2010 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 2010 as compared to the prior year, primarily due to the increased revenue base along with the reduction in expenses resulting from our on-going cost reduction efforts.

The \$11.2 million decrease in fiscal 2010 compared with the prior year was composed of a \$6.1 million decrease in bad debt expense due to a reduction in additional bad debt as compared to 2009, as well as benefits from collections on amounts previously reserved as bad debts, a \$4.4 million decrease in stock based compensation expenses related to fewer awards being granted in fiscal 2010, a \$3.2 million decrease in salary and wages due to the headcount decrease in fiscal 2010, and a \$2.1 million decrease in legal and outside service fees due to a reduction in litigation activity as well as our cost reduction efforts, offset by a \$2.8 million increase for incentive bonuses and a \$1.2 million increase in severance costs related to the departure of certain executives in fiscal 2010.

## Restructuring Charges

	Fiscal 2010	Fiscal 2009
	(In thousands)	
Restructuring charges	\$ 15,908	\$ 8,780
% of revenues	8.4	% 6.5

Restructuring charges increased \$7.1 million, or 81%, from fiscal 2009 to fiscal 2010. The increase was primarily due to the number of actions that were taken in 2010 along with an \$8.8 million impairment of property and equipment included in the restructuring charges of fiscal 2010 compared with the \$0.4 million impairment included in the restructuring charges of fiscal 2009. The restructuring plans we implemented in fiscal 2009 and fiscal 2010 are discussed below.



## Table of Contents

### 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.

In conjunction with the Q3 2010 Restructuring Plan, 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. 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 6 - 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.

### 2009 Restructuring Activities

In fiscal 2009, we implemented two restructuring plans that included primarily reductions in our global workforce in an effort to lower our quarterly operating expense run rate, which extended the cost reduction plans implemented during fiscal 2008.

### Impairment of Long-lived Assets



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	Fiscal	Fiscal
	2010	2009

(In thousands)

Impairment of long-lived assets	\$ 56,401	\$ 1,288
% of revenues	29.9	% 0.9

Impairment charges increased \$55.1 million from fiscal 2009 to fiscal 2010 primarily due to the enterprise-wide asset impairment recorded in the third quarter of fiscal 2010.

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 2010 Restructuring Plan, recurring operating losses and net cash outflows from

Table of Contents

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 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.

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 will be abandoned 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.

In fiscal 2009, we recorded total impairments of \$1.3 million related to certain equipment that was determined to be held for sale, as well as for the termination of certain on-going projects. These impairment charges were originally recorded through "Cost of revenues" in the Consolidated Statement of Operations in our Annual Report on Form 10-K for fiscal 2009. However this amount has been reclassified to "Impairment of long-lived assets" in the Consolidated Statement of Operations in this Annual Report on Form 10-K for fiscal 2010 to conform with the current year presentation of asset impairments.

Interest Income and Other Income (Expense), Net

	Fiscal 2010	Fiscal 2009		
	(In thousands)			
Interest income, net	\$ 2,546	\$ 3,282		
% of revenues	1.4	% 2.4	%	
Other income (expense), net	\$ 4,426	\$ (535 )		
% of revenues	2.3	% (0.4 )	)%	

Interest income is primarily earned on our cash, cash equivalents and marketable securities. The decrease in interest income for fiscal 2010 as compared to fiscal 2009 was primarily the result of lower average balances. Cash, cash equivalents, restricted cash and marketable securities were \$347.9 million at December 25, 2010 compared to \$449.9 million at December 26, 2009. The weighted average yield on our cash, cash equivalents and marketable securities for the year ended December 25, 2010 was 0.70% compared to 0.73% for the year ended December 26, 2009.

Other income (expense), net is composed primarily of foreign currency impact and various other gains and losses. The change in other income (expense), net for fiscal 2010 compared to fiscal 2009 was primarily due to the \$3.5 million gain recorded in the third quarter of fiscal 2010 which resulted from the release of the liability previously recorded as a secured borrowing due to the dismissal of our complaint against a customer.

Table of Contents

## Provision for (Benefit from) Income Taxes

	Fiscal 2010 (In thousands)	Fiscal 2009	
Provision for (benefit from) income taxes	\$ (1,920 )	\$ 13,214	
Effective tax rate	1.0	9.3	%

The provision for income taxes differs from the amount computed by applying the statutory U.S. Federal rate principally due to a valuation allowance recorded against U.S. and certain non-U.S. deferred tax assets. The remaining tax provision for fiscal 2010 was primarily comprised of tax expense for non U.S. cost plus entities offset by a tax benefit related to settlement of a non U.S. tax audit.

In fiscal 2009 we recorded a valuation allowance against our U.S. deferred tax assets. The fiscal 2009 tax provision was offset by a benefit related to our ability to generate tax refunds through Federal net operating loss carry back. At December 25, 2010, we had Federal, state and foreign net operating loss carryforwards of approximately \$104.1 million, \$163.6 million and \$16.0 million, respectively.

From time to time, we engage in certain intercompany transactions and legal entity restructurings. We consider many factors when evaluating these transactions, including the alignment of our corporate structure with our organizational objectives, the operational and tax efficiency of our corporate structure, as well as the long-term cash flows and cash needs of our different businesses. These transactions may impact our overall tax rate and/or result in additional cash tax payments. The impact in any period may be significant. These transactions may be complex in nature and the impact of such transactions on future periods may be difficult to estimate. In the fourth quarter of 2010, we initiated a legal entity restructuring to align our corporate structure with our organizational objectives. The restructuring activities did not significantly impact the tax provision due to valuation allowances recorded against U.S. and Singapore deferred tax assets.

## Liquidity and Capital Resources

**Capital Resources:** Our working capital was \$308.4 million at December 31, 2011 and \$370.8 million at December 25, 2010. The decrease in working capital in the year ended December 31, 2011 was primarily due to our net loss and to the repurchase and retirement of our common stock in connection with our stock repurchase program offset in part by a decrease in our accounts receivable due to our improved collection of amounts due from customers as well as shortened payment terms for certain customers.

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 approximately \$296.7 million at December 31, 2011 as compared to \$347.2 million at December 25, 2010. Cash, cash equivalents and marketable securities included \$18.7 million held by our foreign subsidiaries as of December 31, 2011. The decrease in our cash, cash equivalents and marketable securities balances was primarily due to the use of cash for operating activities in fiscal 2011, as well as share repurchases under our authorized share repurchase program. 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 2012.

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, we would be required to accrue and pay additional United States taxes less applicable foreign tax credits.



Table of Contents

Day Sales Outstanding: Days sales outstanding from receivables, or DSO, were 42 days at December 31, 2011 compared with 66 days at December 25, 2010. Our DSO calculation is calculated using the countback method and is based on gross accounts receivable (including accounts receivable for amounts in deferred revenue). The decrease in DSO is primarily due to continued improvement in our collection efforts as well as shortened payment terms for certain customers.

	Fiscal 2011	Fiscal 2010	Fiscal 2009
	(In thousands)		
Net cash used in operating activities	\$(29,343 )	\$(73,096 )	\$(52,667 )
Net cash provided by (used in) investing activities	60,712	69,841	(174,408 )
Net cash provided by (used in) financing activities	(12,902 )	3,098	11,450

Cash flows from operating activities: Net cash used in operating activities for the year ended December 31, 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 the year ended December 31, 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.

Net cash used in operating activities for the year ended December 25, 2010 was primarily attributable to our net loss of \$188.3 million offset in part by \$116.5 million of non-cash charges consisting primarily of \$28.2 million of depreciation and amortization, \$17.6 million of stock based compensation, \$9.0 million of non-cash restructuring charges, \$11.4 million of provision for excess and obsolete inventories and \$56.4 million of impairment and loss on disposal of long-lived assets, offset by a gain of \$3.5 million relating to the release of certain secured borrowings and a benefit of \$2.1 million from changes in deferred tax assets.

The net change in operating assets and liabilities for the year ended December 25, 2010 was \$1.3 million consisting primarily of a decrease of \$13.0 million in accounts payable due to the change in the timing of payments to vendors as well as less spending, an increase of \$16.9 million in inventories, primarily in completed sub-assemblies, due to changes in manufacturing strategy and new product transitions, a decrease of \$6.2 million in deferred revenues due to our improved collection of payments and shortened payment terms for certain customers, and a decrease of \$1.9 million in deferred rent due to on-going payments under our existing lease arrangements as well as the renegotiation of certain lease obligations in Livermore. This was offset in part by a decrease of \$25.8 million in refundable income taxes primarily due to the receipt of federal income tax refunds in fiscal 2009, an increase of \$4.6 million in accrued liabilities due to the incentive bonus that we accrued for the second half of 2010 and the remaining restructuring liabilities, and a decrease of \$3.2 million in accounts receivable due to shortened payment terms for certain customers and our improved collection of payments.

Cash flows from investing activities: Net cash provided by investing activities for the year ended December 31, 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. 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 the year ended December 25, 2010 was primarily related to \$441.8 million proceeds from maturities and sales of marketable securities offset by the \$341.3 million purchases of marketable securities and the \$30.9 million cash used in the acquisition of property and equipment for new product technology.

Cash flows from financing activities: Net cash used in financing activities for the year ended December 31, 2011 included \$16.4 million used for the repurchase and retirement of our common stock partially offset by \$3.5 million in proceeds

Table of Contents

received from purchases under our 2002 Employee Stock Purchase Plan, or ESPP, 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.

Net cash provided by financing activities for the year ended December 25, 2010 included \$3.7 million proceeds received from the 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, offset by \$0.6 million used for the repurchase and retirement of common stock in connection with our stock repurchase program.

Our cash, cash equivalents and marketable securities declined in fiscal 2011. 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 2012.

**Contractual Obligations and Commitments**

The following table summarizes our significant commitments to make future payments in cash under contractual obligations as of December 31, 2011:

	Payments Due In Fiscal Years				Total
	2012	2013-2014	2015-2016	After 2016	
	(In thousands)				
Operating leases	\$3,833	\$6,500	\$4,834	\$12,535	\$27,702
Other purchase obligations	3,389	420	350	—	4,159
Total	\$7,222	\$6,920	\$5,184	\$12,535	\$31,861

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 31, 2011. 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 approximately \$17.8 million as of December 31, 2011 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 31, 2011, the changes to our uncertain tax positions in the next 12 months, that are reasonable possible, 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 31, 2011, 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

50

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Table of Contents

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 31, 2011.

## 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 gain of \$1.6 million and a net loss of \$1.5 million for the fiscal years ended December 31, 2011 and December 25, 2010, respectively, from the fluctuation in foreign exchange rates and the valuation of these hedge contracts in our consolidated financial statements under other expense.

**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 31, 2011 and December 25, 2010 would have affected the fair value of our investment portfolio by less than \$2.1 million and \$2.6 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.



Table of Contents

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 fiscal 2011 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) for FormFactor. Our management with the participation of our principal executive officer and principal financial officer conducted an evaluation of the effectiveness of our internal control over financial reporting as of December 31, 2011. This evaluation was based on the framework established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on our assessment under the framework in Internal Control—Integrated Framework, our management concluded that our internal control over financial reporting was effective as of December 31, 2011.

The effectiveness of our internal control over financial reporting as of December 31, 2011 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 mistake. Control systems can also be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the controls. The design of any system of controls is based, in part, on certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Over time, controls may become inadequate because of changes in conditions or deterioration in the degree of compliance with policies or procedures.

CEO and CFO Certifications

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

Item 9B: Other Information

None.



Table of Contents

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 2012 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.

Table of Contents

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 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:

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Table of Contents

Exhibit Number	Exhibit Description	Incorporated by Reference			Exhibit Number	Filed Herewith
		Form	File No	Date of First Filing		
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	
4.02	Stockholders Agreement by and among the Registrant, Dr. Igor Y. Khandros, Susan Bloch and Richard Hoffman dated February 9, 1994	S-1	333-86738	4/22/2002	4.03	
4.03	Stockholders Agreement by and among the Registrant, Dr. Igor Y. Khandros, Susan Bloch and Milton Ohring dated April 11, 1994	S-1	333-86738	4/22/2002	4.04	
4.04	Stockholders Agreement by and among the Registrant, Dr. Igor Y. Khandros, Susan Bloch and Benjamin Eldridge dated August 12, 1994	S-1	333-86738	4/22/2002	4.05	
4.05	Stockholders Agreement by and among the Registrant, Dr. Igor Y. Khandros, Susan Bloch and Charles Baxley, P.C. dated September 8, 1994	S-1	333-86738	4/22/2002	4.06	
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+	Separation Agreement and General Release dated January 30, 2007 with Joseph R. Bronson	8-K	000-50307	1/31/2007	10.01	
10.10+	Separation Agreement and General Release dated March 20, 2008 with Ronald C. Foster	8-K	000-50307	3/26/2008	10.01	
10.11+	Employment Offer Letter dated November 23, 2007 to Dr. Mario Ruscev	8-K	000-50307	1/7/2008	99.01	
10.12+	Employment Offer Letter dated September 25, 2007 to Jorge L. Titinger	10-K	000-50307	2/27/2008	10.12	

Table of Contents

10.13+	Separation Agreement and General Release dated April 15, 2008 with Jorge L. Titinger	8-K	000-50307	4/21/2008	10.01
10.14+	Employment Offer Letter dated March 1, 2008 to Jean B. Vernet	8-K	000-50307	3/31/2008	10.01
10.15+	Separation Agreement and Mutual Release dated May 1, 2009 with Dr. Igor Y. Khandros	8-K	000-50307	5/1/2009	10.01
10.16+	Consulting Agreement dated May 1, 2009 with Dr. Igor Y. Khandros	8-K	000-50307	5/1/2009	10.02
10.17+	Written description of definitive agreement to accelerate vesting of restricted stock units of Dr. Thomas J. Campbell in connection with his resignation as director	8-K	000-50307	12/16/2009	—
10.18+	Written description of definitive agreements to increase base salaries and bonus targets for certain executive officers approved on April 16, 2007	8-K	000-50307	4/20/2007	—
10.19+	Written description of definitive agreement regarding director compensation approved on May 21 and 22, 2008	8-K	000-50307	5/28/2008	—