LATTICE SEMICONDUCTOR CORP
Form 10-K/A
November 14, 2014
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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-K/A

(Amendment No. 1)
(Mark One)

[X] ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 FOR THE FISCAL YEAR ENDED DECEMBER 28, 2013

or

o 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: 000-18032

_____

LATTICE SEMICONDUCTOR CORPORATION
(Exact name of registrant as specified in its charter)

Delaware	93-0835214
(State of Incorporation)	(I.R.S. Employer Identification Number)
5555 NE Moore Court	
Hillsboro, Oregon	97124-6421
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: (503) 268-8000
Securities registered pursuant to Section 12(b) of the Act:

_____

(Title of Class)	(Name of each exchange on which registered)
Common Stock, $.01 par value	NASDAQ Global Select 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 o No [X]
Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.
Yes o No [X]
Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 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 [X] No o
Indicate by check mark whether the registrant has 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 Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes [X] No o
Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of the 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. [X]

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. (Check one):

Large accelerated filer o	Accelerated filer [X]
Non-accelerated filer o	Smaller reporting company o

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes o No [X]

Aggregate market value of voting stock held by non-affiliates of the registrant as of June 28, 2013	330,493,725
Number of shares of common stock outstanding as of November 11, 2014	118,033,629

DOCUMENTS INCORPORATED BY REFERENCE

The information required by Part III of this Report, to the extent not set forth herein, is incorporated herein by reference from the registrant's definitive proxy statement relating to the 2014 Annual Meeting of Stockholders, which definitive proxy statement was filed with the Securities and Exchange Commission on March 20, 2014.

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EXPLANATORY NOTE

Lattice Semiconductor Corporation (“Lattice” or the “Company”) is filing this Amendment No. 1 on Form 10-K/A to amend its Annual Report on Form 10-K for the year ended December 28, 2013, filed with the Securities and Exchange Commission (“SEC”) on March 11, 2014, solely to correct Exhibits 31.1, 31.2, 32.1 and 32.2. The remainder of the Annual Report on Form 10-K is included for convenience only and, except for corresponding updates to the cover page, Part IV and signature page, reflects the content of the Company's original Annual Report on Form 10-K for the year ended December 28, 2013, filed with the SEC on March 11, 2014. This Amendment No. 1 has not been updated to reflect any events occurring after the filing of the Company’s original Annual Report on Form 10-K for the year ended December 28, 2013, filed with the SEC on March 11, 2014.

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Forward-Looking Statements

This Annual Report on Form 10-K contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Any statements about our expectations, beliefs, plans, objectives, assumptions or future events or performance are not historical facts and may be forward-looking. We use words or phrases such as “anticipates,” “believes,” “could,” “estimates,” “expects,” “intends,” “plans,” “predicts,” “projects,” “may,” “will,” “should,” “continue,” “ongoing,” “future,” “potential” and phrases to identify forward-looking statements. Examples of forward-looking statements include, but are not limited to, statements about: our strategies and beliefs regarding the markets we serve or may serve; growth opportunities and growth in markets we may serve; acceptance of programmable logic devices and displacement of other general purpose logic solutions; our plans to introduce new FPGA families in high-growth market niches where we believe that we have sustainable and differentiated positions; the costs of making and developing various general purpose logic products; our intention to continually introduce new products and enhancements and reduce manufacturing costs; the majority of our revenue being through our sell-through distributors; the impact of our global tax structure and expectations regarding taxes and tax adjustments; our expectations that a significant portion of our revenue will continue to be dependent on the Consumer, Communications, Industrial, Scientific and Medical, and Computing end markets; the Asia Pacific market being the primary source of our revenue; our plans to sell our auction rate securities; the costs and benefits and timing of completion of our restructuring plans; the impact of new accounting pronouncements; our expectations regarding customer preferences and product use; our future product development and marketing plans; our ability to maintain or develop successful foundry relationships to produce new products; our expectations regarding seasonal trends; our expectations regarding defenses to claims against our intellectual property; our making significant future investments in research and development; our beliefs concerning the adequacy of our liquidity and facilities, and our ability to meet our operating and capital requirements and obligations.

Forward-looking statements involve estimates, assumptions, risks and uncertainties that could cause actual results to differ materially from those expressed in the forward-looking statements. The key factors that could cause our actual results to differ materially from the forward-looking statements include global economic conditions and uncertainty, the concentration of our sales in the consumer and communications equipment end market, particularly as it relates to the concentration of our sales in the Asia Pacific region, market acceptance and demand for our new products, any disruption of our distribution channels, unexpected charges, delays or results relating to our restructuring plans, the effect of the downturn in the economy on capital markets and credit markets, the impact of competitive products and pricing, unanticipated taxation requirements, or positions of the U.S. Internal Revenue Service, unexpected impacts of recent accounting guidance and the other risks that are described herein and that are otherwise described from time to time in our filings with the Securities and Exchange Commission, including, but not limited to, the items discussed in “Risk Factors” in Item 1A of Part I of this Report. You should not unduly rely on forward-looking statements because our actual results could differ materially from those expressed in any forward-looking statements made by us. In addition, any forward-looking statement applies only as of the date on which it is made. We do not plan to, and undertake no obligation to, update any forward-looking statements to reflect events or circumstances that occur after the date on which such statements are made or to reflect the occurrence of unanticipated events.

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PART I

Item 1. Business.

Lattice Semiconductor Corporation ("Lattice," the "Company," "we," "us," or "our") designs, develops and markets programmable logic products and related software. We also provide design services, customer training, field engineering and technical support.

Lattice was incorporated in Oregon in 1983 and reincorporated in Delaware in 1985. Our headquarters facility is located at 5555 N.E. Moore Court, Hillsboro, Oregon 97124, and our website is www.latticesemi.com. Information contained or referenced on our website is not incorporated by reference into, and does not form a part of, this Annual Report on Form 10-K. Our common stock trades on the NASDAQ Global Select Market under the symbol LSCC.

We report based on a 52 or 53-week fiscal year ending on the Saturday closest to December 31. Our fiscal 2013, 2012, 2011, and 2010 were 52-week years that ended December 28, 2013, December 29, 2012, December 31, 2011, and January 1, 2011, respectively. Our fiscal 2014 will be a 53-week year and will end on January 3, 2015. All references to quarterly or yearly financial results are references to the results for the relevant fiscal period.

Programmable Logic Market Background

Three types of digital integrated circuits are used in most electronic systems: microprocessors, memory and logic.

- Microprocessors are used for control and computing tasks.
- Memory is used to store programming instructions and data.
- Logic is employed to manage the interchange and manipulation of digital signals within a system.

Logic circuits are found in a wide range of today's digital electronic equipment, including communications, computing, consumer, industrial, scientific, medical, automotive, and military systems. The general purpose logic market for semiconductor solutions can be subdivided into three primary categories:

- Application-specific integrated circuits ("ASICs") are custom devices for a single user, which generally entail significant design risks, non-recurring expenses and longer development cycles. ASICs have historically been perceived as having advantages of lower unit costs, higher performance and lower power when compared to PLDs.
- Application-specific standard products ("ASSPs") are standardized logic devices marketed to multiple users, with limited flexibility to customize an end system. ASSPs have historically been perceived as having similar advantages as ASICs (ie: cost, performance and power) relative to programmable logic devices with the additional benefit of being readily available as an off-the-shelf standard product, thereby avoiding the risk and non-recurring engineering associated with ASICs.
- Programmable logic devices, including those offered by Lattice, are standard semiconductor products, purchased by systems manufacturers in a "blank" state that can be custom-configured into a virtually unlimited number of specific logic functions.

Industry sources have estimated that the general purpose logic and application-specific semiconductor product categories combined to account for approximately 37% of the estimated $318 billion worldwide semiconductor market in 2013. Based on those sources, we believe that the programmable logic market was approximately $4.5 billion in 2013.

Programmable logic devices have key competitive advantages over ASICs and ASSPs that make them suitable for certain types of applications, including:

- Faster time to market and increased design flexibility. These advantages are enabled by development software allowing users to implement and revise their designs quickly. ASICs and ASSPs, on the other hand, require significant development time and offer limited, if any, flexibility to make design changes.
- Programmable logic devices are standard components, meaning that the same device can be sold to many different users for a variety of applications, while ASICs and ASSPs are customized for an individual use or specific application.

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Programmable Logic Market

There are two main subcategories of programmable logic devices: field programmable gate arrays (“FPGAs”) and conventional programmable logic devices (“PLDs”), each representing distinctly different silicon architectural approaches.

- FPGAs are traditionally characterized by a narrow-input logic cell and use a distributed interconnect scheme. FPGAs may also contain dedicated blocks of fixed circuits such as memory, high-speed input/output interfaces or processors.
- PLDs are traditionally characterized by a regular building block structure of wide-input logic cells, called macrocells, and use a centralized logic interconnect scheme.

Although FPGAs and PLDs are typically suited for use in distinct types of logic applications, with PLDs being well-suited for 'control-oriented' applications and FPGAs being well-suited for 'data-path' applications, we believe that a substantial portion of programmable logic customers have needs for, and could utilize both FPGAs and PLDs. In addition, mixed signal programmable logic devices that combine digital and analog features are growing in popularity. We offer solutions utilizing all of these silicon architectures to serve multiple markets in a wide variety of applications. Throughout this Annual Report we generally use the term FPGAs when referring to both our FPGAs and our PLDs.

End Markets for Our FPGAs

An overview of the end market applications for our products is shown in the following table:

End Markets	Sub-Market	Applications	Tethered	Mobile
Communications	Wireless	Base Station	X	
		Wireless Backhaul	X	
		Heterogeneous Networks	X	
	Wireline	Routers and Switches	X	
		Data Centers	X	
		Carrier Class Wifi	X	
		Wired access aggregation	X	
Consumer		Smartphones		X
		Wearables		X
		Tablets & E-Readers		X
		Digital SLR Cameras		X
		GPS navigation units		X
		High Definition Televisions	X	
		Laptops and PCs	X	X
		Gaming	X	X
Industrial, Scientific and Medical (ISM)	Industrial	Factory Automation	X	X
		Motor and Process Controls	X	X
		Video Surveillance & Security	X	X
	Scientific	Human-Machine Interface	X	X
		Test and Measurement	X	X
	Medical	Diagnostic Imaging	X	X
		Hand-held Medical Devices	X	X
	Automotive	Driver Assistance Systems	X	X
		Driver Information Systems	X	X
Computing		Servers and Micro Servers	X	
		Data Centers	X	
		Storage networks	X	

	Security	X

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Lattice Strategy and Advantage

We believe that the number of devices that are always-on, always-connected and connected-to-everything (the "Internet of Things") which could benefit from our products will continue to expand, providing growth opportunities in many of the markets we serve today. Our strategy is to lead the middle-to-low-end of the FPGA market where high density, system-level integration, and the most advanced process technology are less necessary and to displace ASICs and ASSPs in applications where low cost, low power, small form factor, and rapid time to market are critical to the success of our customers.

The following table summarizes the key characteristics of our FPGAs relative to ASICs and ASSPs:

	Lattice FPGAs	ASICs/ASSPs
Time to Market	Fast	Slow
Development Cost (non-recurring engineering)	Lower	Higher
Customizable by User	Yes	No
Hardware Reprogrammability	Yes	No
Process Technology	Advanced	Often Lagging

We believe that the rapid pace of change and increasing complexity of products and connectivity places a premium on the programmable flexibility, rapid time to market, and relatively lower development costs and risks associated with our products when compared to ASICs and ASSPs.

Where time to market is critical to our customers, the reprogrammability of an FPGA solution allows designers to more quickly and simply add features, easily correct mistakes and/or fill gaps in other functions. Additionally, our focus on the development of customizable design solutions for our FPGAs ("IP Cores") provides customers with reliable, pre-tested, reusable functions that can be quickly adopted, allowing our customers to direct their time and energy on the unique aspects of their product. This can provide FPGAs a distinct time to market advantage over competing solutions.

Another advantage for certain of our FPGA solutions are their relatively advanced process technologies, often one or more generations ahead of competing ASICs, microcontrollers and ASSPs. This generational advantage from a lithography standpoint allows lower end FPGAs to compete directly on power and cost while offering a distinct advantage in form factor. We expect the fixed cost of ASIC and ASSP development to significantly increase on more advanced technology nodes, allowing FPGAs to better address high volume applications and gain market share from ASIC and ASSP suppliers.

The following table summarizes certain key characteristics of our FPGAs relative to higher density FPGAs offered by other FPGA companies:

	Lattice FPGAs	Higher Density FPGAs
Size	Smaller	Larger
Unit Cost	Lower	Higher
Power Consumption	Lower	Higher

Higher density FPGAs are large, expensive and consume greater power. Integrating multiple functions including high-end processors on a single device often requires expensive and advanced process technologies that lead to higher development and manufacturing costs. We have chosen not to compete at the high-end of this traditional FPGA market. Rather, we focus on providing more flexible solutions in the middle and low-end of the market by leveraging established process nodes to create multiple generations of cost effective devices on mature process technologies. By

leveraging established, lower cost technologies and capitalizing on our ability to use the latest IP Cores we are able to quickly deliver added functionality while optimizing cost, power consumption and form factor.

Communications Market

Revenue from the Communications end market accounted for 38% of our revenue in 2013 and historically has been our largest end market. Our products are used throughout the communications infrastructure with our ECP family focused on high-

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speed serial communications channels ("SERDES") based, high bandwidth applications. Our MachXO, XO2 and XO3 products address IO-intensive, control plane applications and our iCE products support simple glue logic and connectivity applications.

The worldwide communications infrastructure continues to grow and evolve to meet increasing bandwidth and coverage demands of consumers, with some estimating substantial increases in data traffic over the next several years. In addition, we believe that Heterogeneous Networks ("HetNets") will become a more critical element to increase available bandwidth and fill coverage gaps in existing communications and data networks. We believe our ability to offer low power, small form factor FPGAs and the latest IP Cores will allow for our continuing success in the Communications market.

Consumer Market

During fiscal 2013, we derived 30% of our revenue from the Consumer end market. While we historically served the Consumer market with products like the 4KZE and MachXO2ZE in applications including e-readers, GPS navigation units and other mobile devices, the acquisition of SiliconBlue Technologies in December 2011 expanded our presence in the consumer market. Our products can now be found in smartphones, tablets, wearables, and other wireless, battery operated devices. Our iCE40 and XO2ZE product lines combine to achieve a distinctive balance of logic and non-volatile memory. Leveraging our low power and small form factor solutions allows us to deliver a compelling value proposition for manufacturers of consumer products. As a result, we shipped over 100 million iCE40, XO2ZE, and 4KZE devices into the rapidly growing Consumer end market in fiscal 2013.

The expected continued proliferation of wireless, connected and battery operated devices in the Consumer market provides growth opportunities for FPGAs in applications such as smartphones, tablets, wearables, e-readers, GPS navigation units, High Definition Televisions and Digital SLR Cameras. For example, at least one industry source anticipates that global market shipments of wearable devices will grow by approximately 150 percent to over 130 million units in 2018. In addition, smartphone sales are expected to grow from 800 million units in 2013 to 1.2 billion in 2016. We believe that today, less than 15% of the smartphones in the world use an FPGA solution.

Industrial, Scientific and Medical Markets

The Industrial, Scientific and Medical (“ISM”) end markets represented 23% of total revenues in 2013. Although a challenging and fragmented market, we believe we can service much of the ISM market with existing MachXO product families packaged in small form factors and ball pitches that meet customer needs. Additionally, those same products that create winning solutions for control plane and data path in the Communications market can also meet the video application requirements for surveillance and switching in the ISM market. The iCE40 family which was developed for mobile applications can also provide customers readymade solutions for battery powered industrial handheld devices at a very low cost. The process technology advantage that we enjoy in the Consumer market also applies to the ISM market.

Similar to the Consumer market, we believe that the ISM markets may also see the accelerated development and adoption of mobile wireless networked devices for applications including: test and measurement, medical imaging, factory automation and process control, video surveillance and switching, driver assistance, and infotainment.

Computing Market

The Computing market represented 9% of total revenues in 2013. Our MachXO product families feature both high-performance and low-power versions that align with a variety of server applications. The potential for growth in server farms and widespread adoption of cloud computing could lead to greater demand for smaller, lower power,

more affordable solutions that can deliver high data rate offerings at affordable service provider operating cost. With innovative features including: wafer level chip scale packaging (“WLCSP”) and very small ball pitch packages, we have the ability to supply customers with the smallest form factor FPGAs currently available. The Computing end markets often demand solutions that are low cost, low power, small form factor, and that enable our customers to quickly and efficiently bring their products to market.

Lattice Products

We actively participate in the FPGA, PLD and the growing mixed signal PLD markets. During fiscal 2013, 32% of our revenue was derived from FPGA products, compared to 34% in 2012 and 2011, and 68% of our revenue was derived from conventional PLD products, compared to 66% in 2012 and 2011. We strive to meet our customers' needs by offering innovative and differentiated solutions that include not only silicon and packaged devices, but also design tools and intellectual property.

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	Year Introduced	Process Technology (nm)	Operating Voltage	Logic (K LUTs)	SERDES Channels	Max RAM (Mb)	I/O Pins (#)
LatticeXP2 ™	2007	90	1.2	5-40	—	1.0	86-540
LatticeECP3 ™	2009	65	1.2	17-149	4-16	7.2	116-586
MACHXO2 ™	2010	65	3.3/2.5/1.2	256-6864	—	—	18-334
Lattice iCE40 ™	2011	40	1.2	384-7680	—	—	10-206
MACHXO3L	2013	65	1.2	640-6864	—	0.2	25-325

LatticeXP2

Unlike a traditional FPGA that requires an external device to load its configuration data, the non-volatile LatticeXP2 family embeds a Flash memory block on-chip to store the configuration information. This on-chip memory offers customers several unique benefits. First, as a single chip solution it enables customers to reduce the size and cost of their bill of materials. Second, without the comparatively long time delay caused by loading a configuration externally, a customer's equipment can start up much more quickly. We refer to this feature as "instant-on." While broadly used across many markets, we believe that the single-chip, instant-on capability and high-security provided by the LatticeXP2 family make it particularly attractive for the computing, security, surveillance and display markets.

The LatticeXP2 family is manufactured using embedded Flash processes co-developed with our foundry partner Fujitsu Limited (“Fujitsu”). The use of embedded Flash for the non-volatile memory enables the Lattice XP2 family to be re-programmable.

LatticeECP Family

The LatticeECP family is designed for customers who need low-density FPGAs that provide digital signal processing (“DSP”) capabilities, a significant amount of memory and SERDES, but do not want to pay the price or power premiums of high-end FPGAs. The LatticeECP2M and LatticeECP3 families are able to serve this low density market due to careful circuit design choices aimed at achieving lower cost and architectural enhancements that reduce power consumption.

Introduced in February 2009, the fourth generation LatticeECP3 family is particularly well suited for deployment in wireless infrastructure and wireline access equipment, as well as video and imaging applications. All generations of the LatticeECP family are manufactured using our foundry partner Fujitsu's advanced process technologies.

MachXO2 Family

The MachXO2 family of versatile non-volatile reconfigurable FPGAs are designed for applications traditionally implemented using complex programmable logic devices (“CPLD”) or low-capacity FPGAs. MachXO2 products have been widely adopted in a broad range of high value, cost sensitive applications that require general purpose I/O expansion, interface bridging and powerup management functions. They offer the benefits of increased system integration by providing embedded memory, built-in Phase-locked Loops, high performance Low-voltage Differential Signaling (“LVDS”) I/O, remote field upgrade and a low-power sleep mode.

Introduced in 2010, our MachXO2 family is built on a low power 65nm process featuring embedded Flash technology. The MachXO2 family delivers a 3X increase in logic density, a 10X increase in embedded memory and more than a 100X reduction in static power relative to the MachXO family. In addition, several popular functions used

in low-density PLD applications, such as User Flash Memory (UFM), I2C, SPI and timer/counter, have been hardened into the MachXO2 devices, providing designers a “Do-it-All” device for high volume, value orientated applications.

MachXO3 Family

The MachXO3 family is an instant on, multi time programmable FPGA architecture designed primarily for applications traditionally implemented by fixed silicon or low-capacity FPGAs in markets such as computing, communications, and industrial. MachXO3 products are targeted for a broad range of high value, cost sensitive applications that require general purpose I/O expansion, interface bridging and hardware acceleration. They offer the benefits of increased system integration by providing ultra small packages, embedded memory, built-in Phase-locked Loops, MiPi and high performance LVDS I/O.

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Announced in late 2013, our MachXO3 family is designed for low power 65nm or 40nm process technologies. The MachXO3 family delivers increased performance, lower cost, higher I/O and significantly smaller package sizes relative to the MachXO2 family. The MachXO3 family utilizes state of the art WLCSP and flip chip BGA packaging to provide extremely small form factors for customers. In addition, several popular functions are hardened in the MachXO3 devices, providing a menu of predefined features.

Designed for a broad range of ultra-low density applications, the MachXO3 and MachXO2 families are used in a variety of end markets including: consumer, communications, computing, industrial, scientific and medical.

Lattice iCE40

The iCE40 family of products are designed to meet the shrinking power budgets and space constrained environments of consumer handheld products. Emphasizing smallest overall solution size, lowest power consumption and aggressive high volume pricing, the iCE40 family of products delivers ASIC or ASSP alternatives to market. Where system designers wait months for ASIC and ASSP silicon, the iCE40 family of product enables system architects to realize their design in days.

The iCE40 family of products represents the world’s smallest FPGA. This is enabled through advanced WLCSP combined with application specific integrated IP and 40nm low power fabric. iCE40 FPGAs are the only FPGAs to be offered in 0.35mm pitch WLCSP packages and include embedded IP such as PLLs, oscillators, LED drivers, and serial interfaces. A variety of package technologies from 0.35mm to 1mm pitch combined with a variety of hard and soft IP enable the iCE40 portfolio to serve the basic I/O expansion, bridging and processor acceleration needs of broad market applications as well as consumer mobile devices.

Power Manager, ispClock and Platform Manager Programmable Mixed Signal Devices

As customer equipment grows more complex, so does the customer's power and clock management problems. Our Power Manager and ispClock™ families feature a combination of programmable logic and programmable analog circuitry that allows system designers to reduce system cost and design time by quickly and easily integrating a wide variety of power or clock management functions within a single integrated circuit. These products can replace numerous discrete components, reducing cost and conserving board space, while providing customers with additional design flexibility and time-to-market benefits. The accuracy of our Power Manager products enables more reliable system performance for our customers.

The Platform Manager™ family is Lattice's third-generation programmable mixed-signal device family. The Platform Manager devices are expected to simplify board management design significantly by integrating programmable analog and logic to support many common functions, including power management, digital housekeeping and glue logic. By integrating these support functions, Platform Manager devices not only reduce the cost of these functions compared to traditional approaches, but also can improve system reliability and provide a high degree of flexibility, reducing the likelihood of a board re-spin.

Software Development Tools and Intellectual Property Cores

Our programmable logic products are supported by several design and development suites with each one targeted at the specific needs of the user. Our iCE40 products are supported by our iCEcube2 design and development suite. Certain other products are supported by ispLEVER Classic. The remainder of our products, other than mixed signal, are supported by the Lattice Diamond™ design and development tool suite. Our mixed signal products are supported by PAC-Designer® software.

iCEcube2 is a complete, easy to learn design flow that meets the needs of the designer and is supported on the Windows platform. Lattice Diamond™ is also a complete, modern and easy to learn FPGA design suite supported on both Windows and Linux platforms. Both iCEcube2 and Lattice Diamond™ allow our users to easily enter their design along with the design goals, quickly analyze and verify the design for accuracy, and then implement the design in our programmable logic solution. The flow enables logic simulation, static timing analysis, I/O pin assignment, synthesis, automatic timing-driven place and route and device programming.

For all tool suites, Synopsys' Synplify Pro advanced FPGA synthesis is included for all operating systems supported, and Aldec's Active-HDL Lattice Edition II simulator is included for Windows. In addition to the tool support for Lattice devices provided by the OEM versions of Synplify Pro and Active-HDL, our devices are also supported by the full versions of Synopsys Synplify Pro and Aldec Active-HDL. Additionally, Mentor Graphics ModelSim SE is supported.

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Our IP core program (LatticeCORE™) assists our customers' design efforts by providing pre-tested, reusable functions that can be easily used; allowing our customers to focus on their unique system architectures. These IP cores eliminate the need to “re-invent the wheel” by providing many industry-standard functions, including PCI Express, DDR, Ethernet, CPRI, 7:1 LVDS and embedded microprocessors.

Product Development

We place substantial emphasis on new product development and believe that continued investment in this area is required to maintain and improve our competitive position. Our product development activities emphasize new proprietary products, advanced packaging, enhancement of existing products and process technologies, and improvement of software development tools. Product development activities occur primarily in: Hillsboro, Oregon; San Jose, California; Shanghai, China; and Alabang, Philippines.

Research and development expenses were $81.0 million in 2013, $77.6 million in 2012 and $71.9 million in 2011. We expect to continue to make significant investments in research and development. During fiscal 2011, we consolidated our research and development activities and established an engineering development center in the Philippines.

Operations

We do not manufacture our own silicon products. We maintain strategic relationships with large semiconductor foundries to source our finished silicon wafers. This strategy allows us to focus our internal resources on product and market development, and eliminates the fixed cost of owning and operating semiconductor manufacturing facilities. We are also able to take advantage of the ongoing advanced process technology development efforts of semiconductor foundries.

Lattice and Fujitsu have entered into agreements pursuant to which Fujitsu manufactures our products on its 130nm, 90nm and 65nm CMOS process technologies, as well as on 130nm, 90nm and 65nm technologies with embedded flash memory that we have jointly developed with Fujitsu. Taiwan Semiconductor Manufacturing Company Ltd. (“TSMC”) manufactures our 40nm iCE products. In addition, United Microelectronics Corporation ("UMC") manufactures certain of our 40nm products.

All of our assembly and test operations are performed by outside suppliers.

We rely on third party vendors to provide cost-effective and efficient supply chain services. Among other activities, these outsourced services relate to direct sales logistics, including order fulfillment, inventory management and warehousing, and shipment of inventory to third party distributors. During 2012 and 2011, we transferred significant portions of our supply chain support activities from our headquarters in Oregon and our operations center in Singapore to a new operations center in the Philippines.

We perform certain test operations as well as reliability and quality assurance processes internally. We have achieved and maintained ISO9001:2008 Quality Management Systems Certification and released a full line of products qualified to the AEC-Q100 Reliability Standard.

Wafer Fabrication

We source silicon wafers from our foundry partners, Fujitsu and Seiko Epson Corporation in Japan, TSMC and UMC in Taiwan and GLOBALFOUNDRIES in Singapore, pursuant to agreements with each company and their respective affiliates. We negotiate wafer volumes, prices and other terms with our foundry partners and their respective affiliates on a periodic basis.

Assembly

After wafer fabrication and initial testing, we ship wafers to independent subcontractors for assembly. During assembly, wafers are separated into individual die and encapsulated in plastic packages. We have qualified assembly partners in Indonesia, Malaysia, Taiwan, the Philippines, Singapore and South Korea. We negotiate assembly prices, volumes and other terms with our assembly partners and their respective affiliates on a periodic basis.

We currently offer an extensive list of standard products in lead (Pb) free packaging. Our lead-free products meet the European Parliament Directive entitled "Restrictions on the use of Hazardous Substances" ("ROHS"). A select and growing subset of our ROHS compliant products are also offered with a "Halogen Free" material set.

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Testing

We electrically test the die on most wafers prior to shipment for assembly. Following assembly but prior to customer shipment, each product undergoes final testing and quality assurance procedures. Wafer sort testing is performed by independent contractors in Malaysia, Japan, Indonesia and Singapore. Final testing is performed by independent contractors in Indonesia, Malaysia, the Philippines, Singapore, Taiwan and South Korea. We also perform certain test operations as well as reliability and quality assurance processes internally.

Marketing, Sales and Customers

We sell our products to end customers both directly through our wholly-owned subsidiary Lattice SG Pte. Ltd. and through a network of independent manufacturers' representatives. Additionally, we sell indirectly through independent sell-in and sell-through distributors. Our only sell-in distributors are in Japan. We also employ a direct sales management and field applications engineering organization to support our end customers and indirect sales resources. Our end customers are primarily original equipment manufacturers in the communications, computing, consumer, industrial, scientific and medical end markets.

We have agreements with 20 manufacturers' representatives in North America. We have established foreign sales channels in over 50 foreign countries and maintain a network of 16 international sales representatives. A substantial portion of our sales are made through distributors.

We provide global technical support to our end customers with engineering staff based at our headquarters, product development centers and selected field sales offices. We maintain numerous domestic and international field sales offices in major metropolitan areas.

Resale of product by sell-through distributors accounted for 45% of our net revenue in 2013, and we expect our distributors to generate a significant portion of our revenue in the future. We depend on our distributors to sell our products to end customers, complete order fulfillment and maintain sufficient inventory of our products. Our distributors also provide technical support and other value-added services to our end customers. We have three primary sell-through distributors. We also have regional distribution in Asia, Japan and Israel and we sell through three major on-line catalog distributors.

Historically the largest percentage of our revenue has been derived from customers participating in the communications end market. A significant portion of that revenue comes from two large China-based telecommunication equipment providers. In fiscal 2013, we experienced significant revenue growth in the consumer end market; as a result Samsung Electronics Co., Ltd. accounted for 22% of total revenue in 2013. No other individual OEM customer, in any end market, accounted for more than 10% of total revenue in any of the fiscal years 2013, 2012 and 2011.

Revenue from foreign sales as a percentage of total revenue was 91%, 88%, and 86% for fiscal 2013, 2012, and 2011, respectively. We assign revenue to geographies based on customer ship-to address at the point where revenue is recognized. Revenue attributed to China for fiscal 2013 was approximately 45% of total revenue. In the case of sell-in distributors and OEM customers, revenue is typically recognized, and geography is assigned, when products are shipped. In the case of sell-through distributors, revenue is recognized when resale to the end customer occurs and geography is assigned based on the end customer location on the resale reports provided by the distributor. Both foreign and domestic sales are denominated in U.S. dollars, with the exception of sales in Japan, where sales to certain customers are denominated in yen.

The composition of our revenue by geography, based on ship-to location, is as follows (dollars in thousands):

	Year Ended								% Change in	
	December 28, 2013		December 29, 2012		December 31, 2011		2013	2012		
Asia	$245,689	74 %	$189,811	68 %	$201,118	63 %	29	(6)		
Europe	47,459	14	48,202	17	66,319	21	(2)	(27)		
Americas	39,377	12	41,243	15	50,929	16	(5)	(19)		
Total revenue	$332,525	100 %	$279,256	100 %	$318,366	100 %	19	(12)		

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Seasonality

In most years, we experience some seasonal trends in the sale of our products. Sales of our products are often higher during our fiscal quarters two and three, but lower during our other fiscal quarters. However, on balance general economic conditions and the cyclical nature of the end markets we serve have a greater impact on our business and financial results than seasonal trends.

Backlog

Our backlog consists of orders from distributors and orders from certain OEMs which are for deliveries within the next year. Historically, our backlog is a poor predictor of future sales or customer demand for the following reasons:

- Purchase orders, consistent with common industry practices, can generally be revised or canceled up to 30 days before the scheduled delivery date without significant penalty.
- Our backlog for sell-through distributors is valued at list price, which in most cases is substantially higher than the prices ultimately recognized as revenue.
- A sizable portion of our revenue comes from our "turns business," where the product is ordered and delivered within the same quarter.
- A growing portion of our revenue arises from vendor managed inventory arrangements where the timing and volume of vendor utilization is difficult to predict.

Competition

The semiconductor industry is intensely competitive and characterized by rapid rates of technological change, product obsolescence and price erosion. Our current and potential competitors include a broad range of semiconductor companies from emerging companies to large, established companies, many of which have greater financial, technical, manufacturing, marketing and sales resources.

The principal competitive factors in the programmable logic market include silicon and software product features, price, technical support, sales, marketing and distribution strength. The availability of competitive intellectual property cores is also critical. In addition to product features such as density, performance, power consumption, re-programmability, and reliability, competition occurs on the basis of price and market acceptance of specific products and technology. We intend to continue to address these competitive factors by continually introducing product enhancements and new products and by reducing the manufacturing cost of our products.

We compete primarily with other semiconductor companies that provide logic solutions that are not user programmable via hardware configuration, or that offer products based on alternative solutions such as ASIC, ASSP, microcontroller, analog and DSP technologies. Although we have not yet experienced direct competition from companies located outside the United States, such companies may become a more significant competitive factor in the future. Competition may also increase if other larger semiconductor companies seek to expand into our market. Any such increases in competition could have a material adverse effect on our operating results. We do not compete directly with Altera Corporation or Xilinx, Inc. in the consumer market. However, we occasionally compete with them in the low-end of the traditional FPGA markets, primarily in the communications, computing and industrial end markets.

Intellectual Property

We seek to protect our products and technologies primarily through patents, trade secrecy measures, copyrights, mask work protection, trademark registrations, licensing restrictions, confidentiality agreements and other approaches

designed to protect proprietary information. There can be no assurance that others may not independently develop competitive technology not covered by our intellectual property rights or that measures we take to protect our technology will be effective.

Patents

We hold numerous domestic, European and Asian patents and have patent applications pending in the United States, Europe and Asia. Our current patents will expire at various times between 2014 and 2032. There can be no assurance that pending or future patent applications will result in issued patents, or that any issued patents will survive challenges to their validity. Although we believe that our patents have value, there can be no assurance that our patents, or any additional patents that may be issued in the future, will provide meaningful protection from competition. We believe that our success will depend primarily upon the technical expertise, experience, creativity, and the sales and marketing abilities of our personnel.

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Patent and other proprietary rights infringement claims are common in our industry. There can be no assurance that, with respect to any claim made against us, we would be able to successfully defend against the claim or that we could obtain a license that would allow us to use the proprietary rights on terms or under conditions that would not harm our business.

Licenses and Agreements

We have acquired various licenses from third parties to certain technologies that are implemented in IP cores or embedded in our products. Those licenses support our continuing ability to make and sell these products to our customers. While our various licenses are important to our success, we believe our business as a whole is not materially dependent on any particular license, or group of licenses.

Advanced Micro Devices

In 1999, as part of our acquisition of Vantis Corporation, a wholly owned subsidiary of Advanced Micro Devices, Inc. (“AMD”), we entered into an agreement with AMD pursuant to which we have cross-licensed Vantis patents with AMD patents, having an effective filing date on or before June 15, 1999, related to programmable logic products. This cross-license was made on a worldwide, non-exclusive and royalty-free basis. Additionally, as part of our acquisition of Vantis, we acquired certain third-party license rights held by Vantis prior to the acquisition.

Altera

In 2001, we entered into a comprehensive, royalty-free, non-exclusive patent cross-license agreement and a multi-year patent peace agreement with Altera.

Agere Systems

In 2002, as part of our acquisition of the FPGA business of Agere Systems, Inc., we entered into an intellectual property agreement with Agere and Agere Systems Guardian Corporation. Pursuant to this agreement, these Agere companies assigned or licensed to us certain FPGA and Field Programmable System Chip patents, trademarks, software and other intellectual property rights and technology, and we licensed back rights in these same assets. These cross-licenses were made on a worldwide, non-exclusive and royalty-free basis.

SiliconBlue

In 2011, as part of the acquisition of SiliconBlue Technologies, we assumed a patent license agreement dated July 21, 2006, under which Kilopass Technology, Inc. granted to SiliconBlue and its successors a license to certain U.S. patents and related foreign patents. The license is an exclusive, fully paid, worldwide license but is limited to the use of the patented inventions in the field of stand-alone programmable logic devices.

Intellectual Ventures

In 2013, we entered into a paid-up, non-exclusive patent license agreement with IV Global Licensing LLC, Intellectual Ventures I LLC, and Intellectual Ventures II LLC which provides us a five-year license to a portfolio of certain U.S. semiconductor related patents.

Employees

At December 28, 2013, we had 783 full-time employees. We believe that our future success will depend, in part, on our ability to continue to attract and retain highly skilled technical and management personnel. No employee is subject to a collective bargaining agreement. We have never experienced a work stoppage and consider our employee relations to be good.

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Executive Officers of the Company

The following individuals currently serve as our executive officers:

Name	Age	Position
Darin G. Billerbeck	54	President, Chief Executive Officer and Director
Joe Bedewi	54	Corporate Vice President and Chief Financial Officer
Byron W. Milstead	57	Corporate Vice President, General Counsel and Secretary

Darin G. Billerbeck joined the Company as President and Chief Executive Officer on November 8, 2010. Prior to joining the Company, Mr. Billerbeck served as the Chief Executive Officer of Zilog, a microcontroller manufacturer, which was acquired by IXYS Corporation in February 2010. Prior to joining Zilog in January 2007, Mr. Billerbeck served 18 years in various executive and management positions at Intel Corporation, including as Vice President and General Manager of Intel's Flash Products Group from 1999 to 2007.

Joseph Bedewi joined the Company as Corporate Vice President and Chief Financial Officer on April 15, 2011. Mr. Bedewi served 17 years as Financial Controller for several groups, and held various other financial and operational management roles at Intel Corporation. His operations experience ranges from organizational development and optimization, strategic planning, business development and process improvement, to capacity and capital planning. After leaving Intel, Mr. Bedewi served as Chief Financial Officer at International DisplayWorks, Malibu Boats, LLC, and Solar Power, Inc.

Byron W. Milstead joined the Company in May 2008 as Corporate Vice President and General Counsel. In January 2013, Mr. Milstead was appointed to serve as President and General Manager of Lattice SG Pte. Ltd., the Company’s wholly-owned sales subsidiary in Singapore. Prior to joining the Company, Mr. Milstead served as Senior Vice President and General Counsel of Credence Systems Corporation from December 2005 to May 2008. Mr. Milstead served as Vice President and General Counsel of Credence Systems Corporation from November 2000 until December 2005. Prior to joining Credence Systems Corporation, Mr. Milstead practiced law at the Salt Lake City office of Parsons Behle & Latimer and the Portland offices of both Bogle and Gates and Ater Wynne.

Available Information

We make available, free of charge through our Investor Relations section of our website at www.latticesemi.com, our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, proxy statements and amendments to those reports and statements as soon as reasonably practicable after such materials are electronically filed with, or furnished to, the SEC. You may also obtain free copies of these materials by contacting our Investor Relations Department at 5555 N.E. Moore Court, Hillsboro, Oregon 97124-6421, telephone (503) 268-8000. Our SEC filings are also available at the SEC's website at www.sec.gov.

ITEM 1A. Risk factors

The following risk factors and other information included in this Annual Report should be carefully considered before making an investment decision relating to our common stock. If any of the risks described below occur, our business, financial condition, operating results and cash flows could be materially adversely affected. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial also may impair our business operations and financial results.

We rely on independent foundries for the manufacture of all of our products and a manufacturing problem or insufficient foundry capacity could adversely affect our operations.

We depend on independent foundries to supply silicon wafers for many of our products. These foundries include Fujitsu in Japan, which supplies the majority of our wafers. We negotiate wafer volumes, prices and other terms with our foundry partners and their respective affiliates on a periodic basis typically resulting in short-term agreements which do not ensure long-term supply or allocation commitments. We rely on our foundry partners to produce wafers with competitive performance attributes. Should the foundries that supply our wafers experience manufacturing problems, including unacceptable yields, delays in the realization of the requisite process technologies, or difficulties due to limitations of new and existing process technologies, our operating results could be adversely affected. Should the foundries not be able to manufacture sufficient quantities of our products or continue to manufacture a product for the full life of the product, we may

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be required to prematurely limit or discontinue the sales of certain products or incur significant costs to transfer products to other foundries, and our customer relationships and operating results could be adversely affected. In addition, weak economic conditions may adversely impact the financial health and viability of the foundries and cause them to limit or discontinue their business operations, resulting in shortages of supply and an inability to meet their commitments to us, which could adversely affect our financial condition and operating results.

A disruption of our foundry partners' operations as a result of a fire, earthquake, act of terrorism, political or labor unrest, governmental uncertainty, war, disease or other natural disaster or catastrophic event, or any other reason, could disrupt our wafer supply and could adversely affect our operating results.

Establishing, maintaining and managing multiple foundry relationships requires the investment of management resources as well as additional costs. If we fail to maintain our foundry relationships, or elect or are required to change foundries, we will incur significant costs and manufacturing delays. The success of certain of our next generation products is dependent upon our ability to successfully partner with Fujitsu and other foundry partners, including Seiko Epson Corporation in Japan, United Microelectronics Corporation in Taiwan, and Taiwan Semiconductor Manufacturing Company Ltd. ("TSMC") in Taiwan. If for any reason our foundry partners do not provide their facilities and support for our development efforts, we may be unable to effectively develop new products in a timely manner.

Should a change in foundry relationships be required, we may be unsuccessful in establishing new foundry relationships for our current or next generation products, or may incur substantial cost and or manufacturing delays until we form and ramp relationships and migrate products, each of which could adversely affect our operating results.

We depend on distributors to generate a significant portion of our revenue and complete order fulfillment.

We depend on our distributors to sell our products to end customers, complete order fulfillment and maintain sufficient inventory of our products. Our distributors also provide technical support and other value-added services to our end customers. Resale of product through distributors accounted for 45% of our revenue in 2013, with two distributors accounting for 37% of our revenue in 2013. We expect our distributors to generate a significant portion of our revenue in the future. Any adverse change to our relationships with our distributors or a failure by one or more of our distributors to perform its obligations to us could have a material impact on our business. In addition, a significant reduction of effort by a distributor to sell our products or a material change in our relationship with one or more distributors may reduce our access to certain end customers and adversely affect our ability to sell our products.

The financial health of our distributors is important to our success. Economic conditions may adversely impact the financial health of one or more of our distributors. This could result in the inability of distributors to finance the purchase of our products or cause the distributors to delay payment of their obligation to us and increase our credit risk. If the financial health of our distributors impairs their performance and we are unable to secure alternate distributors, our financial condition and results of operations may be negatively impacted.

In addition, our distribution channels have historically experienced consolidation due to merger and acquisition activity. Consolidation may result in our distributors allocating fewer resources to the distribution and sale of our products, which could adversely affect our financial results.

We depend on the timeliness and accuracy of resale reports from our distributors; late or inaccurate resale reports could have a detrimental effect on our ability to properly recognize revenue and our ability to predict future sales.

The Consumer end market is rapidly changing and cyclical, and our failure to accurately predict the frequency, duration, timing and severity of these cycles could adversely affect our financial condition and results.

Revenue from the Consumer end market accounted for 30% of our revenue in fiscal 2013 and has increased from past periods as a percentage of our total revenue. Revenue from the Consumer end market consists primarily of revenue from our products designed and used in a broad range of products including smart handheld devices, flat panel displays, digital cameras and camcorders, gaming consoles, and set-top boxes. This market is characterized by rapidly changing requirements and product features. Our success in this market will depend principally on our ability to:

- meet the market windows for consumer products;
- predict technology and market trends;
- develop IP cores to meet emerging market needs;
- develop products on a timely basis; and

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- avoid cancellations or delay of products.

Our inability to accomplish any of the foregoing could materially and adversely affect our business, financial condition, and results of operations. Cyclicality in the Consumer market could periodically result in higher or lower levels of revenue and revenue concentration with a single or small number of customers. In addition, rapid changes in this market may affect demand for our products, may cause our revenue derived from sales in this market to vary significantly over time, adversely affecting our financial results.

We are dependent on a concentrated group of customers for a significant part of our revenues. If we were to lose any of these customers, our revenue could decrease significantly.

A large portion of our revenue depends on sales to a limited number of customers. During fiscal 2013, Samsung Electronics Co., Ltd. accounted for 22% of our total revenue. Additionally our top five end customers accounted for approximately 44% of our total revenue. If any of these relationships were to diminish, or if these customers were to develop their own solutions, or adopt an alternative solution or a competitor's solution, our results could be adversely affected.

While we strive to maintain a strong relationship with our customers, certain of our customers' product life cycles are relatively short and they continually develop new products. The selection process for our products to be included in our customers' new products is highly competitive. There are no guarantees that our products will be included in the next generation of products introduced by these customers. Any significant loss of, or a significant reduction in purchases by, one or more of these customers or their failure to meet their commitments to us, could have an adverse effect on our financial condition and results of operations. If any one or more of our concentrated group of customers were to experience significantly adverse financial conditions, our financial condition and business could be adversely affected as well.

A downturn in the Communications end market could cause a reduction in demand for our products and limit our ability to maintain revenue levels and operating results.

Revenue from the Communications end market accounted for 38% of our revenue in 2013. Two of our top five customers participate primarily in the Communications end market. In the past, cyclical weakening in demand for programmable logic products from customers in the Communications end market has adversely affected our revenue and operating results. In addition, telecommunication equipment providers are building network infrastructure for which we compete for product sales. Any deterioration in the Communications end market or our end customers' reduction in spending to support this end market could lead to a reduction in demand for our products which could adversely affect our revenue and results of operations.

General economic conditions and deterioration in the global business environment could have a material adverse effect on our business, operating results and financial condition.

Adverse economic conditions may negatively affect customer demand for our products and services and result in delayed or decreased spending amid concerns over declining asset values, inflation, volatility in energy costs, geopolitical issues, the availability and cost of credit, rising unemployment, and the stability and solvency of financial institutions, financial markets, businesses and sovereign nations, among other concerns. Weak global economic conditions in the past have resulted in weak demand for our products in certain geographies and had an adverse impact on our results of operations. If weak economic conditions persist or worsen, our business could be harmed due to customers or potential customers reducing or delaying orders. The inability of customers to obtain credit, the insolvency of one or more customers, or the insolvency of key suppliers could result in production delays. Any of these effects could impact our ability to effectively manage inventory levels and collect receivables, require additional

restructuring actions, and decrease our revenue and profitability. Uncertainty about future economic conditions makes it difficult for us to forecast operating results and to make decisions about future investments. Any or all of these factors could adversely affect our financial condition and results of operations in the future.

Our success and future revenue depends on our ability to develop and introduce new products which achieve customer and market acceptance, and failure to do so could have a material adverse effect on our financial condition and results of operations.

The programmable logic market is characterized by rapid technology and product evolution, generally followed by a relatively longer ramp process to volume production on advanced technologies. Our competitive position and success depends on our ability to develop and introduce new products that compete effectively on the basis of price, density, functionality, power consumption, form factor and performance addressing the evolving needs of the markets we serve. These new products typically are more technologically complex than their predecessors.

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The success of new product introductions depends upon numerous factors, including:

- timely completion and introduction of new product designs;
- ability to generate new design opportunities and design wins;
- achieving design wins which result in sales of significant volume;
- availability of specialized field application engineering resources supporting demand creation and customer adoption of new products;
- ability to utilize advanced manufacturing process technologies;
- achieving acceptable yields;
- ability to obtain adequate production capacity from our wafer foundries and assembly and test subcontractors;
- ability to obtain advanced packaging;
- availability of supporting software design tools;
- utilization of predefined IP logic;
- customer acceptance of advanced features in our new products; and
- market acceptance of our customers' products.

Our product development efforts may not be successful, our new products may not achieve industry acceptance and we may not achieve the necessary volume of production to achieve acceptable cost. Revenue relating to our mature products are expected to decline in the future, which is normal for our product life cycles. As a result, we may be increasingly dependent on revenue derived from our newer products as well as anticipated cost reductions in the manufacture of our current products. We rely on obtaining yield improvements and corresponding cost reductions in the manufacture of existing products and on introducing new products that incorporate advanced features and other price/performance factors that enable us to increase revenues while maintaining acceptable margins. To the extent such cost reductions and new product introductions do not occur in a timely manner, or that our products do not achieve market acceptance or market acceptance at acceptable pricing, our forecasts of future revenue, financial condition and operating results could be materially adversely affected.

A number of factors, including our inventory strategy, can impact our gross margins.

A number of factors, including: yield, wafer pricing, cost of packaging raw materials, product mix, market acceptance of our new products, competitive pricing dynamics, geographic and/or end market mix and pricing strategies can cause our gross margins to fluctuate. In addition, forecasting our gross margins is difficult because a significant portion of our business is based on turns within the same quarter.

From time to time our inventory levels may be higher than historical norms due to inventory build decisions aimed at reducing direct material cost or enabling responsiveness to expected demand. In the event the expected demand does not materialize, we may be subject to incremental excess and obsolescence costs. In addition, future product cost reductions could impact our inventory valuation, which could adversely affect our operating results.

Increased costs of wafers and materials, or shortages in wafers and materials could adversely impact our gross margins and lead to reduced revenues.

If greater demand for wafers is not accommodated by increased foundry capacity, if market demand for wafers or production and assembly materials increases, or if a supplier of our wafers or assembly materials ceases or suspends operations or otherwise experiences a disruption to its operations, our supply of wafers and other materials could become constrained. Worldwide manufacturing capacity for silicon wafers is relatively inelastic. Wafer shortages could result in wafer price increases or shortages in materials at production and test facilities, which could adversely impact our ability to meet customer product demands in a timely manner.

If any of our current or future foundry partners or assembly and test subcontractors significantly increases the costs of wafers or other materials, interrupts or reduces our supply, including for reasons outside of their control, or if any of our relationships with our partner suppliers is terminated, our operating results could be adversely affected.

We are dependent on independent contractors for a majority of our assembly, test, and logistics services, and disruption of these services could negatively impact our financial condition and results of operations.

We are dependent on subcontractors to assemble, test and ship our products with acceptable quality and yield levels. Should our subcontractors experience problems impacting the delivery of product to our customers including: prolonged inability to obtain wafers or packaging materials with competitive performance and cost attributes, inability to achieve

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adequate yields or timely delivery; disruption or defects in assembly, test or shipping services; or delays in stabilizing manufacturing processes or ramping up volume for new products, our operations and operating results may be adversely affected. Economic conditions may adversely impact the financial health and viability of our subcontractors and result in their inability to meet their commitments to us resulting in product shortages, quality assurance problems, reduced revenue and/or increased costs which could negatively impact our financial condition and results of operations.

In the past, we have experienced delays in obtaining assembled and tested products and in securing assembly and test capacity commitments from our suppliers. We currently anticipate that our assembly and test capacity commitments are adequate, however, these existing commitments may not be sufficient for us to satisfy customer demand in future periods. We negotiate assembly and test prices and capacity commitments from our contractors on a periodic basis. If any of our assembly or test contractors reduce their capacity commitment or increase their prices, and we cannot find alternative sources, our operating results could be adversely affected.

The semiconductor industry routinely experiences cyclical market patterns and a significant industry downturn could adversely affect our operating results.

Our revenue and gross margin can fluctuate significantly due to downturns in the semiconductor industry. These downturns can be severe and prolonged and can result in price erosion and weak demand for our products. Weak demand for our products resulting from general economic conditions affecting the end markets we serve or the semiconductor industry specifically and reduced spending by our customers can result, and in the past has resulted, in excess and obsolete inventories and corresponding inventory write-downs. The dynamics of the markets in which we operate make prediction of and timely reaction to such events difficult. Due to these and other factors, our past results are not reliable predictors of our future results.

Our expense levels are based, in part, on our expectations of future sales. Many of our expenses, particularly those relating to facilities, capital equipment, and other overhead, are relatively fixed. We might be unable to reduce spending quickly enough to compensate for reductions in sales. Accordingly, shortfalls in sales could adversely affect our operating results.

Foreign sales, accounting for the majority of our revenue, are subject to various risks associated with selling in international markets, which could have a material adverse effect on our operations, financial condition, and results of operations.

We derive the majority of our revenue from sales outside of the United States. Accordingly, if we experience a decline in foreign sales, our operating results could be adversely affected. Our foreign sales are subject to numerous risks, including:

- changes in local economic conditions;
- currency exchange rate volatility;
- governmental stimulus packages, controls and trade restrictions;
- export license requirements, foreign trade compliance matters, and restrictions on the use of technology;
- political instability, war, terrorism or pandemic disease;
- changes in tax rates, tariffs or freight rates;
- reduced protection for intellectual property rights;
- longer receivable collection periods;
- natural or man-made disasters in the countries where we sell our products;
- interruptions in transportation;
- interruptions in the global communication infrastructure; and

- labor regulations.

Any of these factors could adversely affect our financial condition and results of operations in the future.

We have significant international operations exposing us to various economic, regulatory, political, and business risks, which could have a material adverse effect on our operations, financial condition, and results of operations.

We have significant international operations, including foreign sales offices to support our international customers and distributors, an operational center in the Philippines, and research and development sites in China, India and the Philippines. Our international operations have grown as we relocated certain operational, design, and administrative functions outside the United States. In addition, we purchase our wafers from foreign foundries, have our commercial products assembled, packaged and tested by subcontractors located outside the United States, and rely upon an international service provider for inventory management, order fulfillment, and direct sales logistics.

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These and other integral business activities outside of the United States are subject to the risks and uncertainties associated with conducting business in foreign economic and regulatory environments including trade barriers, economic sanctions, environmental regulations, import and export regulations, duties and tariffs and other trade restrictions, changes in trade policies, anti-corruption laws, domestic and foreign governmental regulations, potential vulnerability of and reduced protection for IP, longer receivable collection periods, disruptions or delays in production or shipments, and instability or fluctuations in currency exchange rates, any of which could have a material adverse effect on our business, financial condition and operating results.

Moreover, our financial condition and results of operations could be affected in the event of political instability, terrorist activity, U.S. or other military actions, or economic crises in countries where our main wafer suppliers, end customers, contract manufacturers, and logistics providers are located.

Our global organizational structure and operations expose us to unanticipated tax consequences.

Our legal organizational structure could result in unanticipated unfavorable tax or other consequences which could have an adverse effect on our financial condition and results of operations. In 2011 and 2012, we implemented a global tax structure to more effectively align our corporate structure with our business operations including responsibility for sales and purchasing activities. We created new and realigned existing legal entities, completed intercompany sales of rights to intellectual property, inventory and fixed assets across different tax jurisdictions, and implemented cost-sharing and intellectual property licensing and royalty agreements between our legal entities. We currently operate legal entities in countries where we conduct supply-chain management, design, and sales operations around the world. In some countries, we maintain multiple entities for tax or other purposes. Changes in tax laws, regulations, future jurisdictional profitability of the Company and its subsidiaries, and related regulatory interpretations in the countries in which we operate may impact the taxes we pay or tax provision we record, which could adversely affect our results of operations.

We are subject to taxation in Singapore, the United States and other countries. Future effective tax rates could be affected by changes in the composition of earnings in countries with differing tax rates, changes in the valuation of deferred tax assets and liabilities, or changes in tax laws. We compute our effective tax rate using actual jurisdictional profits and losses. Changes in the jurisdictional mix of profits and losses may cause fluctuations in the effective tax rate. Adverse changes in tax rates, our tax assets, and tax liabilities could negatively affect our results in the future.

We cannot give any assurance as to what taxes we pay or the ability to estimate our future effective tax rate because of, among other things, uncertainty regarding the tax policies of the jurisdictions where we operate. The U.S. government has proposed tax policy changes with respect to the taxation of non-U.S. operations. As a result, our actual effective tax rate or taxes paid may vary materially from our expectations. Changes in tax laws, regulations and related interpretations in the countries in which we operate may have an adverse effect on our business, financial condition or operating results.

Product quality problems could lead to reduced revenue, gross margins and net income.

In general, we warranty our products for varying lengths of time against non-conformance to our specifications and certain other defects. Because our products, including hardware, software and intellectual property cores, are highly complex and increasingly incorporate advanced technology, our quality assurance programs may not detect all defects, whether manufacturing defects in individual products or systematic defects that could affect numerous shipments. Inability to detect a defect could result in a diversion of our engineering resources from product development efforts, increased engineering expenses to remediate the defect and increased costs due to customer accommodation or inventory impairment charges. On occasion we have also repaired or replaced certain components or made software

fixes or refunded the purchase price or license fee paid by our customers due to product or software defects. If there are significant product defects, the costs to remediate such defects, net of reimbursed amounts from our vendors, if any, or to resolve warranty claims may adversely affect our revenue, gross margins and net income.

The nature of our business makes our revenue and gross margin subject to fluctuation and difficult to predict which could have an adverse impact on our business.

In addition to the challenging market conditions we may face, we have limited visibility into the demand for our products, particularly new products, because demand for our products depends upon our products being designed into our end customers' products and those products achieving market acceptance. Due to the complexity of our customers' designs, the design to volume production process for many of our customers requires a substantial amount of time, frequently longer than a year. In addition, we are dependent upon "turns," orders received and turned for shipment in the same quarter. These factors

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make it difficult for us to forecast future sales and project quarterly revenues. The difficulty in forecasting future sales weakens our ability to project our inventory requirements, which could result, and in the past has resulted, in inventory write-downs or failure to meet customer product demands in a timely manner. The difficulty in forecasting revenues as well as the relative customer and product mix of those revenues inhibits our ability to provide forward-looking revenue and gross margin guidance.

Reductions in the average selling prices of our products could have a negative impact on our gross margins.

The average selling prices of our products generally decline as the products mature or may decline as we compete for market share or customer acceptance in competitive markets. We seek to offset the decrease in selling prices through yield improvement, manufacturing cost reductions and increased unit sales. We also seek to continue to develop higher value products or product features that increase, or slow the decline of, the average selling price of our products. However, we cannot guarantee that our ongoing efforts will be successful or that they will keep pace with the decline in selling prices of our products, which could ultimately lead to a decline in revenues and have a negative effect on our gross margins.

If we are unable to adequately protect our intellectual property rights, our financial results and our ability to compete effectively may suffer.

Our success depends in part on our proprietary technology and we rely upon patent, copyright, trade secret, mask work and trademark laws to protect our intellectual property. We intend to continue to protect our proprietary technology, however, we may be unsuccessful in asserting our intellectual property rights or such rights may be invalidated, violated, circumvented or challenged. From time to time, third parties, including our competitors, have asserted against us patent, copyright and other intellectual property rights to technologies that are important to us. Third parties may attempt to misappropriate our intellectual property through electronic or other means or assert infringement claims against us in the future. Such assertions by third parties may result in costly litigation, indemnity claims or other legal actions, and we may not prevail in such matters or be able to license any valid and infringed patents from third parties on commercially reasonable terms. This could result in the loss of our ability to import and sell our products or require us to pay costly royalties to third parties in connection with sales of our products. Any infringement claim, indemnification claim, or impairment or loss of use of our intellectual property could materially adversely affect our financial condition and results of operations.

Litigation and unfavorable results of legal proceedings could adversely affect our financial condition and operating results.

From time to time we are subject to various legal proceedings and claims that arise out of the ordinary conduct of our business. Certain claims are not yet resolved, including those that are discussed under Note 15 contained in the Notes to Consolidated Financial Statements, and additional claims may arise in the future. Results of legal proceedings cannot be predicted with certainty. Regardless of merit, litigation may be both time-consuming and disruptive to our operations and cause significant expense and diversion of management attention and we may enter into material settlements to avoid these risks. Should we fail to prevail in certain matters, we may be faced with significant monetary damages or injunctive relief against us that could materially and adversely affect our financial condition and operating results and certain portions of our business.

If we are not able to successfully compete in the highly competitive semiconductor industry, our financial results and future prospects will be adversely affected.

The semiconductor industry is intensely competitive and many of our direct and indirect competitors have substantially greater financial, technological, manufacturing, marketing and sales resources. The current level of

competition in the programmable logic market is high and may increase in the future. We currently compete directly with companies that have licensed our technology or have developed similar products, including Altera Corporation and Xilinx, Inc. We also compete with numerous semiconductor companies that offer products based on alternative solutions such as ASIC, ASSP, microcontroller, analog, and digital signal processing ("DSP") technologies. Competition from these semiconductor companies may intensify as we offer products in the Consumer end market. These competitors include established, multinational semiconductor companies as well as emerging companies. If we are unable to compete successfully in this environment, our future results may be adversely affected.

We depend upon a third party to provide inventory management, order fulfillment, and direct sales logistics and disruption of these services could adversely impact our business and results of operations.

We rely on a third party vendor to provide cost-effective and efficient supply chain services. Among other activities, these outsourced services relate to direct sales logistics, including order fulfillment, inventory management and warehousing,

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and distribution of inventory to third party distributors. If our third party supply chain partner were to discontinue services for us or its operations are disrupted as a result of a fire, earthquake, act of terrorism, political unrest, governmental uncertainty, war, disease or other natural disaster or catastrophic event, or any other reason, our ability to fulfill direct sales orders and distribute inventory timely, cost effectively, or at all, would be hindered, which could adversely affect our business.

We rely on independent software and hardware developers and disruption of these services could negatively affect our operations and financial results.

We rely on independent software and hardware developers for the design, development, supply and support of intellectual property cores, design and development software, and certain elements of evaluation boards. As a result, failure or significant delay to complete software or deliver hardware in accordance with our plans, specifications, and agreements could disrupt the release of or introduction of new or existing products, which could be detrimental to the capability of our new products to win designs. Any of these delays or inability to complete the design or development could have an adverse effect on our business, financial condition, or operating results.

We rely on information technology systems, and failure of these systems to function properly or our failure to control unauthorized access to our systems may cause business disruptions.

We rely in part on various information technology ("IT") systems to manage our operations, including financial reporting, and we regularly make changes to improve them as necessary. Consequently, we periodically implement new, or upgrade or enhance existing, operational and IT systems, procedures and controls. Any delay in the implementation of, or disruption in the transition to, new or enhanced systems, procedures or controls, could harm our ability to record and report financial and management information on a timely and accurate basis. These systems are also subject to power and telecommunication outages or other general system failures. Failure of our IT systems or difficulties in managing them could result in excessive cost or business disruption. We may also be subject to unauthorized access to our IT systems through a security breach or attack. In the past third parties have attempted to penetrate and or infect our network and systems with malicious software in an effort to gain access to our network and systems. We seek to prevent, detect and investigate any security incidents and prevent their recurrence, but in some cases, we might be unaware of an incident or its magnitude and effects. Our business could be significantly harmed and we could be subject to third party claims in the event of such a security breach.

We may have failed to adequately insure against certain risks, and, as a result, our financial condition and results may be adversely affected.

We carry insurance customary for companies in our industry, including, but not limited to, liability, property and casualty, workers' compensation and business interruption insurance. We also insure our employees for basic medical expenses. In addition, we have insurance contracts that provide director and officer liability coverage for our directors and officers. Other than the specific areas mentioned above, we are self-insured with respect to most other risks and exposures, and the insurance we carry in many cases is subject to a significant policy deductible or other limitation before coverage applies. Based on management's assessment and judgment, we have determined that it is more cost effective to self-insure against certain risks than to incur the insurance premium costs. The risks and exposures for which we self-insure include, but are not limited to, certain natural disasters, certain product defects, political risk, certain theft, patent infringement and employment practice matters. Should there be a catastrophic loss due to an uninsured event such as an earthquake or a loss due to adverse occurrences in any area in which we are self-insured, our financial condition or operating results could be adversely affected.

We compete with others to attract and retain key personnel, and any loss of, or inability to attract, such personnel would harm us.

We depend on the efforts and abilities of certain key members of management and other technical personnel. Our future success depends, in part, upon our ability to retain such personnel and attract and retain other highly qualified personnel, particularly product engineers. Competition for such personnel is intense and we may not be successful in hiring or retaining new or existing qualified personnel. From time to time we have effected restructurings which have eliminated a number of positions. Even if such personnel are not directly affected by the restructuring effort, such terminations can have a negative impact on morale and our ability to attract and hire new qualified personnel in the future. If we lose existing qualified personnel or are unable to hire new qualified personnel, as needed, our business, financial condition and results of operations could be seriously harmed.

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Acquisitions and strategic investments present risks, and we may not realize the goals that were contemplated at the time of a transaction.

During 2011, we acquired technology companies whose products or services complement our business, and in the past we have made a number of strategic investments in other technology companies whom we believe complement and improve our operational capabilities. We may make similar acquisitions and strategic investments in the future. Acquisitions and strategic investments present risks, including:

- our ongoing business may be disrupted and our management's attention may be diverted by investment, acquisition, transition or integration activities;
- an acquisition or strategic investment may not further our business strategy as we expected, and we may not integrate an acquired company or technology as successfully as we expected;
- our operating results or financial condition may be adversely impacted by unexpected costs, claims or liabilities that we assume from an acquired company or technology or that are otherwise related to an acquisition;
- we may have difficulty incorporating acquired technologies or products with our existing product lines;
- we may have higher than anticipated costs in continuing support and development of acquired products, in general and administrative functions that support such products;
- we may have difficulty integrating and retaining key personnel;
- our liquidity and/or capital structure may be adversely impacted;
- our strategic investments may not perform as expected; and
- we may experience unexpected changes in how we are required to account for our acquisitions and strategic investments pursuant to U.S. GAAP.

The occurrence of any of these risks could have a material adverse effect on our business, results of operations, financial condition or cash flows, particularly in the case of a larger acquisition or several concurrent acquisitions or strategic investments.

We cannot guarantee that we will be able to consummate any future acquisitions or that we will realize any anticipated benefits from any of our past or future acquisitions. We may not be able to find suitable acquisition opportunities that are available at attractive valuations, if at all. A sustained decline in the price of our common stock may make it more difficult and expensive to initiate or consummate additional acquisitions on commercially acceptable terms.

As a result of past acquisitions, as of December 28, 2013, we had $44.8 million in goodwill on our balance sheet. We are required under U.S. GAAP to test goodwill for possible impairment on an annual basis and at any other time that circumstances arise indicating the carrying value may not be recoverable. We completed our annual test of goodwill impairment in the fourth quarter of 2013 and concluded that we did not have any impairment at that time. There is no assurance that future impairment tests will indicate that goodwill will be deemed recoverable.

The conflict minerals provisions of the Dodd-Frank Wall Street Reform and Consumer Protection Act could result in additional costs and liabilities.

As part of the Dodd-Frank Wall Street Reform and Consumer Protection Act, the SEC established new disclosure and reporting requirements for those companies who use "conflict" minerals mined from the Democratic Republic of Congo and adjoining countries in their products, whether or not these products are manufactured by third parties. As these new requirements are implemented, they could affect the sourcing and availability of minerals used in the manufacture of our semiconductor products. There are also costs associated with complying with the disclosure requirements, including for due diligence in regard to the sources of any conflict minerals used in our products, in addition to the cost of any required remediation and other changes to products, processes, or sources of supply as a consequence of such verification activities. We are still in the process of complying with the new conflict minerals

rules and it may be several years before we can fully assess the internal and external cost of compliance of the effect the rules will have on our business.

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Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

Our corporate headquarters consists of land and 189,000 square feet of buildings we own in Hillsboro, Oregon. In Shanghai, China, we own an 18,869 square foot research and development facility and lease an additional 3,212 square foot research and development facility. We currently lease a 98,874 square foot research and development facility in San Jose, California through September 2026. In Alabang, Philippines, we lease a 17,114 square foot research and development facility through December 2016, an 8,648 square foot facility through May 2017, and a 2,933 square foot facility through April 2017. In addition, we lease a 2,323 square foot facility in Singapore through July 2014, primarily to support supply chain activities. We lease a 5,296 square foot research and development facility in Bangalore, India through October 2016. We also lease office facilities in multiple metropolitan locations for our domestic and international sales staff. We believe that our existing facilities are suitable and adequate for our current and foreseeable future needs.

Item 3. Legal Proceedings.

On June 11, 2007, a patent infringement lawsuit was filed by Lizy K. John (“John”) against us in the U.S. District Court for the Eastern District of Texas, Marshall Division. In the complaint, John seeks an injunction, unspecified damages, and attorneys' fees and expenses. We filed a request for re-examination of the patent by the U.S. Patent and Trademark Office (“PTO”), which was granted by the PTO. The litigation was stayed pending the results of the re-examination. After the re-examination concluded, the stay was lifted on January 1, 2012, and the lawsuit was transferred by consent of the parties to the Northern District of California. We also filed a request for a second re-examination of the patent, which was granted but is currently on appeal at the Patent Trial and Appeal Board. Discovery is open and proceeding. On February 14, 2014, the District Court held a claim construction hearing and a hearing on the Company's motion for summary judgment of invalidity. The court has not yet ruled on the issues raised at the hearings. Trial is scheduled for December 8, 2014. At this stage of the proceedings, we do not have an estimate of the likelihood or the amount of any potential exposure to us. We believe we possess defenses to these claims and intend to vigorously defend this litigation. It is reasonably possible that the actual losses may exceed our accrued liabilities, however, we cannot currently estimate such amount.

We are also exposed to certain other asserted and unasserted potential claims. There can be no assurance that, with respect to potential claims made against us, we could resolve such claims under terms and conditions that would not have a material adverse effect on our business, our liquidity or our financial results. Periodically, we review the status of each significant matter and assess its potential financial exposure. If the potential loss from any claim or legal proceeding is considered probable and a range of possible losses can be estimated, we then accrue a liability for the estimated loss based on the provisions of FASB ASC 450, “Contingencies" (“ASC 450”). Legal proceedings are subject to uncertainties, and the outcomes are difficult to predict. Because of such uncertainties, accruals are based only on the best information available at the time. As additional information becomes available, we reassess the potential liability related to pending claims and litigation and may revise estimates. Presently, no accrual has been estimated under ASC 450 for potential losses that may or may not arise from the current lawsuits in which we are involved.

Item 4. Mine Safety Disclosures

Not applicable.

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PART II.

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters & Issuer Purchases of Equity Securities.

Market Information

Our common stock is traded on the NASDAQ Global Select Market under the symbol LSCC. The following table sets forth the low and high intraday sale prices for our common stock for the last two fiscal years, as reported by NASDAQ.

	Low	High
2013:		
First Quarter	$3.82	$5.71
Second Quarter	4.50	5.50
Third Quarter	4.44	5.44
Fourth Quarter	4.17	5.77
2012:		
First Quarter	$5.92	$7.12
Second Quarter	3.49	6.60
Third Quarter	3.17	4.53
Fourth Quarter	3.46	4.38

Holders

As of March 7, 2014, we had approximately 309 stockholders of record.

Dividends

The payment of dividends on our common stock is within the discretion of our Board of Directors. We intend to retain earnings to finance the growth of our business. We have never paid cash dividends.

Recent Sales of Unregistered Securities (most recent quarter only)

None.

Issuer Purchases of Equity Securities (most recent quarter only)

Period	Total Number of Shares Purchased	Average Price paid Per Share	Total Number of Shares Purchased as Part of Publicly Announced Program	Maximum Dollar Value of Shares That May Yet Be Purchased Under the Program
September 29, 2013 through October 26, 2013	717,593	$4.48	717,593	$16,783,274
October 27, 2013 through November 23, 2013	112,120	$4.24	112,120	$16,307,411
November 24, 2013 through December 28, 2013	—		—	$16,307,411
	829,713	$4.45	829,713	

On February 27, 2013, our Board of Directors approved a stock repurchase program pursuant to which up to $20.0 million of outstanding common stock may be repurchased from time to time. The duration of the repurchase program was twelve months. Under this program during fiscal 2013, approximately 0.8 million shares were repurchased for $3.7 million all occurring in the fourth quarter. At December 28, 2013, we had approximately $16.3 million remaining under the approved program. The 2013 program was completed during February 2014.

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In February 2014, the Company's Board of Directors approved a stock repurchase program pursuant to which up to $20.0 million of outstanding common stock may be repurchased from time to time. The duration of the repurchase program is twelve months. All repurchases will be open market transactions funded from available working capital.

On February 24, 2012, the Company's Board of Directors approved a stock repurchase program pursuant to which up to $20.0 million of outstanding common stock may be repurchased from time to time. The duration of the repurchase program was twelve months. During fiscal 2012, approximately 4.1 million shares were repurchased at $17.5 million. The 2012 program was completed during the first quarter of fiscal 2013, with the repurchase of approximately 0.6 million shares for $2.5 million.

Comparison of Total Cumulative Stockholder Return

The following graph shows the five-year comparison of cumulative stockholder return on our common stock, the Standard and Poor's (“S&P”) 500 Index and the Philadelphia Semiconductor Index (“PHLX”) from December 2008 through December 2013. Cumulative stockholder return assumes $100 invested at the beginning of the period in our common stock, the S&P and PHLX. Historical stock price performance is not necessarily indicative of future stock price performance.

Lattice Cumulative Stockholder Return

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Item 6. Selected Financial Data.

	Year Ended				
	December 28, 2013	December 29, 2012	December 31, 2011	January 1, 2011	January 2, 2010
	(in thousands, except per share data)				
STATEMENT OF OPERATIONS DATA:					
Revenue	$332,525	$279,256	$318,366	$297,768	$194,420
Costs and expenses:					
Cost of products sold	154,281	128,499	129,769	117,943	90,077
Research and development	80,966	77,610	71,855	60,326	56,133
Selling, general and administrative	67,144	72,317	68,838	64,359	52,545
Acquisition related charges, including amortization of intangible assets	2,960	4,178	536	—	228
Restructuring charges	388	6,018	6,079	11	3,689
	305,739	288,622	277,077	242,639	202,672
Income (loss) from operations	26,786	(9,366)	41,289	55,129	(8,252)
Other (expense) income, net	(300)	505	1,434	2,474	1,812
Income (loss) before income taxes	26,486	(8,861)	42,723	57,603	(6,440)
Provision (benefit) for income taxes	4,165	20,745	(35,509)	531	517
Net Income (loss)	$22,321	$(29,606)	$78,232	$57,072	$(6,957)
Basic net income (loss) per share	$0.19	$(0.25)	$0.66	$0.49	$(0.06)
Diluted net income (loss) per share	$0.19	$(0.25)	$0.65	$0.48	$(0.06)
Shares used in per share calculations:					
Basic	115,701	117,194	117,875	116,726	115,384
Diluted	117,081	117,194	121,139	120,143	115,384

	At				
	December 28, 2013	December 29, 2012	December 31, 2011	January 1, 2011	January 2, 2010
	(in thousands)				
BALANCE SHEET DATA:					
Cash, cash equivalents and Short-term marketable securities	$215,815	$183,401	$210,134	$238,220	$164,540
Total assets	$447,876	$414,619	$453,784	$377,687	$296,557
Total liabilities	$62,196	$57,069	$60,223	$58,965	$43,197
Total stockholders' equity	$385,680	$357,550	$393,561	$318,722	$253,360

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ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Overview

Lattice Semiconductor Corporation (“Lattice,” the “Company,” “we,” “us,” or “our”) designs, develops and markets high performance programmable logic products and related software. Programmable logic products are widely used semiconductor components that can be configured by end customers as specific logic circuits, enabling shorter design cycle times and reduced development costs. Our end customers are primarily original equipment manufacturers (“OEMs”) in the communications, consumer, industrial, scientific and medical, and computing end markets. There are two main categories of programmable logic devices: field programmable gate arrays (“FPGAs”) and conventional programmable logic devices (“PLDs”), each representing distinctly different silicon architectural approaches. Products based on the two alternative programmable logic architectures are generally optimal for different types of logic functions, although many logic functions can be implemented using either architecture. We believe that a substantial portion of programmable logic customers utilize both PLD and FPGA architectures.

Critical Accounting Policies and Estimates

Critical accounting policies are those that are both most important to the portrayal of a company's financial condition and results, and require management's most difficult, subjective and complex judgments, often as a result of the need to make estimates about the effect of matters that are inherently uncertain. A description of our critical accounting policies follows.

Use of Estimates. The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts and classification of assets, such as marketable securities, accounts receivable, inventory, auction rate securities, goodwill (including the assessment of reporting unit), intangible assets, current and deferred income taxes, accrued liabilities (including restructuring charges and bonus arrangements), deferred income and allowances on sales to sell-through distributors, disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the fiscal periods presented. Actual results could differ from those estimates.

Revenue Recognition and Deferred Income. We sell our products directly to end customers or through a network of independent manufacturers' representatives and indirectly through a network of independent sell-in and sell-through distributors. Distributors provide periodic data regarding the product, price, quantity, and end customer when products are resold, as well as the quantities of our products they still have in stock.

Revenue from sales to OEMs and sell-in distributors is recognized upon shipment. Revenue from sales by our sell-through distributors is recognized at the time of reported resale. Under both types of revenue recognition, persuasive evidence of an arrangement exists, the price is fixed or determinable, title has transferred, collection of resulting receivables is reasonably assured, and there are no remaining customer acceptance requirements and no remaining significant performance obligations.

Orders from our sell-through distributors are initially recorded at published list prices; however, for a majority of our sales, the final selling price is determined at the time of resale and in accordance with a distributor price agreement. In certain circumstances, we allow sell-through distributors to return unsold products. At times, we protect our sell-through distributors against reductions in published list prices. For these reasons, we do not recognize revenue until products are resold by sell-through distributors to an end customer.

For sell-through distributors, at the time of shipment to distributors, we (a) record Accounts receivable at published list price since there is a legally enforceable obligation from the distributor to pay us currently for product delivered, (b) relieve inventory for the carrying value of goods shipped since legal title has passed to the distributor, and (c) record deferred revenue and deferred cost of sales in Deferred income and allowances on sales to sell-through distributors in the liability section of our Consolidated Balance Sheets. The final price is set at the time of resale and is determined in accordance with a distributor price agreement. Revenue and cost of products sold to sell-through distributors are deferred until either the product is resold by the distributor or, in certain cases, return privileges terminate, at which time Revenue and Cost of products sold are reflected in Net Income (loss), and Accounts receivable are adjusted to reflect the final selling price.

We must use estimates and apply judgment to reconcile sell-through distributors' reported inventories to their activities. Errors in our estimates or judgments could result in inaccurate reporting of our Revenue, Cost of products sold, Deferred income and allowances on sales to sell-through distributors, and Net Income (loss).

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Fair Value of Financial Instruments. We invest in various financial instruments including corporate and government bonds, notes, commercial paper and auction rate securities. The Company values these instruments at their fair value and monitors their portfolio for impairment on a periodic basis. In the event that the carrying value of an investment exceeds its fair value and the decline in value is determined to be other than temporary, the Company records an impairment charge and establishes a new carrying value. We assess other-than-temporary impairment of marketable securities in accordance with Financial Accounting Standards Board (“FASB”) Accounting Standards Codification (“ASC”) 820, “Fair Value Measurements and Disclosures.” The framework under the provisions of ASC 820 establishes three levels of inputs that may be used to measure fair value. Each level of input has different levels of subjectivity and difficulty involved in determining fair value.

Level 1 instruments are characterized generally by quoted prices for identical assets or liabilities in active markets. Therefore, determining fair value for Level 1 instruments generally does not require significant management judgment, and the estimation is not difficult.

Level 2 instruments include inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities; quoted prices for identical instruments in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3 instruments include unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities. Our auction rate securities are classified as Level 3 instruments. Management uses a combination of the market and income approach to derive the fair value of auction rate securities, which includes third party valuation results, investment broker provided market information and available information on the credit quality of the underlying collateral. As a result, the determination of fair value for Level 3 instruments requires significant management judgment and subjectivity. Our Level 3 instruments are classified as Long-term marketable securities on our Consolidated Balance Sheets and are entirely made up of auction rate securities that consist of student loan asset-backed notes. Such loans are insured by the federal government or guaranteed by the Federal Family Educational Loan Program ("FFELP"). Fair value measurement may be sensitive to various unobservable inputs such as the ability of students to repay their loans, or change in the provision of government guarantees policy toward guaranteeing loan repayment. If students are unable to pay back their loans or the government changes its policy, our investments may be further impaired.

Inventory. Inventories are recorded at the lower of actual cost (approximated by standard cost) determined on a first-in-first-out basis or market. We establish provisions for inventory if it is obsolete or we hold quantities which are in excess of projected customer demand. The creation of such provisions results in a write-down of inventory to net realizable value and a charge to cost of products sold.

Asset Impairments. Long-lived assets, including amortizable intangible assets, are carried on our financial statements based on their cost less accumulated depreciation or amortization. We monitor the carrying value of our long-lived assets for potential impairment and test the recoverability of such assets whenever events or changes in circumstances indicate that their carrying amounts may not be recoverable. These events or changes in circumstances, including management decisions pertaining to such assets, are referred to as impairment indicators. If an impairment indicator occurs, we perform a test of recoverability by comparing the carrying value of the asset group to its undiscounted expected future cash flows. If the carrying values are in excess of undiscounted expected future cash flows, we measure any impairment by comparing the fair value of the asset group to its carrying value. Fair value is generally determined by considering (i) internally developed discounted projected cash flow analysis of the asset group; (ii) actual third-party valuations; and/or (iii) information available regarding the current market for similar asset groups. If the fair value of the asset group is determined to be less than the carrying amount of the asset group, an impairment in the amount of the difference is recorded in the period that the impairment indicator occurs and is included in our

Consolidated Statement of Operations. Estimating future cash flows requires significant judgment and projections may vary from the cash flows eventually realized, which could impact our ability to accurately assess whether an asset has been impaired. No impairment charges were recorded for the fiscal year ended 2013.

Valuation of Goodwill. Goodwill is an asset representing the future economic benefits arising from other assets acquired in a business combination that are not individually identified and separately recognized. We review goodwill for impairment annually during the fourth quarter and whenever events or changes in circumstances indicate the carrying value of goodwill may not be recoverable. When evaluating whether goodwill is impaired, the Company makes a qualitative assessment to determine if it is more likely than not that its fair value is less than its carrying amount. If the qualitative assessment determines that it is more likely than not that its fair value is less than its carrying amount, the fair value of the reporting unit is compared with its carrying value (including goodwill). If the fair value of the reporting unit is less than its carrying value, an indication of goodwill impairment exists for the reporting unit and the Company must measure the impairment loss. The impairment loss, if any, is recognized for any excess of the carrying amount of the reporting unit's goodwill over the implied fair value of the goodwill. The implied fair value of goodwill is determined by allocating the fair value of the reporting unit in a manner similar

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to purchase price allocation and the residual fair value after this allocation is the implied fair value of the reporting unit goodwill. Fair value of the reporting unit is determined using a discounted cash flow analysis. If the fair value of the reporting unit exceeds its carrying value, no further impairment analysis is needed. For purposes of testing goodwill for impairment, the Company operates as a single reporting unit. No goodwill impairment charges were recorded for the fiscal year ended 2013.

Restructuring Charges. Expenses associated with exit or disposal activities are recognized when incurred under ASC 420, “Exit or Disposal Cost Obligations.” However, because we have a history of paying severance benefits, the cost of severance benefits associated with a restructuring charge is recorded when such costs are probable and the amount can be reasonably estimated in accordance with ASC 712, “Compensation - Nonretirement Postemployment Benefits.” When leased facilities are vacated, an amount equal to the total future lease obligations from the date of vacating the premises through the expiration of the lease, net of estimated sublease income, is recorded as a part of restructuring charges.

Accounting for Income Taxes. Our provision for income tax is comprised of our current tax liability and changes in deferred tax assets and liabilities. Deferred tax assets and liabilities are recognized for the expected tax consequences of temporary differences between the tax bases of assets and liabilities and their reported amounts in the financial statements using enacted tax rates and laws that will be in effect when the difference is expected to reverse. Valuation allowances are provided to reduce deferred tax assets to an amount that in management’s judgment is more-likely-than-not to be recoverable against future taxable income. At December 28, 2013, U.S. income taxes were not provided on approximately $3.4 million of the undistributed earnings of our Chinese subsidiary. We intend to reinvest these earnings indefinitely. If these earnings were distributed to the U.S. in the form of dividends or otherwise, we would be subject to additional U.S. income taxes.

Our income tax calculations are based on application of the respective U.S. federal, state or foreign tax law. The Company’s tax filings, however, are subject to audit by the relevant tax authorities. Accordingly, we recognize tax liabilities based upon our estimate of whether, and the extent to which, additional taxes will be due when such estimates are more-likely-than-not to be sustained. An uncertain income tax position will not be recognized if it has less than a 50% likelihood of being sustained. To the extent the final tax liabilities are different than the amounts originally accrued, the increases or decreases are recorded as income tax expense or benefit in the Consolidated Statements of Operations.

In assessing the realizability of deferred tax assets, we evaluate both positive and negative evidence that may exist and consider whether it is more-likely-than-not that some portion or all of the deferred tax assets will be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible.

Any adjustment to the net deferred tax asset valuation allowance is recorded in the Consolidated Statements of Operations in the period that the adjustment is determined to be required.

Stock-Based Compensation. We use the Black-Scholes option pricing model to estimate the fair value of substantially all share-based awards consistent with the provisions of ASC 718, “Compensation - Stock Compensation.” Option pricing models, including the Black-Scholes model, require the use of input assumptions, including expected volatility, expected term, expected dividend rate, and expected risk-free rate of return. The assumptions for expected volatility and expected term most significantly affect the grant date fair value.

Restricted stock unit grants are part of the Company's equity compensation practices for employees who receive equity grants. The restricted stock units granted to employees generally vest quarterly over a four-year period beginning on the grant date.

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Results of operations

Key elements of our Consolidated Statements of Operations were as follows (dollars in thousands):

	Year Ended December 28, 2013			December 29, 2012			December 31, 2011		
Revenue	$332,525	100.0	%	$279,256	100.0	%	$318,366	100.0	%
Gross margin	178,244	53.6		150,757	54.0		188,597	59.2	
Research and development	80,966	24.3		77,610	27.8		71,855	22.6	
Selling, general and administrative	67,144	20.2		72,317	25.9		68,838	21.6	
Acquisition related charges, including amortization of intangible assets	2,960	0.9		4,178	1.5		536	0.2	
Restructuring charges	388	0.1		6,018	2.2		6,079	1.9	
Income (loss) from operations	$26,786	8.1	%	$(9,366)	(3.4)	%	$41,289	13.0	%

Revenue

	Year Ended			% Change in	
	December 28, 2013	December 29, 2012	December 31, 2011	2013	2012
Revenue	$332,525	$279,256	$318,366	19	(12)

Revenue increased $53.3 million or 19% in fiscal 2013 compared to fiscal 2012 primarily driven by volume increases in our iCE40 product line, which was led by increased revenue from a major OEM in the Consumer end market and certain of our ECP3 products in the Communications end market, which resulted largely from increased China telecommunications infrastructure build out. These increases were partially offset by reduced volume of end-of-life mature products, relatively weak macroeconomic factors, and a migration to our newer technologies affecting the Computing and Industrial, Scientific and Medical end markets.

One Consumer end market customer, accounted for 22% of total revenue in 2013. No other individual end customer accounted for more than 10% of total revenue in the fiscal years 2013, 2012 and 2011.

Revenue declined $39.1 million or 12% in fiscal 2012 compared to fiscal 2011 principally due to macroeconomic weakness affecting the Communications and Computing end markets and declines in our military business, a component of our Industrial, Scientific and Medical end market. These declines were partially offset by strength in our New products, principally in the Consumer end market led by incremental revenue generated by our iCE40 product line.

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Revenue by End Market

The following end market data is derived from data that is provided to us by our distributors and end customers. With a diverse base of customers who in some cases manufacture end products spanning multiple end markets, the assignment of revenue to a specific end market requires the use of estimates and judgment. Therefore, actual results may differ from those reported.

The composition of our revenue by end market for fiscal years 2013, 2012 and 2011 was as follows (dollars in thousands):

	Year Ended								% Change in	
	December 28, 2013		December 29, 2012		December 31, 2011		2013	2012		
Communications	$126,566	38 %	$116,668	42 %	$130,849	41 %	8	(11)		
Consumer	99,569	30	35,612	13	29,183	9	180	22		
Industrial, Scientific and Medical	76,423	23	$89,265	32	110,668	35	(14)	(19)		
Computing	29,967	9	37,711	13	47,666	15	(21)	(21)		
Total revenue	$332,525	100 %	$279,256	100 %	$318,366	100 %	19	(12)		

Our revenue in the Communications end market is largely dependent on a small number of large telecommunications equipment providers. For fiscal 2013, Communications end market revenue increased 8% primarily driven by demand to support the telecommunications infrastructure build out in China. Revenue in the Communications end market was down 11% when comparing fiscal 2012 to fiscal 2011, driven primarily by macroeconomic weakness adversely impacting telecommunications infrastructure investments.

Consumer end market revenue increased 180% in fiscal 2013 and 22% in fiscal 2012. Consumer market revenue increased in fiscal 2013 due in large part to the strong volume growth of our iCE40 product at a major OEM. For 2012, the increased Consumer market revenue was driven primarily by volume increase resulting from proliferation of more consumer products and a concentrated focus by the Company to penetrate this market.

For fiscal 2013, the Industrial, Scientific and Medical end market experienced a revenue decline of 14% when compared to fiscal 2012. This decrease was primarily due to reduced sales volume of end-of-life mature products. For fiscal 2012, revenue decreased 19% when compared to fiscal 2011. This decline was primarily due to volume declines in our military business.

For each of fiscal 2013 and 2012 revenue for the Computing end market declined 21%. For both years, the declines are primarily due to reduced volume driven by macroeconomic factors.

Revenue by Product Classification

The composition of our revenue by product classification for fiscal years 2013, 2012 and 2011 was as follows (dollars in thousands):

	Year Ended								% Change in	
	December 28, 2013		December 29, 2012		December 31, 2011		2013	2012		
New *	$152,355	46 %	$62,304	22 %	$34,668	11 %	145	80		
Mainstream *	143,105	43	154,733	56	187,560	59	(8)	(18)		
Mature *	37,065	11	62,219	22	96,138	30	(40)	(35)		

Total revenue	$332,525	100	%	$279,256	100	%	$318,366	100	%	19	(12)

Revenue for New products increased 145% in fiscal 2013. Revenue for New products increased 80% in fiscal 2012. In both years, New product revenue increased primarily due to strong volume ramping of certain New products, principally to customers in the Consumer and Communications end markets, and a general migration of customers to New products from our Mainstream and Mature products.

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Revenue for Mainstream products decreased 8% in fiscal 2013 when compared to fiscal 2012. Revenue for Mainstream products decreased 18% in fiscal 2012. In both years, Mainstream product revenue declined due primarily to macroeconomic factors affecting the Industrial, Scientific and Medical and Computing end markets as well as reduced volume as customers migrated to newer technology.

Mature product revenue decreased 40% in fiscal 2013 and 35% in fiscal 2012 when compared to fiscal 2012 and 2011, respectively. In both years Mature product revenue decreased primarily due to lower sales volumes as customers migrated to our newer technology and a decline in the sales volume of late life-cycle products in the Computing and Industrial, Scientific and Medical end markets.

* Product Classifications:

New:	MachXO3, LatticeECP3, MachXO2, Power Manager II, and iCE40
Mainstream:	ispMACH 4000ZE, ispMACH 4000/Z, LatticeSC, LatticeECP2/M, LatticeXP2, MachXO, ispClock A/D/S, Software and IP
Mature:	ispXPLD, ispXPGA, FPSC, ORCA 2, ORCA 3, ORCA 4, ispPAC, isplsi 8000V, ispMACH 5000B, ispMACH 2LV, ispMACH 5LV, ispLSI 2000V, ispLSI 5000V, ispMACH 5000VG, all 5-volt CPLDs, ispGDX2, GDX/V, ispMACH 4/LV, iCE65, ispClock, Power Manager I, all SPLDs, LatticeECP, LatticeXP

* Product categories are modified as appropriate relative to our portfolio of products and the generation within each major product family. New products consist of our latest generation of products, while Mainstream and Mature are older or based on unique late stage customer-based production needs. Generally, product categories are adjusted every two to three years, at which time prior periods are reclassified to conform to the new categorization. In the first fiscal quarter of 2012 we reclassified our New, Mainstream and Mature product categories to better reflect our current product portfolio.

Revenue by Geography

We assign revenue to geographies based on customer ship-to address at the point where revenue is recognized. In the case of sell-in distributors and OEM customers, revenue is typically recognized, and geography is assigned, when products are shipped. In the case of sell-through distributors, revenue is recognized when resale to the end customer occurs and geography is assigned based on the end customer location on the resale reports provided by the distributor. Both foreign and domestic sales are denominated in U.S. dollars, with the exception of sales in Japan, where sales to certain customers are denominated in yen.

The composition of our revenue by geography, based on ship-to location, is as follows (dollars in thousands):

	Year Ended								% Change in	
	December 28, 2013		December 29, 2012		December 31, 2011		2013	2012		
Asia	$245,689	74 %	$189,811	68 %	$201,118	63 %	29	(6)
Europe	47,459	14	48,202	17	66,319	21	(2)	(27)
Americas	39,377	12	41,243	15	50,929	16	(5)	(19)
Total revenue	$332,525	100 %	$279,256	100 %	$318,366	100 %	19	(12)

Revenue increased 29% in Asia in fiscal 2013, due primarily to strong volume growth of New products in the Consumer and Communications end markets. In fiscal 2012, revenue in Asia fell 6% due to relative weakness in the Communications end market. We believe the Asia Pacific region will remain the primary source of our revenue due to relatively more favorable business conditions in Asia and a continuing trend towards the migration of manufacturing

by North American and European customers to the Asia Pacific region. Revenue declines in Europe and Americas of 2% and 5%, respectively, in fiscal 2013 are due largely to macroeconomic weakness in those regions.

Revenue from foreign sales as a percentage of total revenue were 91%, 88%. and 86% for fiscal 2013, 2012, and 2011, respectively.

Revenue by Distributors

Our largest customers are often distributors and sales through distributors have historically made up a significant portion of our total revenue. Revenue attributable to resales of products by our primary sell-through distributors are as follows:

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	% of Total Revenue		
	2013	2012	2011
Arrow Electronics Inc. (including Nu Horizons Electronics)	25 %	33 %	22 %
Weikeng Group	12	14	14
All others	8	8	25
All sell-through distributors	45 %	55 %	61 %

Revenue from sell-through distributors as a percent of total revenue has declined in 2013 and 2012 due primarily to increased sales directly to end customers.

In fiscal 2011, our global franchise agreement with Avnet terminated; however, we had mutually agreed to terms for the transition of inventory through December 31, 2011. Revenue from Avnet made up approximately 20% of our total revenue for the first nine months of fiscal 2011. Because we and our remaining global and regional distributors worked directly with our end customers in order to transition the fulfillment of customer orders to replacement distributors, the impact on our business as a result of this change was negligible. We continue to serve our end customers with a network that includes a global distributor, regional distributors, manufacturer's representatives, and our direct sales team.

Gross Margin

The composition of our gross margin, including as a percentage of revenue, for fiscal years 2013, 2012 and 2011 was as follows (dollars in thousands):

	Year Ended		
	December 28, 2013	December 29, 2012	December 31, 2011
Gross margin	$178,244	$150,757	$188,597
Percentage of revenue	53.6 %	54.0 %	59.2 %

In fiscal 2013, gross margin declined 0.4% as compared to fiscal 2012. Less favorable product and customer mix combined to reduce our gross margins during 2013 as we saw increased revenue of New products in both the Consumer and Communications end markets. We expect that product and customer mix as well as downward pressure on average selling price will continue to affect our gross margin in the future. The adverse effect of the mix driven margin decline in 2013 was substantially offset by product cost improvements, reduced expense from excess and obsolete inventory and, to a lesser extent, more sell-through of fully reserved inventory. The 2013 product cost improvements were driven primarily by higher volume manufacturing. If we are unable to realize additional or sufficient product cost reductions in the future, we may experience degradation in our gross margin.

In fiscal 2012, gross margin declined 5.2% percentage points as compared to fiscal 2011. This decline was due primarily to a decline in revenue from Mature and Mainstream products. Mature and Mainstream products typically yield a higher gross margin than New products. A net increase to reserves for excess and obsolete inventory slightly reduced fiscal 2012 gross margin. Degradation in gross margin due to product and customer mix was partially offset by product cost reductions realized primarily in the second half of the year.

Operating Expenses

Research and development expense

The composition of our research and development expenses, including as a percentage of revenue, for fiscal years 2013, 2012 and 2011 was as follows (dollars in thousands):

Year Ended	% Change in

	December 28, 2013		December 29, 2012		December 31, 2011		2013		2012	
Research and development	$80,966		$77,610		$71,855		4.3	%	8.0	%
Percentage of revenue	24.3	%	27.8	%	22.6	%				

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Research and development expenses include costs for compensation and benefits, development masks, engineering wafers, depreciation, licenses, and outside engineering services. These expenditures are for the design of new products, intellectual property cores, processes, packaging, and software to support new products.

We believe that a continued commitment to research and development is essential to maintain product leadership and provide innovative new product offerings, and therefore we expect to continue to make significant future investments in research and development.

The increase in expense in fiscal 2013, compared to fiscal 2012, was primarily due to increased variable compensation, facility costs and mask costs. More than 60% of these increases were offset by lower compensation expense, a reduction in depreciation, and reduced use of outside engineering services.

The increase in fiscal 2012, compared to fiscal 2011, was primarily due to increased compensation and benefits due to additional headcount, project-based outside engineering services, and depreciation and amortization. Approximately 40% of these increases were offset by reductions in mask costs and variable compensation.

Selling, general, and administrative expense

The composition of our selling, general and administrative expenses, including as a percentage of revenue, for fiscal years 2013, 2012 and 2011 was as follows (dollars in thousands):

	Year Ended			% Change in	
	December 28, 2013	December 29, 2012	December 31, 2011	2013	2012
Selling, general and administrative	$67,144	$72,317	$68,838	(7.2)%	5.1 %
Percentage of revenue	20.2 %	25.9 %	21.6 %		

Selling, general, and administrative expenses include costs for compensation and benefits related to selling, general, and administrative employees, commissions, depreciation, professional services and travel expenses.

The decrease in expense in fiscal 2013 compared to fiscal 2012 was primarily due to a lower compensation expense as a result of reduced headcount and lower legal and professional service expense, approximately 50% offset by an increase in variable compensation.

The increase in fiscal 2012 compared to fiscal 2011 was primarily due to increased severance, stock compensation expense, and legal and professional services. These increases were partially offset by lower commissions as a result of reduced revenue. Fiscal 2012 also had increased costs due to additional headcount associated with the December 2011 acquisition of SiliconBlue, which were entirely offset by reductions in variable compensation.

Acquisition related charges, including amortization of intangible assets

The composition of our acquisition related charges, including as a percentage of revenue, for fiscal years 2013, 2012 and 2011 was as follows (dollars in thousands):

	Year Ended			% Change in	
	December 28, 2013	December 29, 2012	December 31, 2011	2013	2012
Acquisition related charges, including amortization of	$2,960	$4,178	$536	(29.2)%	679.5 %

intangible assets						
Percentage of revenue	0.9	%	1.5	%	0.2	%

Acquisition related charges includes severance and professional fees directly related to acquisitions, as well as the amortization of the stepped up value of inventory and amortization of identifiable intangible assets with finite useful lives associated with our 2011 acquisition of SiliconBlue.

The fiscal 2013 charges consist solely of amortization of intangible assets.

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The fiscal 2012 charges include $2.9 million in amortization of intangibles assets, along with amortization of stepped up value of inventory, professional fees, and severance costs.

Restructuring charges

The composition of our restructuring charges, including as a percentage of revenue, for fiscal years 2013, 2012 and 2011 was as follows (dollars in thousands):

	Year Ended			% Change in	
	December 28, 2013	December 29, 2012	December 31, 2011	2013	2012
Restructuring charges	$388	$6,018	$6,079	(93.6)%	(1.0)%
Percentage of revenue	0.1%	2.2%	1.9%		

On October 12, 2012, our Board of Directors adopted the 2012 restructuring plan. In connection with this restructuring plan, we reduced our headcount by approximately 110 employees and eliminated certain sites, including our sites in Pennsylvania and Illinois.

For fiscal 2013, restructuring charges primarily relate to severance and changes in lease termination costs associated with the 2012 restructuring plan. The 2012 restructuring plan was substantially completed in the first quarter of 2013.

For fiscal 2012, restructuring charges primarily related to severance and lease termination costs associated with the 2012 restructuring plan.

We also implemented a restructuring plan during fiscal 2011 and the resultant restructuring charges approximated $7.0 million primarily related to severance, offset by approximately $1.0 million benefit due primarily to the re-occupancy of a previously restructured leased facility.

Other (expense) income, net

The composition of our other (expense) income, net, including as a percentage of revenue, for fiscal years 2013, 2012 and 2011 was as follows (dollars in thousands):

	Year Ended			% Change in	
	December 28, 2013	December 29, 2012	December 31, 2011	2013	2012
Other (expense) income, net	$(300)	$505	$1,434	(159.4)%	(64.8)%
Percentage of revenue	(0.1)%	0.2%	0.5%		

The decrease in Other (expense) income, net, in fiscal 2013, as compared to fiscal 2012 resulted primarily from higher losses on the sale of marketable securities and higher foreign exchange losses in fiscal 2013.

The decrease in Other (expense) income, net, in fiscal 2012, as compared to fiscal 2011 resulted primarily from lower investment income and higher foreign exchange losses in fiscal 2012.

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Income taxes

The composition of our income taxes for fiscal years 2013, 2012 and 2011 was as follows (dollars in thousands):

	Year Ended		
	December 28, 2013	December 29, 2012	December 31, 2011
Provision (benefit) for income taxes	$4,165	$20,745	$(35,509)

On December 31, 2011, we began to implement a global tax structure to more effectively align the Company's corporate structure with the geographic business operations including responsibility for sales and manufacturing activities. As part of this tax restructuring, we created new and realigned existing legal entities, completed intercompany sales of rights to intellectual property, inventory and fixed assets across different tax jurisdictions, and implemented cost-sharing and intellectual property licensing and royalty agreements between our U.S. and foreign entities. The intercompany sale of rights to intellectual property resulted in a gain for tax purposes, for which we recorded a $76.8 million tax provision in the fourth quarter of fiscal 2011 which was fully offset by the release of a portion of valuation allowance on deferred tax assets.

Also during the fourth quarter of 2011, we concluded that it was more-likely-than-not that we would be able to realize the benefit of a portion of our remaining deferred tax assets, resulting in a tax benefit of $35.2 million. We based this conclusion on improved operating results over the previous two years and our expectations about generating taxable income in the foreseeable future. We exercised significant judgment and considered estimates about our ability to generate revenue, gross profits, operating income and taxable income in future periods under our new tax structure in reaching this decision.

Implementation of the global tax structure was completed during the first quarter of 2012 upon the intercompany sale of inventory and fixed assets. During 2012, this inventory was sold to end customers in the ordinary course of business resulting in income before taxes in the United States and a loss before taxes in certain foreign jurisdictions. Because these foreign jurisdictions have 0% income tax rates, we received no tax benefit associated with the losses resulting in a significant foreign rate differential. Taxes have been applied to the gain on sale based on U.S. statutory rates, offset by deferred tax assets. This resulted in an increase to the effective tax rate and a net income tax provision of $13.7 million during 2012.

We are not currently paying federal income taxes and do not expect to pay such taxes until the benefits of our tax net operating loss and credit carryforwards are fully utilized. We expect to pay a nominal amount of state income tax. We accrue interest and penalties related to uncertain tax positions in the provision for income taxes. We are paying foreign income taxes, which are primarily related to the cost of operating offshore research and development, marketing and sales subsidiaries.

The inherent uncertainties related to the geographical distribution and relative level of profitability among various high and low tax jurisdictions make it difficult to estimate the impact of the global tax structure on our future effective tax rate.

Liquidity and Capital Resources

The following sections discuss the effect of changes in our balance sheets, as well as the effects of our contractual obligations, other commitments, and the stock repurchase program on our liquidity and capital resources.

We classify our marketable securities as short-term based on their nature and availability for use in current operations. The overall quality of our portfolio is strong, with our cash equivalents and short-term marketable securities consisting primarily of high quality, investment-grade securities. Our strong cash, cash equivalent and short-term marketable securities positions allows us to use our cash resources for acquisitions, working capital needs, and repurchases of common stock.

We have historically financed our operating and capital resource requirements through cash flows from operations. Cash provided by operating activities will fluctuate from period to period due to fluctuations in operating results, the timing and collection of accounts receivable, and required inventory levels, among other things.

We believe that our financial resources will be sufficient to meet our working capital needs through the next 12 months. As of December 28, 2013, we have no long-term debt and do not have significant long-term commitments for capital expenditures. In the future, we may consider acquisition opportunities to extend our product or technology portfolios and to expand our product offerings. In connection with funding capital expenditures, completing acquisitions, securing additional wafer supply, or increasing our working capital, we may seek to obtain debt or equity financing, or advance purchase payments

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or similar arrangements with wafer manufacturers. We may also need to obtain debt or equity financing if we experience downturns or cyclical fluctuations in our business that are more severe or longer than we anticipated when determining our current working capital needs.

Liquidity

Cash and cash equivalents, Short-term and Long-term investments (dollars in thousands):

	December 28, 2013	December 29, 2012	$ change
Cash and cash equivalents	$114,310	$118,536	$(4,226)
Short-term marketable securities	101,505	64,865	36,640
Long-term marketable securities	5,241	4,717	524
Total Cash and cash equivalents, short-term and long-term marketable securities	$221,056	$188,118	$32,938

As of December 28, 2013, we had total Cash and cash equivalents of $114.3 million, of which approximately $21.7 million was held by our foreign subsidiaries. We manage our global cash requirements considering (i) available funds among the subsidiaries through which we conduct business, (ii) the geographic location of our liquidity needs, and (iii) the cost to access international cash balances. The repatriation of non-U.S. earnings may have adverse tax consequences as we may be required to pay and record income tax expense on those funds to the extent they were previously considered permanently reinvested. As of December 28, 2013, we could access all cash held by our foreign subsidiaries without incurring significant additional expense.

The increase in Cash and cash equivalents, and short-term investments of $32.4 million as compared to December 29, 2012, was primarily the result of cash provided by operations of $56.5 million offset by cash used for capital expenditures of $12.5 million and share repurchases of $6.2 million.

At December 28, 2013, Long-term investments consisted of auction rate securities with par value of $5.7 million and an estimated fair value of $5.2 million. Due to continued multiple failed auctions and the resultant illiquidity of these investments, we have classified our investment in auction rate securities as long-term. We intend to sell the auction rate securities as markets for these securities resume or reasonable offers become available. During 2012, we redeemed auction rate securities at a par value of $2.6 million and an estimated fair value of $2.3 million.

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Accounts receivable, net (dollars in thousands):

	December 28, 2013	December 29, 2012	Change
Accounts receivable, net	$50,085	$46,947	$3,138
Days sales outstanding	50	64	(14)

Accounts receivable, net increased $3.1 million or 7% as of December 28, 2013 compared to December 29, 2012 due primarily to the increase in revenue in the fourth quarter of fiscal 2013 compared to the fourth quarter of fiscal 2012. As a result, days sales outstanding at December 28, 2013 was 50 days, a decrease of 14 days from 64 days at December 29, 2012.

Inventories (dollars in thousands):

	December 28, 2013	December 29, 2012	Change
Inventories	$46,222	$44,194	$2,028
Months of inventory on hand	3.4	4.4	(1)

Inventory increased $2.0 million or 5% as of December 28, 2013 compared to December 29, 2012 primarily due to inventory builds in anticipation of certain end-of-life orders and increased inventory of products related to specific future demand. As a result of increased revenue in the fourth quarter of fiscal 2013 compared to the fourth quarter of fiscal 2012, months of inventory on hand decreased from 4.4 months in 2012 to 3.4 months in 2013.

Share Repurchase Program

During 2013, we repurchased approximately 0.8 million shares for $3.7 million under the share repurchase program approved by the Board of Directors in February 2013. This program approved the repurchase of up to $20.0 million in outstanding common stock. The duration of the repurchase program was twelve months. As of December 28, 2013 approximately $16.3 million remained available under the 2013 stock repurchase program. All shares repurchased under this program were retired by December 28, 2013. We expect that all future repurchases will be open market transactions funded from available working capital.

During 2013, we also repurchased approximately 0.6 million shares for $2.5 million under the share repurchase program approved by the Board of Directors in February 2012. This program approved the repurchase of up to $20 million in outstanding stock over a 12 month period ending in February 2013. All shares repurchased under the 2012 program, in 2013, were retired by the end of the first quarter of 2013 and were open market transactions funded from available working capital.

Credit Arrangements

As of December 28, 2013, we had no long-term debt, no significant long-term purchase commitments for capital expenditures, and no existing used or unused credit arrangements.

Contractual Obligations

The following table summarizes our significant contractual cash obligations at December 28, 2013 (in thousands):

Fiscal year	Operating leases(1)	Purchase order obligations(2)
2014	$3,408	$110,630
2015	2,933	—
2016	2,769	—

2017	2,469	—
2018	2,440	—
Thereafter	21,166	—
	$35,185	$110,630

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(1) Certain of our facilities and equipment are leased under operating leases, which expire at various times through 2026.

(2) This column excludes amounts already recorded on our Consolidated Balance Sheet as current or long-term liabilities at December 28, 2013

We also have other liabilities of $22.6 million relating to uncertain tax positions. However, as we are unable to reliably estimate the timing of future payments related to uncertain tax positions, we have excluded this amount from the table above.

Our significant operating leases are for our facilities in San Jose, California; Shanghai, China and Manila, Philippines. In January 2013 we entered into a lease of new facilities in San Jose, California which expires in September 2026. Annual rental costs are estimated at $2.3 million with 3% annual increases. We commenced operations at that facility during the second quarter of fiscal 2013. Our lease in Shanghai expires in October 2014, with remaining rental costs estimated to be $0.1 million. Our leases in Alabang expire in December 2016, April 2017 and May 2017, with total annual rental costs estimated to be $0.4 million with 5% annual increases. Leasehold improvements are amortized over the shorter of the non-cancelable lease term or the estimated useful life of the assets.

New Accounting Pronouncements

In June 2013, the Emerging Issues Task Force reached consensus on ASU 2013-11 Presentation of an Unrecognized Tax Benefit When a Net Operating Loss Carryforward, a Similar Tax Loss, or a Tax Credit Carryforward Exists. The consensus requires companies to present the unrecognized tax benefit as a reduction of the Deferred tax asset for a Net Operating Loss ("NOL") or similar tax loss, or tax credit carryforward rather than as a liability when the uncertain tax position would reduce the NOL or other carryforward under the tax law. We adopted this requirement in June 2013 with retrospective application as permitted by the standard. Amounts presented in prior periods have been reclassified to conform. This resulted in both long-term taxes payable and deferred tax assets declining by approximately $14 million for all periods presented.

Off-Balance Sheet Arrangements

As of December 28, 2013, we did not have any off-balance sheet arrangements, as defined in Item 303(a)(4)(ii) of SEC Regulation S-K.

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Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

Credit Market Risks

At December 28, 2013 and December 29, 2012, we held auction rate securities with a par value of $5.7 million and $5.7 million, respectively. At December 28, 2013 and December 29, 2012, the auction rate securities held by us had an estimated fair value of $5.2 million and $4.7 million, respectively. Our investments in auction rate securities are subject to interest rate and market risk. A hypothetical 10% movement in interest rates would not have a material impact on the fair value of the portfolio. If the market for our investment portfolio declines, our consolidated operating results may be negatively impacted.

Foreign Currency Exchange Rate Risk

We have international subsidiary and branch operations. In addition, a portion of our silicon wafer and other purchases are denominated in Japanese yen, we bill our Japanese customers and collect a Japanese consumption tax refund in yen. We mitigate the resulting foreign currency exchange rate exposure by entering into foreign currency forward exchange contracts for Japanese yen. Although such hedges mitigate our foreign currency exchange rate exposure from an economic perspective they were not designated as "effective" hedges for accounting purposes and are adjusted to fair value through earnings. We do not hold or issue derivative financial instruments for trading or speculative purposes.

As a result of the use of derivative financial instruments, the Company is exposed to the risk that counter-parties to derivative contracts will fail to meet their contractual obligations. To mitigate the counter-party credit risk, the Company enters into contracts with carefully selected major financial institutions based upon their credit ratings and other factors.

On December 28, 2013, the Company had forward contracts to deliver 100 million Japanese yen on January 28, 2014 and 140 million Japanese yen on June 20, 2014.

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Item 8. Financial Statements and Supplementary Data.

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LATTICE SEMICONDUCTOR CORPORATION
CONSOLIDATED BALANCE SHEETS
(In thousands, except share and par value data)

	December 28, 2013	December 29, 2012
ASSETS		
Current assets:		
Cash and cash equivalents	$114,310	$118,536
Short-term marketable securities	101,505	64,865
Accounts receivable, net	50,085	46,947
Inventories	46,222	44,194
Prepaid expenses and other current assets	13,679	12,527
Total current assets	325,801	287,069
Property and equipment, less accumulated depreciation	41,719	40,384
Long-term marketable securities	5,241	4,717
Other long-term assets	6,120	6,854
Intangible assets, net of amortization	12,484	15,430
Goodwill	44,808	44,808
Deferred income taxes	11,703	15,357
Total assets	$447,876	$414,619
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable and accrued expenses	$37,454	$36,391
Accrued payroll obligations	13,659	6,149
Deferred income and allowances on sales to sell-through distributors	7,495	10,553
Total current liabilities	58,608	53,093
Long-term liabilities	3,588	3,976
Total liabilities		