

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

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**FORM 10-K**

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE  
SECURITIES EXCHANGE ACT OF 1934 FOR THE FISCAL YEAR  
ENDED  
JANUARY 1, 2005**

or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF  
THE  
SECURITIES EXCHANGE ACT OF 1934  
FOR THE TRANSITION PERIOD FROM                      TO  
Commission file number: 000-18032**

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**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: None

Securities registered pursuant to Section 12(g) of the Act:

Title of Class

Common Stock, \$.01 par value

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 ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of 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. ☒

Indicate by check mark whether the Registrant is an accelerated filer (as defined in Rule 12b-2 of the Act). Yes ☒ No ☐

As of July 3, 2004 (the last business day of the Registrant's second quarter of fiscal 2004), the aggregate market value of the shares of voting stock (Common Stock) of the Registrant held by non-affiliates was approximately \$452.5 million based on the last sales price of the Registrant's Common Stock on the Nasdaq National Market on such date. Shares of Common Stock held by each officer and director and by each person who owns 5% or more of the outstanding Common Stock have been excluded in that

such persons may be deemed affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

As of March 11, 2005, 113,611,860 shares of the Registrant's common stock were outstanding.

#### **DOCUMENTS INCORPORATED BY REFERENCE**

Portions of the definitive proxy statement of the Registrant to be filed pursuant to Regulation 14A for the 2005 Annual Meeting of Stockholders to be held on May 3, 2005 are incorporated by reference in Part III hereof.

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**LATTICE SEMICONDUCTOR CORPORATION**  
**FORM 10-K**  
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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 Exchange Act. 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,” “estimates,” “expects,” “intends,” “plans,” “projects,” “may,” “will,” “should,” “continue,” “ongoing,” “future,” “potential” and similar words or phrases to identify forward-looking statements.

Forward-looking statements involve estimates, assumptions, risks and uncertainties that could cause actual results to differ materially from those expressed in them. Among the key factors that could cause our actual results to differ materially from the forward-looking statements are delay in product or technology development, change in economic conditions of the various markets we serve, lack of market acceptance or demand for our new products, dependencies on silicon wafer suppliers and semiconductor assemblers, the impact of competitive products and pricing, opportunities or acquisitions that we pursue, the availability and terms of financing, 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 “Factors Affecting Future Results” set forth in “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in Item 7 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 statement made by us. Further, any forward-looking statement applies only as of the date on which it is made. We are not required to update any forward-looking statement or statements to reflect events or circumstances after the date on which such statement is made or to reflect the occurrence of unanticipated events.

## **Item 1. Business.**

Lattice Semiconductor Corporation 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, and thus enable shorter design cycle times and reduced development costs. Our end customers are primarily original equipment manufacturers in the communications, computing, consumer, industrial, automotive, medical and military end markets.

Lattice was incorporated in Oregon in 1983 and reincorporated in Delaware in 1985. Our principal offices are located at 5555 N.E. Moore Court, Hillsboro, Oregon 97124, our telephone number is (503) 268-8000 and our website can be accessed at [www.latticesemi.com](http://www.latticesemi.com). Information contained or referenced on our website is not incorporated by reference in and does not form a part of this Annual Report on Form 10-K.

We report based on a 52 or 53 week year ending on the Saturday closest to December 31. For ease of presentation, we have adopted the convention of using March 31, June 30, September 30 and December 31 as period end dates for all financial statement information. Our fiscal 2004 and 2002 were 52-week years. Our 2003 fiscal year was a 53-week year.

## **Programmable Logic Market Background**

Three principal 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, and logic is employed to manage the interchange and manipulation of digital signals within a system. Logic contains interconnected groupings of simple logical “and” and logical “or” functions, commonly described as “gates.” Typically, complex combinations of individual gates are required to implement the specialized logic functions required for systems

applications. While system designers use a relatively small variety of standard products to meet their microprocessor and memory needs, they require a wide variety of logic products in order to achieve end product functionality and differentiation.

Logic circuits are found in a wide range of today's digital electronic equipment including communications, computing, consumer, industrial, automotive, medical, and military systems. According to Gartner<sup>1</sup>, logic accounted for approximately 37% of the estimated \$220 billion worldwide semiconductor market in 2004. The logic market encompasses general purpose logic semiconductor products, which include programmable logic devices, and application-specific semiconductor devices, which includes ASICs (devices marketed to a single user) and ASSPs (devices marketed to multiple users).

Manufacturers of electronic equipment are challenged to bring differentiated products to market quickly. These competitive pressures often preclude the use of custom-designed ASICs, which generally entail significant design risks, non-recurring costs and time delays. Standard logic products, an alternative to custom-designed ASICs, limit a manufacturer's flexibility to adequately customize an end system. Programmable logic addresses this inherent dilemma. Programmable logic is a standard semiconductor product, purchased by systems manufacturers in a "blank" state, that can be custom configured into virtually unlimited combinations of specific logic functions by programming the device with electrical signals. Programmable logic gives system designers the ability to quickly create custom logic functions to provide product differentiation without sacrificing rapid time to market.

According to Gartner<sup>1</sup>, the programmable logic market was approximately \$3.1 billion in 2004. Within this market, there are two main segments, programmable logic devices ("PLDs") and field programmable gate arrays ("FPGAs"), each representing a distinct silicon architectural approach. Our company believes that, in 2004, PLD was a \$0.6 billion market while FPGA was a \$2.5 billion market. 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. PLDs are characterized by a regular building block structure of wide-input logic cells, called macrocells, and use a centralized logic interconnect scheme. FPGAs are 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. Although PLDs and FPGAs are typically suited for use in distinct types of logic applications, we believe that a substantial portion of programmable logic customers utilize both PLD and FPGA products.

### **Lattice Products**

We strive to offer innovative and differentiated programmable solutions based on our proprietary technology and intellectual property.

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(1) Semiconductor Forecast Worldwide—Forecast Database," Richard Gordon, Gartner, Feb 15, 2005

### ***FPGA Products***

In 2002, we entered the FPGA market as a result of our acquisition of the FPGA business of Agere and the introduction of our internally developed ispXP™ product families. During 2004, approximately 19% of our revenue was derived from FPGA products, as compared to 18% in 2003 and 12% in 2002. In the future, we plan to introduce new families of innovative, high performance and higher density FPGAs. The key features of our newest FPGA families currently in production are described in the table below:

<b>FPGA Family</b>	<b>Process Technology (nm)</b>	<b>Operating Voltage</b>	<b>Logic (K LUTs)</b>	<b>Logic (K Gates)</b>	<b>Max RAM (kB)</b>	<b>I/O Pins</b>
LatticeEC™/ECP™	130	1.2	1.5-32.8	50-1,800	666	67-496
ORCA® 4 FPSC	160	1.5	5.0-16.2	200-3,400	148	204-498
IspXP	180	3.3/2.5/1.8	0.5-15.4	25-1,250	512	141-496

The Lattice EC/ECP families, introduced in 2004, are our newest FPGA products available in volume production. These families were designed to provide customers the lowest total solution cost and support emerging requirements in high volume applications. Additionally, these families provide several unique, performance enhancing features not currently available in competitive low-cost FPGA families. These features include built-in double data rate (“DDR”) memory support, a flexible high-performance DSP block and support for industry standard, low cost, SPI-flash boot memories.

Our ORCA 4 family of field programmable system chips (“FPSCs”) combines generic FPGAs with embedded intellectual property cores on a single programmable chip, offering customers the ability to quickly implement complex system-level designs in a flexible manner. Currently, we offer eight FPSC devices, the ORT82G5, ORT42G5, ORT8850L, ORT8850H, ORLI10G, ORSO82G5, ORSO42G5 and ORSPI4, based on the ORCA 4 FPGA platform. These devices incorporate high-speed interface protocols, offering up to 3.7 Gbs SERDES, and other application-specific circuit blocks that allow customers to develop high performance designs to implement 10 Gigabit Ethernet and SONET applications within advanced communications systems.

Our ispXP families feature extended programmability (“XP™”) technology and represent our first generation of non-volatile FPGA products. XP technology provides customers with several benefits compared to traditional volatile FPGAs, based on SRAM technology, which currently make up the majority of the FPGA market. These benefits include enhanced security, instant-on logic functionality and elimination of external programming devices.

We also offer an additional product family, the ispGDX®, that targets a unique aspect of the programmable logic market. This family extends in-system programmability to the circuit board level using an innovative digital cross-point switch architecture. Offered with propagation delays as low as 3.0 nanoseconds, ispGDX products are targeted toward digital signal interconnect and interface applications.

### ***PLD Products***

During 2004, approximately 81% of our revenue was derived from PLD products, as compared to 82% in 2003 and 88% in 2002. At present, we offer the industry's broadest line of PLDs based on our numerous families of ispLSI®, ispMACH™ and GAL® products. In the future, we plan to continue to introduce new families of innovative PLD products, as well as improve the performance and reduce the manufacturing cost of our existing product families based on market needs. We believe that our multiple families of leadership PLD products provide us with a competitive advantage in this market. The key features of our newest PLD families are described in the table below:

<b>PLD Family</b>	<b>Process Technology (nm)</b>	<b>Operating Voltage</b>	<b>Maximum Speed (MHz)</b>	<b>Minimum Prop Delay (Nanoseconds)</b>	<b>Logic (Macrocells)</b>	<b>I/O Pins</b>
ispMACH 4000V/B/C	180	3.3/2.5/1.8	400	2.5	32-512	30-208
ispMACH 4000Z	180	1.8	267	3.5	32-256	32-128

In addition to high performance, the ispMACH 4000Z family features an architecture optimized to ensure ultra-low power consumption. Devices within this new family, targeted toward handheld and portable equipment, typically operate using 10-15 microamps of current while in standby mode.

We also offer the industry's broadest line of low-density simple PLDs ("SPLD"), based on our 18 families of GAL products offered in over 200 speed, power, package and temperature range combinations. These devices range in complexity from approximately 200 to 1,000 logic gates and are typically assembled in 20-, 24- and 28-pin standard dual in-line packages and in 20- and 28-pin standard plastic leaded chip carrier packages. We offer the standard 16V8, 20V8 and 22V10 architectures in a variety of speed grades, with propagation delays as low as 3.5 nanoseconds, the highest performance in the industry.

In addition, we have recently introduced the ispPAC®-CLK and ispPAC-PWR families of programmable mixed signal devices. These devices, featuring a combination of programmable logic and programmable analog, allow system designers to quickly and easily implement a wide variety of power and clock management functions within a single integrated circuit. ispPAC products can replace numerous discrete components while providing customers with additional design flexibility and time to market benefits. We believe these devices provide an opportunity to extend our proprietary technology to an untapped potential market.

### ***Software Development Tools***

Our products are supported by the ispLEVER® 4.2 software development tool suite and PAC-Designer™ software. Supporting the PC, UNIX and LINUX platforms, ispLEVER software allows our customers to enter, verify and synthesize a design, perform logic simulation and timing analysis, assign input/output pins, designate critical paths, debug, execute automatic timing-driven place and route tasks, and download logic and input/output configurations to one of our devices. Seamlessly integrated with third-party electronic design automation environments, ispLEVER software provides a front-to-back design flow that leverages a customer's prior investment in tools offered by Cadence, Mentor Graphics, Synopsys and Synplicity. In the future, we plan to continue to enhance and expand the capability of our software development tool suite.

### ***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, enhancement of existing products and process technologies and

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improvement of software development tools. Product development activities occur in Hillsboro, Oregon; San Jose, California; Broomfield, Colorado; Naperville, Illinois; Bethlehem, Pennsylvania; Austin, Texas; Salt Lake City, Utah; Shanghai, China; and Chippenham, England.

Research and development expenses were \$91.0 million in 2004, \$87.1 million in 2003 and \$85.8 million in 2002. We expect to continue to make significant future investments in research and development.

## **Operations**

We do not manufacture our own silicon wafers. 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, process and market development, and eliminates the fixed cost of owning and operating manufacturing facilities. We are also able to take advantage of the ongoing advanced process technology development efforts of semiconductor foundries. In addition, all of our assembly operations and most of our test operations are performed by outside suppliers. We perform certain test operations and reliability and quality assurance processes internally. We have achieved and maintained ISO 9001 quality certification since 1993, which is an indication of our high internal operational standards.

### ***Wafer Fabrication***

We source silicon wafers from our foundry partners, Fujitsu Limited (“Fujitsu”) in Japan, Seiko Epson in Japan, United Microelectronics Corporation (“UMC”) in Taiwan and Chartered Semiconductor Manufacturing, Ltd. (“Chartered Semiconductor”) 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 or ceramic packages. Presently, we have qualified long-term assembly partners in China, Japan, Malaysia, the Philippines, South Korea, and Taiwan. We negotiate assembly prices, volumes, and other terms with our assembly partners and their respective affiliates on a periodic basis.

### ***Testing***

We electrically test the die on each wafer prior to shipment for assembly. Following assembly, prior to customer shipment, each product undergoes final testing and quality assurance procedures. Final testing on certain products is performed by independent contractors in China, Malaysia, the Philippines, South Korea and Taiwan, and at our Oregon facility.

## **Marketing, Sales and Customers**

We sell our products directly to end customers through a network of independent manufacturers’ representatives and indirectly through a network of independent distributors. 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, automotive, medical and military end markets.

As of December 2004, we used 20 manufacturers’ representatives and two distributors, Arrow Electronics, Inc. and Avnet Inc., in North America. We have also established export sales channels in over 25 foreign countries through a network of over 25 sales representatives and distributors. The majority of our sales are made through distributors.

We protect each of our North American distributors and some of our foreign distributors against reductions in published prices, and expect to continue this policy in the foreseeable future. We also allow returns from these distributors of unsold products under certain conditions. For these reasons, we do not recognize revenue until products are resold by these distributors to an end customer.

We provide technical and marketing 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.

Export sales as a percentage of our total revenue were 71% in 2004, 68% in 2003 and 60% in 2002. Export sales to Japan were approximately 14% of revenue in 2004, 11% of revenue in 2003 and 8% of revenue in 2002, while export sales to China were 13% of revenue in 2004, slightly less than 10% in 2003, and approximately 6% in 2002. Both export and domestic sales are denominated in U.S. dollars, with the exception of sales to Japan, which are denominated in yen. If our export sales decline significantly there would be a material adverse impact on our business and results of operations.

Our products are sold to a large and diverse group of customers. No individual end customer accounted for more than 10% of total revenue in 2004, 2003 or 2002.

### **Backlog**

Our backlog of scheduled and released orders as of December 31, 2004 was approximately \$25.5 million as compared to approximately \$45.1 million as of December 31, 2003. This backlog consists of direct customer and distributor orders scheduled for delivery within the next 90 days. Distributor orders accounted for the majority of the backlog in both periods. Direct customer orders may be changed, rescheduled or cancelled under certain circumstances without penalty prior to shipment. Additionally, distributor orders generally may be changed, rescheduled or cancelled without penalty prior to shipment. Furthermore, certain of our distributor shipments are subject to rights of return and price adjustment. Revenue associated with these distributor shipments are not recognized until the product is resold to an end customer. Typically, the majority of our revenue results from orders placed and filled within the same period. Such orders are referred to as "turns orders." By definition, turns orders are not captured in a backlog measurement made at the beginning of a period. We do not anticipate a significant change in this business pattern. For all these reasons, backlog as of any particular date should not be used as a predictor of revenue for any future period.

### **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 than we do.

The principal competitive factors in the programmable logic market include product features, price, customer support, and sales, marketing and distribution strength. The availability of competitive software development tools is also critical. In addition to product features such as density, speed, power consumption, reprogrammability, design flexibility 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 working to continually introduce product enhancements and new products, by seeking to establish our products as industry standards in their respective markets, and by working to reduce the manufacturing cost of our products.

We compete directly with Actel Corporation, Altera Corporation and Xilinx Inc., all of whom offer competing products. We also indirectly compete with other semiconductor companies who provide logic

solutions that are not user programmable. Although to date we have not 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 semiconductor companies seek to expand into our market. Any such increases in competition could have a material adverse effect on our operating results.

## **Patents**

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.

We hold numerous domestic, European and Asian patents and have patent applications pending in the United States, Asia and Europe. Our current patents will expire at various times between 2005 and 2023. There can be no assurance that pending patent applications or other applications that may be filed 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.

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 could obtain a license on terms or under conditions that would not harm our business.

## **Licenses and Agreements**

### ***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. Included are rights to use certain Xilinx patents to manufacture, market and sell products.

### ***Agere Systems***

In 2002, as part of our acquisition of the FPGA business of Agere, 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 FPSC 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 and royalty-free basis.

### ***Altera***

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

### ***Fujitsu***

On September 10, 2004, we entered into an Advance Payment and Purchase Agreement (the “Fujitsu Agreement”) with Fujitsu Limited (“Fujitsu”), pursuant to which we will advance \$125.0 million to Fujitsu in support of the development and construction of a new 300mm wafer fabrication facility in Mie, Japan. The initial two payments of \$25.0 million each were made in October 2004 and January 2005, with the remaining payments to be made in two stages upon the achievement of certain milestones. We currently anticipate that the advance payment will be paid in full by the second quarter of 2006.

Our \$125.0 million advance will be credited against the purchase price of 300 mm wafers from the new wafer fabrication facility. The Fujitsu Agreement will continue until the full amount of the advance payment has been returned to us in the form of wafers or other repayment, subject to the right of either party to terminate the agreement upon the occurrence of certain events. We may request a refund of the unused amount of the advance payment if we have not used all of our wafer credits by December 31, 2007. The repayment obligation of Fujitsu is unsecured.

### ***Seiko Epson/Epson Electronics America***

Epson Electronics America (“EEA”), an affiliated U.S. distributor of Seiko Epson, has agreed to provide us with manufactured wafers in quantities based on six-month rolling forecasts. Prices for the wafers obtained from EEA are reviewed and adjusted periodically. Wafers for our products are manufactured in Japan at Seiko Epson’s wafer fabrication facilities and are delivered to us by EEA.

In 1997 we entered into an advance payment production agreement with Seiko Epson and Epson Electronics America, Inc. (“EEA”) which was subsequently amended in 2002 and March 2004. Under this agreement we advanced \$51.3 million to Seiko Epson to finance construction of an eight-inch sub-micron semiconductor wafer manufacturing facility. The advance is to be repaid with semiconductor wafers over a multi-year period. No interest income is recorded. The agreement calls for wafers to be supplied by Seiko Epson through EEA pursuant to purchase agreements with EEA. Cumulatively, \$26.2 million of these payments have been repaid to us in the form of semiconductor wafers. We currently estimate that approximately \$12.9 million of the outstanding advances are expected to be repaid with semiconductor wafers during the next twelve months and are thus reflected as part of Other current assets in our Consolidated Balance Sheet. We are not obligated to make additional payments under this agreement.

### ***UMC Group***

In 1995, we entered into a series of agreements with United Microelectronics Corporation (“UMC”), a public Taiwanese company, pursuant to which we agreed to join UMC and several other companies to form a separate Taiwanese corporation, (“UICC”), for the purpose of building and operating an advanced semiconductor manufacturing facility in Taiwan, Republic of China. Under the terms of the agreements, we invested approximately \$49.7 million for an approximate 10% equity interest in the corporation and the right to receive a percentage of the facility’s wafer production at market prices.

In 1996, we entered into an agreement with Utek Corporation (“Utek”), a public Taiwanese company in the wafer foundry business that became affiliated with the UMC group in 1998, pursuant to which we agreed to make a series of equity investments in Utek under specific terms. In exchange for these investments, we received the right to purchase a percentage of Utek’s wafer production. Under this agreement, we invested approximately \$17.5 million. In 2000, UICC and Utek merged into UMC.

We owned approximately 60.8 million shares of UMC common stock at December 31, 2004, of which approximately 23.3 million shares are restricted from sale for more than one year by the terms of our agreement with UMC. Under the terms of the UMC agreement, if we sell any of these restricted shares, our rights to guaranteed wafer capacity at UMC may be reduced on a pro-rata basis based on the number

of shares that we sell. If we sell over 10.1 million of these restricted shares, we may lose all of our rights to guaranteed wafer capacity at UMC.

For financial reporting purposes, all of our UMC shares are accounted for as available-for-sale and marked to market in our Consolidated Balance Sheet until they are sold, at which time a gain or loss is recognized in our Consolidated Statement of Operations. Unrealized gains and losses are included in Accumulated other comprehensive income within Stockholders' equity. An other than temporary impairment of UMC share value could result in a reduction of the Consolidated Balance Sheet carrying value and would result in a charge to our Consolidated Statement of Operations.

**Employees**

As of December 31, 2004 we had 1,008 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. None of our employees is subject to a collective bargaining agreement. We have never experienced a work stoppage and consider our employee relations to be good.

## EXECUTIVE OFFICERS AND DIRECTORS OF THE REGISTRANT

The following individuals currently serve as our executive officers and directors:

<u>Name</u>	<u>Age</u>	<u>Position</u>
Cyrus Y. Tsui	59	Chief Executive Officer and Chairman of the Board
Stephen A. Skaggs	42	President and Secretary
Jan Johannessen	49	Corporate Vice President and Chief Financial Officer
Frank J. Barone	65	Corporate Vice President, Product Operations
Stephen M. Donovan	53	Corporate Vice President, Sales
Martin R. Baker	49	Vice President and General Counsel
Rodney F. Sloss	61	Vice President, Finance
David E. Coreson	58	Director
Mark O. Hatfield	82	Director
Daniel S. Hauer	68	Director
Patrick S. Jones	60	Director
Soo Boon Koh	54	Director
Harry A. Merlo	79	Director

**Cyrus Y. Tsui** joined Lattice in September 1988 as President and Chief Executive Officer and in March 1991 was named Chairman of the Board. From 1987 until he joined Lattice, Mr. Tsui was Corporate Vice President and General Manager of the Programmable Logic Division of AMD. He was Vice President and General Manager of the Commercial Products Divisions of Monolithic Memories Incorporated (MMI) from 1983 until its merger with AMD in 1987. Mr. Tsui has held technical and managerial positions in the semiconductor industry for over 30 years and has worked in the programmable logic industry since its inception.

**Stephen A. Skaggs** joined Lattice in December 1992 as Director, Corporate Development. He was elected Senior Vice President, Chief Financial Officer and Secretary in August 1996. In October 2003 he was elected President.

**Jan Johannessen** rejoined Lattice in October 2001 as Vice President, Investments. In October 2003, he was elected Corporate Vice President and Chief Financial Officer. He originally joined Lattice in 1983 and served as Vice President and Chief Financial Officer between 1987 and 1993. From 1993 to 2001 he worked as an independent venture capitalist.

**Frank J. Barone** joined Lattice in June 1999 as a Corporate Vice President as a result of our Vantis acquisition. From September 1997 until he joined our company, Mr. Barone was Chief Operating Officer of Vantis. Prior thereto, Mr. Barone held various technical and managerial positions at AMD. He has worked in the programmable logic industry since 1978.

**Stephen M. Donovan** joined Lattice in October 1989 and served as Director of Marketing and Director of International Sales. He was elected Vice President, International Sales in August 1993. He was promoted to Corporate Vice President, Sales, in May 1998. Mr. Donovan has worked in the programmable logic industry since 1982.

**Martin R. Baker** joined Lattice in January 1997 as Vice President and General Counsel. From 1991 until he joined Lattice, Mr. Baker held legal positions with Altera Corporation.

**Rodney F. Sloss** joined Lattice in May 1994 as Vice President, Finance.

**David E. Coreson** joined our board of directors in February 2005. Mr. Coreson is the former Senior Vice President of Tektronix where his responsibilities included worldwide manufacturing, worldwide

customer service, central engineering, Tek-Japan, Tek-China and MaxTek, a wholly owned subsidiary of Tektronix which manufactures custom hybrids.

**Mark O. Hatfield** has been a member of our board of directors since 1997. Mr. Hatfield is a former U.S. Senator from Oregon, a position he held until January 1997. He has served as a Distinguished Professor at Portland State University since 1997, a Distinguished Professor at George Fox University since 1997 and an Adjunct Professor at Lewis & Clark College since 2000.

**Daniel S. Hauer** has been a member of our board of directors since 1987. Mr. Hauer served as the Chairman of the Board and Chief Executive Officer of Epson Electronics America until November 1998. Since that time, Mr. Hauer has worked as a business consultant.

**Patrick S. Jones** joined our board of directors in February 2005. Mr. Jones is the former Chief Financial Officer of Gemplus SA and former Vice President, Finance and Corporate Controller of Intel Corporation. He was also previously Chief Financial Officer of LSI Logic Corporation.

**Soo Boon Koh** joined our board of directors in August 2000. Ms. Koh has served as Managing Partner of iGlobe Partners Fund, L.P., a venture capital firm located in Singapore and the United States, since October 1999. She previously served as Sr. Vice President and Deputy General Manager of Vertex Management Pte., Ltd. until June 1999.

**Harry A. Merlo** was a founding member of our board of directors in 1983. Mr. Merlo has been the President of Merlo Corporation since July 1995. He was the founding President and previously served as the President and Chairman of the Board of Louisiana-Pacific Corporation until June 1995.

#### **Available Information**

We make available free of charge through our website at [www.latticesemi.com](http://www.latticesemi.com), via a link to the SEC's website at [www.sec.gov](http://www.sec.gov), our annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K and amendments to those reports 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.

#### **Item 2. Properties.**

Our corporate headquarters consists of land and 200,000 square feet of buildings we own in Hillsboro, Oregon. We also own two research and development facilities totaling 29,000 square feet and approximately 6,000 square feet of dormitory facilities in Shanghai, China. We lease a 133,000 square foot research and development facility in San Jose, California through 2008; a 25,000 square foot research and development facility in Austin, Texas through 2011; and a 7,500 square foot research and development facility in the United Kingdom through 2013. We also lease, on a short-term basis, research and development facilities in Colorado, Illinois, Pennsylvania and Utah, and office facilities in multiple metropolitan locations for our domestic and international sales staff. Additionally, we lease (through 2006) an 84,000 square foot facility in Sunnyvale, California that has been subleased to a third party through the end of the lease term. We believe that our existing facilities are adequate for our current and foreseeable future needs.

#### **Item 3. Legal Proceedings.**

In September and October 2004, three putative class action complaints were filed in the United States District Court for the District of Oregon against Lattice Semiconductor Corporation, our Chief Executive Officer Cyrus Y. Tsui, and our President Stephen A. Skaggs. These complaints were filed on behalf of a putative class of investors who purchased our stock between April 22, 2003 and April 19, 2004. They

generally allege violations of federal securities laws arising out of our previously announced restatement of financial results for the first, second, and third quarters of 2003. Consistent with the usual procedures for cases of this kind, these cases were amended and consolidated into a single action. In such amended and consolidated complaint filed January 27, 2005 our former President and our former Controller were added as defendants. We believe that the complaints are without merit, and we intend to vigorously defend against the lawsuits.

In September and October 2004, two shareholder derivative complaints were filed, purportedly on behalf of Lattice Semiconductor Corporation, in the Circuit Court of the State of Oregon for the County of Washington, against all of our current directors, certain former directors, and certain executive officers. The derivative plaintiffs make allegations substantially similar to those in the putative class action complaints, as well as allegations of breach of fiduciary duty, abuse of control, gross mismanagement, waste of corporate assets, and unjust enrichment. Consistent with the usual procedures for cases of this kind, these cases were consolidated into a single putative shareholder derivative action. An amended and consolidated complaint is expected to be filed by April 1, 2005.

All of the complaints generally seek an unspecified amount of damages, as well as attorney fees and costs. The cases are still in the preliminary stages, and it is not possible for us to quantify the extent of our potential liability, if any. An unfavorable outcome in any of these matters could have a material adverse effect on our business and financial results. In addition, defending any litigation may be costly and divert management's attention from the day-to-day operations of our business.

We are exposed to certain 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 and financial results.

**Item 4. Submission of Matters to a Vote of Security Holders.**

Not applicable.



## PART II

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

Our common stock is traded on the over-the-counter market and prices are quoted on the Nasdaq National Market under the symbol "LSCC." The following table sets forth the low and high sale prices for our common stock for the last two fiscal years, as reported by the Nasdaq National Market. As of March 11, 2005, we had approximately 490 stockholders of record.

	<u>Low</u>	<u>High</u>
2003:		
First Quarter	\$ 6.47	\$ 10.30
Second Quarter	7.13	9.56
Third Quarter	6.99	9.74
Fourth Quarter	7.00	10.05
2004:		
First Quarter	\$ 7.95	\$ 13.40
Second Quarter	6.47	10.16
Third Quarter	3.96	6.35
Fourth Quarter	4.91	6.00

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.

**Item 6. Selected Financial Data.**

	Year Ended				
	December 31, 2004	December 31, 2003	December 31, 2002	December 31, 2001	December 31, 2000
(in thousands, except per share data)					
STATEMENT OF OPERATIONS DATA:					
Revenue	\$ 225,832	\$ 209,662	\$ 229,126	\$ 295,326	\$ 567,759
Costs and expenses:					
Cost of products sold	96,857	89,266	91,546	111,498	217,830
Research and development	90,957	87,092	85,776	71,679	77,057
Selling, general and administrative	53,803	50,773	48,099	53,027	81,082
In-process research and development	—	—	29,853	—	—
Amortization of intangible assets(1)	47,249	77,127	73,415	84,349	81,873
	<u>288,866</u>	<u>304,258</u>	<u>328,689</u>	<u>320,553</u>	<u>457,842</u>
(Loss) income from operations	(63,034)	(94,596)	(99,563)	(25,227)	109,917
(Loss) gain on foundry investments	—	—	—	(152,795)	149,960
Interest and other income (expense), net	11,373	(3,064)	6,194	4,056	2,194
(Loss) income before (benefit) provision for income taxes	(51,661)	(97,660)	(93,369)	(173,966)	262,071
(Benefit) provision for income taxes	318	(5,854)	81,866	(64,447)	94,184
Net (loss) income	<u>\$ (51,979)</u>	<u>\$ (91,806)</u>	<u>\$ (175,235)</u>	<u>\$ (109,519)</u>	<u>\$ 167,887</u>
Basic net (loss) income per share	<u>\$ (0.46)</u>	<u>\$ (0.82)</u>	<u>\$ (1.59)</u>	<u>\$ (1.01)</u>	<u>\$ 1.65</u>
Diluted net (loss) income per share	<u>\$ (0.46)</u>	<u>\$ (0.82)</u>	<u>\$ (1.59)</u>	<u>\$ (1.01)</u>	<u>\$ 1.47</u>
Shares used in per share calculations:					
Basic	<u>112,976</u>	<u>111,794</u>	<u>110,193</u>	<u>108,814</u>	<u>101,716</u>
Diluted	<u>112,976</u>	<u>111,794</u>	<u>110,193</u>	<u>108,814</u>	<u>120,321</u>
At					
	December 31, 2004	December 31, 2003	December 31, 2002	December 31, 2001	December 31, 2000
(in thousands)					
BALANCE SHEET DATA:					
Cash and marketable securities	\$ 296,295	\$ 277,750	\$ 276,880	\$ 531,566	\$ 535,408
Total assets	\$ 810,906	\$ 851,628	\$ 941,263	\$ 1,185,982	\$ 1,295,884
Convertible notes	\$ 169,000	\$ 184,000	\$ 208,061	\$ 260,000	\$ 260,000
Stockholders' equity	\$ 542,591	\$ 606,112	\$ 661,135	\$ 839,770	\$ 855,655

- (1) Includes \$3,418, \$5,745, \$2,962, and \$397 of amortization of deferred stock compensation expense for the years ended December 31, 2004, December 31, 2003, December 31, 2002, and December 31, 2001, respectively, attributable to research and development activities.

All share and per share amounts have been adjusted retroactively to reflect a two-for-one stock split effected in the form of a stock dividend paid on October 11, 2000.

## Unaudited Quarterly Data

	2004				2003			
	Dec.	Sept.	June	Mar.	Dec.	Sept.	June	Mar.
	(in thousands, except per share data)							
Revenue	\$ 48,541	\$ 57,281	\$ 60,939	\$ 59,071	\$ 52,757	\$ 43,033	\$ 56,575	\$ 57,297
Gross profit	\$ 27,483	\$ 32,433	\$ 34,707	\$ 34,352	\$ 28,943	\$ 23,602	\$ 33,582	\$ 34,269
Net loss	\$ (13,138)	\$ (6,324)	\$ (15,976)	\$ (16,541)	\$ (25,244)	\$ (28,661)	\$ (18,232)	\$ (19,669)
Basic net loss								
per share	\$ (0.12)	\$ (0.06)	\$ (0.14)	\$ (0.15)	\$ (0.22)	\$ (0.26)	\$ (0.16)	\$ (0.18)
Diluted net loss								
per share	\$ (0.12)	\$ (0.06)	\$ (0.14)	\$ (0.15)	\$ (0.22)	\$ (0.26)	\$ (0.16)	\$ (0.18)

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

Lattice Semiconductor Corporation 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 the end customer as specific logic circuits, and thus enable shorter design cycle times and reduced development costs. Within this market there are two groups of products—programmable logic devices (“PLDs”) and field programmable gate arrays (“FPGAs”)—each representing a distinct silicon architectural approach. 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. Our end customers are primarily original equipment manufacturers in the communications, computing, industrial, consumer, automotive, medical and military markets.

#### Overview of 2004

Revenue for our business in 2004 increased to approximately \$225.8 million as compared to approximately \$209.7 million in 2003 due to growth of our New\* products partially offset by a decline in revenues from Mature\* products. There was a decline in business conditions beginning in the third quarter of 2004 which has continued into the first quarter of 2005 attributable to general weakening in the communications end market. Among other things, future revenue growth is dependent on overall economic conditions for our industry and market acceptance of our new FPGA products.

Our gross margin in 2004 and 2003 was 57% for the year. Lower production yields and average selling prices on our new products held margins down below the 60% level achieved in 2002.

Research and development expenses increased to approximately \$91.0 million (40% of revenue) in 2004 compared to approximately \$87.1 million (41% of revenue) in 2003. Research and development spending is predominantly related to the continued development of next generation FPGA products. We expect to continue to make significant future investments in research and development.

Selling, general and administrative expenses were approximately \$53.8 million (24% of revenue) in 2004 as compared to approximately \$50.8 million (24% of revenue) in 2003 and increased primarily due to sales commissions and marketing expenses related to new products and increased professional fees primarily related to compliance with the requirements of Section 404 of the Sarbanes-Oxley Act of 2002. To the extent our revenues continue to grow, we expect that there will be a less than proportionate increase in our selling, general and administrative expenses.

Amortization of intangible assets of approximately \$47.2 million in 2004 will decline to approximately \$16.2 million in 2005 as amortization of intangible assets acquired in the Vantis acquisition was completed in the June 2004 quarter.

Interest and other income (expense) of approximately \$11.4 million in 2004 includes approximately \$4.4 million of interest income from marketable securities and cash equivalents, and approximately \$8.8 million of gains from the sale of UMC common stock and extinguishment of Zero Coupon Convertible Subordinated Notes due July 1, 2010 partially offset by amortization of issuance costs of Zero Coupon Convertible Subordinated Notes due July 1, 2010. To the extent market conditions allow, we may make similar extinguishments of our Zero Coupon Convertible Subordinated Notes due July 1, 2010 and sales of UMC shares in future quarters.

We are not currently paying federal or state income taxes and do not expect to pay or accrue such taxes in 2005. We expect to continue to pay foreign income taxes at current levels.

**\* Product classification**

**New:** Lattice EC/P, FPSC, XPLD, XPGA, GDX2, ORCA 4, ispMACH 4000/Z, ispPAC-PWR, ispCLK  
**Mainstream:** ORCA 3, GDX/V, ispMACH L/V, ispLSI 2000V, ispLSI 5000V, ispLSI 8000V, ispMACH 5000 V/G, and Other  
**Mature:** ORCA 2, all 5-volt CPLDs, all SPLDs

**Results of Operations**

The following table sets forth, for the periods indicated, the percentage of revenue represented by selected items reflected in our Consolidated Statement of Operations:

	Years Ended December 31,		
	2004	2003	2002
Revenue	100%	100%	100%
Costs and expenses:			
Cost of products sold	43	43	40
Research and development	40	41	38
Selling, general and administrative	24	24	21
In-process research and development	—	—	13
Amortization of intangible assets	21	37	32
Total costs and expenses	128	145	144
Loss from operations	(28)	(45)	(44)
Interest and other income (expense), net	5	(2)	3
Loss before (benefit) provision for income taxes	(23)	(47)	(41)
(Benefit) provision for income taxes	0	(3)	36
Net loss	(23)%	(44)%	(76)%

**Acquisitions.** On August 26, 2002, we completed the stock for stock acquisition of Cerdelinx Technologies, Inc. (“Cerdelinx”) for 2.6 million shares of our common stock valued at \$8.30 per share. This transaction was accounted for as an asset purchase, and accordingly, the results of operations for Cerdelinx and estimated fair value of assets acquired and liabilities assumed are included in our Consolidated Financial Statements beginning August 26, 2002. In estimating the fair value of the assets acquired, management considered various factors, including an appraisal. In-process research and development (“IPR&D”) costs were appraised at \$5.7 million and charged to operations on the acquisition date. Remaining intangible asset costs are being amortized to operations over a period averaging five years. See Note 4 to our Consolidated Financial Statements.

On January 18, 2002, we completed the acquisition of the field-programmable gate array (“FPGA”) business (“Agere FPGA”) of Agere Systems Inc. (“Agere”) for \$250 million in cash. This transaction was accounted for as a purchase, and accordingly, the results of operations for Agere FPGA and estimated fair

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value of assets acquired and liabilities assumed are included in our Consolidated Financial Statements beginning January 18, 2002. In estimating the fair value of the assets acquired, management considered various factors, including an appraisal. IPR&D costs were appraised at \$24.2 million and charged to operations on the acquisition date. Remaining intangible asset costs are being amortized to operations over 6.3 years. See Note 5 to our Consolidated Financial Statements.

**Revenue.** Revenue was \$225.8 million in 2004, an increase of 7.7% from 2003. Revenue was \$209.7 million in 2003, a decrease of 8.5% from 2002 revenue of \$ 229.1 million. The composition of our revenue by product family for the years presented was as follows:

	Years Ended December 31,		
	2004	2003	2002
FPGA	19%	18%	12%
PLD	81%	82%	88%

Prior to the acquisition of Agere FPGA, we had no revenue from FPGA products.

The increase in revenue in 2004 as compared to 2003 was primarily due to growth of our product sales in Asia attributable to stronger business conditions offset in part by a decline in business conditions beginning in the third quarter of 2004 attributable to general weakening in the communications end market. During 2003, our revenue was adversely affected by the business downturn experienced by the semiconductor and programmable logic markets that began in 2001, offset in part by a general business recovery experienced late in 2003.

Revenue from export sales as a percentage of total revenue was approximately 71% for 2004, 68% for 2003, and 60% for 2002. We expect export sales to continue to represent a significant portion of revenue.

Our sales by geographic region were as follows (in thousands):

	Years Ended December 31,		
	2004	2003	2002
United States	\$ 65,044	\$ 66,740	\$ 92,086
Export sales:			
Europe	50,867	52,142	58,871
Asia Pacific (other than Japan and China)	42,584	37,062	36,775
Japan	31,134	23,000	17,635
China	29,802	20,298	12,914
Other	6,401	10,420	10,845
Total revenue from export sales	160,788	142,922	137,040
Total revenue	<u>\$ 225,832</u>	<u>\$ 209,662</u>	<u>\$ 229,126</u>

During 2004, total units sold increased by 10% while overall average selling prices declined by 3% when compared to 2003. The 2004 increase in units sold is attributable to sales of New\* products while the decrease in average selling prices is attributable to lower selling prices of Mature\* products. Average selling prices of Mainstream\* products increased by 4% in 2004 compared to 2003 while units sold were flat. From a product line viewpoint, in 2004 there was a 36% increase in FPGA units sold, partially offset by a 15% decrease in average selling prices when compared to 2003. For PLD products in 2004, units sold increased 10% while average selling prices decreased by 3% when compared to 2003. During 2003, total units sold and our overall average selling prices both decreased by approximately nine percent when compared to 2002. In 2003, both units sold and average selling price were adversely impacted by the business downturn in the semiconductor and programmable logic markets that began in 2001. Our ability to maintain or increase the level of our average selling price is dependent on the continued development, introduction and market acceptance of new products. See "Factors Affecting Future Results."

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**Gross Margin.** Our gross margin percentage was 57% for 2004 and 2003, and 60% for 2002. Similar margins in 2004 compared to 2003 reflect the growth of sales of New\* products, that currently carry lower margins, offset by higher margins in Mature\* products that declined in revenue in 2004. The decrease in gross margin percentage in 2003 compared to 2002 was primarily attributable to a provision for an allowance for price protection and sales returns for distributors in the September 2003 quarter. To a lesser extent, this decrease in gross margin also reflects the increased proportion of fixed manufacturing costs as a result of lower revenue levels in 2003.

**Research and Development.** Research and development expense was \$91.0 million for 2004 compared to \$87.1 million for 2003 and \$85.8 million in 2002. Research and development expenses consist primarily of personnel, masks, prototype wafers, third-party design automation software, assembly tooling and qualification expenses. The increases in 2004 and 2003 when compared to the prior year were primarily due to the continued development of new products, including especially engineering mask costs. We believe that a continued commitment to research and development is essential in order 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. As we continue to move to more advanced process technologies such as 130nm, 90nm and beyond, mask costs are becoming increasingly more expensive and will therefore increasingly represent a greater proportion of total research and development expenses.

**Selling, General and Administrative.** Selling, general and administrative expense was \$53.8 million in 2004, \$50.8 million in 2003, and \$48.1 million in 2002. The 2004 increase compared to 2003 was primarily due to the increase in sales commissions and marketing expenses related to new products and increased professional and legal fees related to initial compliance with the requirements of Section 404 of the Sarbanes-Oxley Act of 2002. The increase in 2003 when compared to 2002 was primarily due to increased marketing expense related to new products and increased professional fees including those related to the restatement of the first, second and third quarter 2003 financial statements.

**In-Process Research and Development.** IPR&D consisted of those products obtained through acquisition that were not yet proven to be technologically feasible but had been developed to a point where there was value associated with them in relation to potential future revenue. Because technological feasibility was not yet proven and no alternative future uses were believed to exist for the in-process technologies, the assigned value was expensed immediately upon the closing date of the acquisitions. IPR&D recorded in 2002 resulted from the completion of the Agere FPGA and Cerdelinx acquisitions described below:

#### *Cerdelinx*

The fair value underlying the \$5.7 million assigned to acquired IPR&D from the Cerdelinx acquisition (recognized in the third quarter of 2002) was determined by identifying research projects in areas for which technological feasibility had not been established and there were no alternative future uses. The acquired IPR&D consisted of low-power CMOS transceivers and backplane interfaces with embedded high-speed SERDES I/O. These projects were approximately 60% complete and were estimated to be completed in 2003 at an estimated cost of approximately \$2.0 million. During 2004, new products based on this technology were completed. In addition, this technology along with subsequently developed technology is being integrated into other new products expected to be completed in 2005. There has been no material change in the estimated cost of these projects.

The fair value was determined by an income approach where fair value is the present value of projected free cash flows that will be generated by the products incorporating the acquired technologies under development, assuming they are successfully completed. The estimated net free cash flows generated by the products over six year periods were discounted at rates ranging from 15% to 17% in

relation to the stage of completion and the technical risks associated with achieving technological feasibility. The net cash flows for such projects were based on management's estimates of revenue, expenses and asset requirements.

The remaining portion of these projects has completion risk related to silicon functionality, architecture performance, packaging technology, continued availability of key technical personnel and product reliability. To the extent that estimated completion dates are not met, the risk of competitive product introduction is greater and revenue opportunity may be permanently lost.

#### *Agere FPGA*

The fair value underlying the \$24.2 million assigned to acquired IPR&D in the Agere FPGA acquisition was determined by identifying research projects in areas for which technological feasibility had not been established and there was no alternative future use. Projects in the IPR&D category were the ORCA 4 FPGA family, the next generation FPGA family and the FPSC field-programmable system chips. The following is a brief description of these projects. The ORCA 4 FPGA family project, increasing speed and density and enhancing yields, was approximately 85% complete and estimated to be completed by 2003 at an estimated cost of \$1.5 million. This project was completed during 2002 with no material change in cost. The next generation FPGA family project, increasing speed and density while reducing die size, was approximately 50% complete and estimated to be completed by 2004 at an estimated cost of \$2.0 million. This project was significantly redefined and is now expected to be completed during 2005. The future development of FPSC field-programmable system chips was approximately 25% to 90% complete, and estimated to be completed by 2004 at an estimated cost of \$2.0 million. This project was completed during 2004 with no material change in cost.

The IPR&D value of \$24.2 million was determined by an income approach where fair value is the present value of projected free cash flows that will be generated by the products incorporating the acquired technologies under development, assuming they are successfully completed. The estimated net free cash flows generated by the products over 5-7 year periods were discounted at rates ranging from 23% to 25% in relation to the stage of completion and the technical risks associated with achieving technological feasibility. The net cash flows for such projects were based on management's estimates of revenue, expenses and asset requirements. Any delays or failures in the completion of these projects could impact our expected return on investment and future results. In addition, our financial condition would be adversely affected if the value of other intangible assets acquired became impaired.

The remaining project has completion risks related to silicon functionality, architecture performance, packaging technology, continued availability of key technical personnel and product reliability. To the extent that estimated completion dates are not met, the risk of competitors' product introductions is greater and revenue opportunity may be permanently lost.

***Amortization of Intangible Assets.*** Amortization of intangible assets is related to our 2002 acquisitions, discussed above, our 1999 Vantis acquisition and our 2001 acquisition of Integrated Intellectual Property, Inc. ("I2P"). Amortization expense was \$47.2 million in 2004, \$77.1 million in 2003, and \$73.4 million in 2002. The decrease in amortization expense in 2004 was attributable to intangible assets from the Vantis acquisition which were fully amortized during 2004. The increase in amortization for 2003 when compared with 2002 was due to a full year of amortization of intangible assets related to our 2002 acquisitions, and approximately \$2.2 million incremental amortization of deferred stock compensation in association with the accelerated write-off of accrued deferred compensation recorded in conjunction with certain assumed in-the-money stock options as part of a stock option exchange program completed during the first quarter of 2003 (see Note 13 to our Consolidated Financial Statements).

**Interest Income.** Interest income was \$4.4 million in 2004, \$3.6 million in 2003 and \$5.4 million in 2002. The increase in 2004 when compared to 2003 is attributable to higher balances and interest rates. The decrease in 2003 when compared to 2002 was due to lower interest rates on invested balances.

**Interest Expense.** Interest expense was insignificant in 2004, \$7.1 million in 2003, and \$12.6 million in 2002. Substantially all interest expense resulted from the debt issued to partially fund our Vantis acquisition. The decrease in 2004 when compared to 2003 and in 2003 when compared to 2002 was due to the extinguishment of our remaining 4¾% Convertible Subordinated Notes in July 2003. (See Note 12 to our Consolidated Financial Statements).

**Other Income, net.** Other income, net, was \$7.0 million in 2004, \$0.4 million in 2003, and \$13.4 million in 2002. For 2004, Other income, net, consists of a \$6.1 million gain on sale of UMC shares and a \$2.8 million gain on extinguishment of Zero Coupon Convertible Subordinated Notes due 2010 net of \$1.9 million amortization of convertible note issuance costs and other costs. For 2003, Other income, net, consists of \$1.4 million of gain recorded on the partial extinguishment of our Zero Coupon Convertible Subordinated Notes due 2010, substantially offset by the \$4.7 million call premium associated with the extinguishment of our 4¾% Convertible Subordinated Notes (see Note 12 to our Consolidated Financial Statements). For 2002, the amount recorded consists primarily of a \$9.3 million gain in conjunction with the extinguishment of a portion of our 4¾% Convertible Subordinated Notes (see Note 12 to our Consolidated Financial Statements), and a \$4.0 million gain in conjunction with the sale of a portion of our UMC shares (see Note 7 to our Consolidated Financial Statements).

**Provision (Benefit) for Income Taxes.** The 2004 tax provision is related to income taxes on our foreign subsidiaries primarily engaged in selling and research and development activities. The tax benefit in 2003 is primarily a result of releasing \$3.4 million of tax reserves as the related statute of limitations expired and a \$2.5 million refund of Federal income taxes. The provision for income taxes for 2002 of \$81.9 million is primarily the result of a \$118.6 million charge to income tax expense recorded in the fourth quarter of 2002, representing a full valuation allowance for our recorded deferred tax assets (see Note 11 to our Consolidated Financial Statements).

### **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 generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets, such as accounts receivable, inventory and deferred income taxes and liabilities, such as accrued liabilities, income taxes and deferred income, disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the fiscal periods presented. Actual results could differ from those estimates.

**Revenue recognition.** Revenue from direct customers is recognized upon shipment provided that persuasive evidence of a sales arrangement exists, the price is fixed and determinable, title has transferred, collection of resulting receivables is probable, there are no customer acceptance requirements and no remaining significant obligations. Certain of our sales are made to distributors under agreements providing price protection and right of return on unsold merchandise. Revenue and costs relating to such distributor sales are deferred until the product is sold by the distributor and related revenue and costs are then reflected in income.

Our method of revenue recognition for deferred distributor sales is based on certain assumptions including our average collection experience compared to resale reported by the distributors. To the extent actual results differ from these assumptions, revenue will change accordingly.

**Deferred income.** In determining the balance in the deferred income account, we make estimates of salable and returnable inventory at certain distributors and we make estimates similar to those used to value inventory on hand to value inventory at these distributors. To the extent actual results differ from these estimates, the balances of reported deferred income, revenue and cost of products sold will change accordingly.

**Inventory.** We value inventory at the lower of cost or market on a quarterly basis. In addition, we write down unproven, excess and obsolete inventories to net realizable value. To value our inventory, we make a number of estimates and assumptions including future price declines and forecasted demand for our products. To the extent actual results differ from these estimates and assumptions, the balances of reported inventory and cost of products sold will change accordingly.

**Long-Lived Assets.** We account for our long-lived assets, primarily property and equipment and amortizable intangible assets, in accordance with Statement of Financial Accounting Standards ("SFAS") No. 144, "Accounting for the Disposal of Long-Lived Assets," which requires us to review the impairment of long-lived assets whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Impairment is determined by comparing the estimated undiscounted cash flows to the carrying amount. A loss is recorded if the carrying amount of the asset exceeds the estimated undiscounted cash flows. Intangible assets are generally being amortized over five years, and fifteen years for income tax purposes, on a straight-line basis.

**Accounting for income taxes.** To report income tax expense related to operating results, we record current and deferred income tax assets and liabilities in our balance sheet. In determining the value of our deferred tax assets, we make estimates of future taxable income. As of December 31, 2004, 2003 and 2002, we have recorded full valuation allowances for all of our deferred tax assets due to uncertainties regarding their realization. In determining the value of income tax liabilities, we make estimates of the results of future examinations of our income tax returns by taxing authorities. To the extent actual results differ from these estimates, our income tax provision will be affected accordingly.

## **Liquidity and Capital Resources**

As of December 31, 2004, our principal source of liquidity was \$296.3 million of cash and marketable securities, which was approximately \$18.5 million greater than the balance of \$277.8 million at December 31, 2003. Working capital decreased to \$328.5 million at December 31, 2004 from \$363.6 million at December 31, 2003. This decrease was primarily due to payments to Fujitsu pursuant to the Advance Payment Agreement entered into in September 2004. During 2004 we generated approximately \$6.0 million of cash and cash equivalents from our operations, net of a \$25.0 million payment to Fujitsu Limited (discussed below), compared with \$34.8 million during 2003, of which approximately \$26.0 million was attributable to income tax refunds.

Accounts Receivable declined \$7.2 million at December 31, 2004 compared to December 31, 2003 due to lower billings in the later portion of the fourth quarter of 2004 as compared to the similar period in 2003 combined with lower revenues in the December 2004 quarter compared to the December 2003 quarter.

Inventories decreased approximately \$8.0 million, or 17%, at December 31, 2004 compared to December 31, 2003 and decreased by \$9.6 million, or 17%, at December 31, 2003 as compared to the balance at the end of the prior year primarily due to reduced starts and receipts of wafers in response to changing revenue levels.

Prepaid expenses and other current assets increased by approximately \$6.2 million in December 31, 2004 as compared to December 31, 2003 primarily due to: increased amounts of prepaid wafers expected to be used in the next twelve months (see Note 7 to our Consolidated Financial Statements); increases in prepaid software licenses, maintenance contracts and insurance; and additional income tax refunds receivable. Prepaid expenses and other current assets decreased by approximately \$18.9 million, or 54%, at December 31, 2003 as compared to December 31, 2002 primarily due to a decrease in refundable income taxes, offsetting an approximate \$6.2 million increase in the amount of prepaid wafers expected to be used in the next twelve months (see Note 7 to our Consolidated Financial Statements).

The current portion of equity securities available for sale decreased from \$35.4 million to \$24.2 million at December 31, 2004 as compared to December 31, 2003. These securities represent the portion of our investment in UMC that are available for sale during 2005 (see Note 7 to our Consolidated Financial Statements). The current portion of equity securities available for sale increased by \$35.4 million, or 100%, at December 31, 2003 as compared to December 31, 2002.

Property and equipment, less accumulated depreciation, decreased by \$6.2 million at December 31, 2004 as compared to December 31, 2003 and decreased by \$9.0 million in 2003 as compared to the balance in the prior year due to lower expenditures for capital equipment. Net intangible assets decreased by \$43.8 million and \$71.3 million in 2004 and 2003 as compared to the balance of the prior year, respectively, which is attributable to amortization of these assets.

Capital expenditures were approximately \$10.7 million, \$9.7 million, and \$17.5 million in 2004, 2003 and 2002, respectively. We expect to spend approximately \$15 million to \$20 million on capital expenditures for the fiscal year ended December 31, 2005.

Foundry investments, advances and other assets increased by approximately \$11.0 million at December 31, 2004 compared to December 31, 2003 due to a \$50.0 million recorded advance for wafer supply to Fujitsu (see Note 7 to our Consolidated Financial Statements) partially offset by a decline in our UMC investment due to \$36.6 million of shares sold and a \$13.2 million market price decline. Foundry investments, advances and other assets decreased by approximately \$17.6 million, or 17%, at December 31, 2003 as compared to the balance of the prior year. This was primarily due to the \$35.4 million of our UMC investment reclassified to equity securities available for sale and the \$6.2 million reclassified to prepaid expenses and other current assets related to prepaid wafers, partially offset by a \$24.6 million gain recorded in accumulated other comprehensive income related to changes in the market value of our UMC shares.

As of December 31, 2004, we owned 60.8 million shares of UMC common stock of which 23.3 million shares were restricted from sale for more than one year by the terms of our agreement with UMC. During 2002, we sold approximately 7.6 million shares of UMC common stock for approximately \$9.9 million in cash, resulting in a gain of \$4.0 million. During 2004, we sold 36.6 million of our UMC shares for approximately \$29.6 million in cash, resulting in a gain of approximately \$6.1 million. In the future, we may choose to liquidate additional UMC shares.

In 1997 we entered into an advance payment production agreement with Seiko Epson and Epson Electronics America, Inc. ("EEA"), which was subsequently amended in 2002 and March 2004. Under this agreement we advanced \$51.3 million to Seiko Epson to finance construction of an eight-inch sub-micron semiconductor wafer manufacturing facility. The advance is to be repaid with semiconductor wafers over a multi-year period. No interest income is recorded. The agreement calls for wafers to be supplied by Seiko Epson through EEA pursuant to purchase agreements with EEA. Cumulatively, \$26.2 million of these payments have been repaid to us in the form of semiconductor wafers. We currently estimate that approximately \$12.9 million of the outstanding advances are expected to be repaid with semiconductor wafers during the next twelve months and are thus reflected as part of Other current assets in our Consolidated Balance Sheet. We are not obligated to make additional payments under this agreement.

On June 20, 2003, we issued \$200.0 million in Zero Coupon Convertible Subordinated Notes due July 1, 2010. No interest will accrue or be payable related to these notes. Holders of these notes may convert the notes into shares of our common stock at any time before the close of business on the date of their maturity, unless the notes have been previously redeemed or repurchased, if (1) the price of our common stock issuable upon conversion of a note reaches a specified threshold, (2) the notes are called for redemption, (3) if we request a redemption, or make a distribution to common stockholders that is dilutive to note holders or if we become a party to a merger or consolidation or sale of substantially all of our assets or (4) the trading price of the notes falls below certain thresholds. The conversion price is approximately \$12.06 per share, subject to adjustment in certain circumstances. On or after July 1, 2008, we have the option to redeem all or a portion of the notes that have not been previously repurchased or converted at 100% of the principal amount of the notes. On July 1, 2008, holders have the option to require us to purchase all or a portion of their notes in cash at 100% of the principal amount of the notes. Holders also have the right, subject to certain conditions, to require us to repurchase the notes in the event of a “fundamental change” (as defined in the indenture governing the notes) at 100% of the principal amount of the notes. Generally, a fundamental change is an occurrence resulting in substantially all of our common stock being converted into common stock which is not listed on a United States stock exchange or Nasdaq.

The notes are subordinated in right of payment to all of our senior indebtedness, and are structurally subordinated as to the revenues and assets of our subsidiaries to all debt and other liabilities of our subsidiaries. At December 31, 2004, we had no senior indebtedness and our subsidiaries had approximately \$2.2 million of debt and other liabilities outstanding. Issuance costs relative to these convertible notes are included in “Foundry investments, advances and other assets” and aggregated approximately \$5.4 million and are being amortized to expense over the lives of the notes. Accumulated amortization of these issuance costs was approximately \$3.2 million and \$1.4 million as of December 31, 2004 and December 31, 2003, respectively.

In October 2003, our board of directors authorized management to repurchase up to \$100.0 million of our Zero Coupon Convertible Subordinated Notes due July 1, 2010. During 2004, we extinguished approximately \$15.0 million of these notes for approximately \$12.0 million in cash and recognized a net gain of approximately \$2.8 million after writing off approximately \$0.2 million of unamortized issuance costs. During 2003, we extinguished approximately \$16.0 million of these notes for approximately \$14.2 million in cash and recognized a net gain of approximately \$1.4 million. In connection with this transaction, we also wrote off approximately \$0.4 million of unamortized issuance costs. In the first quarter through March 11, 2005 we extinguished \$5.3 million of our Zero Coupon Convertible Subordinated Notes due July 1, 2010 for \$4.5 million resulting in a gain of \$0.7 million which will be included in Interest and other income (expense) for the March 31, 2005 quarter. In the future we may choose to extinguish additional Zero Coupon Convertible Subordinated Notes due July 1, 2010.

The estimated fair value of the Zero Coupon Convertible Subordinated Notes due July 1, 2010, based on quoted market prices, was approximately \$145.1 million at December 31, 2004.

On July 21, 2003, we extinguished for cash all of our outstanding 4¾% Convertible Subordinated Notes due in 2006, originally issued in October 1999, plus accrued interest. Total cash paid at extinguishment approximated \$178.8 million, including par value of \$172.3 million, accrued interest of approximately \$1.8 million and a call premium of 2.71% of the outstanding notes, or approximately \$4.7 million. This call premium, plus unamortized issuance costs of approximately \$1.0 million as of the extinguishment date, was recorded as “Other expense” in the quarter ended September 30, 2003.

During 2002, we extinguished approximately \$51.9 million face value of our 4¾% Convertible Subordinated Notes due in 2006 for approximately \$42.8 million in cash, including accrued interest. We recognized a net gain of approximately \$9.3 million in connection with these transactions.

On September 10, 2004, we entered into an Advance Payment and Purchase Agreement (the “Fujitsu Agreement”) with Fujitsu Limited (“Fujitsu”), pursuant to which we will advance \$125.0 million to Fujitsu in support of the development and construction of a new 300mm wafer fabrication facility in Mie, Japan. The initial two payments of \$25.0 million each were made in October 2004 and January 2005, with the remaining payments to be made in two stages upon the achievement of certain milestones. We currently anticipate that the advance payment will be paid in full by the second quarter of 2006.

Our \$125.0 million advance will be credited against the purchase price of 300 mm wafers from the new wafer fabrication facility. The Fujitsu Agreement will continue until the full amount of the advance payment has been returned to us in the form of wafers or other repayment, subject to the right of either party to terminate the agreement upon the occurrence of certain events. We may request a refund of the unused amount of the advance payment if we have not used all of our wafer credits by December 31, 2007. The repayment obligation of Fujitsu is unsecured.

The foregoing summary description of the Fujitsu Agreement is qualified in its entirety by reference to the Fujitsu Agreement, which is filed as an exhibit to our Form 10Q for the quarter ended September 30, 2004.

The following table summarizes our significant contractual cash obligations at December 31, 2004 (in thousands):

<b>Fiscal Year</b>	<b>Operating leases(1)</b>	<b>Inventory and Related Purchase Obligations(2)</b>	<b>Advance Payment and Purchase Agreement(3)</b>	<b>Zero Coupon Convertible Subordinated Notes due July 1, 2010</b>
2005	\$ 9,049	\$ 5,954	\$ —	\$ —
2006	7,327	—	75,000	—
2007	6,075	—	—	—
2008	5,615	—	—	—
2009	1,108	—	—	—
Later years	1,404	—	—	169,000
	<u>\$ 30,578</u>	<u>\$ 5,954</u>	<u>\$ 75,000</u>	<u>\$ 169,000</u>

- (1) Certain of our facilities and equipment are leased under operating leases, which expire at various times through 2013. Rental expense under the operating leases was approximately \$5.9 million, \$5.8 million, and \$6.0 million for 2004, 2003 and 2002, respectively.
- (2) We depend entirely upon subcontractors to manufacture our silicon wafers. Other subcontractors provide substantially all of our assembly and test services. Due to lengthy subcontractor lead times, we must order these materials and services well in advance, and we are obligated to pay for these materials and services once they are completed. We expect to receive the material and pay the purchase obligation within four to six months subsequent to December 31, 2004.
- (3) Represents obligations to make payments upon completion of milestones presently estimated to occur by the second quarter of 2006.

Included in the above operating lease amounts are certain properties which are currently subleased. A portion of this sublease income is payable to the property owner. Future minimum sublease receipts, based on agreements in place at December 31, 2004, net of such payments are as follows (in thousands):

<u>Fiscal Year</u>	<u>Amount</u>
2005	\$ 3,026
2006	997
	<u>\$ 4,023</u>

In December 2000, our Board of Directors authorized management to repurchase up to five million shares of our common stock. As of December 31, 2004, we had repurchased 1,136,000 shares at an aggregate cost of approximately \$20.0 million. There were no repurchases of common stock in 2002, 2003 or 2004.

Congress adopted the American Jobs Creation Act of 2004 which among other things provides companies with foreign subsidiaries the opportunity to repatriate earnings of such subsidiaries at a reduced tax rate. Presently we have substantial tax loss carryforwards which could be used to offset tax liabilities arising from repatriation of foreign subsidiary earnings. We are not planning to repatriate earnings of our foreign subsidiaries.

We believe that our existing liquid resources and expected cash generated from operations combined with our ability to borrow additional funds will be adequate to meet our operating and capital requirements and obligations for the next 12 months. We may in the future seek new or additional sources of funding. In addition, in order to secure additional wafer supply, we may from time to time consider various financial arrangements including joint ventures, equity investments, advance purchase payments, loans, or similar arrangements with independent wafer manufacturers in exchange for committed wafer capacity. To the extent that we pursue any such additional financing arrangements, additional debt or equity financing may be required. There can be no assurance that such additional financing will be available when needed or, if available, will be on favorable terms. Any future equity financing will decrease existing stockholders' equity percentage ownership and may, depending on the price at which the equity is sold, result in dilution.

### **New Accounting Pronouncements**

In March 2004, the Emerging Issues Task Force reached a consensus on recognition and measurement guidance previously discussed under EITF 03-01. The consensus clarifies the meaning of other-than-temporary impairment and its application to investments classified as either available-for-sale or held-to-maturity under SFAS No. 115, "Accounting for Certain Investments in Debt and Equity Securities." The recognition and measurement guidance for which the consensus was reached in the March 2004 meeting is to be applied to other-than-temporary impairment evaluations in reporting periods beginning after June 15, 2004. In November 2004, the FASB staff indicated that the FASB will delay until 2005 the FASB Staff Position on EITF Issue No. 03-01, "The Meaning of Other-Than-Temporary Impairment and its Application to Certain Investments." Management will evaluate the affect of adopting the recognition and measurement guidance when the matter is finalized.

In December 2004, the FASB issued a Statement "Share Based Payment—a revision of SFAS No. 123 'Accounting for Stock Based Compensation'," that addresses the accounting for share-based payment transactions in which a company receives employee services in exchange for either equity instruments of the company or liabilities that are based on the fair value of the company's equity instruments or that may be settled by the issuance of such equity instruments. The statement eliminates the ability to account for share-based compensation transactions using the intrinsic method currently used by the company and generally would require that such transactions be accounted for using a fair-value-based method and



recognized as expense in the company's Consolidated Statement of Operations. The effective date of the standard is for interim or fiscal periods beginning after June 15, 2005. This statement will have a significant impact on our Consolidated Statement of Operations, as we will be required to expense the fair value of our stock option grants and stock purchases under our employee stock purchase plan. At this time we have not made an estimate of the impact of this statement on our future financial results. Please refer to Note 13 to our Consolidated Financial Statements which provides historical information that may be useful in assessing the impact of this standard on our Consolidated Financial Statements.

### **Off-Balance Sheet Arrangements**

We do not have any financial partnerships with unconsolidated entities, such as entities often referred to as structured finance or special purpose entities, which are often established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purpose. Accordingly, we are not exposed to any financing, liquidity, market or credit risk that could arise if we had such relationships.

### **Factors Affecting Future Results**

#### **We may be unsuccessful in defining, developing or selling new products required to maintain or expand our business.**

As a semiconductor company, we operate in a dynamic environment marked by rapid product obsolescence. Our future success depends on our ability to introduce new or improved silicon and software products that meet customer needs while achieving acceptable margins. We are presently in the process of releasing next generation FPGA product families that are critical to our ability to address the FPGA segment of the programmable logic market. If we fail to introduce these, or other, new products in a timely manner or such products fail to achieve market acceptance, our operating results would be harmed.

Fujitsu Limited has agreed to manufacture our next generation FPGA products on its 130 nanometer and 90 nanometer CMOS process technologies, as well as on a 130 nanometer technology with embedded Flash memory that we have jointly developed with Fujitsu. The success of our next generation FPGA products is dependent on our ability to successfully partner with Fujitsu, which has not previously manufactured any of our products. If for any reason we are unsuccessful in our efforts to partner with Fujitsu in connection with these next generation FPGA products, our future revenue growth would be materially adversely affected.

The introduction of new silicon and software products in a dynamic market environment presents significant business challenges. Product development commitments and expenditures must be made well in advance of product sales. The market reception of new products depends on accurate projections of long-term customer demand, which by their nature are uncertain.

Our future revenue growth is dependent on market acceptance of our new silicon and software product families and the continued market acceptance of our current products. The success of these products is dependent on a variety of specific technical factors including:

- successful product definition;
- timely and efficient completion of product design;
- timely and efficient implementation of wafer manufacturing and assembly processes;
- product performance;
- product cost; and
- the quality and reliability of the product.

If, due to these or other factors, our new silicon and software products do not achieve market acceptance, our operating results would be harmed.

**Our products may not be competitive if we are unsuccessful in migrating our manufacturing processes to more advanced technologies or alternative fabrication facilities.**

To develop new products and maintain the competitiveness of existing products, we need to migrate to more advanced wafer manufacturing processes that use larger wafer sizes and smaller device geometries. We also may need to use additional foundries. Because we depend upon foundries to provide their facilities and support for our process technology development, we may experience delays in the availability of advanced wafer manufacturing process technologies at existing or new wafer fabrication facilities. As a result, volume production of our advanced process technologies at the fabs of Seiko Epson, UMC, Chartered Semiconductor, Fujitsu or future foundries may not be achieved. This could harm our operating results.

**The cyclical nature of the semiconductor industry may limit our ability to maintain or increase revenue levels and operating results during industry downturns.**

The semiconductor industry is highly cyclical, to a greater extent than other less technology-driven industries. Our financial performance has periodically been negatively affected by downturns in the semiconductor industry. Factors that contribute to these industry downturns include:

- the cyclical nature of the demand for the products of semiconductor customers;
- general reductions in inventory levels by customers;
- excess production capacity;
- general decline in end-user demand; and
- accelerated declines in average selling prices.

Historically, the semiconductor industry has experienced periodic downturns of varying degrees of severity and duration. Typically, after such downturns, semiconductor industry conditions improve, although such improvement may not be significant or sustainable. Increased demand for semiconductor industry products may not proportionately increase demand for programmable logic products in general, or our products in particular. Even if demand for our products increases, average sales prices for our products may not increase, and could decline. Whenever adverse semiconductor industry conditions or other similar conditions exist, there is likely to be an adverse effect on our operating results.

**A downturn in the communications equipment and computing end markets could cause a reduction in demand for our products and limit our ability to maintain or increase revenue levels and operating results.**

The majority of our revenue is derived from customers in the communications equipment and computing end markets. Any deterioration in these end markets or any reduction in technology capital spending could lead to a reduction in demand for our products. Whenever adverse economic or end market conditions exist, there is likely to be an adverse effect on our operating results.

**We face risks related to implementation of new Sarbanes-Oxley Section 404 Controls Audit requirements.**

Section 404 of the Sarbanes-Oxley Act of 2002 requires that our management assess our internal control over financial reporting annually and include a report on its assessment in our annual report. Our independent registered public accounting firm is required to audit both the design and operating effectiveness of our internal controls and management's assessment of the design and the operating effectiveness of its internal controls. Through its assessment process, management believes there are no known material weaknesses at this time. This is the first year we have undergone an audit of our internal controls and procedures. We will continue to perform similar assessments and it is possible that material weaknesses will be found and reported to our shareholders in the future. Further, if we are unable to remediate any such weaknesses our independent registered public accounting firm may issue an adverse opinion on our internal controls. If this were to occur, particularly in light of our restatement of 2003 quarterly financial statements, investor confidence regarding our internal controls could be harmed and our stock price could decline.

**We face risks related to our recent accounting restatement.**

On January 22, 2004, we announced that we had discovered possible accounting inaccuracies in previously reported quarterly financial statements. An internal investigation was conducted by the Audit Committee of our Board of Directors to determine the scope and magnitude of these inaccuracies. On March 24, 2004, we announced that the Audit Committee had completed its internal accounting investigation and, as a result, we restated our financial statements for the first, second and third quarters of 2003 to correct inappropriate accounting entries and a failure to record a change in accounting estimate related to deferred income. On April 19, 2004, we filed such restated financial statements with Form 10Q/A for the affected quarters.

The restatement of these financial statements has led to litigation claims and may lead to further litigation claims and/or regulatory proceedings against us. The defense of any such claims or proceedings may cause the diversion of management's attention and resources, and we may be required to pay damages if any such claims or proceedings are not resolved in our favor. Any litigation or regulatory proceeding, even if resolved in our favor, could cause us to incur significant legal and other expenses. Moreover, we may be the subject of negative publicity focusing on the financial statement inaccuracies and resulting restatement. The occurrence of any of the foregoing could harm our business and reputation and cause the price of our common stock to decline.

**If we are unable to effectively and efficiently implement our plan to improve our internal controls there could be a material adverse effect on our operations or financial results.**

We received notice from our independent registered public accounting firm that, in connection with the 2003 year-end audit, the independent registered public accounting firm identified a material weakness in our internal controls and procedures relating to separation of duties and establishment of standards for review of journal entries and related file documentation. Although we have implemented various initiatives that have remedied this material weakness, we intend to make additional changes to our internal controls to address the issues that gave rise to the material weakness.

During our 2004 fiscal year end financial statement closing we identified a significant deficiency in our internal controls relating to a mechanical error in calculating a unique inventory allowance, which resulted from manual calculations performed by newly assigned employees who did not recognize that the required allowance had been calculated and recorded by existing procedures. The error was not present in previously issued financial statements and was corrected before the current fiscal year end financial statements were issued. Additional training and review procedures have been instituted to remedy this situation. During 2005 we intend to perform more staff training and staff cross training as well as identify

ways to modify and automate our inventory compilation processes to make them less vulnerable to manual errors and implement related procedures.

No assurance can be given that we will be able to successfully implement our revised internal controls and procedures or that our revised controls and procedures will have the desired effect. In addition, we may be required to hire additional employees, and may experience higher than anticipated capital expenditures and operating expenses, during the implementation of these changes and thereafter. Furthermore, future assessments of our internal controls and procedures may reveal new material weaknesses or significant deficiencies. If we are unable to implement the changes to our internal controls and procedures effectively or efficiently, or if we discover additional material weaknesses or significant deficiencies, there could be a material adverse effect on our operations or financial results. Moreover, we could be subject to additional regulatory oversight and our business and reputation could be harmed.

**We face risks related to pending litigation.**

In September and October 2004, three putative class action complaints were filed in the United States District Court for the District of Oregon against Lattice Semiconductor Corporation, our Chief Executive Officer Cyrus Y. Tsui, and our President Stephen A. Skaggs. These complaints were filed on behalf of a putative class of investors who purchased our stock between April 22, 2003 and April 19, 2004. They generally allege violations of federal securities laws arising out of our previously announced restatement of financial results for the first, second, and third quarters of 2003. Consistent with the usual procedures for cases of this kind, these cases were amended and consolidated into a single action. In such amended and consolidated complaint filed January 27, 2005 our former President and our former Controller were added as defendants. We believe that the complaints are without merit, and we intend to vigorously defend against the lawsuits.

In September and October 2004, two shareholder derivative complaints were filed, purportedly on behalf of Lattice Semiconductor Corporation, in the Circuit Court of the State of Oregon for the County of Washington, against all of our current directors, certain former directors, and certain executive officers. The derivative plaintiffs make allegations substantially similar to those in the putative class action complaints, as well as allegations of breach of fiduciary duty, abuse of control, gross mismanagement, waste of corporate assets, and unjust enrichment. Consistent with the usual procedures for cases of this kind, these cases were consolidated into a single putative shareholder derivative action. An amended and consolidated complaint is expected to be filed by April 1, 2005.

All of the complaints generally seek an unspecified amount of damages, as well as attorney fees and costs. The cases are still in the preliminary stages, and it is not possible for us to quantify the extent of our potential liability, if any. An unfavorable outcome in any of these matters could have a material adverse effect on our business and financial results. In addition, defending any litigation may be costly and divert management's attention from the day-to-day operations of our business.

We are exposed to certain 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 and financial results.

**Our future quarterly operating results may fluctuate and therefore may fail to meet expectations.**

Our quarterly operating results have fluctuated and may continue to fluctuate. Consequently, our operating results may fail to meet the expectations of analysts and investors. As a result of industry conditions and the following specific factors, our quarterly operating results are more likely to fluctuate and are more difficult to predict than a typical non-technology company of our size and maturity:

- general economic conditions in the countries where we sell our products;

- conditions within the end markets into which we sell our products;
- the cyclical nature of demand for our customers' products;
- excessive inventory accumulation by our end customers;
- the timing of our and our competitors' new product introductions;
- product obsolescence;
- the scheduling, rescheduling and cancellation of large orders by our customers;
- our ability to develop new process technologies and achieve volume production at the fabs of Seiko Epson, UMC, Chartered Semiconductor, Fujitsu or at other foundries;
- changes in manufacturing yields including delays in achieving target yields on New products;
- adverse movements in exchange rates, interest rates or tax rates; and
- the availability of adequate supply commitments from our wafer foundries and assembly and test subcontractors.

As a result of these factors, our past financial results are not necessarily a good predictor of our future results.

**Our stock price may continue to experience large fluctuations.**

In recent years, the price of our common stock has fluctuated greatly. These price fluctuations have been rapid and severe and have left investors little time to react. The price of our common stock may continue to fluctuate greatly in the future due to a variety of company specific factors, including:

- quarter-to-quarter variations in our operating results;
- shortfalls in revenue or earnings from levels expected by securities analysts; and
- announcements of technological innovations or new products by other companies.

At December 31, 2004, our book value per share was \$4.78, compared to our stock price which has ranged from a low of \$3.96 per share to a high of \$6.35 per share in the six months ended December 31, 2004. Presently, our stock price is trading near our consolidated book value. Should our stock price drop below book value for a sustained period, it may become necessary to record an impairment charge to goodwill which would reduce our results of operations (see Note 8 of our Consolidated Financial Statements).

**Our wafer supply may be interrupted or reduced, which may result in a shortage of products available for sale.**

We do not manufacture finished silicon wafers. Currently, our silicon wafers are manufactured by Seiko Epson in Japan, UMC in Taiwan, and Chartered Semiconductor in Singapore. If any of our current or future foundry partners significantly interrupts or reduces our wafer supply, our operating results could be harmed.

In the past, we have experienced delays in obtaining wafers and in securing supply commitments from our foundries. At present, we anticipate that our supply commitments are adequate. However, these existing supply commitments may not be sufficient for us to satisfy customer demand in future periods. Additionally, notwithstanding our supply commitments we may still have difficulty in obtaining wafer deliveries consistent with the supply commitments. We negotiate wafer prices and supply commitments from our suppliers on at least an annual basis. If any of our foundry partners were to reduce its supply

commitment or increase its wafer prices, and we cannot find alternative sources of wafer supply, our operating results could be harmed.

Many other factors that could disrupt our wafer supply are beyond our control. Since worldwide manufacturing capacity for silicon wafers is limited and inelastic, we could be harmed by significant industry-wide increases in overall wafer demand or interruptions in wafer supply. Additionally, a future disruption of any of our foundry partners' foundry operations as a result of a fire, earthquake, act of terrorism, political unrest, governmental uncertainty, war, or other natural disaster or catastrophic event could disrupt our wafer supply and could harm our operating results.

**If our foundry partners experience quality or yield problems, we may face a shortage of products available for sale.**

We depend on our foundries to deliver reliable silicon wafers with acceptable yields in a timely manner. As is common in our industry, we have experienced wafer yield problems and delivery delays. If our foundries are unable for a prolonged period to produce silicon wafers that meet our specifications, with acceptable yields, our operating results could be harmed.

The majority of our revenue is derived from products based on a specialized silicon wafer manufacturing process technology called E<sup>2</sup>CMOS<sup>®</sup>. The reliable manufacture of high performance E<sup>2</sup>CMOS semiconductor wafers is a complicated and technically demanding process requiring:

- a high degree of technical skill;
- state-of-the-art equipment;
- the absence of defects in production wafers;
- the elimination of minute impurities and errors in each step of the fabrication process; and
- effective cooperation between the wafer supplier and us.

As a result, our foundries may experience difficulties in achieving acceptable quality and yield levels when manufacturing our silicon wafers.

**If our assembly and test contractors experience quality or yield problems, we may face a shortage of products available for sale.**

We rely on contractors to assemble and test our devices with acceptable quality and yield levels. As is common in our industry, we have experienced quality and yield problems in the past. If we experience prolonged quality or yield problems in the future, our operating results could be harmed.

The majority of our revenue is derived from semiconductor devices assembled in advanced packages. The assembly of advanced packages is a complex process requiring:

- a high degree of technical skill;
- state-of-the-art equipment;
- the absence of defects in assembly and packaging manufacturing;
- the elimination of raw material impurities and errors in each step of the process; and
- effective cooperation between the assembly contractor and us.

As a result, our contractors may experience difficulties in achieving acceptable quality and yield levels when assembling and testing our semiconductor devices.

**Deterioration of conditions in Asia may disrupt our existing supply arrangements and result in a shortage of finished products available for sale.**

All of our major silicon wafer suppliers operate fabs located in Asia. Our finished silicon wafers are assembled and tested by independent contractors located in China, Japan, Malaysia, the Philippines, South Korea and Taiwan. Economic, financial, social and political conditions in Asia have historically been volatile. Financial difficulties, governmental actions or restrictions, prolonged work stoppages, political unrest, war or any other difficulties experienced by our suppliers may disrupt our supply and could harm our operating results.

**Export sales account for a substantial portion of our revenues and may decline in the future due to economic and governmental uncertainties.**

Our export sales are affected by unique risks frequently associated with foreign economies including:

- changes in local economic conditions;
- exchange rate volatility;
- governmental controls and trade restrictions;
- export license requirements and restrictions on the export of technology;
- political instability, war or terrorism;
- changes in tax rates, tariffs or freight rates;
- interruptions in air transportation; and
- difficulties in staffing and managing foreign sales offices.

**We may not be able to successfully compete in the highly competitive semiconductor industry.**

The semiconductor industry is intensely competitive and many of our direct and indirect competitors have substantially greater financial, technological, manufacturing, marketing and sales resources. If we are unable to compete successfully in this environment, our future results will be adversely affected.

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. We also compete indirectly with numerous semiconductor companies that offer products based on alternative technical solutions. These direct and indirect competitors are established multinational semiconductor companies as well as emerging companies.

**We may fail to retain or attract the specialized technical and management personnel required to successfully operate our business.**

To a greater degree than most non-technology companies or larger technology companies, our future success depends on our ability to attract and retain highly qualified technical and management personnel. As a mid-sized company, we are particularly dependent on a relatively small group of key employees. Competition for skilled technical and management employees is intense within our industry. As a result, we may not be able to retain our existing key technical and management personnel. In addition, we may not be able to attract additional qualified employees in the future. If we are unable to retain existing key employees or are unable to hire new qualified employees, our operating results could be adversely affected.

**If we are unable to adequately protect our intellectual property rights, our financial results and competitive position may suffer.**

Our success depends in part on our proprietary technology. However, we may fail to adequately protect this technology. As a result, we may lose our competitive position or face significant expense to protect or enforce our intellectual property rights.

We intend to continue to protect our proprietary technology through patents, copyrights and trade secrets. Despite this intention, we may not be successful in achieving adequate protection. Claims allowed on any of our patents may not be sufficiently broad to protect our technology. Patents issued to us also may be challenged, invalidated or circumvented. Finally, our competitors may develop similar technology independently.

Companies in the semiconductor industry vigorously pursue their intellectual property rights. If we become involved in protracted intellectual property disputes or litigation we may be forced to use substantial financial and management resources, which could have an adverse effect on our operating results.

Our industry is characterized by frequent claims regarding patents and other intellectual property rights of others. We have been, and from time-to-time expect to be, notified of claims that we are infringing the intellectual property rights of others. If any third party makes a valid claim against us, we could face significant liability and could be required to make material changes to our products and processes. In response to any claims of infringement, we may seek licenses under patents that we are alleged to be infringing. However, we may not be able to obtain a license on favorable terms, or at all, without our operating results being adversely affected.

**Our marketable securities, which we hold for strategic reasons, are subject to equity price risk and their value may fluctuate.**

Currently we hold substantial equity in UMC, which we acquired as part of a strategic investment to obtain certain manufacturing rights. The market price and valuation of these equity shares has fluctuated widely due to business, stock market or other conditions over which we have little control. During the year ended December 31, 2001, we recorded a pre-tax impairment loss related to this investment. In the future, UMC shares may continue to experience significant price volatility. In 2002 and in 2004, we sold a portion of our UMC shares, but have otherwise not attempted to reduce or eliminate this equity price risk through hedging or similar techniques and hence substantial, sustained changes in the market price of UMC shares could impact our financial results. To the extent that the market value of our UMC shares experiences a significant decline for an extended period of time, our operating results could be adversely affected.

**Changes in accounting for equity compensation will adversely affect operating results and could adversely affect our ability to attract and retain employees.**

We have historically used stock options as a key component of employee compensation in order to align employees' interests with the interests of our stockholders, encourage employee retention, and provide competitive compensation packages. The Financial Accounting Standards Board has adopted changes to generally accepted accounting principles that require us and other companies to record a charge to earnings for employee stock option grants and other equity incentives beginning in the quarter ended September 30, 2005. To the extent that these or other new regulations make it more difficult or expensive to grant options to employees, we will incur increased compensation costs. We may also change our equity compensation strategy or find it difficult to attract, retain and motivate employees. Any of these results could materially and adversely affect our business.



**Item 7(a). Quantitative and Qualitative Disclosures About Market Risk.**

As of December 31, 2004 and December 31, 2003 our investment portfolio consisted of fixed income securities of \$287.0 million and \$275.0 million, respectively. As with all fixed income instruments, these securities are subject to interest rate risk and will decline in value if market interest rates increase. If market rates were to increase immediately and uniformly by 10% from levels as of December 31, 2004 and December 31, 2003, the decline in the fair value of our portfolio would not be material. Furthermore, we have the ability to hold our fixed income investments until maturity and, therefore, we would not expect to recognize such an adverse impact in our results from operations or statement of cash flows.

We have international subsidiary and branch operations. Additionally, we sell products to Japanese customers denominated in Yen. We therefore are subject to foreign currency rate exposure. To minimize foreign exchange risk related to Yen-based net assets on our Consolidated Balance Sheet, on August 11, 2004, we entered into an agreement with a bank under the terms of which we can borrow up to \$6.0 million in Japanese Yen in a revolving line of credit arrangement. Outstanding borrowing is collateralized by marketable securities. Interest on outstanding borrowing is based on the Japanese LIBOR Fixed Rate, and averaged 1.04% for the year ended December 31, 2004. Outstanding borrowing at December 31, 2004 was \$2.9 million. This arrangement can be terminated at anytime by either party.

We are exposed to equity price risk due to our equity investment in UMC (see note 7 to our Consolidated Financial Statements). Neither a 10% increase nor a further 10% decrease in equity price related to this investment would have a material effect on our Consolidated Financial Statements as of December 31, 2004 or December 31, 2003. We have not attempted to reduce or eliminate this equity price risk through hedging or similar techniques. As a result, sustained changes in the market price of UMC shares could impact our financial results. To the extent that the market value of our UMC shares experiences further deterioration for an extended period of time, our operating results could be adversely affected.

**Item 8. Financial Statements and Supplementary Data.**

**Index to Consolidated Financial Statements and Consolidated Financial Statement Schedules**

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**LATTICE SEMICONDUCTOR CORPORATION**

**CONSOLIDATED BALANCE SHEET**

(in thousands, except share and par value amounts)

	December 31, 2004	December 31, 2003
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 44,816	\$ 35,276
Marketable securities	251,479	242,474
Accounts receivable, net	19,587	26,796
Inventories (note 2)	38,634	46,630
Prepaid expenses and other current assets (notes 7 and 11)	22,325	16,173
Equity securities available for sale (note 7)	24,202	35,364
Total current assets	<u>401,043</u>	<u>402,713</u>
Foundry investments, advances and other assets (note 7)	97,877	86,883
Property and equipment, less accumulated depreciation (note 3)	47,586	53,800
Intangible assets, less accumulated amortization (notes 4, 5, 6 and 8)	40,795	84,627
Goodwill (notes 5 and 6)	<u>223,605</u>	<u>223,605</u>
	<u>\$ 810,906</u>	<u>\$ 851,628</u>
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Current liabilities:		
Accounts payable and accrued expenses	\$ 46,364	\$ 15,376
Accrued payroll obligations	14,774	13,124
Income taxes payable (note 11)	23	37
Deferred income	11,399	10,564
Total current liabilities	<u>72,560</u>	<u>39,101</u>
Zero Coupon Convertible Subordinated Notes due in 2010 (notes 12 and 18)	169,000	184,000
Other long-term liabilities (note 14)	26,755	22,415
Commitments and contingencies (notes 7, 10, 14, and 15)	—	—
Stockholders' equity (note 13):		
Preferred stock, \$.01 par value, 10,000,000 shares authorized; none issued and outstanding	—	—
Common stock, \$.01 par value, 300,000,000 shares authorized; 113,610,000 and 113,040,000 shares issued and outstanding	1,136	1,130
Paid-in capital	590,270	586,834
Deferred stock compensation	(1,867)	(5,444)
Accumulated other comprehensive income	1,642	20,203
(Deficit) retained earnings	<u>(48,590)</u>	<u>3,389</u>
	<u>542,591</u>	<u>606,112</u>
	<u>\$ 810,906</u>	<u>\$ 851,628</u>

The accompanying notes are an integral part of this statement.

**LATTICE SEMICONDUCTOR CORPORATION**  
**CONSOLIDATED STATEMENT OF OPERATIONS**  
(in thousands, except per share amounts)

	Year Ended December 31,		
	2004	2003	2002
Revenue (note 17)	\$ 225,832	\$ 209,662	\$ 229,126
Costs and expenses:			
Cost of products sold	96,857	89,266	91,546
Research and development	90,957	87,092	85,776
Selling, general and administrative (note 16)	53,803	50,773	48,099
In-process research and development (notes 4 and 5)	—	—	29,853
Amortization of intangible assets (1) (notes 4, 5, 6 and 8)	47,249	77,127	73,415
	<u>288,866</u>	<u>304,258</u>	<u>328,689</u>
Loss from operations	(63,034)	(94,596)	(99,563)
Interest and other income (expense), net:			
Interest income	4,409	3,635	5,362
Interest expense (note 12)	(16)	(7,140)	(12,611)
Other income, net (notes 7 and 12)	6,980	441	13,443
	<u>11,373</u>	<u>(3,064)</u>	<u>6,194</u>
Loss before (benefit) provision for income taxes	(51,661)	(97,660)	(93,369)
Provision (Benefit) for income taxes (note 11)	318	(5,854)	81,866
Net loss	<u>\$ (51,979)</u>	<u>\$ (91,806)</u>	<u>\$ (175,235)</u>
Basic net loss per share	<u>\$ (0.46)</u>	<u>\$ (0.82)</u>	<u>\$ (1.59)</u>
Diluted net loss per share	<u>\$ (0.46)</u>	<u>\$ (0.82)</u>	<u>\$ (1.59)</u>
Shares used in per share calculations:			
Basic	<u>112,976</u>	<u>111,794</u>	<u>110,193</u>
Diluted	<u>112,976</u>	<u>111,794</u>	<u>110,193</u>

- (1) Includes \$3,418, \$5,745, and \$2,962 of amortization of deferred stock compensation expense for the years ended December 31, 2004, December 31, 2003 and December 31, 2002, respectively attributable to research and development activities.

The accompanying notes are an integral part of this statement.

**LATTICE SEMICONDUCTOR CORPORATION**  
**CONSOLIDATED STATEMENT OF CHANGES IN STOCKHOLDERS' EQUITY**  
(in thousands, except par value)

	Common stock (\$01 par value)		Paid-in capital	Deferred Stock comp.	Accumulated other comprehensive (loss) income	Retained earnings (Deficit)	Total
	Shares	Amount					
Balances, Dec. 31, 2001	109,428	\$ 1,094	\$ 548,053	\$ (2,739)	\$ 22,932	\$ 270,430	\$ 839,770
Common stock issued	2,930	30	20,287	—	—	—	20,317
Tax benefit of option exercises	—	—	884	—	—	—	884
Recognized gain on sale of foundry investment, previously unrealized	—	—	—	—	(3,398)	—	—
Unrealized loss on foundry investments	—	—	—	—	(24,878)	—	—
Deferred stock compensation	—	—	11,763	(11,763)	—	—	—
Amortization of deferred stock compensation	—	—	—	2,962	—	—	2,962
Translation adjustments	—	—	—	—	713	—	—
Net loss for 2002	—	—	—	—	—	(175,235)	—
Total comprehensive loss	—	—	—	—	—	—	(202,798)
Balances, Dec. 31, 2002	112,358	1,124	580,987	(11,540)	(4,631)	95,195	661,135
Common stock issued	682	6	6,198	—	—	—	6,204
Unrealized gain on other investments	—	—	—	—	49	—	—
Unrealized gain on foundry investments	—	—	—	—	24,583	—	—
Deferred stock compensation	—	—	(351)	351	—	—	—
Amortization of deferred stock compensation	—	—	—	5,745	—	—	5,745
Translation adjustments	—	—	—	—	202	—	—
Net loss for 2003	—	—	—	—	—	(91,806)	—
Total comprehensive loss	—	—	—	—	—	—	(66,972)
Balances, Dec. 31, 2003	113,040	1,130	586,834	(5,444)	20,203	3,389	606,112
Common stock issued	570	6	3,595	—	—	—	3,601
Unrealized loss on foundry investments	—	—	—	—	(13,211)	—	—
Unrealized gain on other investments	—	—	—	—	292	—	—
Recognized gain on sale of foundry investment previously unrealized	—	—	—	—	(5,556)	—	—
Deferred stock compensation	—	—	(159)	159	—	—	—
Amortization of deferred stock compensation	—	—	—	3,418	—	—	3,418
Translation adjustments	—	—	—	—	(86)	—	—
Net loss for 2004	—	—	—	—	—	(51,979)	—
Total comprehensive loss	—	—	—	—	—	—	(70,540)
Balances, Dec. 31, 2004	<u>113,610</u>	<u>\$ 1,136</u>	<u>\$ 590,270</u>	<u>\$ (1,867)</u>	<u>\$ 1,642</u>	<u>\$ (48,590)</u>	<u>\$ 542,591</u>

The accompanying notes are an integral part of this statement.

**LATTICE SEMICONDUCTOR CORPORATION**  
**CONSOLIDATED STATEMENT OF CASH FLOWS**  
(in thousands)

	<b>Year Ended December 31,</b>		
	<b>2004</b>	<b>2003</b>	<b>2002</b>
Cash flow from operating activities:			
Net loss	\$ (51,979)	\$ (91,806)	\$ (175,235)
Adjustments to reconcile net loss to net cash provided by operating activities:			
Depreciation and amortization	68,776	99,902	94,375
Gain on value of foundry investments	—	—	(4,017)
Gain on sale of equity securities	(6,071)	(271)	—
Loss (gain) on extinguishment of convertible notes	(2,756)	1,381	(9,341)
Tax benefit of option exercises	—	—	884
In process research and development	—	—	29,853
Changes in assets and liabilities (net of purchase accounting adjustments)			
Accounts receivable	7,209	(422)	(6,922)
Inventories	7,996	9,609	12,157
Prepaid expenses and other current assets	(6,152)	25,062	4,730
Deferred income taxes	—	—	110,792
Foundry investments, advances and other assets	(46,271)	1,101	3,562
Accounts payable and accrued expenses	28,658	(3,211)	(3,497)
Accrued payroll obligations	1,650	(519)	(2,099)
Income taxes payable	(14)	124	(2,609)
Deferred income	835	(1,419)	(6,120)
Other liabilities	4,078	(4,753)	(515)
Net cash provided by operating activities	<u>5,959</u>	<u>34,778</u>	<u>45,998</u>
Cash flow from investing activities:			
Proceeds from sales or maturities of marketable securities	248,838	420,543	306,923
Purchase of marketable securities	(257,843)	(555,612)	(132,965)
Acquisition of Agere FPGA	—	—	(254,232)
Other acquisition costs	—	—	(2,530)
Proceeds from sale of equity securities (principally UMC common stock)	29,612	745	9,930
Purchase of equity securities	—	(474)	—
Capital expenditures	(10,725)	(9,793)	(17,451)
Net cash provided by (used in) investing activities	<u>9,882</u>	<u>(144,591)</u>	<u>(90,325)</u>
Cash flow from financing activities:			
Extinguishment of 4¾% Convertible Subordinated Notes	—	(223,684)	(42,077)
(Extinguishment) Issuance of Zero Coupon Convertible Subordinated Notes	(11,999)	194,597	—
Advances of Yen line of credit	5,588	—	—
Paydown on Yen line of credit	(3,076)	—	—
Net proceeds from issuance of common stock	3,186	4,701	5,676
Net cash used by financing activities	<u>(6,301)</u>	<u>(24,386)</u>	<u>(36,401)</u>
Net increase (decrease) in cash and cash equivalents	9,540	(134,199)	(80,728)
Beginning cash and cash equivalents	35,276	169,475	250,203
Ending cash and cash equivalents	<u>\$ 44,816</u>	<u>\$ 35,276</u>	<u>\$ 169,475</u>
Supplemental disclosure of non-cash investing and financing activities:			
Unrealized gain (loss) on foundry investments included in Accumulated other comprehensive income	\$ (13,211)	\$ 24,583	\$ (24,878)
Stock and options issued in conjunction with acquisition of Cerdenix	\$ —	\$ —	\$ 21,703

The accompanying notes are an integral part of this statement.

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**LATTICE SEMICONDUCTOR CORPORATION**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**(1)—Nature of Operations and Significant Accounting Policies:**

*Nature of Operations*

Lattice Semiconductor Corporation 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, and thus enable shorter design cycle times and reduced development costs. Our end customers are primarily original equipment manufacturers in the communications, computing, consumer, industrial, automotive, medical and military end markets.

We do not manufacture our own silicon wafers. We maintain strategic relationships with large semiconductor foundries to source our finished silicon wafers in Asia. In addition, all of our assembly operations and most of our test operations are performed by outside suppliers in Asia. We perform certain test operations and reliability and quality assurance processes internally. We have achieved an ISO 9001 quality certification, which is an indication of our high internal operational standards.

We place substantial emphasis on new product development. Our product development activities emphasize new proprietary products, enhancement of existing products and process technologies and improvement of software development tools. Product development activities occur in Hillsboro, Oregon; San Jose, California; Broomfield, Colorado; Naperville, Illinois; Bethlehem, Pennsylvania; Austin, Texas; Salt Lake City, Utah; Shanghai, China; and Chippenham, England.

*Fiscal Reporting Period*

We report based on a 52 or 53 week year ending on the Saturday closest to December 31. For ease of presentation, we have adopted the convention of using March 31, June 30, September 30 and December 31 as period end dates for all financial statement captions. Our fiscal 2004 and 2002 were 52-week years. Our 2003 fiscal year was a 53-week year.

*Principles of Consolidation*

On August 26, 2002, we completed the stock for stock acquisition of Cerdelinx Technologies, Inc. ("Cerdelinx") for 2.6 million shares valued at \$8.30 per share. This transaction was accounted for as a purchase, and accordingly, the results of operations for Cerdelinx and estimated fair value of assets acquired and liabilities assumed are included in our Consolidated Financial Statements beginning August 26, 2002. This acquisition is discussed further in Note 4.

On January 18, 2002, we completed the acquisition of the field-programmable gate array ("FPGA") business ("Agere FPGA") of Agere Systems Inc. ("Agere") for \$250 million in cash. This transaction was accounted for as a purchase, and accordingly, the results of operations for Agere FPGA and estimated fair value of assets acquired and liabilities assumed are included in our Consolidated Financial Statements beginning January 18, 2002. This acquisition is discussed further in Note 5.

On June 15, 1999, we completed the acquisition of all of the outstanding capital stock of Vantis Corporation ("Vantis") from Advanced Micro Devices, Inc. ("AMD"). The transaction was accounted for as a purchase, and accordingly, the results of operations of Vantis and estimated fair value of assets acquired and liabilities assumed are included in our Consolidated Financial Statements beginning June 16, 1999. This acquisition is discussed further in Note 6.



The accompanying Consolidated Financial Statements include the accounts of Lattice Semiconductor Corporation and its subsidiaries, all wholly-owned, after the elimination of all significant intercompany balances and transactions.

#### *Cash Equivalents and Marketable Securities*

We consider all investments, which are readily convertible into cash and have original maturities of three months or less, to be cash equivalents. Marketable securities, which are relatively less liquid and have maturities of less than one year, were composed of corporate auction rate securities (\$74.6 million and \$81.6 million), municipal and local government obligations (\$134.6 million and \$139.2 million), corporate notes and paper (\$34.8 million and \$21.7 million), and certificates of deposit collateralizing the yen line of credit (\$7.5 million and \$0.0 million) at December 31, 2004 and December 31, 2003, respectively.

We account for our marketable securities as available for sale. The carrying value of marketable securities approximates fair value and no realized or unrealized gains or losses have been incurred.

#### *Financial Instruments*

The carrying value of our financial instruments approximates fair value. We estimate the fair value of cash and cash equivalents, marketable securities, accounts receivable, other current assets and current liabilities based upon existing interest rates related to such assets and liabilities compared to the current market rates of interest for instruments of similar nature and degree of risk. See Note 12 for a discussion of the fair value of our convertible debt.

#### *Derivative Financial Instruments*

As of December 31, 2004, 2003 and 2002 and for the years then ended, we had no outstanding derivatives, including foreign exchange contracts for the purchase or sale of foreign currencies. We do not enter into derivative financial instruments for trading purposes.

#### *Foreign Exchange and Translation of Foreign Currencies*

A portion of our silicon wafer purchases are denominated in Japanese yen and we bill our Japanese customers in yen. We maintain a yen-denominated bank account and, beginning in August, 2004 we began using a yen denominated line of credit (see Note 9). Gains or losses from foreign exchange rate fluctuations on unhedged balances denominated in foreign currencies are reflected in Interest and other income (expense). Realized and unrealized gains or losses were not significant for the years presented. We translate accounts denominated in foreign currencies in accordance with SFAS No. 52, "Foreign Currency Translation." Translation adjustments related to the consolidation of foreign subsidiary financial statements are reflected in Accumulated other comprehensive income in Stockholders' equity.

#### *Concentrations of Credit Risk*

Financial instruments which potentially expose us to concentrations of credit risk consist primarily of marketable securities and trade receivables. We place our investments through several financial institutions and mitigate the concentration of credit risk by placing percentage limits on the maximum portion of the investment portfolio which may be invested in any one investment instrument. Investments consist primarily of A1 and P1 or better rated U.S. commercial paper, U.S. government agency obligations and other money market instruments, "AA" or better rated municipal obligations, money market preferred stocks and other time deposits. Concentrations of credit risk with respect to trade receivables are mitigated by a geographically diverse customer base and our credit and collection process. Accounts receivable are recorded at the invoice amount, do not bear interest, and are shown net of allowances for doubtful accounts of \$0.9 million and \$1.0 million at December 31, 2004 and 2003, respectively. We perform credit

evaluations for all customers and secure transactions with letters of credit or advance payments where necessary. We review our allowance for doubtful accounts monthly and the aging of our accounts receivable weekly. Write-offs for uncollected trade receivables have not been significant to date.

#### *Revenue Recognition*

Revenue from sales to OEM customers is recognized upon shipment provided that persuasive evidence of an arrangement exists, the price is fixed and determinable, title has transferred, collection of resulting receivables is probable, there are no customer acceptance requirements and no remaining significant obligations. Certain of our sales are made to distributors under agreements providing price protection and right of return on unsold merchandise. Revenue and cost relating to such distributor sales are deferred either until the product is sold by the distributor or return privileges and price protection rights terminate, and related estimated revenue and estimated costs are then reflected in income. Revenue from software sales was not material for the years presented.

#### *Inventories*

Inventories are stated at the lower of first-in, first-out cost or market.

#### *Long-Lived Assets*

We account for our long-lived assets, primarily property and equipment and amortizable intangible assets, in accordance with Statement of Financial Accounting Standards ("SFAS") No. 144, "Accounting for the Disposal of Long-Lived Assets," which requires us to review the impairment of long-lived assets whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Impairment is determined by comparing the estimated undiscounted cash flows to the carrying amount. A loss is recorded if the carrying amount of the asset exceeds the estimated undiscounted cash flows. Intangible assets are generally being amortized over five years, and fifteen years for income tax purposes, on a straight-line basis.

#### *Property and Equipment*

Property and equipment are stated at cost. Depreciation is computed using the straight-line method for financial reporting purposes over the estimated useful lives of the related assets, generally three to five years for equipment and software and thirty years for buildings. Accelerated methods of computing depreciation are generally used for income tax purposes.

#### *Goodwill*

We measure the carrying value of goodwill recorded in connection with our acquisitions (see Notes 4, 5 and 6) for potential impairment in accordance with SFAS No. 142, "Goodwill and Other Intangible Assets." To apply SFAS No. 142, a company is divided into separate "reporting units," each representing groups of products that are separately managed. For this purpose, we have one reporting unit. To determine whether or not goodwill may be impaired, a test is required comparing the book value of the "reporting unit" to its trading price. Similar tests are required in the future, at least annually, and more often where there is a change in circumstances that could result in an impairment of goodwill. If the trading price of our common stock is below the book value for a sustained period, a goodwill impairment test will be performed by comparing book value to estimated market value (trading price plus a control premium). The excess of book value over estimated market value will then be subtracted from the goodwill account with a resulting charge to operations. Subsequent unrealized recoveries in market value, if any, will not be recorded. We completed an initial goodwill impairment assessment as of January 1, 2002 to determine if a transition impairment charge should be recognized under SFAS No. 142. Upon assessment,

no transition impairment charge was recorded. We also completed our annual goodwill impairment assessment in December 2004, upon which no impairment charge was recorded.

#### *Research and Development*

Research and development costs are expensed as incurred.

#### *Stock-Based Compensation*

We account for our employee and director stock options and employee stock purchase plan in accordance with provisions of Accounting Principles Board Opinion No. 25 ("APB 25"), "Accounting for Stock Issued to Employees." Pro forma disclosures as required under SFAS No. 123, "Accounting for Stock-Based Compensation" and as amended by SFAS No. 148, "Accounting for Stock-Based Compensation-Transition and Disclosure," are presented below (also see Note 13). The "in the money" portion of stock options granted to employees in connection with acquisitions is accounted for as Deferred stock compensation in Stockholders' equity and amortized to operations as part of Amortization of intangible assets over the vesting periods of the options.

Our pro forma information is as follows (in thousands, except per share data):

	Years Ended December 31,		
	2004	2003	2002
Net loss, as reported	\$ (51,979)	\$ (91,806)	\$ (175,235)
Add: Stock based employee compensation expense included in reported net loss, net of related tax effects	3,418	5,745	2,962
Deduct: Total stock-based employee compensation expense determined under fair value based method for all awards, net of related tax effects	(18,029)	(28,205)	(34,068)
Pro forma net loss	<u>\$ (66,590)</u>	<u>\$ (114,266)</u>	<u>\$ (206,341)</u>
Earnings per share:			
Basic—as reported	<u>\$ (0.46)</u>	<u>\$ (0.82)</u>	<u>\$ (1.59)</u>
Basic—pro forma	<u>\$ (0.59)</u>	<u>\$ (1.02)</u>	<u>\$ (1.87)</u>
Diluted—as reported	<u>\$ (0.46)</u>	<u>\$ (0.82)</u>	<u>\$ (1.59)</u>
Diluted—pro forma	<u>\$ (0.59)</u>	<u>\$ (1.02)</u>	<u>\$ (1.87)</u>

### *Net Loss Per Share*

Net loss per share is computed based on the weighted average number of shares of common stock and potentially dilutive securities assumed to be outstanding during the period using the treasury stock method. Potentially dilutive securities consist of stock options, warrants to purchase common stock and convertible subordinated notes. The most significant difference between basic and diluted net income per share is that basic net income per share does not treat potentially dilutive securities such as convertible subordinated notes, options and warrants as outstanding. Diluted loss per common share for 2004, 2003 and 2002 is based only on the weighted-average number of common shares outstanding during these periods, as the inclusion of options, warrants and convertible subordinated notes, aggregating approximately 18.4 million, 23.6 million, and 20.5 million shares for 2004, 2003 and 2002, respectively, would have been antidilutive. The options, warrants and convertible notes however, could be dilutive in the future. A reconciliation of the numerators and denominators of basic and diluted net income per share is presented below (in thousands, except per share data):

	Years Ended December 31,		
	2004	2003	2002
Basic and diluted net loss	<u>\$ (51,979)</u>	<u>\$ (91,806)</u>	<u>\$ (175,235)</u>
Shares used in basic net loss per share calculations	112,976	111,794	110,193
Dilutive effect of stock options, warrants and convertible subordinated notes	<u>—</u>	<u>—</u>	<u>—</u>
Shares used in diluted net income per share calculations	<u>112,976</u>	<u>111,794</u>	<u>110,193</u>
Basic net loss per share	<u>\$ (0.46)</u>	<u>\$ (0.82)</u>	<u>\$ (1.59)</u>
Diluted net loss per share	<u>\$ (0.46)</u>	<u>\$ (0.82)</u>	<u>\$ (1.59)</u>

### *Comprehensive Loss*

For 2002, comprehensive loss consists primarily of net loss of approximately \$175.2 million, unrealized loss on depreciation of our foundry investments of approximately \$24.9 million and recognized gain on sale of foundry investments previously unrealized of approximately \$3.4 million (see Note 7). For 2003, comprehensive loss consists primarily of net loss of approximately \$91.8 million offset by unrealized gains related to the market value of our foundry investments of approximately \$24.6 million. For 2004, comprehensive loss consists primarily of net loss of approximately \$52.0 million and an unrealized loss recorded related to the market value of our foundry investments of approximately \$13.2 million.

### *Statement of Cash Flows*

Income taxes paid approximated \$1.0 million in 2004. During 2003 and 2002, respectively, we received income tax refunds, net of payments, of approximately \$28.4 million and \$37.2 million. Interest paid was insignificant in 2004, and aggregated approximately \$6.4 million and \$12.0 million in 2003 and 2002, respectively.

### *Use of Estimates*

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets, such as accounts receivable, inventory and deferred income taxes and liabilities, such as accrued liabilities, income taxes and deferred income, disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the fiscal periods presented. Actual results could differ from those estimates.

### *New Accounting Pronouncements*

In March 2004, the Emerging Issues Task Force reached a consensus on recognition and measurement guidance previously discussed under EITF 03-01. The consensus clarifies the meaning of other-than-temporary impairment and its application to investments classified as either available-for-sale or held-to-maturity under SFAS No. 115, "Accounting for Certain Investments in Debt and Equity Securities." The recognition and measurement guidance for which the consensus was reached in the March 2004 meeting is to be applied to other-than-temporary impairment evaluations in reporting periods beginning after June 15, 2004. In November 2004, the FASB staff indicated that the FASB will delay until 2005 the FASB Staff Position on EITF Issue No. 03-01, "The Meaning of Other-Than-Temporary Impairment and its Application to Certain Investments." Management will evaluate the affect of adopting the recognition and measurement guidance when the matter is finalized.

In December 2004, the FASB issued a Statement "Share Based Payment—a revision of SFAS No. 123, "Accounting for Stock Based Compensation," that addresses the accounting for share-based payment transactions in which a company receives employee services in exchange for either equity instruments of the company or liabilities that are based on the fair value of the company's equity instruments or that may be settled by the issuance of such equity instruments. The statement eliminates the ability to account for share-based compensation transactions using the intrinsic method currently used by the company and generally would require that such transactions be accounted for using a fair-value-based method and recognized as expense in the company's Consolidated Statement of Operations. The effective date of the standard is for interim or fiscal periods beginning after June 15, 2005. This statement will have a significant impact on our Consolidated Statement of Operations, as we will be required to expense the fair value of our stock option grants and stock purchases under our employee stock purchase plan. At this time we have not made an estimate of the impact of this statement on our future financial result. Please refer to Note 13 to our Consolidated Financial Statements which provides historical information that may be useful in assessing the impact of this standard on our Consolidated Financial Statements.

#### **(2)—Inventories (in thousands):**

	December 31,	
	2004	2003
Work in progress	\$ 29,148	\$ 34,327
Finished goods	9,486	12,303
	<u>\$ 38,634</u>	<u>\$ 46,630</u>

#### **(3)—Property and Equipment (in thousands):**

	December 31,	
	2004	2003
Land	\$ 2,099	\$ 2,099
Construction in progress	910	—
Buildings	28,087	28,087
Computer and test equipment	132,931	125,481
Office furniture and equipment	11,041	11,414
Leasehold and building improvements	15,216	14,617
	<u>190,284</u>	<u>181,698</u>
Accumulated depreciation and amortization	<u>(142,698)</u>	<u>(127,898)</u>
	<u>\$ 47,586</u>	<u>\$ 53,800</u>

Depreciation expense was approximately \$16.9 million, \$18.6 million, and \$19.2 million for 2004, 2003, and 2002, respectively.

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#### **(4)—Acquisition of Cerdelinx:**

On August 26, 2002, we completed the stock for stock acquisition of Cerdelinx for 2.6 million shares of our common stock valued at \$8.30 per share. Cerdelinx was an early stage fabless semiconductor company focused on the design of application specific standard products targeted toward emerging high-speed communications and storage applications. Cerdelinx had a team of engineers who were developing a portfolio of low-power CMOS transceivers and backplane interfaces with embedded high-speed SERDES I/O to support 10 gigabit-per-second applications. The acquisition serves to enhance our silicon development efforts and our ability to deliver leading-edge programmable solutions within the communications and storage market segments. This acquisition principally comprises intellectual property and a work force. The core technology portion of the intellectual property is valued using a royalty savings methodology which discounts estimated royalties that would be paid on an after tax basis. The in-process technology portion of the intellectual property is valued using a discounted cash flow methodology described in detail below. Work force is valued using a replacement cost methodology which discounts costs to an after tax amount. The transaction was completed pursuant to an Agreement and Plan of Reorganization entered into on July 15, 2002, as amended on July 24, 2002, among Lattice, Cerdelinx and affiliated parties. The components of the purchase price were as follows (in millions):

	<u>Amount</u>
Stock issued and liabilities assumed	\$ 22.8
Estimated direct acquisition costs	1.1
Total	<u>\$ 23.9</u>

In conformity with Financial Accounting Standard SFAS No. 142, the total purchase price was allocated to the estimated fair value of assets acquired and liabilities assumed. As Cerdelinx was not considered a business under SFAS No. 141, "Business Combinations," no goodwill was recognized. In estimating the fair value of the assets acquired, management considered various factors, including an appraisal. The total purchase price was allocated as follows (in millions):

	<u>Amount</u>
Core technology	\$ 7.2
Deferred stock compensation	5.8
In process research and development costs	5.7
Work force	4.7
Liabilities assumed	(1.2)
Equipment	1.1
Non compete agreement	0.3
Cash	0.3
Total	<u>\$ 23.9</u>

There were no significant exit costs incurred or accrued in connection with this transaction. Management does not expect intangible assets acquired to be deductible for income tax purposes.

Employees who joined Lattice as a result of this acquisition held Cerdelinx shares and options which were converted into 0.9 million Lattice shares and options which were either unvested or otherwise restricted from sale over terms up to four years at a grant price from \$0.41 per share to \$2.54 per share. The spread, which is the difference between grant price and market value of our common stock on the Closing Date, aggregating \$5.8 million on these shares and options, was recorded as Paid-in capital and Deferred stock compensation and is being amortized to operations equally over the vesting (or restriction lapsing) period as part of Amortization of intangible assets.

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### *In-Process Research and Development (“IPR&D”)*

IPR&D consisted of those products obtained through acquisition that were not yet proven to be technologically feasible but had been developed to a point where there was value associated with them in relation to potential future revenue. Because technological feasibility was not yet proven and no alternative future uses were believed to exist for the in-process technologies, the assigned value was expensed immediately after the closing of the acquisition.

The fair value underlying the \$5.7 million assigned to acquired IPR&D from the Cerdelinx acquisition (recognized in the third quarter of 2002) was determined by identifying research projects in areas for which technological feasibility had not been established and there were no alternative future uses. The acquired IPR&D consists of low-power CMOS transceivers and backplane interfaces with embedded high-speed SERDES I/O. These products were approximately 60% complete and were estimated to be completed in 2003 at an estimated cost of approximately \$2.0 million. During 2004, new products based on this technology were completed. In addition, this technology along with subsequently developed technology is being integrated into other new products expected to be completed in 2005.

The fair value was determined by an income approach where fair value is the present value of projected free cash flows that will be generated by the products incorporating the acquired technologies under development, assuming they are successfully completed. The estimated net free cash flows generated by the products over six year periods were discounted at rates ranging from 15% to 17% in relation to the stage of completion and the technical risks associated with achieving technological feasibility. The net cash flows for such projects were based on management’s estimates of revenue, expenses and asset requirements.

The remaining project has completion risks related to silicon functionality, architecture performance, packaging technology, continued availability of key technical personnel and, product reliability. To the extent that estimated completion dates are not met, the risk of competitors’ product introductions is greater and revenue opportunity may be permanently lost.

The core technology included in the acquisition of Cerdelinx has an estimated weighted average useful life of approximately six years, and the work force and non-compete agreements included in the Cerdelinx acquisition had estimated useful lives of approximately four years resulting in a weighted average useful life of approximately five years.

### **(5)—Acquisition of Agere FPGA:**

On January 18, 2002, we completed the acquisition of Agere FPGA for \$250 million in cash. This acquisition increased our share of the PLD market, accelerated our entry into the FPGA portion of the market and provided us with additional technical employees and intellectual property. This acquisition principally comprises intellectual property, which was valued using a discounted cash flow methodology of which goodwill was a by-product. The transaction was completed pursuant to an Asset Purchase Agreement dated as of December 7, 2001 between Lattice and Agere. The components of the purchase price were as follows (in millions):

	<u>Amount</u>
Cash	\$ 250.0
Estimated direct acquisition costs	6.3
Total	<u>\$ 256.3</u>

In accordance with SFAS No. 141, the total purchase price was allocated to the estimated fair value of assets acquired and liabilities assumed. In estimating the fair value of the assets acquired, management

considered various factors, including an appraisal. The total purchase price was allocated as follows (in millions):

	<u>Amount</u>
Excess of purchase price over net assets acquired	\$ 142.4
Current technology	63.4
In-process research and development	24.2
Fair value of non-compete agreement	13.8
Licensed technology	10.2
Inventory	3.5
Backlog	1.4
Property, plant and equipment	0.2
Accrued liabilities	(2.8)
Total	<u>\$ 256.3</u>

There were no significant exit costs incurred or accrued in connection with this transaction.

Employees joining us from Agere during the first quarter of 2002 were awarded approximately 1.1 million stock options which vest equally over four years at a grant price of \$14.76 per share. The difference between grant price and market value of our common stock on the grant date, aggregating approximately \$7.0 million, was recorded as Paid-in capital and Deferred stock compensation and is being amortized to operations ratably over the vesting period as part of Amortization of intangible assets.

#### *In-Process Research and Development ("IPR&D")*

IPR&D consists of those products obtained through acquisition that were not yet proven to be technologically feasible but had been developed to a point where there was value associated with them in relation to potential future revenue. Because technological feasibility was not yet proven and no alternative future uses were believed to exist for the in-process technologies, the assigned value was expensed immediately upon the closing date of the acquisition.

The fair value underlying the \$24.2 million assigned to acquired IPR&D in the Agere FPGA acquisition was determined by identifying research projects in areas for which technological feasibility had not been established and there was no alternative future use. Projects in the IPR&D category were the ORCA 4 FPGA family, the next generation FPGA family and the FPSC field-programmable system chips. The following is a brief description of these projects. The ORCA 4 FPGA family project, increasing speed and density and enhancing yields, was approximately 85% complete and estimated to be completed by 2003 at an estimated cost of \$1.5 million. This project was completed during 2002 with no material change in cost. The next generation FPGA family project, increasing speed and density while reducing die size, was approximately 50% complete and estimated to be completed by 2004 at an estimated cost of \$2.0 million. This project was significantly redefined and is now expected to be completed during 2005. The future development of FPSC field-programmable system chips (field-programmable system chips which combine embedded pre-defined logic circuits with an FPGA platform) was approximately 25% to 90% complete, and estimated to be completed by 2004 at an estimated cost of \$2.0 million. This project was completed during 2004 with no material change in cost.

The IPR&D value of \$24.2 million was determined by an income approach where fair value is the present value of projected free cash flows that will be generated by the products incorporating the acquired technologies under development, assuming they are successfully completed. The estimated net free cash flows generated by the products over 5-7 year periods were discounted at rates ranging from 23% to 25% in relation to the stage of completion and the technical risks associated with achieving technological feasibility. The net cash flows for such projects were based on management's estimates of revenue,

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expenses and asset requirements. Any delays or failures in the completion of these projects could impact our expected return on investment and future results. In addition, our financial condition would be adversely affected if the value of other intangible assets acquired became impaired.

The remaining project has completion risks related to silicon functionality, architecture performance, packaging technology, continued availability of key technical personnel and, product reliability. To the extent that estimated completion dates are not met, the risk of competitors' product introductions is greater and revenue opportunity may be permanently lost.

The non-compete agreement from Agere and the current and licensed technology included in the acquisition of Agere FPGA has an estimated weighted average useful life of approximately 6.3 years.

**(6)—Acquisition of Vantis:**

On June 15, 1999, we paid approximately \$500.1 million in cash to AMD for all of the outstanding capital stock of Vantis Corporation. The total purchase price of Vantis was \$583.1 million, including certain direct acquisition costs, the accrual of certain exit costs and the assumption of certain liabilities related to the Vantis business. Of this purchase price, approximately \$422.6 million was allocated to goodwill and intangible assets.

The recorded balances of goodwill and intangible assets, net of accumulated amortization, related to the Vantis acquisition approximated \$77.0 million and \$0.0 million respectively, at December 31, 2004, and \$77.1 million and \$23.3 million, respectively, at December 31, 2003. Amortization expense related to these assets approximated \$23.3 million, \$50.9 million, and \$50.9 million for 2004, 2003, and 2002, respectively.

**(7)—Foundry Investments, Advances and Other Assets (in thousands):**

	December 31,	
	2004	2003
Foundry investments and other assets	\$ 59,268	\$ 96,437
Wafer supply advances	62,811	25,810
	<u>122,079</u>	<u>122,247</u>
Less: UMC shares available-for-sale	(24,202)	(35,364)
	<u>\$ 97,877</u>	<u>\$ 86,883</u>

On September 10, 2004, we entered into an Advance Payment and Purchase Agreement (the "Fujitsu Agreement") with Fujitsu Limited ("Fujitsu"), pursuant to which we will advance \$125.0 million to Fujitsu in support of the development and construction of a new 300mm wafer fabrication facility in Mie, Japan. The initial two payments of \$25.0 million each were made in October 2004 and January 2005 and were recorded at December 31, 2004. The remaining payments will be made in two stages upon the achievement of certain milestones and will be recorded upon completion of the related milestone. We currently anticipate that the advance payment will be paid in full by the second quarter of 2006.

Our \$125.0 million advance will be credited against the purchase price of 300 mm wafers from the new wafer fabrication facility. The Fujitsu Agreement will continue until the full amount of the advance payment has been returned to us in the form of wafers or other repayment, subject to the right of either party to terminate the agreement upon the occurrence of certain events. We may request a refund of the unused amount of the advance payment if we have not used all of our wafer credits by December 31, 2007. The repayment obligation of Fujitsu is unsecured.

In 1995, we entered into a series of agreements with United Microelectronics Corporation ("UMC"), a public Taiwanese company, pursuant to which we agreed to join UMC and several other companies to form a separate Taiwanese corporation, ("UICC"), for the purpose of building and operating an advanced semiconductor manufacturing facility in Taiwan, Republic of China. Under the terms of the agreements, we invested approximately \$49.7 million for an approximate 10% equity interest in the corporation and the right to receive a percentage of the facility's wafer production at market prices.

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In 1996, we entered into an agreement with Utek Corporation (“Utek”), a public Taiwanese company in the wafer foundry business that became affiliated with the UMC group in 1998, pursuant to which we agreed to make a series of equity investments in Utek under specific terms. In exchange for these investments, we received the right to purchase a percentage of Utek’s wafer production. Under this agreement, we invested approximately \$17.5 million. In 2000, UICC and Utek merged into UMC.

We owned approximately 60.8 million shares of UMC common stock at December 31, 2004 of which approximately 23.3 million shares are restricted from sale for more than one year by the terms of our agreement with UMC. Under the terms of the UMC agreement, if we sell any of these restricted shares, our rights to guaranteed wafer capacity at UMC may be reduced on a pro-rata basis based on the number of shares that we sell. If we sell over 10.1 million of these restricted shares, we may lose all of our rights to guaranteed wafer capacity at UMC.

For financial reporting purposes, all of our UMC shares are accounted for as available-for-sale and marked to market in our Consolidated Balance Sheet until they are sold, at which time a gain or loss is recognized in our Consolidated Statement of Operations. Unrealized gains and losses are included in Accumulated other comprehensive income within Stockholders’ equity. An other than temporary impairment of UMC share value could result in a reduction of the Consolidated Balance Sheet carrying value and would result in a charge to our Consolidated Statement of Operations.

During 2002, we sold 7.6 million of our UMC shares for approximately \$9.9 million in cash. During 2004, we sold \$36.6 million of our UMC shares. The following table summarizes carrying value and gains and losses for our UMC shares for 2004, 2003, and 2002 (in thousands):

<b>Fiscal Year</b>	<b>Unrealized Gain Included in Accumulated Other Comprehensive Income</b>	<b>Realized Gain Included in Other Income, Net</b>	<b>Unrealized Loss Included in Accumulated Other Comprehensive Income</b>	<b>Fair Market Value (Carrying Value) Year End December 31</b>
2004	\$ —	\$ 5,556	\$ (13,211)	\$ 39,204
2003	\$ 24,583	\$ —	\$ —	\$ 81,060
2002	\$ —	\$ 3,398	\$ (24,878)	\$ 56,263

It is likely that we will recognize additional gains or losses in future periods.

In 1997 we entered into an advance payment production agreement with Seiko Epson and Epson Electronics America, Inc. (“EEA”), which was subsequently amended in 2002 and March 2004. Under this agreement we advanced \$51.3 million to Seiko Epson to finance construction of an eight-inch sub-micron semiconductor wafer manufacturing facility. The advance is to be repaid with semiconductor wafers over a multi-year period. No interest income is recorded. Cumulatively, \$26.2 million of these payments have been repaid to us in the form of semiconductor wafers. We currently estimate that approximately \$12.9 million of the outstanding advances are expected to be repaid with semiconductor wafers during the next twelve months and are thus reflected as part of Other current assets in our Consolidated Balance Sheet. We are not obligated to make additional payments under this agreement.

**(8)—Intangible Assets:**

The following tables present details of our total purchased intangible assets (in millions):

<b>December 31, 2004</b>	<b>Gross</b>	<b>Accumulated Amortization</b>	<b>Net</b>
Current technology	\$ 273.6	\$ (245.5)	\$ 28.1
Core technology	7.3	(3.4)	3.9
Licenses	10.2	(4.3)	5.9
Non-compete agreements	14.2	(13.8)	0.4
Workforce	4.7	(2.2)	2.5
Backlog	1.4	(1.4)	—
Customer list	17.4	(17.4)	—
Patents and trademarks	26.8	(26.8)	—
<b>Total</b>	<b>\$ 355.6</b>	<b>\$ (314.8)</b>	<b>\$ 40.8</b>

<b>December 31, 2003</b>	<b>Gross</b>	<b>Accumulated Amortization</b>	<b>Net</b>
Current technology	\$ 273.6	\$ (214.4)	\$ 59.2
Core technology	7.3	(1.9)	5.4
Licenses	10.2	(2.9)	7.3
Non-compete agreements	14.2	(9.1)	5.1
Workforce	4.7	(1.2)	3.5
Backlog	1.4	(1.4)	—
Customer list	17.4	(15.8)	1.6
Patents and trademarks	26.8	(24.3)	2.5
<b>Total</b>	<b>\$ 355.6</b>	<b>\$ (271.0)</b>	<b>\$ 84.6</b>

The estimated future amortization expense of purchased intangible assets as of December 31, 2004 is as follows (in millions):

<b>Fiscal Year:</b>	<b>Amount</b>
2005	\$ 14.4
2006	10.8
2007	9.8
2008	5.6
Later years	0.2
	<b>\$ 40.8</b>

The estimated future amortization expense of deferred stock compensation attributable to research and development activities as of December 31, 2004 is approximately \$1.9 million for 2005.

**(9)—Yen based line of credit:**

On August 11, 2004, we entered into an agreement with a bank under the terms of which we can borrow up to \$6.0 million in Japanese Yen in a revolving line of credit arrangement. Outstanding borrowing is collateralized by marketable securities. Interest on outstanding borrowing is based on the Japanese LIBOR Fixed Rate, and averaged 1.04% for the year ended December 31, 2004. Outstanding borrowing at December 31, 2004 was \$2.9 million. This arrangement can be terminated at anytime by either party.

**(10)—Lease Obligations:**

Certain of our facilities and equipment are leased under operating leases, which expire at various times through 2013. Rental expense under the operating leases was approximately \$5.9 million, \$5.8 million, and \$6.0 million for 2004, 2003, and 2002, respectively. Future minimum lease commitments (before consideration of sublease receipts discussed below) at December 31, 2004 are as follows (in thousands):

<u>Fiscal Year:</u>	<u>Amount</u>
2005	\$ 9,049
2006	7,327
2007	6,075
2008	5,615
2009	1,108
Later years	1,404
	<u>\$ 30,578</u>

Included in these amounts are certain properties which are currently subleased. A portion of this sublease income is payable to the property owner. Future minimum sublease receipts, based on agreements in place at December 31, 2004, net of such payments are as follows (in thousands):

<u>Fiscal Year:</u>	<u>Amount</u>
2005	\$ 3,026
2006	997
	<u>\$ 4,023</u>



**(11)—Income Taxes:**

The components of the (benefit) provision for income taxes for 2004, 2003, and 2002 are presented in the following table (in thousands):

	December 31,		
	2004	2003	2002
Current:			
Federal	\$ —	\$ (6,004)	\$ (27,435)
State	(165)	—	—
Foreign	483	150	353
	<u>318</u>	<u>(5,854)</u>	<u>(27,082)</u>
Deferred:			
Federal	—	—	99,334
State	—	—	9,614
Foreign	—	—	—
	<u>—</u>	<u>—</u>	<u>108,948</u>
	<u>\$ 318</u>	<u>\$ (5,854)</u>	<u>\$ 81,866</u>

The (benefit) provision for income taxes differs from the amount of income tax determined by applying the applicable U.S. statutory federal income tax rate to pretax income as a result of the following differences (\$ in thousands):

	Years Ended December 31,					
	2004		2003		2002	
	\$	%	\$	%	\$	%
Computed income tax (benefit) at the statutory rate	(18,080)	(35)	(34,182)	(35)	(32,679)	(35)
Adjustments for tax effects of:						
State taxes, net	(1,588)	(3)	(3,247)	(3)	(4,016)	(4)
Research and development credits	(1,265)	(2)	(1,358)	(1)	(800)	(1)
Foreign Taxes	483	1	150	—	353	—
Valuation allowance	19,680	38	35,641	36	118,648	127
Release of certain reserves	—	—	(3,429)	(4)	—	—
Amortization of intangibles related to acquisitions	1,589	3	1,445	2	1,460	2
Other	(501)	(1)	(874)	(1)	(1,100)	(1)
	<u>318</u>	<u>1</u>	<u>(5,854)</u>	<u>(6)</u>	<u>81,866</u>	<u>88</u>

In the fourth quarter of 2002, we recorded a \$118.6 million charge to income tax expense, representing a valuation allowance on our recorded deferred tax assets, in accordance with SFAS No. 109, "Accounting for Income Taxes." SFAS No. 109 provides for the recognition of deferred tax assets if realization of these assets is more likely than not. We have provided a valuation allowance equal to our net deferred tax assets due to uncertainties regarding their realization.

The components of our net deferred tax assets are as follows (in thousands):

	<b>December 31,</b>	
	<b>2004</b>	<b>2003</b>
<b>Current deferred tax assets:</b>		
Deferred income	\$ 4,275	\$ 3,962
Expenses and allowances not currently deductible	10,955	12,186
	15,230	16,148
Less: valuation allowance	(15,230)	(16,148)
	<u>\$ —</u>	<u>\$ —</u>
<b>Non-current deferred tax assets:</b>		
Intangible asset charges not currently deductible	\$ 91,938	\$ 93,131
Expenses and allowances not currently deductible	6,096	5,433
Net operating loss and credit carryforwards	64,463	43,335
Other	3,589	3,589
	166,086	145,488
Less: valuation allowance	(166,086)	(145,488)
Net non-current deferred tax assets	<u>\$ —</u>	<u>\$ —</u>

As of December 31, 2004, we have federal net operating carryforwards (pre-tax) of approximately \$135.4 million that expire at various dates between 2021 and 2024. We have state net operating loss carryforwards (pre-tax) of approximately \$121.9 million that expire at various dates from 2006 through 2024. We also have federal and state credit carryforwards of \$15.8 million, most of which do not expire with the remainder expiring at various dates from 2005 through 2024.

We acquired Cerdelinx on August 26, 2002 (see Note 4). Cerdelinx had federal and state net operating loss and tax credit carryforwards at the time of the acquisition for which we recorded deferred tax assets of \$2.6 million with an offsetting valuation allowance. In conjunction with the change in ownership, applicable Internal Revenue Code sections limit the use of these tax benefits to approximately \$0.4 million per year.

Congress adopted the American Jobs Creation Act of 2004 which among other things provides companies with foreign subsidiaries the opportunity to repatriate earnings of such subsidiaries at a reduced tax rate. Presently we have substantial tax loss carryforwards which could be used to offset tax liabilities arising from repatriation of foreign subsidiary earnings. We are not planning to repatriate earnings of our foreign subsidiaries.

#### **(12)—Long-term debt:**

On June 20, 2003, we issued \$200.0 million in Zero Coupon Convertible Subordinated Notes due July 1, 2010. No interest will accrue or be payable related to these notes. Holders of these notes may convert the notes into shares of our common stock at any time before the close of business on the date of their maturity, unless the notes have been previously redeemed or repurchased, if (1) the price of our common stock issuable upon conversion of a note reaches a specified threshold, (2) the notes are called for redemption, (3) if we request a redemption, or make a distribution to common stockholders that is dilutive to note holders or if we become a party to a merger or consolidation or sale of substantially all of our assets occur or (4) the trading price of the notes falls below certain thresholds. The conversion price is approximately \$12.06 per share, subject to adjustment in certain circumstances. On or after July 1, 2008, we have the option to redeem all or a portion of the notes that have not been previously repurchased or converted at 100% of the principal amount of the notes. On July 1, 2008, holders have the option to require us to purchase all or a portion of their notes in cash at 100% of the principal amount of the notes. Holders also have the right, subject to certain conditions, to require us to repurchase the notes in the event of a “fundamental change” (as defined in the indenture governing the notes) at 100% of the principal amount of the notes. Generally, a fundamental change is an occurrence resulting in substantially all of our

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common stock being converted into common stock which is not listed on a United States stock exchange or Nasdaq.

The notes are subordinated in right of payment to all of our senior indebtedness, and are structurally subordinated as to the revenues and assets of our subsidiaries to all debt and other liabilities of our subsidiaries. At December 31, 2004, we had no senior indebtedness and our subsidiaries had approximately \$2.2 million of debt and other liabilities outstanding. Issuance costs relative to these convertible notes are included in "Foundry investments, advances and other assets" and aggregated approximately \$5.4 million and are being amortized to expense over the lives of the notes using the effective interest method. Accumulated amortization of these issuance costs was approximately \$3.2 million and \$1.4 million as of December 31, 2004 and December 31, 2003, respectively.

In October 2003, our board of directors authorized management to repurchase up to \$100.0 million of our Zero Coupon Convertible Subordinated Notes due July 1, 2010. During 2004, we extinguished approximately \$15.0 million of these notes for approximately \$12.0 million in cash and recognized a net gain of approximately \$2.8 million including the write off of approximately \$0.2 million of unamortized issuance costs. During 2003, we extinguished approximately \$16.0 million of these notes for approximately \$14.2 million in cash and recognized a gain of approximately \$1.4 million, net, including the write off of approximately \$0.4 million of unamortized issuance costs.

The estimated fair value of the Zero Coupon Convertible Subordinated Notes due July 1, 2010, based on quoted market prices, was approximately \$145.1 million at December 31, 2004.

On July 21, 2003, we extinguished for cash all of our outstanding 4¾% Convertible Subordinated Notes due in 2006, originally issued in October 1999, plus accrued interest. Total cash paid at extinguishment approximated \$178.8 million, including par value of \$172.3 million, accrued interest of approximately \$1.8 million and a call premium of 2.71% of the outstanding notes, or approximately \$4.7 million. This call premium, plus unamortized issuance costs of approximately \$1.0 million as of the extinguishment date, was recorded as "Other expense" in the quarter ended September 30, 2003.

During 2002, we extinguished approximately \$51.9 million face value of our 4¾% Convertible Subordinated Notes due in 2006 for approximately \$42.8 million in cash, including accrued interest. We recognized a gain of approximately \$9.3 million in connection with these transactions.

### **(13)—Stockholders' Equity:**

#### *Common Stock*

In December 2000, our Board of Directors authorized management to repurchase up to five million shares of our common stock. As of December 31, 2004, we had repurchased 1,136,000 shares (596,000 in 2001) at an aggregate cost of approximately \$20.0 million (\$10.6 million in 2001). There were no repurchases of common stock in 2002 through 2004.

#### *Stock Warrants*

During 2002, a warrant was issued to a vendor to purchase 119,074 shares of common stock, earned ratably from March 2002 to February 2003. During 2002, the vendor exercised warrants for 206,200 shares at \$13.75 per share. During 2003, a warrant was issued to the vendor to purchase 256,661 shares of common stock, earned ratably from March 2003 to February 2004. During 2004, a warrant was issued to the vendor to purchase 294,579 shares of common stock, earned ratably from March 2004 to February 2005. Additionally during 2003 warrants for 200,392 shares expired unexercised, and during 2004 warrants for 220,200 shares expired unexercised leaving warrants for 839,877 shares unexercised as of December 31, 2004, including warrants issued prior to 2002. Expense recorded in conjunction with the vesting of warrants by this vendor was not material to our Consolidated Financial Statements.

### Stock Option Plans

As of December 31, 2004, we had authorized 9,000,000 and 17,200,000 shares of common stock for issuance to officers and employees under our 2001 Stock Plan and 1996 Stock Incentive Plan, respectively. The 2001 Plan options are granted at fair value at the date of grant, generally vest over four years in increments as determined by the Board of Directors and have terms up to ten years. The 1996 Plan options are typically granted at fair value at the date of grant, generally vest over four years in increments as determined by the Board of Directors and have terms up to ten years.

In conjunction with the acquisition of Cerdelix on August 26, 2002, we exchanged 246,540 Lattice stock options for all of the options outstanding under the former Cerdelix stock option plans. These options generally vest over four years and have terms of ten years. In conjunction with the acquisition of I2P on March 16, 2001, we exchanged 223,276 Lattice stock options for all of the options outstanding under the former I2P stock option plans. These options generally vest over four years and have terms of ten years.

The 2001 Outside Directors' Stock Option Plan, which replaced the 1993 Outside Directors Stock Option Plan, provides for the issuance of stock options to members of our Board of Directors who are not employees of Lattice; 1,000,000 shares of our Common Stock are authorized for issuance thereunder. These options are granted at fair value at the date of grant and become exercisable quarterly over a one year period beginning three years after the date of grant and expire ten years from the date of grant. The following table summarizes our stock option activity and related information for the past three years (number of shares in thousands):

	Years Ended December 31,					
	2004		2003		2002	
	Number of Shares under Option	Weighted Average Exercise Price	Number of Shares under Option	Weighted Average Exercise Price	Number of Shares under Option	Weighted Average Exercise Price
Options outstanding at beginning of year	21,069	\$ 8.71	24,040	\$ 15.83	20,075	\$ 17.71
Options granted	3,518	4.71	9,726	7.90	4,877	8.08
Options canceled	(784)	10.54	(12,583)	21.74	(721)	17.73
Options exercised	(101)	5.97	(114)	4.16	(191)	7.81
Options outstanding at end of year	<u>23,702</u>	<u>\$ 8.07</u>	<u>21,069</u>	<u>\$ 8.71</u>	<u>24,040</u>	<u>\$ 15.83</u>

The following table summarizes information about stock options outstanding at December 31, 2004 (number of shares in thousands):

Range of Exercise Prices	Options Outstanding			Options Exercisable	
	Number of Shares	Weighted- Average Remaining Contract Life (in years)	Weighted- Average Exercise Price	Number of Shares	Weighted- Average Exercise Price
\$0.41-\$ 5.17	3,440	9.51	\$ 4.40	293	\$ 3.43
\$5.92-\$ 7.28	5,901	8.22	6.61	2,382	6.35
\$7.34-\$ 7.88	4,744	4.07	7.77	4,497	7.79
\$8.13-\$ 8.21	5,603	8.71	8.21	3,531	8.21
\$8.39-\$32.25	4,014	5.10	13.52	3,652	13.34
	<u>23,702</u>	<u>7.16</u>	<u>\$ 8.07</u>	<u>14,355</u>	<u>\$ 8.98</u>

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### *Stock Purchase Plan*

Our employee stock purchase plan, which was amended and approved most recently by our stockholders in May 2004, permits eligible employees to purchase shares of common stock through payroll deductions, not to exceed 10% of the employee's compensation. The purchase price of the shares is the lower of 85% of the fair market value of the stock at the beginning of each six-month period or 85% of the fair market value at the end of such period, but in no event less than the book value per share at the mid-point of each offering period. Amounts accumulated through payroll deductions during the offering period are used to purchase shares on the last day of the offering period. Of the 4,700,000 shares authorized to be issued under the plan, 461,425, 576,064, and 347,107 shares were issued during 2004, 2003 and 2002, respectively, and 869,123 shares were available for issuance at December 31, 2004. The increase in shares issued in 2003 as compared to 2004, and 2002 is primarily attributable to three offering periods closing in 2003 (a 53-week fiscal year) as compared to two periods closing in 2004 and 2002.

### *Stock Option Exchange Program*

On March 14, 2003, we completed an exchange offer related to a stock option exchange program. Under the exchange offer, eligible employees had the opportunity to tender for cancellation certain stock options in exchange for new options to be granted at least six months and one day after the cancellation of the tendered options. Each eligible participant received new options to purchase four shares of common stock for every seven shares subject to options submitted for cancellation. We accepted options to purchase approximately 11.2 million shares for exchange at various exercise prices between \$6.30 and \$32.25 and granted new options to purchase approximately 6.4 million shares on September 18, 2003, the new grant date. The exercise price per share of the new options of \$8.21 was equal to the fair market value of our common stock on the new grant date. In connection with the stock option exchange program, we accelerated the write-off of accrued deferred compensation recorded in conjunction with certain of our acquisitions, due to the cancellation of certain assumed in-the-money stock options. Such acceleration resulted in \$2.2 million of additional intangible asset amortization expense in the first quarter of 2003. However, we do not expect to record any additional compensation expense as a result of the exchange program.

### *Stock Based Compensation*

We account for our stock options and employee stock purchase plan in conformity with APB 25 and have adopted the additional pro forma disclosure provisions of SFAS No. 123, as amended by SFAS No. 148. The fair value of our stock-based employee compensation cost (see Note 1), as defined by SFAS No. 123, for stock options and employee stock plan purchase rights was estimated on the date of grant using the Black-Scholes option pricing model with the following assumptions:

	<b>Grants for Years Ended December 31,</b>		
	<b>2004</b>	<b>2003</b>	<b>2002</b>
<b>Stock options:</b>			
Expected volatility	48.7%	57.7%	59.3%
Risk-free interest rate	2.9%	2.2%	2.8%
Expected life from vesting date	1.3 years	1.3 years	1.7 years
Dividend yield	0%	0%	0%
<b>Stock purchase rights:</b>			
Expected volatility	26.4%	32.7%	64.3%
Risk-free interest rate	1.3%	1.1%	3.5%
Expected life	6 months	6 months	6 months
Dividend yield	0%	0%	0%

The Black-Scholes option pricing model was developed for use in estimating the fair value of freely tradable, fully transferable options without vesting restrictions. Our stock options have characteristics which differ significantly from those of freely tradable, fully transferable options. The Black-Scholes option pricing model also requires highly subjective assumptions, including expected stock price volatility and expected stock option term which greatly affect the calculated fair value of an option. Our actual stock price volatility and option term may be materially different from the assumptions used herein.

The resultant grant date weighted-average fair values calculated using the Black-Scholes option pricing model and the noted assumptions for stock options granted was \$1.81, \$2.38, and \$3.70, and for stock purchase rights \$1.85, \$1.61, and \$5.32, for 2004, 2003, and 2002, respectively. For purposes of pro forma disclosures (see Note 1), the estimated fair value of the options is amortized to expense over the options' vesting period.

#### **(14)—Employee Benefit Plans:**

##### *Profit Sharing Plan*

We initiated a profit sharing plan effective April 1, 1990. Under the provisions of this plan, as approved by the Board of Directors, a percentage of our operating income, as defined and calculated at the end of March and September for the prior six-month period, is paid to qualified employees. In 2004, 2003 and 2002, the provision charged to operations for this plan was not significant.

##### *Qualified Investment Plan*

In 1990, we adopted a 401(k) plan, which provides participants with an opportunity to accumulate funds for retirement. Under the terms of the plan, eligible participants may contribute up to the maximum allowed under IRS regulations. The plan does not allow investments in our securities. The plan allows for us to make discretionary matching contributions in cash. There was no expense recorded related to matching contributions in 2004, 2003 and 2002.

##### *Executive Deferred Compensation Plan*

We initiated an Executive Deferred Compensation Plan effective August 1997. Under the provisions of this plan, as approved by the Board of Directors, certain senior executives may annually defer up to 75% of their salary and up to 100% of their incentive compensation. The return on deferred funds is based upon the performance of designated mutual funds or our publicly traded common stock. There is no guaranteed return or matching contribution. Balances at December 31, 2004 and 2003 of approximately \$12.9 million and \$12.7 million, respectively, are reflected in "Other-long-term liabilities" in our accompanying Consolidated Balance Sheet and the related assets are included in "Other assets" in our accompanying Consolidated Balance Sheet.

#### **(15)—Commitments and Contingencies:**

In September and October 2004, three putative class action complaints were filed in the United States District Court for the District of Oregon against Lattice Semiconductor Corporation, our Chief Executive Officer Cyrus Y. Tsui, and our President Stephen A. Skaggs. These complaints were filed on behalf of a putative class of investors who purchased our stock between April 22, 2003 and April 19, 2004. They generally allege violations of federal securities laws arising out of our previously announced restatement of financial results for the first, second, and third quarters of 2003. Consistent with the usual procedures for cases of this kind, these cases were amended and consolidated into a single action. In such amended and consolidated complaint filed January 27, 2005 our former President and our former Controller were added as defendants. We believe that the complaints are without merit, and we intend to vigorously defend against the lawsuits.



In September and October 2004, two shareholder derivative complaints were filed, purportedly on behalf of Lattice Semiconductor Corporation, in the Circuit Court of the State of Oregon for the County of Washington, against all of our current directors, certain former directors, and certain executive officers. The derivative plaintiffs make allegations substantially similar to those in the putative class action complaints, as well as allegations of breach of fiduciary duty, abuse of control, gross mismanagement, waste of corporate assets, and unjust enrichment. Consistent with the usual procedures for cases of this kind, these cases were consolidated into a single putative shareholder derivative action. An amended and consolidated complaint is expected to be filed by April 1, 2005.

All of the complaints generally seek an unspecified amount of damages, as well as attorney fees and costs. The cases are still in the preliminary stages, and it is not possible for us to quantify the extent of our potential liability, if any. An unfavorable outcome in any of these matters could have a material adverse effect on our business and financial results. In addition, defending any litigation may be costly and divert management's attention from the day-to-day operations of our business.

We are exposed to certain 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 and financial results.

**(16)—Related Party:**

Larry W. Sonsini was a member of our Board of Directors until April 2004, and is presently the Chairman of Wilson Sonsini Goodrich & Rosati, Professional Corporation, a law firm that provides us with corporate legal services. Legal services billed to Lattice aggregated approximately \$0.6 million, \$0.5 million, and \$0.9 million, respectively, for 2004, 2003 and 2002. Amounts payable to the law firm were not significant at December 31, 2004 or 2003, respectively.

**(17)—Segment and Geographic Information:**

We operate in one industry segment comprising the design, development, manufacture and marketing of high performance programmable logic products. Our sales by major geographic area were as follows (in thousands):

	Years Ended December 31,		
	2004	2003	2002
United States	\$ 65,044	\$ 66,740	\$ 92,086
Export sales:			
Europe	50,867	52,142	58,871
Asia Pacific (other than Japan and China)	42,584	37,062	36,775
Japan	31,134	23,000	17,635
China	29,802	20,298	12,914
Other	6,401	10,420	10,845
Total revenue from export sales	160,788	142,922	137,040
Total revenue	<u>\$ 225,832</u>	<u>\$ 209,662</u>	<u>\$ 229,126</u>

Resale of product through two distributors accounted for approximately 14% and 10%, 18% and 19%, and 22% and 29% of total worldwide revenue for 2004, 2003, and 2002, respectively. No individual customer accounted for more than 10% of revenue for any of the years presented. More than 90% of our property and equipment is located in the United States.

**(18)—Subsequent Events:**

In the first quarter through March 11, 2005 we extinguished \$5.3 million of our Zero Coupon Convertible Subordinated Notes due July 1, 2010 for \$4.5 million resulting in a gain of \$0.7 million which will be included in Interest and other income (expense) for the March 31, 2005 quarter.

## **Report of Independent Registered Public Accounting Firm**

To the Board of Directors and Stockholders of  
Lattice Semiconductor Corporation

We have completed an integrated audit of Lattice Semiconductor Corporation's (the "Company") 2004 Consolidated Financial Statements and of its internal control over financial reporting as of December 31, 2004 and audits of its 2003 and 2002 Consolidated Financial Statements in accordance with the standards of the Public Company Accounting Oversight Board (United States). Our opinions, based on our audits, are presented below.

### **Consolidated Financial Statements and financial statement schedule**

In our opinion, the Consolidated Financial Statements listed in the index appearing under Item 8 present fairly, in all material respects, the financial position of the Company and its subsidiaries at December 31, 2004 and 2003, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2004 in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedule listed in the index appearing under Item 8 presents fairly, in all material respects, the information set forth therein when read in conjunction with the related Consolidated Financial Statements. These financial statements and financial statement schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and financial statement schedule based on our audits. We conducted our audits of these statements in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit of financial statements includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

### **Internal control over financial reporting**

Also, in our opinion, management's assessment, included in Management's Report on Internal Control Over Financial Reporting appearing under Item 9A, that the Company maintained effective internal control over financial reporting as of December 31, 2004 based on criteria established in *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"), is fairly stated, in all material respects, based on those criteria. Furthermore, in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2004, based on *Internal Control - Integrated Framework* issued by the COSO. The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting. Our responsibility is to express opinions on management's assessment and on the effectiveness of the company's internal control over financial reporting based on our audit. We conducted our audit of internal control over financial reporting in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. An audit of internal control over financial reporting includes obtaining an understanding of internal control over financial reporting, evaluating management's assessment, testing and evaluating the design and operating effectiveness of internal control, and performing such other

procedures as we consider necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinions.

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

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

/s/ PRICEWATERHOUSECOOPERS LLP

March 15, 2005

**Item 9. Changes in and Disagreements with Accountants On Accounting and Financial Disclosure.**

None.

**Item 9A. Controls and Procedures****Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures**

Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of our disclosure controls and procedures, as such term is defined under Rule 13a-15(e) promulgated under the Securities Exchange Act of 1934, as amended (the Exchange Act). Based on this evaluation, our principal executive officer and our principal financial officer concluded that our disclosure controls and procedures were effective as of the end of the period covered by this annual report.

**Management's Report on Internal Control Over Financial Reporting**

The management of the company is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) or 15d-15(f) under the Securities Exchange Act of 1934. The company's internal control over financial reporting is a process designed to provide reasonable assurance regarding reliability of financial reporting and the preparation and fair presentation of published financial statements for external purposes in accordance with generally accepted accounting principles.

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

Management assessed the effectiveness of the company's internal control over financial reporting as of December 31, 2004. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in *Internal Control—Integrated Framework*. Based on our assessment, we concluded that, as of December 31, 2004, the company's internal control over financial reporting was effective.

Management's assessment of the effectiveness of internal control over financial reporting as of December 31, 2004, has been audited by PricewaterhouseCoopers LLP, the independent registered public accounting firm who also audited the company's Consolidated Financial Statements, as stated in their report which appears herein.

**Changes in Internal Control over Financial Reporting**

As disclosed in prior periodic reports, in January 2004, the Audit Committee of our Board of Directors, with the assistance of outside legal counsel and our independent registered public accounting firm, commenced an internal investigation of the facts and circumstances surrounding inappropriate journal entries affecting the deferred income and accrued expense accounts. As a result of the investigation, it was determined that the unaudited Consolidated Financial Statements for each of the three month periods ended September 30, 2003, June 30, 2003 and March 31, 2003 required restatement. After reviewing the restatement adjustments and performing an evaluation of our controls and disclosure procedures, management concurred with the Audit Committee that improvements to internal controls were needed relating to: (1) separation of duties and (2) establishment of standards for review and approval of journal entries as well as related file documentation. We received notice from our independent registered public accounting firm that, in connection with the 2003 year-end audit, the independent registered public accounting firm had identified a material weakness relating to our internal controls and

procedures. Management agreed with this finding. As disclosed in prior periodic reports, we took several actions during 2004 which remedied the material weakness identified by our independent registered public accounting firm. During 2005, we plan to take additional steps to improve our internal controls relating to these issues, namely implementing improvements to information systems for distribution accounting, which may constitute material changes to our internal controls.

**Item 9B. Other Information**

None.

### **PART III**

Certain information required by Part III is incorporated by reference from our definitive proxy statement (the "Proxy Statement") for the Annual Meeting of Stockholders to be held on May 3, 2005, pursuant to Regulation 14A of the Securities Exchange Act of 1934, as amended, which we will file not later than 120 days after the end of the fiscal year covered by this report. With the exception of the information expressly incorporated by reference from the Proxy Statement, the Proxy Statement is not to be deemed filed as a part of this report.

#### **Item 10. Directors and Executive Officers of the Registrant.**

Information regarding our directors that is required by this item is incorporated by reference from the information contained under the caption "Proposal 1: Election of Directors" and "Board Meetings and Committees" in the Proxy Statement. Information regarding our executive officers that is required by this item is set forth in Part I of this report under the caption "Executive Officers and Directors of the Registrant." Information regarding Section 16(a) reporting compliance that is required by this item is incorporated by reference from the information contained under the caption "Section 16(a) Beneficial Ownership Reporting Compliance" in the Proxy Statement.

We have adopted a code of ethics that applies to all of our employees, including our principal executive officer, principal financial officer, principal accounting officer, and persons performing similar functions. A copy of the code of ethics is filed as an exhibit to this Annual Report on Form 10-K. Amendments to the code of ethics or any grant of a waiver from a provision of the code of ethics requiring disclosure under applicable SEC rules, if any, will be disclosed on our website at [www.latticesemi.com](http://www.latticesemi.com).

#### **Item 11. Executive Compensation.**

The information contained under the captions entitled "Directors' Compensation," "Employment Agreements," "Compensation Committee Interlocks and Insider Participation," "Report of the Compensation Committee," "Executive Compensation," "Options Granted and Options Exercised in 2004" and "Comparison of Total Cumulative Stockholder Return" in the Proxy Statement is incorporated herein by reference.

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

The information contained under the caption entitled "Security Ownership of Certain Beneficial Owners and Management" in the Proxy Statement is incorporated herein by reference.

### Equity Compensation Plan Information

The following table summarizes information, as of December 31, 2004, with respect to shares of our common stock that may be issued under our existing equity compensation plans. The table does not include information with respect to shares subject to outstanding options assumed by us in connection with mergers and acquisitions. Footnote (5) to the table sets forth the total number of shares of our common stock issuable upon the exercise of those assumed options as of December 31, 2004, and the weighted average exercise price of those options. No additional options may be granted under those assumed plans.

	(A) Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights	(B) Weighted- Average Exercise Price per share of Outstanding Options, Warrants and Rights	(C) Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column (A))
(in thousands except per share amounts)			
Equity compensation plans approved by security holders(1)	21,542	\$ 7.89	4,111(2)
Equity compensation plans not approved by security holders	840(3)	\$ 12.54	293(4)
<b>Total</b>	<b><u>22,382</u></b>	<b><u>\$ 8.07</u></b>	<b><u>4,404</u></b>

- (1) Includes shares of our common stock issuable upon exercise of options from the 1996 Stock Incentive Plan, the 2001 Stock Plan, the 1993 Outside Directors Stock Option Plan and the 2001 Outside Directors' Stock Option Plan.
- (2) Includes approximately 869 shares reserved for issuance under our Employee Stock Purchase Plan.
- (3) Consists of shares of our common stock issuable upon exercise of warrants issued to a vendor as compensation for services. The warrants have an exercise price equal to the closing market price on the date of issue and are earned by the vendor ratably over the life of the service period, usually one year, and usually have a term of 5 years.
- (4) Consists of shares of our common stock held for the benefit of certain executives by our executive deferred compensation plan. The plan is funded entirely by participants through deferral of salary, bonus awards or gains on the exercise of stock options. Distributions to participants are made pursuant to elections made by participants in accordance with plan provisions, generally at the time of the election to defer. There have been no company matching contributions to the plan and the assets of the plan remain subject to claims of the company's general creditors.
- (5) The table does not include information for the stock options assumed by us in connection with mergers and acquisitions. As of December 31, 2004, a total of approximately 2,160 shares of our common stock were issuable upon exercise of those assumed options. The weighted-average exercise price of those assumed options is \$9.85 per share.

### Item 13. Certain Relationships and Related Transactions.

The information contained under the caption entitled "Legal Services" in the Proxy Statement is incorporated herein by reference.

### Item 14. Principal Accountant Fees and Services.

The information contained under the caption entitled "Audit and Related Fees" in the Proxy Statement is incorporated herein by reference.



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## PART IV

### Item 15. Exhibits and Financial Statement Schedules.

#### (a)(1) and (2) Financial Statements and Financial Statement Schedules.

The information required by this Item is included under Item 8 of this Report.

#### (a)(3) Exhibits.

Exhibit Number	Description
3.1	The Company's Restated Certificate of Incorporation filed February 24, 2004 (Incorporated by reference to Exhibit 3.1 filed with the Company's Annual Report on Form 10-K for the year ended December 31, 2003).
3.2	The Company's Bylaws, as amended and restated as of February 3, 2004 (Incorporated by reference to Exhibit 3.2 filed with the Company's Annual Report on Form 10-K for the year ended December 31, 2003).
4.4	Indenture, dated as of June 20, 2003, between the Company and U.S. Bank National Association (Incorporated by reference to Exhibit 4.1 filed with the Company's Registration Statement on Form S-3 on August 13, 2003).
4.5	Form of Note for the Company's Zero Coupon Convertible Subordinated Notes (Incorporated by reference to Exhibit 4.2 filed with the Company's Registration Statement on Form S-3 on August 13, 2003).
10.10*	Form of Stock Option Agreement (Incorporated by reference to Exhibit 10.9, File No. 33-31231).
10.11*	Employment Letter dated September 2, 1988 from Lattice Semiconductor Corporation to Cyrus Y. Tsui (Incorporated by reference to Exhibit 10.10, File No. 33-31231).
10.15*	1993 Outside Directors Stock Option Plan (Incorporated by reference to Exhibit 10.15 filed with Company's Annual Report on Form 10-K for the fiscal year ended April 3, 1993).
10.16*	Employee Stock Purchase Plan, as amended and restated effective February 3, 2004 (Incorporated by reference to Appendix D to the Company's 2004 Proxy Statement filed April 8, 2004).
10.20	Foundry Venture Side Letter dated September 13, 1995 among Lattice Semiconductor Corporation, United Microelectronics Corporation and FabVen (Incorporated by reference to Exhibit 10.2 filed with the Company's Current Report on Form 8-K filed October 3, 1995)(1).
10.21	FabVen Foundry Capacity Agreement dated as of August , 1995 among FabVen, United Microelectronics Corporation and Lattice Semiconductor Corporation (Incorporated by reference to Exhibit 10.3 filed with the Company's Current Report on Form 8-K filed October 3, 1995)(1).
10.22	Foundry Venture Agreement dated as of August , 1995, between Lattice Semiconductor Corporation and United Microelectronics Corporation (Incorporated by reference to Exhibit 10.4 filed with the Company's Current Report on Form 8-K filed October 3, 1995)(1).
10.23	Advance Production Payment Agreement dated March 17, 1997 among Lattice Semiconductor Corporation and Seiko Epson Corporation and S MOS Systems, Inc. (2).

- 10.24\* Lattice Semiconductor Corporation 1996 Stock Incentive Plan as amended and Related Form of Option Agreement (Incorporated by reference to Exhibits (d)(1) and (d)(2) to the Company's Schedule TO filed on February 13, 2003).
- 10.31 Asset Purchase Agreement by and between Agere Systems Inc. and Lattice Semiconductor Corporation, dated December 7, 2001 (Incorporated by reference to Exhibit 10.1 filed with the Company's Current Report on Form 8-K filed on December 18, 2001).
- 10.32 Amendment dated December 21, 2001 to Advance Production Payment Agreement dated March 17, 1997 among Lattice Semiconductor Corporation and Seiko Epson Corporation and S MOS Systems, Inc. (Incorporated by reference to Exhibit 10.32 filed with the Company's Annual Report on Form 10-K for the year ended December 31, 2001)(1).
- 10.33\* 2001 Outside Directors' Stock Option Plan (Incorporated by reference to Exhibit 4.2 filed with the Company's Registration Statement on Form S-8 filed on August 10, 2001).
- 10.34\* 2001 Stock Plan as amended and Related Form of Option Agreement (Incorporated by reference to Exhibits (d)(3) and (d)(4) to the Company's Schedule TO filed on February 13, 2003).
- 10.35 Intellectual Property Agreement by and between Agere Systems Inc. and Agere Systems Guardian Corporation and Lattice Semiconductor Corporation as Buyer, dated January 18, 2002 (Incorporated by reference to Exhibit 10.35 filed with the Company's Annual Report on Form 10-K for the year ended December 31, 2001).
- 10.36\* Octillion Communications Inc. 2001 Stock Plan (Incorporated by reference to Exhibit 4.1 filed with the Company's Registration Statement on Form S-8 filed on September 6, 2002).\*\*
- 10.37\* Lattice Semiconductor Corporation Executive Deferred Compensation Plan, as Amended and Restated effective as of August 11, 1997 (Incorporated by reference to Exhibit 99.3 filed with the Company's Registration Statement on Form S-3, as amended, dated October 17, 2002).
- 10.38\* Amendment No. 1, to the Lattice Semiconductor Corporation Executive Deferred Compensation Plan, as Amended, dated November 19, 1999 (Incorporated by reference to Exhibit 99.4 filed with the Company's Registration Statement on Form S-3, as amended, dated October 17, 2002).
- 10.39 Registration Rights Agreement, dated as of June 20, 2003, between the Company and the initial purchaser named therein (Incorporated by reference to Exhibit 4.3 filed with the Company's Registration Statement on Form S-3 on August 13, 2003).
- 10.40\* Lattice Semiconductor Corporation Restated Executive Incentive Plan, dated as of February 5, 2002 (Incorporated by reference to Exhibit 10.40 filed with the Company's Annual Report on Form 10-K for the year ended December 31, 2003).
- 10.41 Form of Indemnification Agreement executed by each director and executive officer of the Company and certain other officers and employees of the Company and its subsidiaries (Incorporated by reference to Exhibit 10.41 filed with the Company's Annual Report on Form 10-K for the year ended December 31, 2003).
- 10.42 Amendment dated March 25, 2004 to Advance Production Payment Agreement dated March 17, 1997, as previously amended, among Lattice Semiconductor Corporation and Seiko Epson Corporation and S MOS Systems, Inc. (Incorporated by reference to Exhibit 10.42 filed with the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2004)(1).

- 10.43 Advance Purchase and Payment Agreement dated September 10, 2004 between Lattice Semiconductor Corporation and Fujitsu Limited (Incorporated by reference to Exhibit 10.1 filed with the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2004)(1).
- 14.1 Standards of Ethics and Conduct (Incorporated by reference to Exhibit 14.1 filed with the Company's Annual Report on Form 10-K for the year ended December 31, 2003).
- 21.1 Subsidiaries of the Registrant.
- 23.1 Consent of Independent Registered Public Accounting Firm.
- 24.1 Power of Attorney (included on the signature page of this Annual Report on Form 10-K).
- 31.1 Certification of Chief Executive Officer pursuant to Rule 13a-14(a) of the Securities Exchange Act, as amended.
- 31.2 Certification of Chief Financial Officer pursuant to Rule 13a-14(a) of the Securities Exchange Act, as amended.
- 32.1 Certification of Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

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(1) Pursuant to Rule 24b-2 under the Securities Exchange Act of 1934, confidential treatment has been granted to portions of this exhibit, which portions have been deleted and filed separately with the Securities and Exchange Commission.

(2) Pursuant to Rule 24b-2 under the securities Exchange Act of 1934, confidential treatment has been requested for portions of this exhibit, which portions have been deleted and filed separately with the Securities and Exchange Commission.

\* Management contract or compensatory plan or arrangement required to be filed as an Exhibit to this Annual Report on Form 10-K pursuant to Item 14(c) thereof.

\*\* Cerdelix Technologies, Inc. was initially incorporated as Octillion Communications Inc.

**(b) See (a)(3) above.**

**(c) See (a)(1) and (2) above.**

## SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this Report to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Hillsboro, State of Oregon, on the 15th day of March, 2005.

### LATTICE SEMICONDUCTOR CORPORATION

/s/ JAN JOHANNESSEN

Jan Johannessen  
*Corporate Vice President and  
Chief Financial Officer*

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Cyrus Y. Tsui and Jan Johannessen, or either of them, his or her attorneys-in-fact, each with the power of substitution, for such person in any and all capacities, to sign any amendments to this report and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that either of said attorneys-in-fact, or his substitute or substitutes, may do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this Report has been signed below by the following persons on the 15th day of March, 2005 on behalf of the Registrant and in the capacities indicated:

<u>Signature</u>	<u>Title</u>
<u>/s/ CYRUS Y. TSUI</u> Cyrus Y. Tsui	Chief Executive Officer and Chairman of the Board (Principal Executive Officer)
<u>/s/ JAN JOHANNESSEN</u> Jan Johannessen	Corporate Vice President and Chief Financial Officer (Principal Financial and Accounting Officer)
<u>/s/ DAVID E. CORESON</u> David E. Coreson	Director
<u>/s/ MARK O. HATFIELD</u> Mark O. Hatfield	Director
<u>/s/ DANIEL S. HAUER</u> Daniel S. Hauer	Director
<u>/s/ PATRICK S. JONES</u> Patrick S. Jones	Director
<u>/s/ SOO BOON KOH</u> Soo Boon Koh	Director
<u>/s/ HARRY A. MERLO</u> Harry A. Merlo	Director

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**LATTICE SEMICONDUCTOR CORPORATION**  
**VALUATION AND QUALIFYING ACCOUNTS**  
(in thousands)

<u>Column A</u>	<u>Column B</u>	<u>Column C</u>	<u>Column D</u>	<u>Column E</u>	<u>Column F</u>
<u>Classification</u>	<u>Balance at beginning of period</u>	<u>Charged to costs and expenses</u>	<u>Charged to other accounts (describe)</u>	<u>Write-offs, net of recoveries</u>	<u>Balance at end of period</u>
Fiscal year ended December 31, 2002:					
Allowance for deferred taxes	\$ —	\$ 118,648	\$ 7,347(1)	\$ —	\$ 125,995
Allowance for doubtful accounts	1,475	(401)	—	—	1,074
	<u>\$ 1,475</u>	<u>\$ 118,247</u>	<u>\$ 7,347</u>	<u>\$ —</u>	<u>\$ 127,069</u>
Fiscal year ended December 31, 2003:					
Allowance for deferred taxes	\$ 125,995	\$ 35,641	\$ —	\$ —	\$ 161,636
Allowance for doubtful accounts	1,074	(50)	—	—	1,024
	<u>\$ 127,069</u>	<u>\$ 35,591</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 162,660</u>
Fiscal year ended December 31, 2004:					
Allowance for deferred taxes	\$ 161,636	\$ 19,680	\$ —	\$ —	\$ 181,316
Allowance for doubtful accounts	1,024	(85)	—	—	939
	<u>\$ 162,660</u>	<u>\$ 19,595</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 182,255</u>

(1) Valuation allowances recorded in conjunction with deferred tax assets acquired with our acquisition of Cerdelix in 2002.