QuickLinks -- Click here to rapidly navigate through this document

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

(Mark one)

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 FOR THE FISCAL YEAR ENDED JANUARY 3, 2004,**

or

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

FOR THE TRANSITION PERIOD FROM TO

Commission File Number: 000-18032

LATTICE SEMICONDUCTOR CORPORATION

(Exact name of Registrant as specified in its Charter)

Delaware (State of Incorporation)	**93-0835214** (I.R.S. Employer Identification No.)
5555 NE Moore Court, Hillsboro, Oregon (Address of principal executive offices)	**97124-6421** (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 o

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 o

As of June 27, 2003 (the last business day of the Registrant's second quarter of fiscal 2003), the aggregate market value of the shares of voting stock (Common Stock) of the Registrant held by non-affiliates was approximately $632.9 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 29, 2004, 113,115,442 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 2004 Annual Meeting of Stockholders to be held on May 11, 2004 are incorporated by reference in Part III hereof.

LATTICE SEMICONDUCTOR CORPORATION
FORM 10-K
ANNUAL REPORT
TABLE OF CONTENTS

ITEM OF FORM 10-K			Page
PART I			
Item 1	-	Business	2
Item 2	-	Properties	12
Item 3	-	Legal Proceedings	12
Item 4	-	Submission of Matters to a Vote of Security Holders	12
PART II			
Item 5	-	Market for the Registrant's Common Stock and Related Stockholder Matters	13
Item 6	-	Selected Financial Data	14
Item 7	-	Management's Discussion and Analysis of Financial Condition and Results of Operations	16
Item 7(a)	-	Quantitative and Qualitative Disclosures About Market Risk	33
Item 8	-	Financial Statements and Supplementary Data	34
Item 9	-	Changes in and Disagreements with Accountants on Accounting and Financial Disclosure	62
Item 9A	-	Controls and Procedures	62
PART III			
Item 10	-	Directors and Executive Officers of the Registrant	64
Item 11	-	Executive Compensation	64
Item 12	-	Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	64
Item 13	-	Certain Relationships and Related Transactions	64
Item 14	-	Principal Accounting Fees and Services	64
PART IV			
Item 15	-	Exhibits, Financial Statement Schedules and Reports on Form 8-K	65
Signatures			68
Report of Independent Auditors on Financial Statement Schedule			S-1
Financial Statement Schedule			S-2

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 statements 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 devices, or PLDs, and related software. Programmable logic devices 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, industrial, automotive, medical, consumer 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. Information contained or referenced on our website is not incorporated by reference 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 2003 fiscal year was a 53-week year.

PLD 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, industrial, automotive, medical, consumer and military systems. According to World Semiconductor Trade Statistics ("WSTS"), a semiconductor industry association, logic accounted for approximately 26% of the estimated $140 billion worldwide digital integrated circuit market in 2003. The logic market encompasses, among other segments, standard logic, custom-designed application specific integrated circuits, or ASICs, which include conventional gate-arrays, standard cells and full custom logic circuits, and PLDs.

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. PLDs address this inherent dilemma. PLDs are standard products, purchased by systems manufacturers in a "blank" state, that can be custom configured into a virtually unlimited number of specific logic functions by programming the device with electrical signals. PLDs give system designers the ability to quickly create custom logic functions to provide product differentiation without sacrificing rapid time to market. Certain PLD products, including our own, are reprogrammable, meaning that the logic configuration can be modified, if needed, after the initial programming. ISP™ and XP™ PLDs, pioneered by us, extend the flexibility of standard reprogrammable PLDs by allowing the system designer to configure and reconfigure logic functions using system power supplies and without removing the PLD from the system board.

According to WSTS, the PLD market was approximately $2.7 billion in 2003. Within this market there are two main segments, complex PLD ("CPLD") and field programmable gate array ("FPGA"), each representing a distinct silicon architectural approach. In 2003, CPLD was a $0.5 billion market while FPGA was a $2.0 billion market.

Products based on the two alternative PLD architectures are generally optimal for different types of logic functions, although many logic functions can be implemented using either architecture. CPLDs are characterized by a regular building block structure of wide-input logic cells, called macrocells, and use of 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 interface logic or processing engines. Although CPLDs and FPGAs are typically suited for use in distinct types of logic applications, we believe that a substantial portion of PLD customers utilize both CPLD and FPGA architectures within a single system design, partitioning logic functions across multiple devices to optimize overall system performance and cost.

Technology

We believe that our proprietary E^2CMOS® technology is the preferred process technology for CPLD products due to its inherent performance, reprogrammability and testability benefits. E^2CMOS technology, through its fundamental ability to be programmed and erased electronically, serves as the foundation for our ISP and XP products.

We pioneered the development of in-system programmability ("ISP™"), which has become an industry standard feature in the PLD market. Our ISP devices can be configured and reconfigured by a system designer without being removed from the printed circuit board. These ISP devices can allow customers to reduce design cycle times, accelerate time to market, reduce prototyping costs, reduce manufacturing costs and lower inventory requirements. Our ISP devices can also provide customers the

opportunity to perform simplified and cost-effective field reconfiguration through a data file transferred by computer disk or serial data signal.

In 2002, we introduced XP, or extended programmability, technology. Traditional PLDs have been based on either volatile SRAM technology, which is infinitely reconfigurable, or non-volatile E^2CMOS technology, which is reprogrammable but not infinitely reconfigurable. Both these technologies require compromises on the part of the customer. XP technology, based on an embedded flash process, is the only programming technology that enables a programmable logic device to be both non-volatile and infinitely reconfigurable.

Products

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

CPLD Products

Since 1992, we have focused on developing a leadership portfolio of CPLD products and increasing the percentage of our overall revenue derived from this attractive market. During 2003, approximately 69% of our revenue was derived from CPLD products, as compared to 69% in 2002 and 76% in 2001. At present, we offer the industry's broadest line of CPLDs based on our numerous families of ispLSI® and ispMACH® products. In the future, we plan to continue to introduce new families of innovative CPLD products, as well as improve the performance and reduce the manufacturing cost of our existing product families based on market needs.

Our newest CPLD product families use innovative architectures and are targeted towards the low voltage portion of the market. We believe that our multiple families of leadership CPLD products provide us a competitive advantage in this market. The key features of these families are described in the table below:

CPLD Family	Operating Voltage	Maximum Speed (MHz)	Minimum Prop Delay (Nanoseconds)	Logic (Macrocells)	I/O Pins
ispMACH 4000V/B/C	3.3/2.5/1.8	400	2.5	32-512	30-208
ispMACH 5000VG/B	3.3/2.5	275	3.0	128-1024	92-384
ispMACH 4000Z	1.8	265	3.5	32-256	32-128

In addition to high performance, the ispMACH 4000Z family features a new 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.

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 an internally developed product family. During 2003, approximately 18% of our revenue was derived from FPGA products, as compared to 12% in 2002 and 0% in 2001. At present we offer the FPGA product families described below. In the future, we plan to introduce new

families of innovative, high performance and higher density FPGAs. Key features of our ORCA FPGA families are described in the table below:

FPGA Family	Operating Voltage	Logic (LUTs)	Logic (Gates)	Max RAM (kB)	I/O Pins
ORCA 2	5.0/3.3	400-3,600	5K-100K	58	44-128
ORCA 3	5.0/3.3/2.5	1,152-11,552	18K-340K	185	44-208
ORCA 4	1.5	4,992-16,192	260K-1.1M	404	128-388

In addition, we offer a family of field programmable system chips ("FPSC"). FPSCs, which combine generic FPGAs with embedded intellectual property cores on a single programmable chip, offer customers the ability to quickly implement complex system-level designs in a flexible manner. Currently, we offer seven FPSC devices, the ORT82G5, ORT42G5, ORT8850L, ORT8850H, ORLI10G, ORSO82G5 and ORSPI4, based on the ORCA 4 FPGA platform. These devices incorporate high-speed interface protocols, offering up to 4.25 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.

During 2002, we introduced two new FPGA product families utilizing our innovative XP, or extended programmability technology. The ispXPLD family, based on a hybrid architecture, combines the benefits of a wide-input CPLD logic cell with the availability of abundant memory resources. Offering up to 1024 logic macrocells, propagation delays as low as 4 nanoseconds and up to 512 Kb of memory, the ispXPLD offers customers a new alternative for high density logic designs. The ispXPGA family, based on a mainstream FPGA architecture, offers densities of up to 1.25 million logic gates and brings the benefits of XP technology to the FPGA marketplace.

We also offer an additional FPGA product family, 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, up to 256 input/output pins and complete pin-to-pin signal routing, ispGDX products are targeted towards digital signal interconnect and interface applications.

Other Products

We also offer programmable analog and mixed signal products as we believe these devices provide an opportunity to extend our proprietary technology to an untapped potential market. The innovative architecture of our ispPAC® products allows designers to quickly and easily program resistor and capacitor values, gain and signal polarity and circuit interconnect to implement a wide variety of functions. Our ispPAC products are targeted towards power management, filtering and signal conditioning applications and can replace numerous discrete analog components. ispPAC designs are implemented and programmed via a personal computer using our software development tool, PAC-Designer®.

Software Development Tools

All of our products are supported by our ispLEVER™ 3.1 software development tool suite. This latest version of ispLEVER software supports all of our CPLD and FPGA product families. Supporting both the PC and UNIX platforms, ispLEVER 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 a program to one of our ISP devices. Seamlessly integrated with third-party electronic design automation environments, ispLEVER provides a front-to-back design flow that leverages a customer's prior investment in tools offered by Aldec, 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.

We also provide a variety of software algorithms that support in-system programming of our ISP devices through an interface cable or directly from a system microprocessor.

Low Density PLD Products—SPLD

We offer the industry's broadest line of low-density CMOS PLDs, or SPLDs, 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 offer several proprietary extension architectures, the isp22V10, 6001/2, 16VP8, 16V8Z, 18V10, 20VP8, 20V8Z, 20RA10, 20XV10 and 26V12, each of which is optimized for specific applications. We also offer a full range of 3.3-volt standard architectures, the isp22LV10, 16LV8, 20LV8, 22LV10 and 26CLV12, in a variety of speed grades, with propagation delays as low as 3.5 nanoseconds, the highest performance in the industry. During 2003, approximately 13% of our revenue was derived from SPLD products, as compared to 19% in 2002 and 24% in 2001.

Product Development

We place substantial emphasis on new product development and believe that continued investment in this area is required to maintain our competitive position. 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 Corsham, England.

Research and development expenses were $71.7 million in 2001, $85.8 million in 2002 and $87.1 in 2003. 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 an ISO 9001 quality certification, which is an indication of our high internal operational standards.

Wafer Fabrication

We source silicon wafers from our foundry partners, 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.

In March 2004 we announced that we will also be sourcing wafers on advanced process technologies from Fujitsu Limited in Japan.

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, Malaysia, the Philippines, South Korea, and Taiwan.

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, industrial, automotive, medical, consumer and military end markets.

As of December 2003, we used 18 manufacturers' representatives and two distributors, Arrow Electronics, Inc. and Avnet Inc., in North America. We have also established export sales channels in over 30 foreign countries through a network of over 30 sales representatives and distributors. Approximately two-thirds of our North American sales and the majority of our export 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 54% in 2001, 60% in 2002 and 68% in 2003. 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 2001, 2002 or 2003. No export sales to any given country accounted for more than 10% of total revenue in 2001 or 2002. Export sales to Japan were approximately 11% of revenue in 2003, while export sales to China and Taiwan were each slightly less than 10%.

Backlog

Our backlog of scheduled and released orders as of December 31, 2003 was approximately $45.1 million as compared to approximately $37.2 million as of December 31, 2002. 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, distributor shipments are subject to rights of return and price adjustment. Revenue associated with distributor shipments is 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 PLD 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 in the PLD market occurs on the basis of price and market acceptance of specific products and technology. We believe that we compete favorably with respect to each of these factors. 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.

In the PLD market, we directly compete with Actel Corporation, Altera Corporation and Xilinx Inc., all of whom offer competing products. We also indirectly compete with other semiconductor companies who provide non-PLD based logic solutions. Although to date we have not experienced significant 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 wafer fabrication process 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 2004 and 2022. 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 PLD 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.

Chartered Semiconductor

In 2002, in order to support our acquired and subsequently developed ORCA FPGA products, Chartered Semiconductor and its affiliates agreed to provide us with manufactured wafers in quantities based on six-month rolling forecasts. We have agreed to make a portion of the rolling forecasts non-cancellable. Prices for the wafers obtained are reviewed and adjusted periodically. Wafers for our products are manufactured at the facilities of Chartered and its affiliates in Singapore.

Fujitsu

In March 2004, we announced that 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 are jointly developing with Fujitsu. Additionally, in an effort to secure a long-term, stable advanced technology wafer supply, we plan to invest between $100 million and $200 million in Fujitsu's planned new 300mm wafer fab. Presently, we contemplate making this investment in stages before the end of 2005 and structuring the investment as an advance payment for production wafers and for access to future process technologies. The detailed terms of the investment are not yet finalized.

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. We have agreed to make a portion of the rolling forecasts non-cancellable. 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, and as subsequently amended in January 2002, we entered into an advance production payment agreement with Seiko Epson and EEA under which we agreed to advance up to approximately $69 million, payable upon completion of specific milestones, to Seiko Epson to finance construction of an eight-inch sub-micron semiconductor wafer manufacturing facility. The timing of the payments is related to certain milestones in the development of the facility. Under the terms of the agreement, the advance is to be repaid with semiconductor wafers over a multi-year period. The agreement calls for wafers to be supplied by Seiko Epson through EEA pursuant to purchase agreements concluded with EEA. Payments of approximately $51.3 million have been made under this agreement. Cumulatively, approximately $15.6 million of these payments have been repaid to us in the form of semiconductor wafers. We do not anticipate making additional payments under this agreement.

UMC Group

Beginning in 1995, we entered into a series of agreements with UMC pursuant to which we agreed to make several equity investments in entities now directly owned by UMC. Under the terms of these agreements, we invested approximately $68.5 million for the right to purchase a percentage of UMC's wafer production at market prices.

As of December 31, 2003, we owned 91.7 million shares of UMC of which 23.3 million were restricted from sale for more than one year by the terms of our agreements with UMC. Under the terms of our agreements, 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.

In the first quarter of 2004, we sold 10.0 million of our unrestricted UMC shares for approximately $9.2 million in cash, resulting in a gain of approximately $2.5 million. This gain will be reflected in Other Income, net, in our consolidated financial statements for the quarter ended March 31, 2004.

Employees

As of December 31, 2003 we had 1,048 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:

Name	Age	Position
Cyrus Y. Tsui	58	Chief Executive Officer and Chairman of the Board
Stephen A. Skaggs	41	President and Secretary
Jan Johannessen	48	Corporate Vice President and Chief Financial Officer
Frank J. Barone	64	Corporate Vice President, Product Operations
Stephen M. Donovan	52	Corporate Vice President, Sales

Jonathan K. Yu	63	Corporate Vice President, Business Development
Martin R. Baker	48	Vice President and General Counsel
Rodney F. Sloss	60	Vice President, Finance
Mark O. Hatfield	81	Director
Daniel S. Hauer	67	Director
Soo Boon Koh	53	Director
Harry A. Merlo	78	Director
Larry W. Sonsini	62	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 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 has 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.

Jonathan K. Yu joined Lattice in February 1992 as Vice President, Operations. He was elected Corporate Vice President, Business Development in August 1996. Mr. Yu has held technical and managerial positions in the semiconductor industry for over 30 years.

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.

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.

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 previously served as the founding President and Chairman of the Board of Louisiana-Pacific Corporation until June 1995.

Larry W. Sonsini has been a member of our board of directors since 1991. Mr. Sonsini is a member of Wilson Sonsini Goodrich & Rosati, Professional Corporation, a law firm, and Chairman of the firm's Executive Management Committee. He also serves on the board of directors of Brocade Communications Systems, Inc., Echelon Corporation, LSI Logic Corporation, Pixar, Inc. and Silicon Valley Bancshares.

Available Information

We make available free of charge through our website at www.latticesemi.com, via a link to the SEC's website at 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 80,000 square foot facility in Sunnyvale, California which 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.

We are not currently a party to any material legal proceedings.

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

Not applicable.

PART II

Item 5. Market for the Registrant's Common Stock and Related Stockholder Matters.

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 29, 2004, we had approximately 484 stockholders of record.

	Low	High
2002:		
First Quarter	$ 17.06	$ 24.14
Second Quarter	6.94	18.49
Third Quarter	5.35	9.36
Fourth Quarter	4.08	10.79
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

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

Recent Sales of Unregistered Securities

On May 6, 2003, we issued a warrant to purchase 256,661 shares of our common stock to Bain & Company, Inc., in connection with consulting services provided to us. The warrant has an exercise price of $9.05 per share, and vests at a rate of 21,388.42 shares on the first day of each month, beginning March 1, 2003, subject to Bain's continued service as a consultant to us. The foregoing transaction was exempt from registration under the Securities Act of 1933, as amended, pursuant to Section 4(2) thereof.

On June 20, 2003, we sold $200 million in principal amount of our Zero Coupon Convertible Subordinated Notes due July 1, 2010 to Goldman Sachs & Co., the initial purchaser, for $195.0 million pursuant to the exemption from registration under Section 4(2) of the Securities Act of 1933, as amended, for resale by the initial purchaser to qualified institutional buyers pursuant to Rule 144A under the Securities Act of 1933, as amended. 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) specified corporate transactions 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.

Item 6. Selected Financial Data.

	Years Ended				Nine months Ended
	December 31, 2003	December 31, 2002	December 31, 2001	December 31, 2000	December 31, 1999
	(In thousands, except per share data)				
STATEMENT OF OPERATIONS DATA:					
Revenue	$ 209,662	$ 229,126	$ 295,326	$ 567,759	$ 269,699

Costs and expenses:					
Cost of products sold	89,266	91,546	111,498	217,830	108,687
Research and development	87,092	85,776	71,679	77,057	45,903
Selling, general and administrative	50,773	48,099	53,027	81,082	50,676
In-process research and development	—	29,853	—	—	89,003
Amortization of intangible assets(1)	77,127	73,415	84,349	81,873	45,780
	304,258	328,689	320,553	457,842	340,049
(Loss) income from operations	(94,596)	(99,563)	(25,227)	109,917	(70,350)
(Loss) gain on foundry investments	—	—	(152,795)	149,960	—
Interest and other (expense) income, net	(3,064)	6,194	4,056	2,194	(6,787)
(Loss) income before (benefit) provision for income taxes	(97,660)	(93,369)	(173,966)	262,071	(77,137)
(Benefit) provision for income taxes	(5,854)	81,866	(64,447)	94,184	(28,991)
Net (loss) income	$ (91,806)	$ (175,235)	$ (109,519)	$ 167,887	$ (48,146)
Basic net (loss) income per share	$ (0.82)	$ (1.59)	$ (1.01)	$ 1.65	$ (0.50)
Diluted net (loss) income per share	$ (0.82)	$ (1.59)	$ (1.01)	$ 1.47	$ (0.50)
Shares used in per share calculations:					
Basic	111,794	110,193	108,814	101,716	95,428
Diluted	111,794	110,193	108,814	120,321	95,428
BALANCE SHEET DATA:					
Cash and short-term investments	$ 277,750	$ 276,880	$ 531,566	$ 535,408	$ 214,140
Total assets	$ 851,628	$ 941,263	$ 1,185,982	$ 1,295,884	$ 916,155
Convertible notes	$ 184,000	$ 208,061	$ 260,000	$ 260,000	$ 260,000
Stockholders' equity	$ 606,112	$ 661,135	$ 839,770	$ 855,655	$ 482,773

(1) Includes $5,745, $2,962 and $397 of amortization of deferred stock compensation expense for the years ended 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 two-for-one stock splits effected in the form of stock dividends and paid on October 11, 2000 and September 16, 1999.

Unaudited Quarterly Data

	2003				2002			
	Dec.	Sept.(1)	June(1)	Mar.(1)	Dec.	Sept.	June	Mar.
		(Restated)	(Restated)	(Restated)				
	(In thousands, except per share data)							
Revenue	$ 52,757	$ 43,033	$ 56,575	$ 57,297	$ 57,710	$ 56,072	$ 56,466	$ 58,878
Gross profit	$ 28,943	$ 23,602	$ 33,582	$ 34,269	$ 34,691	$ 33,643	$ 33,974	$ 35,272
Net loss	$ (25,244)	$ (28,661)	$ (18,232)	$ (19,669)	$ (127,100)	$ (14,371)	$ (8,147)	$ (25,617)
Basic net loss per share	$ (0.22)	$ (0.26)	$ (0.16)	$ (0.18)	$ (1.14)	$ (0.13)	$ (0.07)	$ (0.23)
Diluted net loss per share	$ (0.22)	$ (0.26)	$ (0.16)	$ (0.18)	$ (1.14)	$ (0.13)	$ (0.07)	$ (0.23)

(1) In January 2004, management learned of certain incorrect accounting entries relating to our deferred income accounting for sales to distributors in the quarters ended June 30, 2003 and September 30, 2003. Pursuant to our accounting principles for revenue recognition, we defer reporting revenue from sales to distributors until the period in which the distributors resell our product to their customers. The Audit Committee of our Board of Directors undertook an investigation of this matter with the assistance of our independent auditor and outside legal counsel. That investigation is complete and the Audit Committee has recommended the adoption of certain internal control and system enhancements. We are currently implementing these Audit Committee directives. As a result of the investigation, we have determined that entries made in the second and third quarters of 2003 which reduced Accrued Expenses in the amount of $1.3 million and $4.2 million, respectively, were inappropriate. We also determined that our systems, procedures and

controls surrounding (1) our estimation of resales by our distributors and (2) our determination of deferred revenue related to distributor inventories needed to be improved. During the investigation, we carried out additional procedures to (1) refine our estimate of the amount of distributor resale revenue and (2) refine our method for estimating deferred revenue related to distributor inventories. As a result of those additional procedures, we believe our Consolidated Balance Sheet Deferred Income account was understated at March 31, 2003, June 30, 2003 and September 30, 2003 by amounts requiring an adjustment of approximately $1.0 million, $1.6 million and $8.0 million, respectively to reduce Revenues previously recognized and approximately $0.2 million, $0.3 million and $1.3 million, respectively, to reduce Cost of Products Sold previously recognized. As previously noted, approximately $1.3 million and $4.2 million of the resulting adjustments to the Deferred Income account were incorrectly restored to the Deferred Income account in our June 30, 2003 and September 30, 2003 balance sheet, respectively, through an entry to Accrued Expenses instead of the Consolidated Statement of Operations. The Deferred Income account balance fell below the minimum required level to support inventory on distributors shelves primarily due to (1) non recurring transactions in the September 30, 2003 quarter related to distributor price adjustments and incorrect distributor reporting of resales in previously reported quarterly financial statements, and (2) over-estimates of revenue related to resales occurring in the current fiscal year. We have already implemented certain of the internal control and systems enhancements recommended by the Audit Committee and are currently implementing other Audit Committee directives that resulted from its investigation.

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 devices, or PLDs, and related software. Programmable logic devices are widely-used semiconductor components that can be configured by the end customer as specific logic circuits, and enable the end customer to shorten design cycle times and reduce development costs. Our end customers are primarily original equipment manufacturers in the communications, computing, industrial, automotive, medical, consumer and military end markets.

Restatement and Change in Accounting Estimate During 2003

We restated our Deferred Income and Accrued Expense Balance Sheet accounts, and Revenue and Cost of Products Sold accounts in the Consolidated Statement of Operations for the June and September quarters of 2003 and our Deferred Income, Revenue and Cost of Products Sold accounts for the March quarter of 2003 to correct accounting errors and to reflect a change in accounting estimate related to Deferred Income. For the 2003 year, the aforementioned restatement related to accrued expenses and the changes in accounting estimate reduced revenue by approximately $10.6 million, reduced cost of products sold by approximately $1.8 million, reduced gross margin by approximately $8.9 million and increased deferred income by approximately $8.9 million. The related circumstances are described in more detail in Note 1 to the table of Unaudited Quarterly Data in Item 6 of this Annual Report on Form 10-K.

Overview of 2003

Revenue for our business in 2003 declined to approximately $210 million as compared to approximately $229 million in 2002 primarily due to continued weakness in the sales of our CPLD and SPLD products. Revenue from our FPGA products, on the other hand, grew from approximately $28 million in 2002 to $37 million in 2003. However, we saw an improvement in business conditions in the fourth quarter of 2003 which has continued during the first quarter of 2004 attributable to general strengthening in the PLD market and improvement in the communications end market. Future revenue growth is dependent, among other things, upon market acceptance of our new FPGA products.

Our gross margin declined in 2003 to 57% from 60% in 2002 due to factors including distributor sales allowances, and to a lesser extent, lower production yields and average selling prices on our new products.

Research and development expenses increased to approximately $87 million (41% of revenue) in 2003 compared to approximately $86 million in 2002 (38% of revenue). The majority of research and development spending is related to the continued development of next generation FPGA products. We expect research and development spending to continue at present levels during 2004 as we introduce our next generation FPGA products.

Selling, general and administrative expenses were approximately $51 million in 2003 (24% of revenue) as compared to approximately $48 million in 2002 (21% of revenue) primarily due to marketing expenses related to new products and increased professional fees including those related to the restatement of the first, second and third quarter 2003 financial statements. 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 $77 million in 2003 will decline by approximately $13 million per quarter beginning with the September quarter of 2004 as amortization of intangible assets acquired in the Vantis acquisition will be completed.

Interest and other income (expense) of approximately $(3 million) in 2003 is primarily attributable to the issuance of Zero Coupon Convertible Subordinated Notes due July 1, 2010 and retirement of

our $4\frac{3}{4}$% Convertible Subordinated Notes due 2006 during the second and third quarter of 2003, respectively. Interest and other income (expense) of $0.4 million in the fourth quarter of 2003 represents interest rate driven investment income partially offset by amortization of issuance costs of the Zero Coupon Convertible Subordinated Notes due July 1, 2010. During the first quarter of 2004, we sold a portion of our UMC marketable securities holdings resulting in a gain of approximately $2.5 million. To the extent market conditions allow, we may make similar sales in future quarters. We are not currently paying federal or state income taxes and do not expect to pay or accrue such taxes in 2004.

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,		
	2003	2002	2001
Revenue	100%	100%	100%
Costs and expenses:			
Cost of products sold	43	40	38
Research and development	41	38	24
Selling, general and administrative	24	21	18
In-process research and development	—	13	—
Amortization of intangible assets	37	32	29
Total costs and expenses	145	144	109
Loss from operations	(45)	(44)	(9)
Other (expense) income, net	(2)	3	(50)
Loss before (benefit) provision for income taxes	(47)	(41)	(59)
(Benefit) provision for income taxes	(3)	36	(22)
Net loss	(44)%	(76)%	(37)%

Acquisitions. 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 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 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 $209.7 million in 2003, a decrease of nine percent from 2002. Revenue was $229.1 million in 2002, a decrease of 22% from 2001 revenue of $295.3 million. The composition of our revenue by product family for the years presented was as follows:

	Years Ended December 31,		
	2003	2002	2001
FPGA	18%	12%	0%
CPLD	69%	69%	76%
SPLD	13%	19%	24%

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

During 2003, our revenue was adversely affected by the business downturn experienced by the semiconductor and PLD markets that began in 2001, offset in part by a general business recovery experienced late in the year. Our revenue decrease in 2002 as compared to 2001 was a result of this 2001 downturn and the resultant decrease in demand for our products. Revenue declined across all geographies except Asia, and demand across most end markets remained weak.

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

	Years Ended December 31,		
	2003	2002	2001
United States	$ 66,740	$ 92,086	$ 135,832
Export sales:			
Europe	52,142	58,871	81,177
Japan	23,000	17,635	26,427
Asia Pacific (other than Japan)	57,360	49,689	36,155
Other	10,420	10,845	15,735
	142,922	137,040	159,494
	$ 209,662	$ 229,126	$ 295,326

Revenue from export sales as a percentage of total revenue was approximately 68% for 2003, 60% for 2002 and 54% for 2001. We expect export sales to continue to represent a significant portion of revenue.

During 2003, total units sold and our overall average selling prices both decreased by approximately nine percent when compared to 2002. During 2002, total units sold decreased by 19% and our overall average selling price decreased by three percent when compared to 2001. Both units sold and average selling price were adversely impacted by the continued downturn in the semiconductor and PLD markets. Although selling prices of mature products generally decline over time, this decline is at times offset by higher selling prices of new products. 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."

Gross Margin. Our gross margin percentage was 57% for 2003, 60% for 2002, and 62% for 2001. The decrease in gross margin percentage in 2003 is primarily attributable to 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. The decrease in gross margin percentage in 2002 as compared to 2001 was primarily due to the increased proportion of fixed manufacturing costs due to a decline in production volume. Reductions in our overall manufacturing costs and improvements in our product mix generally offset an increased proportion of fixed manufacturing costs in 2001. Product mix in 2001

was favorably affected by a higher ratio of previously deferred income compared to income from direct customer sales. Reductions in manufacturing costs resulted primarily from on-going yield improvements, migration of products to more advanced technologies and smaller die sizes.

Research and Development. Research and development expense was $87.1 million for 2003 compared to $85.8 million for 2002 and $71.7 million in 2001. Research and development expenses consist primarily of labor, masks, prototype wafers, third-party design automation software, assembly tooling and qualification expenses. The increase in 2003 when compared to 2002 was primarily due to the continued development of new products. The increase in 2002 when compared to 2001 was primarily due to increased headcount and related spending due to our acquisition of Agere FPGA (see note 5 to our Consolidated Financial Statements). 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, and we believe will continue to become, significantly 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 $50.8 million in 2003, $48.1 million in 2002, and $53.0 million in 2001. 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. The decrease in 2002 when compared to 2001 was primarily due to reduced revenue and associated reductions in variable costs and reductions in discretionary spending.

In-Process Research and Development. IPR&D consists of those products obtained through acquisition that are not yet proven to be technologically feasible but have been developed to a point where there is value associated with them in relation to potential future revenue. Because technological feasibility was not yet proven and no alternative future uses are 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 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 million. This project is now estimated to be complete in the first half of 2004. There has been no material change in the estimated cost of this project.

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.

All of these projects have completion risks related to silicon functionality, architecture performance, process technology availability, 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 are 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 million. There has been no material change in the schedule or estimated cost of this project. 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 million. There has been no material change in the schedule or estimated cost of this project. 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.

All of these projects have completion risks related to silicon functionality, architecture performance, process technology availability, packaging technology, continued availability of key technical personnel, product reliability and availability of software support. 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 $77.1 million in 2003, $73.4 million in 2002, and $84.3 million in 2001. 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 12 to our Consolidated Financial Statements). The decrease in amortization for 2002 compared to 2001 was due to the cessation of amortizing goodwill in 2002 (see note 1 to our Consolidated Financial Statements) which more than offset the increased amortization of intangible assets related to our acquisitions of Agere FPGA and Cerdelinx.

(Loss) Gain on Foundry Investments. The loss on foundry investments recorded in the third quarter of 2001 represents impairment loss on our UMC common shares. In the September 2001

---

quarter, the carrying value of the UMC shares was reduced as we recorded a $152.8 million loss representing a decline in the market value of our UMC shares. In each quarter that the market value of the UMC investment is below carrying value, we evaluate whether the investment is other than temporarily impaired. We recorded the unrealized loss on our UMC investment in the September 30, 2001 Consolidated Statement of Operations. At that time, we believed the investment was other than temporarily impaired for the following reasons:

- it was becoming increasingly likely that the stock price would not recover based on the increasing size of the unrealized loss, the extended time period during which the stock price had continued to decline without a trend reversal, and the dampening volatility, which indicated to us that the stock price was becoming more stable;
- UMC's financial performance had weakened relative to earlier quarters;
- the opinion of many industry observers and analysts regarding the semiconductor downturn had become significantly more negative;
- the events of September 11, 2001 further exacerbated market conditions;
- we had previously believed that UMC would initiate an ADR conversion program that would enable us to sell our shares at a premium on the New York Stock Exchange, but such a program was never initiated; and
- although we still had the intent and ability to hold the shares for an indefinite period, we concluded this fact did not overcome the negative factors associated with the shares.

Interest Income. Interest income was $3.6 million in 2003, $5.4 million in 2002, and $17.7 million in 2001. The decrease in 2003 when compared to 2002 was due to lower interest rates on invested balances. The decrease in 2002 when compared to 2001 was due to lower invested balances as a result of our acquisition of Agere FPGA (see note 5 to our Consolidated Financial Statements) and lower interest rates on invested balances.

Interest Expense. Interest expense was approximately $7.1 million in 2003, $12.6 million in 2002 and $14.0 million in 2001. Substantially all interest expense resulted from the debt issued to partially fund our Vantis acquisition. The decrease in 2003 when compared to 2002 was due to the redemption of our remaining 4 3/4% Convertible Subordinated Notes in July 2003. The decrease in 2002 when compared to 2001 is due to the extinguishment of approximately $51.9 million of our 4 3/4% Convertible Subordinated Notes during the year (see note 11 to our Consolidated Financial Statements).

Other Income. Other income, net, was $0.4 million in 2003, $13.4 million in 2002 and $0.3 million in 2001. For 2003, Other income consists of gains recorded on the partial extinguishment of our convertible subordinated notes, substantially offset by the $4.7 million call premium associated with the redemption of our 4 3/4% Convertible Subordinated Notes (see note 11 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 convertible subordinated notes (see note 11 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).

(Benefit) Provision for Income Taxes. The tax benefit in 2003 is primarily a result of releasing certain tax reserves ($3.4 million) as the related statute of limitations expired and a refund of Federal income taxes ($2.5 million). 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 10 to our Consolidated Financial Statements). The tax benefit in 2001 is the result of the pretax loss reported in

---

the period and the tax rate in 2001 is lower than the combined federal and statutory rates primarily because of tax exempt investment income and tax credits.

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 measured 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, 2002 and 2003, 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.

New Accounting Pronouncements

In January 2003, the Financial Accounting Standards Board ("FASB") issued Financial Standards Accounting Board Interpretation ("FIN") No. 46, "Consolidation of Variable Interest Entities," an interpretation of Accounting Research Bulletin No. 51, "Consolidated Financial Statements." FIN 46 establishes accounting guidance for consolidation of a variable interest entity. In a variable interest entity the equity investors do not have a controlling interest or their equity interest is insufficient to finance the entity's activities without receiving additional subordinated financial support from the other parties. We do not currently have any business relationship with a variable interest entity, so the adoption of FIN 46 had no impact on our consolidated financial position or results of operations.

In April 2003, the FASB issued SFAS 149, "Amendment of Statement 133 on Derivative Instruments and Hedging Activities." This statement amends and clarifies financial accounting and reporting for derivative instruments, including certain derivative instruments embedded in other contracts, and for hedging activities under SFAS 133. SFAS 149 is effective for contracts entered into or modified after June 20, 2003. The adoption of SFAS 149 did not have a material effect on our results of operations, financial position or cash flows.

In May 2003, the FASB issued SFAS 150, "Accounting for Certain Financial Instruments with Characteristics of both Liabilities and Equity." This pronouncement establishes standards for how an issuer classifies and measures in its statement of financial position certain financial instruments with characteristics of both liabilities and equity. It requires that an issuer classify a financial instrument that is within its scope as a liability (or an asset in certain circumstances) because that financial instrument embodies an obligation of the issuer. SFAS 150 is effective for financial instruments entered into or modified after May 31, 2003, and otherwise is effective for interim periods beginning after June 15, 2003. On November 7, 2003, FASB issued FASB Staff Position No. FAS 150-3 ("FSP 150-3"), "Effective Date, Disclosures, and Transition for Mandatorily Redeemable Financial Instruments of Certain Nonpublic Entities and Certain Mandatorily Redeemable Noncontrolling Interests under FASB Statement No. 150, Accounting for Certain Financial Instruments with Characteristics of Both Liabilities and Equity." FSP 150-3 deferred certain aspects of SFAS 150. The adoption of SFAS 150 and FSP 150-3 did not have a material impact on our results of operations, financial position or cash flows.

On December 17, 2003, the Staff of the SEC issued Staff Accounting Bulletin No. 104 ("SAB 104"), "Revenue Recognition," which supersedes SAB 101, "Revenue Recognition in Financial Statements." SAB 104's primary purpose is to rescind accounting guidance contained in SAB 101 related to multiple element revenue arrangements, superseded as a result of the issuance of EITF 00-21, "Accounting for Revenue Arrangements with Multiple Deliverables." Additionally, SAB 104 rescinds the SEC's "Revenue Recognition in Financial Statements Frequently Asked Questions and Answers" (the "FAQ") issued with SAB 101 that had been codified in SEC Topic 13, "Revenue Recognition." Selected portions of the FAQ have been incorporated into SAB 104. While the wording of SAB 104

has changed to reflect the issuance of EITF 00-21, the revenue recognition principles of SAB 101 remain largely unchanged by the issuance of SAB 104. The adoption of SAB 104 did not materially affect our revenue recognition policies, nor our results of operations, financial position or cash flows.

Liquidity and Capital Resources

As of December 31, 2003, our principal source of liquidity was $277.6 million of cash and short-term investments, which was approximately flat with the balance of $276.9 million at December 31, 2002. Working capital increased to $363.6 million at December 31, 2003 from $348.8 million at December 31, 2002. This increase was primarily due to cash generated from operations. During 2003 we generated approximately $34.8 million of cash and cash equivalents from our operations compared with $46.0 million during 2002. This cash generation was primarily from refunds of federal income taxes previously paid due to net losses in 2001 and 2002.

Inventories decreased by $9.6 million, or 17%, in 2003 as compared to the balance of the prior year primarily due to reduced starts and receipts of wafers in response to lower revenue levels. Prepaid expenses and other current assets decreased by approximately $18.9 million, or 54%, in 2003 as compared to the balance of the prior year. This decrease is due primarily 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).

Equity securities available for sale increased by $35.4 million, or 100%, in 2003 as compared to the balance in the prior year. These securities represent the portion of our investment in UMC that we expect to sell during 2004 (see notes 7 and 17 to our Consolidated Financial Statements). Foundry investments, advances and other assets decreased by approximately $17.6 million, or 17%, in 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 as described above and the $6.2 million reclassified to prepaid expenses and other current assets related to prepaid wafers described above, partially offset by a $24.6 million gain recorded in Accumulated other comprehensive (loss) income related to changes in the market value of our UMC shares. Property and equipment, less accumulated depreciation, decreased by $9.0 million, or 14%, in 2003 as compared to the balance in the prior year due to lower expenditures for capital equipment. Net intangible assets decreased by $71.3 million, or 46%, in 2003 as compared to the balance of the prior year which is attributable to amortization during 2003.

On June 20, 2003, we issued $200 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) specified corporate transactions 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. 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, 2003, we had no senior indebtedness and our subsidiaries had approximately $2.4 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 $1.4 million as of December 31, 2003.

The estimated fair value of these convertible notes, based on quoted market prices, was approximately $192 million at December 31, 2003.

In October 2003, our board of directors authorized management to repurchase up to $100 million of our Zero Coupon Convertible Subordinated Notes due July 1, 2010. During the third quarter of 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. In connection with this transaction, we also wrote off approximately $0.4 million of unamortized issuance costs.

On July 21, 2003, we redeemed for cash all of our outstanding $4^3/4$% Convertible Subordinated Notes due in 2006, originally issued in October 1999, plus accrued interest. Total cash paid at redemption 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 redemption 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 $4^3/4$% 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.

Capital expenditures were approximately $9.7 million, $17.5 million and $13.8 million for 2003, 2002 and 2001, respectively. We expect to spend approximately $15 million to $20 million on capital expenditures for the fiscal year ending December 31, 2004.

The following table summarizes our significant contractual cash obligations at December 31, 2003 (in thousands):

Year	Operating leases(1)	Inventory and Related Purchase Obligations(2)	Zero Coupon Convertible Subordinated Notes due July 1, 2010
2004	$ 9,349	$ 5,715	$ —
2005	8,150	—	—
2006	6,557	—	—
2007	5,635	—	—

2008	5,510	—	—
Later years	944	—	184,000
	$ 36,145	$ 5,715	$ 184,000

(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 $5.8 million, $6.0 million and $5.1 million for 2003, 2002 and 2001, respectively.

(2) We depend entirely upon subcontractors to manufacture our silicon wafers. Other subcontractors provide substantially all 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 and pay for these materials within the four to six months subsequent to December 31, 2003.

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, 2003, net of such payments are as follows (in thousands):

Year	
2004	$ 2,623
2005	2,684
2006	886
	$ 6,193

As of December 31, 2003, we owned 91.7 million shares of UMC of which 23.3 million were restricted from sale for more than one year by the terms of our agreements with UMC. During 2002, we sold approximately 7.6 million of our UMC shares for approximately $9.9 million in cash, resulting in a gain of $4.0 million. During the first quarter of 2004, we sold 10.0 million of our UMC shares for approximately $9.2 million in cash, resulting in a gain of approximately $2.5 million. (see notes 7 and 17 to our Consolidated Financial Statements).

In December 2000, our Board of Directors authorized management to repurchase up to five million shares of our common stock. As of December 31, 2003, 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 or 2003.

In March 1997 and as subsequently amended in January 2002, we entered into an advance payment production agreement with Seiko Epson and Epson Electronics America, Inc. ("EEA") under which we agreed to advance up to approximately $69 million, payable upon completion of specific milestones, to Seiko Epson to finance construction of an eight-inch sub-micron semiconductor wafer manufacturing facility. Under the terms of the agreement, 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. Payments of approximately $51.3 million have been made under this agreement. Cumulatively, approximately $15.6 million of these payments have been repaid to us in the form of semiconductor wafers. Approximately $9.9 million of the outstanding advances are expected to be repaid with semiconductor wafers during fiscal year 2004 and are thus reflected as part of Prepaid expenses and other current assets in our Consolidated Balance Sheet. We do not anticipate making additional payments under this agreement.

In an effort to secure a long-term, stable advanced technology wafer supply, we plan to invest between $100 million and $200 million in Fujitsu's planned new 300mm wafer fab. Presently, we contemplate making this investment in stages before the end of 2005 and structuring the investment as an advance payment for production wafers and for access to future process technologies. The detailed terms of the investment are not yet finalized.

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.

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 purposes. 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

A downturn in the communications equipment and computing end markets has caused a reduction in demand for our products and limited our ability to maintain or increase revenue levels and operating results.

A significant portion of our revenue is derived from customers in the communications equipment and computing end markets. Due to a deterioration in overall economic conditions and a significant reduction in information technology capital spending, the communications and computing end markets have experienced a significant and prolonged downturn. While economic conditions in general, and the communications and computer end markets in particular, have recently shown signs of improvement, the improved conditions may not continue or lead to improved demand for our products. Whenever adverse economic or end market similar conditions exist, there is likely to be an adverse effect on our operating 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. If we fail to introduce these new products in a timely manner or these products fail to achieve market acceptance, our operating results would be harmed.

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.

In March 2004, we announced that 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 are jointly developing with Fujitsu.

The success of our future product launches 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 future product launches, our future revenue growth will be materially adversely affected.

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

Beginning in 2001, the semiconductor industry experienced a downturn of extreme severity and duration. While semiconductor industry conditions recently have improved, the improvement may not be significant or sustainable. Increased demand for semiconductor industry products may not proportionately increase demand for programmable logic market segment 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.

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.

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 were required to restate 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.

The restatement of these financial statements may lead to 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 remediate a material weakness that has been identified in our internal controls and procedures, there could be a material adverse effect on our operations or financial results.

We received notice from our independent auditor that, in connection with the 2003 year-end audit, the auditor has 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. We have implemented and are continuing to implement various initiatives intended to materially improve our internal controls and procedures to address this weakness. These initiatives address our control environment, organization and staffing, policies, procedures and documentation, and information systems. The implementation of these initiatives is one of our highest priorities. Our Board of Directors, in coordination with our Audit Committee, will continually assess the progress and sufficiency of these initiatives and make adjustments as necessary. However, 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 be effective in remedying all of the identified deficiencies in our internal controls and procedures. 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. If we are unable to implement these changes effectively or efficiently, 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.

In addition, we may in the future experience accounting estimate changes related to our deferred income account, inventory account, income tax liability, accounts receivable collectibility, or realization of goodwill and intangible assets, any of which could adversely affect our 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;
- 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.

Presently, our stock price is trading near our consolidated book value. A sustained decline in our stock price may result in a write-off of goodwill (see Note 1 of our Consolidated Financial Statements).

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

We do not manufacture finished silicon wafers. Currently, substantially all of our silicon wafers are manufactured by Seiko Epson in Japan, UMC in Taiwan, and Chartered Semiconductor in Singapore. In March 2004 we announced that we will also be sourcing wafers on advanced process technologies from Fujitsu in Japan. 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 or other natural disaster 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 finished 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^2CMOS®. The reliable manufacture of high performance E^2CMOS 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 the masks used to print circuits on a wafer;
- the elimination of minute impurities and errors in each step of the fabrication process; and
- effective cooperation between us and the wafer supplier.

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 finished 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 lead frames used to attach semiconductor devices to the package;
- the elimination of raw material impurities and errors in each step of the process; and
- effective cooperation between us and the assembly contractor.

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, Malaysia, the Philippines, South Korea and Taiwan. A prolonged interruption in our supply from any of these contractors could harm our operating results.

Economic, financial, social and political conditions in Asia have historically been volatile. Financial difficulties, governmental actions or restrictions, prolonged work stoppages or any other difficulties experienced by our suppliers may disrupt our supply and could harm our operating results.

Our wafer purchases from Seiko Epson are denominated in Japanese yen. The value of the dollar with respect to the yen fluctuates. Substantial deterioration of dollar-yen exchange rates 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 or terrorism;
- changes in tax rates, tariffs or freight rates;
- interruptions in air transportation; and
- difficulties in staffing and managing foreign sales offices.

For example, our export sales have historically been affected by regional economic crises. Significant changes in the economic climate in the foreign countries where we derive our export sales could harm our operating results.

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 and solutions based on alternative technologies. These direct and indirect competitors are established multinational semiconductor companies as well as emerging companies. We also may experience significant competition from foreign companies in the future.

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 utilize 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 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 market and other conditions over which we have little control. During the year ended December 31, 2001, we recorded a $152.8 million pre-tax impairment loss related to this investment. In the future, UMC shares may continue to experience significant price volatility. In the second quarter of 2002 and the first quarter of 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 net income could be reduced.

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

As of December 31, 2003 and December 31, 2002 our investment portfolio consisted of fixed income securities of $275.0 million and $274.4 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, 2003 and December 31, 2002, the decline in the fair value of our portfolio would not be material. Further, 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 income or cash flows.

We have international subsidiary and branch operations. Additionally, some of our silicon wafer purchases are denominated in Japanese yen. We therefore are subject to foreign currency rate exposure. To mitigate rate exposure with respect to our yen-denominated wafer purchases, we maintain a yen-denominated bank account and bill our Japanese customers in yen. If the foreign currency rates were to fluctuate by 10% from rates at December 31, 2003 and December 31, 2002, the effect on our consolidated financial statements would not be material. However, there can be no assurance that there will not be a material impact in the future.

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. 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 net income could be reduced.

Item 8. Financial Statements and Supplementary Data.

Index to Consolidated Financial Statements and Consolidated Financial Statement Schedules

	Page
Consolidated Financial Statements	
Consolidated Balance Sheet, December 31, 2003 and December 31, 2002	35
Consolidated Statement of Operations, Years ended December 31, 2003, 2002 and 2001	36
Consolidated Statement of Changes in Stockholders' Equity, Years ended December 31, 2003, 2002 and 2001	37
Consolidated Statement of Cash Flows, Years ended December 31, 2003, 2002 and 2001	38
Notes to Consolidated Financial Statements	39
Report of Independent Auditors	61
Consolidated Financial Statement Schedules:	
Report of Independent Auditors on Financial Statement Schedule	S-1
Schedule II—Valuation and Qualifying Accounts	S-2

LATTICE SEMICONDUCTOR CORPORATION
CONSOLIDATED BALANCE SHEET
(In thousands, except share and par value amounts)

	Dec. 31, 2003	Dec. 31, 2002

ASSETS		
Current assets:		
Cash and cash equivalents	$ 35,276	$ 169,475
Short-term investments	242,474	107,405
Accounts receivable, net	26,796	26,374
Inventories (note 2)	46,630	56,241
Prepaid expenses and other current assets (notes 7 and 10)	16,173	35,033
Equity securities available for sale (notes 7 and 17)	35,364	—
Total current assets	402,713	394,528
Foundry investments, advances and other assets (note 7)	86,883	104,507
Property and equipment, less accumulated depreciation (note 3)	53,800	62,786
Intangible assets, less accumulated amortization of $271,000 and $129,311 (notes 4, 5 and 6)	84,627	155,953
Goodwill (notes 5 and 6)	223,605	223,489
	$ 851,628	$ 941,263
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable and accrued expenses	$ 15,376	$ 18,860
Accrued payroll obligations	13,124	14,737
Income taxes payable (note 10)	37	142
Deferred income	10,564	11,983
Total current liabilities	39,101	45,722
4 3/4% Convertible Subordinated Notes due in 2006 (note 11)	—	208,061
Zero Coupon Convertible Subordinated Notes due in 2010 (note 11)	184,000	—
Other long-term liabilities (note 13)	22,415	26,345
Commitments and contingencies (notes 7, 9, 13 and 14)	—	—
Stockholders' equity (note 12):		
Preferred stock, $.01 par value, 10,000,000 shares authorized; none issued and outstanding	—	—
Common stock, $.01 par value, 300,000,000 shares authorized; 113,040,000 and 112,358,043 shares issued and outstanding	1,130	1,124
Paid-in capital	586,834	580,987
Deferred stock compensation	(5,444)	(11,540)
Other comprehensive income (loss)	20,203	(4,631)
Retained earnings	3,389	95,195
	606,112	661,135
	$ 851,628	$ 941,263

The accompanying notes are an integral part of this statement

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

	Years Ended Dec. 31,		
	2003	**2002**	**2001**
Revenue (note 16)	$ 209,662	$ 229,126	$ 295,326
Costs and expenses:			
Cost of products sold	89,266	91,546	111,498
Research and development	87,092	85,776	71,679
Selling, general and administrative (note 15)	50,773	48,099	53,027
In-process research and development (notes 4 and 5)	—	29,853	—
Amortization of intangible assets(1) (notes 4, 5 and 6)	77,127	73,415	84,349
	304,258	328,689	320,553

Loss from operations	(94,596)	(99,563)	(25,227)
Other income (expense), net:			
Interest income	3,635	5,362	17,733
Interest expense (note 11)	(7,140)	(12,611)	(13,962)
Loss on foundry investments (note 7)	—	—	(152,795)
Other income, net (notes 7 and 11)	441	13,443	285
	(3,064)	6,194	(148,739)
Loss before (benefit) provision for income taxes	(97,660)	(93,369)	(173,966)
(Benefit) provision for income taxes (note 10)	(5,854)	81,866	(64,447)
Net loss	$ (91,806)	$ (175,235)	$ (109,519)
Basic net loss per share	$ (0.82)	$ (1.59)	$ (1.01)
Diluted net loss per share	$ (0.82)	$ (1.59)	$ (1.01)
Shares used in per share calculations:			
Basic	111,794	110,193	108,814
Diluted	111,794	110,193	108,814

(1) Includes $5,745, $2,962 and $397 of amortization of deferred stock compensation expense for the years ended December 31, 2003, December 31, 2002 and December 31, 2001, 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)						
	Shares	Amount	Paid-in capital	Deferred Stock comp.	Accumulated other comprehensive (loss) income	Retained earnings	Total
Balances, Dec. 31, 2000	107,533	$ 1,075	$ 522,492	$ —	$ (47,861)	$ 379,949	$ 855,655
Common stock issued	2,491	25	20,491	—	—	—	20,516
Repurchase of common stock	(596)	(6)	(10,608)	—	—	—	(10,614)
Tax benefit of option exercises	—	—	12,542	—	—	—	12,542
Recognized loss on foundry investment	—	—	—	—	47,861	—	—
Unrealized gain on foundry investments (net of tax of $13.3 million—note 7)	—	—	—	—	24,106	—	—
Deferred stock compensation	—	—	3,136	(3,136)	—	—	—
Amortization of deferred stock compensation	—	—	—	397	—	—	397
Translation adjustments	—	—	—	—	(1,174)	—	—
Net loss for 2001	—	—	—	—	—	(109,519)	—
Total comprehensive loss	—	—	—	—	—	—	(38,726)
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
Unrealized loss on foundry investments (note 7)	—	—	—	—	(24,878)	—	—
Recognized gain on sale of foundry investments previously unrealized (note 7)	—	—	—	—	(3,398)	—	—
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 foundry investments (note 7)	—	—	—	—	24,583	—	—
Unrealized gain on other investments	—	—	—	—	49	—	—
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

The accompanying notes are an integral part of this statement

LATTICE SEMICONDUCTOR CORPORATION
CONSOLIDATED STATEMENT OF CASH FLOWS
(In thousands)

	Years Ended Dec. 31,		
	2003	**2002**	**2001**
Cash flow from operating activities:			
Net loss	$ (91,806)	$ (175,235)	$ (109,519)
Adjustments to reconcile net loss to net cash provided by operating activities:			
Depreciation and amortization	99,902	94,375	106,539
(Gain) loss on value of foundry investments	—	(4,017)	152,795
Gain on sale of equity securities	(271)		
Loss (gain) on extinguishment of convertible notes	1,381	(9,341)	—
Tax benefit of option exercises	—	884	12,542
In process research and development	—	29,853	—
Changes in assets and liabilities (net of purchase accounting adjustments)			
Accounts receivable	(422)	(6,922)	30,236
Inventories	9,609	12,157	(5,433)
Prepaid expenses and other current assets	25,062	4,730	(7,327)
Deferred income taxes	—	110,792	(55,369)
Equity securities available for sale, foundry investments, advances and other assets	1,101	3,562	(11,478)
Accounts payable and accrued expenses	(3,211)	(3,497)	(53,959)
Accrued payroll obligations	(519)	(2,099)	(4,822)
Income taxes payable	124	(2,609)	(6,733)
Deferred income	(1,419)	(6,120)	(40,081)
Other liabilities	(4,753)	(515)	(424)
Net cash provided by operating activities	34,778	45,998	6,967
Cash flow from investing activities:			
Proceeds from maturities of short-term investments	420,543	306,923	336,973
Purchase of short-term investments	(555,612)	(132,965)	(318,828)
Acquisition of Agere FPGA	—	(254,232)	(2,233)
Other acquisition costs	—	(2,530)	—
Decrease in intangible assets	—	—	(5,189)
Proceeds from sale of equity securities	745	9,930	—
Purchase of equity securities	(474)	—	—
Capital expenditures	(9,793)	(17,451)	(13,751)
Net cash used by investing activities	(144,591)	(90,325)	(3,028)

Cash flow from financing activities:			
Extinguishment of 4 3/4% Convertible Subordinated Notes	(223,684)	(42,077)	—
Issuance of Zero Coupon Convertible Subordinated Notes	194,597	—	—
Repurchase of common stock	—	—	(10,614)
Net proceeds from issuance of common stock	4,701	5,676	20,978
Net cash (used) provided by financing activities	(24,386)	(36,401)	10,364
Net (decrease) increase in cash and cash equivalents	(134,199)	(80,728)	14,303
Beginning cash and cash equivalents	169,475	250,203	235,900
Ending cash and cash equivalents	$ 35,276	$ 169,475	$ 250,203
Supplemental disclosure of non-cash investing and financing activities:			
Unrealized gain (loss) on appreciation (depreciation) of foundry investments included in other comprehensive (loss) income	$ 24,583	$ (24,878)	$ 24,106
Stock and options issued in conjunction with acquisition of Cerdelinx	$ —	$ 21,703	$ —

The accompanying notes are an integral part of this statement

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 devices, or PLDs, and related software. Programmable logic devices are widely-used semiconductor components that can be configured by the end customer as specific logic circuits, and enable the end customer to shorten design cycle times and reduce development costs. Our end customers are primarily original equipment manufacturers in communications, computing, industrial, automotive, medical, consumer 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 Corsham, 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 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 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. 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 Short-Term Investments

We consider all highly liquid investments, which are readily convertible into cash and have original maturities of three months or less, to be cash equivalents. Short-term investments, which are relatively less liquid and have maturities of less than one year, were composed of corporate auction rate stocks ($81.6 million and $43.2 million), municipal and local government obligations ($139.2 million and $64.2 million) and corporate notes and paper ($21.7 million and $0) at December 31, 2003 and December 31, 2002, respectively.

We account for our short-term investments as held-to-maturity, and state them at amortized cost with corresponding premiums or discounts amortized over the life of the investment as interest income. Amortized cost approximated fair value at December 31, 2003.

Financial Instruments

The carrying value of our financial instruments approximates fair value. We estimate the fair value of cash and cash equivalents, short-term investments, 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 11 for discussion of the fair value of our convertible debt.)

Derivative Financial Instruments

As of December 31, 2003, 2002 and 2001 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. We maintain a yen-denominated bank account and we bill our Japanese customers in yen. Gains or losses from foreign exchange rate fluctuations on unhedged balances denominated in foreign currencies are reflected in Other income. Realized and unrealized gains or losses were not significant for the years presented. We translate accounts denominated in foreign currencies in accordance with SFAS 52, "Foreign Currency Translation." Translation adjustments related to the consolidation of foreign subsidiary financial statements are reflected in other comprehensive (loss) income in Stockholders' Equity.

Concentrations of Credit Risk

Financial instruments which potentially expose us to concentrations of credit risk consist primarily of short-term investments 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 shown net of allowances for doubtful accounts of $1.0 million and $1.1 million at December 31, 2003 and 2002, respectively. We perform credit evaluations for all

customers and secure transactions with letters of credit or advance payments where necessary. 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 measured 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 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 142. Upon assessment, no transition impairment charge was recorded. We also completed our

annual goodwill impairment assessment in December 2003, upon which no impairment charge was recorded.

The following table presents the impact of SFAS 142 on our net income and our net income per share had the new standard been in effect for the year ended December 31, 2001 (in thousands, except per share data):

	Year Ended Dec. 31, 2001
Net loss—as reported	$ (109,519)
Adjustments:	
Amortization of goodwill	32,949
Income tax effect	(12,206)
Net adjustments	20,743
Net loss—as adjusted	$ (88,776)
Basic net loss per share—as reported	$ (1.01)
Basic net loss per share—as adjusted	$ (0.82)
Diluted net loss per share—as reported	$ (1.01)
Diluted net loss per share—as adjusted	$ (0.82)

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 123, "Accounting for Stock-Based Compensation" and as amended by SFAS 148, "Accounting for Stock-Based Compensation—Transition and Disclosure," are presented below (also see note 11). Pursuant to FASB Interpretation No. 44 "Accounting for Certain Transactions Involving Stock Based Compensation—an interpretation of APB Opinion No. 25," effective July 1, 2000, 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 Dec. 31,		
	2003	2002	2001
Net loss, as reported	$ (91,806)	$ (175,235)	$ (109,519)
Add: Stock based employee compensation expense included in reported net loss, net of related tax effects	5,745	2,962	397
Deduct: Total stock-based employee compensation expense determined under fair value based method for all awards, net of related tax effects	(28,205)	(34,068)	(23,011)
Pro forma net loss	$ (114,266)	$ (206,341)	$ (132,133)
Earnings per share:			
Basic—as reported	$ (0.82)	$ (1.59)	$ (1.01)

Basic—pro forma	$ (1.02)	$ (1.87)	$ (1.22)
Diluted—as reported	$ (0.82)	$ (1.59)	$ (1.01)
Diluted—pro forma	$ (1.02)	$ (1.87)	$ (1.22)

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 2003, 2002 and 2001 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 23.6 million, 20.5 million and 24.0 million shares for 2003, 2002 and 2001, 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 Dec. 31,		
	2003	2002	2001
Basic and diluted net loss	$ (91,806)	$ (175,235)	$ (109,519)
Shares used in basic net loss per share calculations	111,794	110,193	108,814
Dilutive effect of stock options, warrants and convertible subordinated notes	—	—	—
Shares used in diluted net income per share calculations	111,794	110,193	108,814
Basic net loss per share	$ (0.82)	$ (1.59)	$ (1.01)
Diluted net loss per share	$ (0.82)	$ (1.59)	$ (1.01)

Comprehensive (Loss) Income

For 2001, comprehensive loss consists primarily of net loss of approximately $109.5 million offset by unrealized gain recorded related to the market value of our foundry investments (net of tax) of approximately $72.0 million. 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.

Statement of Cash Flows

During 2003 and 2002, respectively, we received income tax refunds, net of payments, of approximately $28.4 million and $37.2 million. Income taxes paid approximated $7.3 million in 2001. Interest paid aggregated approximately $6.4 million, $12.0 million and $12.4 million in 2003, 2002, and 2001, 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 January 2003, the Financial Accounting Standards Board ("FASB") issued Financial Standards Accounting Board Interpretation ("FIN") No. 46, "Consolidation of Variable Interest Entities," an interpretation of Accounting Research Bulletin No. 51, "Consolidated Financial Statements." FIN 46 establishes accounting guidance for consolidation of a variable interest entity. In a variable interest entity the equity investors do not have a controlling interest or their equity interest is insufficient to finance the entity's activities without receiving additional subordinated financial support from the other parties. We do not currently have any business relationship with a variable interest entity, so the adoption of FIN 46 had no impact on our consolidated financial position or results of operations.

In April 2003, the FASB issued SFAS 149, "Amendment of Statement 133 on Derivative Instruments and Hedging Activities." This statement amends and clarifies financial accounting and reporting for derivative instruments, including certain derivative instruments embedded in other contracts, and for hedging activities under SFAS 133. SFAS 149 is effective for contracts entered into or modified after June 20, 2003. The adoption of SFAS 149 did not have a material effect on our results of operations, financial position or cash flows.

In May 2003, the FASB issued SFAS 150, "Accounting for Certain Financial Instruments with Characteristics of both Liabilities and Equity." This pronouncement establishes standards for how an issuer classifies and measures in its statement of financial position certain financial instruments with

characteristics of both liabilities and equity. It requires that an issuer classify a financial instrument that is within its scope as a liability (or an asset in certain circumstances) because that financial instrument embodies an obligation of the issuer. SFAS 150 is effective for financial instruments entered into or modified after May 31, 2003, and otherwise is effective for interim periods beginning after June 15, 2003. On November 7, 2003, FASB issued FASB Staff Position No. FAS 150-3 ("FSP 150-3"), "Effective Date, Disclosures, and Transition for Mandatorily Redeemable Financial Instruments of Certain

Nonpublic Entities and Certain Mandatorily Redeemable Noncontrolling Interests Under FASB Statement No. 150, Accounting for Certain Financial Instruments with Characteristics of Both Liabilities and Equity." FSP 150-3 deferred certain aspects of SFAS 150. The adoption of SFAS 150 and FSP 150-3 did not have a material impact on our results of operations, financial position or cash flows.

On December 17, 2003, the Staff of the SEC issued Staff Accounting Bulletin No. 104 ("SAB 104"), "Revenue Recognition," which supersedes SAB 101, "Revenue Recognition in Financial Statements." SAB 104's primary purpose is to rescind accounting guidance contained in SAB 101 related to multiple element revenue arrangements, superseded as a result of the issuance of EITF 00-21, "Accounting for Revenue Arrangements with Multiple Deliverables." Additionally, SAB 104 rescinds the SEC's "Revenue Recognition in Financial Statements Frequently Asked Questions and Answers" (the "FAQ") issued with SAB 101 that had been codified in SEC Topic 13, "Revenue Recognition." Selected portions of the FAQ have been incorporated into SAB 104. While the wording of SAB 104 has changed to reflect the issuance of EITF 00-21, the revenue recognition principles of SAB 101 remain largely unchanged by the issuance of SAB 104. The adoption of SAB 104 did not materially affect our revenue recognition policies, nor our results of operations, financial position or cash flows.

(2)—Inventories (in thousands):

	December 31,	
	2003	2002
Work in progress	$ 34,327	$ 40,515
Finished goods	12,303	15,726
	$ 46,630	$ 56,241

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

	December 31,	
	2003	2002
Land	$ 2,099	$ 2,099
Construction in progress	—	3,024
Buildings	28,087	24,703
Computer and test equipment	125,481	123,115
Office furniture and equipment	11,414	10,379
Leasehold and building improvements	14,617	13,833
	181,698	177,153
Accumulated depreciation and amortization	(127,898)	(114,367)
	$ 53,800	$ 62,786

Depreciation expense was approximately $18.6 million, $19.2 million and $19.1 million for 2003, 2002 and 2001, respectively.

(4)—Acquisition of Cerdelinx:

On August 26, 2002, we completed the stock for stock acquisition of Cerdelinx for 2.6 million shares valued at $8.30 per share. Cerdelinx was an early stage fabless semiconductor company focused on the design of application specific standard products targeted towards 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):

Stock issued and liabilities assumed	$ 22.8
Estimated direct acquisition costs	1.1

Total	$	23.9

In conformity with Financial Accounting Standard SFAS 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 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):

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	$	23.9

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.

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

IPR&D consists of those products obtained through acquisition that are not yet proven to be technologically feasible but have been developed to a point where there is value associated with them in relation to potential future revenue. Because technological feasibility was not yet proven and no alternative future uses are 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 million. This project is now estimated to be complete in the first half of 2004. There has been no material change in the estimated cost of this project.

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.

All of these projects have completion risks related to silicon functionality, architecture performance, process technology availability, 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.

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 have 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):

Cash	$	250.0
Estimated direct acquisition costs		6.3
Total	$	256.3

In accordance with SFAS 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):

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	$	256.3

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 are not yet proven to be technologically feasible but have been developed to a point where there is value associated with them in relation to potential future revenue. Because technological feasibility was not yet proven and no alternative future uses are 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 are 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 million. There has been no material change in the schedule or estimated cost of this project. 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 million. There has been no material change in the schedule or estimated cost of this project. 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.

All of these projects have completion risks related to silicon functionality, architecture performance, process technology availability, packaging technology, continued availability of key technical personnel, product reliability and availability of software support. 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 have an estimated weighted average useful life of approximately 6.3 years.

Pro forma results

The following pro forma results of operations information are provided for illustrative purposes only and do not purport to be indicative of the consolidated results of operations for future periods or that actually would have been realized had Lattice and Agere FPGA been a consolidated entity during the periods presented. The pro forma results combine the results of operations as if Agere FPGA had been acquired as of the beginning of the periods presented. The results include the impact of certain adjustments such as intangible asset amortization, estimated changes in interest income (expense) related to cash outlays associated with the transaction and income tax benefits related to the aforementioned adjustments. Additionally, the IPR&D charge of $24.2 million discussed above has been excluded from the periods presented due to its non-recurring nature.

	Years Ended Dec. 31,	
	2002	**2001**
	(in thousands, except per share amounts) (unaudited)	

Revenue	$	234,518	$	364,426
Net loss	$	(159,707)	$	(122,419)
Basic net loss per share	$	(1.45)	$	(1.13)
Diluted net loss per share	$	(1.45)	$	(1.13)

(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 $77.1 million and $23.3 million, respectively, at December 31, 2003 and $77.1 million and $74.2 million, respectively, at December 31, 2002. Amortization expense related to these assets approximated $50.9 million, $50.9 million and $80.9 million for 2003, 2002 and 2001, respectively.

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

	December 31,	
	2003	2002
Foundry investments and other assets	$ 96,437	$ 68,990
Wafer supply advances	25,810	35,517
	122,247	104,507
Less: UMC shares available for sale	(35,364)	—
	$ 86,883	$ 104,507

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. On January 3, 2000, UICC and Utek merged into UMC.

We own approximately 91.7 million shares of UMC common stock at December 31, 2003 of which approximately 23.3 million 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 (loss) 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.

In the September 2001 quarter, the carrying value of the UMC shares was reduced as we recorded a $152.8 million loss representing a decline in the market value of our UMC shares. In each quarter that the market value of the UMC investment is below carrying value, we evaluate whether the investment is other than temporarily impaired. We recorded the unrealized loss on our UMC investment in the September 30, 2001 Statement of Operations. At that time, we believed the investment was other than temporarily impaired for the following reasons:

- It was becoming increasingly likely that the stock price would not recover based on the increasing size of the unrealized loss, the extended time period during which the stock price had continued to decline without a trend reversal, and the dampening volatility, which indicated to us that the stock price was becoming more stable;
- UMC's financial performance had weakened relative to earlier quarters;

- The opinion of many industry observers and analysts regarding the semiconductor downturn had become significantly more negative;
- The events of September 11, 2001 further exacerbated market conditions;
- We had previously believed that UMC would initiate an ADR conversion program that would enable us to sell our shares at a premium on the New York Stock Exchange, but such a program was never initiated; and

- Although we still had the intent and ability to hold the shares for an indefinite period, we concluded this fact did not overcome the negative factors associated with the shares.

During 2002, we sold approximately 7.6 million of our UMC shares for approximately $9.9 million in cash, resulting in a gain of $4.0 million. The resultant $4.0 million pre-tax gain associated with these sales was recorded in "Other income, net" in the accompanying Consolidated Statement of Operations and represents the difference between market value on the date of sale and the carrying value at September 30, 2001. Also during 2002, we recorded a $36.1 million unrealized loss ($24.9 million net of tax and reflected in Accumulated other comprehensive (loss) income) related to changes in the market value of our unrestricted UMC shares.

During 2003, we recorded a $24.6 million unrealized gain related to changes in the market value of our UMC shares, which is reflected in Accumulated other comprehensive (loss) income in the accompanying Consolidated Statement of Changes in Stockholders' Equity.

The resultant carrying value of our investment in UMC was approximately $81.1 million and $56.3 million at December 31, 2003 and December 31, 2002, respectively. As of December 31, 2003, approximately $35.4 million of the carrying value of our UMC shares is classified as "Equity securities available for sale", part of current assets, as it is our intent to sell approximately 40 million shares of our unrestricted UMC shares during 2004 as market conditions allow. During the first quarter of 2004, we sold 10.0 million of our unrestricted shares for approximately $9.2 million in cash, resulting in a gain of approximately $2.5 million (see note 17). The remaining carrying value of our UMC shares at December 31, 2003, and the entire carrying value of our UMC shares at December 31, 2002, are classified as part of "Foundry investments, advances and other assets" in the accompanying Consolidated Balance Sheet.

When we liquidate our UMC shares, it is likely that the amount of any future realized gain or loss will be different from the accounting gain or loss reported in prior periods**.**

In March 1997 and as subsequently amended in January 2002, we entered into an advance payment production agreement with Seiko Epson and Epson Electronics America, Inc. ("EEA") under which we agreed to advance up to $69 million, payable upon completion of specific milestones, to Seiko Epson to finance construction of an eight-inch sub-micron semiconductor wafer manufacturing facility. Under the terms of the agreement, 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. Payments of approximately $51.3 million have been made under this agreement. Cumulatively, approximately $15.6 million of these payments have been repaid to us in the form of semiconductor wafers. Approximately $9.9 million of the outstanding advances are expected to be repaid with semiconductor wafers during 2004 and are thus reflected as part of Prepaid expenses and other current assets in our accompanying Consolidated Balance Sheet. We do not anticipate making additional payments under this agreement.

(8)—Intangible Assets:

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

December 31, 2003	Gross	Accumulated amortization	Net
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
Total	$ 355.6	$ (271.0)	$ 84.6

December 31, 2002	Gross	Accumulated amortization	Net
Current technology	$ 273.6	$ (160.3)	$ 113.3
Core technology	7.3	(0.5)	6.8
Licenses	10.2	(1.4)	8.8
Non-compete agreements	14.2	(4.4)	9.8
Workforce	4.7	(0.3)	4.4
Backlog	1.4	(1.4)	—
Customer list	17.4	(12.3)	5.1
Patents and trademarks	26.8	(19.0)	7.8
Total	$ 355.6	$ (199.6)	$ 156.0

The estimated future amortization expense of purchased intangible assets as of December 31, 2003 is as follows (in millions):

Fiscal Year:	Amount
2004	$ 43.8
2005	14.4
2006	10.8
2007	9.8

Later years	5.8
	$ 84.6

The estimated future amortization expense of deferred stock compensation attributable to research and development activities as of December 31, 2003 is approximately $3.2 million for 2004 and $2.2 million for 2005.

(9)—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 $5.8 million, $6.0 million and $5.1 million for 2003, 2002, and 2001, respectively. Future minimum lease

commitments (before consideration of sublease receipts discussed below) at December 31, 2003 are as follows (in thousands):

Year	
2004	$ 9,349
2005	8,150
2006	6,557
2007	5,635
2008	5,510
Later years	944
	$ 36,145

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, 2003, net of such payments are as follows (in thousands):

Year	
2004	$ 2,623
2005	2,684
2006	886
	$ 6,193

(10)—Income Taxes:

The components of the (benefit) provision for income taxes for 2003, 2002, and 2001 are presented in the following table (in thousands):

	December 31,		
	2003	2002	2001
Current:			
Federal	$ (5,854)	$ (27,082)	$ (7,018)
State	—	—	(2,087)
	(5,854)	(27,082)	(9,105)
Deferred:			
Federal	—	99,334	(47,482)
State	—	9,614	(7,860)
	—	108,948	(55,342)
	$ (5,854)	$ 81,866	$ (64,447)

Foreign income taxes were not significant for the years presented.

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,					
	2003		2002		2001	
	$	%	$	%	$	%
Computed income tax (benefit) expense at the statutory rate	(34,182)	(35)	(32,679)	(35)	(60,886)	(35)
Adjustments for tax effects of:						
State taxes, net	(3,247)	(3)	(4,016)	(4)	(6,466)	(3)
Research and development credits	(1,358)	(1)	(800)	(1)	(1,175)	(1)
Nontaxable investment items	(163)	—	(1,388)	(1)	4,177	2
Valuation allowance	35,641	36	118,648	127	—	—
Release of certain reserves	(3,429)	(4)	—	—	—	—
Other	884	1	2,101	2	(97)	—
	(5,854)	(6)	81,866	88	(64,447)	(37)

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 109, "Accounting for Income Taxes." SFAS 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):

	December 31,	
	2003	2002
Current deferred tax assets:		
Deferred income	$ 3,962	$ 4,434
Expenses and allowances not currently deductible	12,186	15,931
	16,148	20,365
Less: valuation allowance	(16,148)	(20,365)
	$ —	$ —

	December 31,	
	2003	2002
Non-current deferred tax assets:		
Intangible asset charges not currently deductible	$ 93,131	$ 82,686
Expenses and allowances not currently deductible	5,433	7,673
Net operating loss and credit carryforwards	43,335	11,658
Other	3,589	3,613
	145,488	105,630
Less: valuation allowance	(145,488)	(105,630)
Net non-current deferred tax assets	$ —	$ —

Valuation allowances approximating $7.3 million were provided in 2002 for deferred tax assets acquired with Cerdelinx as discussed below.

As of December 31, 2002 we had approximately $26.0 million in federal and other income taxes receivable relating primarily to federal net operating loss carrybacks. These amounts are reflected in Prepaid expenses and other current assets in the Consolidated Balance Sheet, and were received during 2003.

As of December 31, 2003, we have federal net operating carryforwards (pre-tax) of approximately $82.7 million, that expire at various dates between 2021 and 2023. We have state net operating loss carryforwards (pre-tax) of approximately $102.6 million that expire at various dates from 2006 through 2023. We also have federal and state credit carryforwards of $10.7 million, most of which do not expire with the remainder expiring at various dates from 2006 through 2023.

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 $400,000 per year.

(11)—Long-term debt:

On June 20, 2003, we issued $200 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) specified corporate transactions 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. 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, 2003, we had no senior indebtedness and our subsidiaries had approximately $2.4 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 $1.4 million as of December 31, 2003.

The estimated fair value of these convertible notes, based on quoted market prices, was approximately $192 million at December 31, 2003.

During the third quarter of 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. In connection with this transaction, we also wrote off approximately $0.4 million of unamortized issuance costs.

On July 21, 2003, we redeemed for cash all of our outstanding $4\frac{3}{4}$% Convertible Subordinated Notes due in 2006, originally issued in October 1999, plus accrued interest. Total cash paid at redemption 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 redemption 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 $4\frac{3}{4}$% 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.

(12)—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, 2003, 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 or 2003.

Stock Warrants

During 2001, a warrant was issued to a vendor to purchase 95,563 shares of common stock, earned ratably from March 2001 to February 2002. During 2002, a warrant was issued to the 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. Additionally during 2003 warrants for 200,392 shares expired unexercised, leaving warrants for 765,498 shares unexercised as of December 31, 2003, including warrants issued prior to 2001. 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, 2003, 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 Cerdelinx on August 26, 2002, we exchanged 246,540 Lattice stock options for all of the options outstanding under the former Cerdelinx 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,		
	2003	**2002**	**2001**

	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	24,040	$ 15.83	20,075	$ 17.71	17,008	$ 14.95
Options granted	9,726	7.90	4,877	8.08	5,713	22.16
Options canceled	(12,583)	21.74	(721)	17.73	(399)	17.81
Options exercised	(114)	4.16	(191)	7.81	(2,247)	8.15
Options outstanding at end of year	21,069	$ 8.71	24,040	$ 15.83	20,075	$ 17.71

The following table summarizes information about stock options outstanding at December 31, 2003 (number of shares in thousands):

	Options Outstanding			Options Exercisable	
Range of Exercise Prices	Number of Shares	Weighted-Average Remaining Contract Life (in years)	Weighted-Average Exercise Price	Number of Shares	Weighted-Average Exercise Price
$0.41-$ 6.30	3,220	8.56	$ 5.70	1,053	$ 5.52
$7.28-$ 7.62	3,287	9.80	7.29	—	—
$7.75-$ 7.88	4,499	4.76	7.80	4,499	7.80
$8.21-$ 8.39	5,850	9.66	8.21	847	8.22
$8.57-$32.25	4,213	6.11	13.81	3,492	13.18
	21,069	7.76	$ 8.71	9,891	$ 9.49

Stock Purchase Plan

Our employee stock purchase plan, which was amended and approved most recently by our stockholders in May 2002, 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 3,700,000 shares authorized to be issued under the plan, 576,064, 347,107, and 203,049 shares were issued during 2003, 2002 and 2001, respectively, and 330,548 shares were available for issuance at December 31, 2003. The increase in shares issued in 2003 as compared to earlier years is primarily attributable to three offering periods closing in 2003 (a 53-week fiscal year) as compared to two periods closing in the 2002 and 2001.

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 123, as amended by SFAS 148. The fair value of our stock-based employee compensation cost (see note 1), as defined by SFAS 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:

	Grants for Years Ended Dec. 31,		
	2003	2002	2001
Stock options:			
Expected volatility	57.7%	59.3%	56.1%
Risk-free interest rate	2.2%	2.8%	3.9%
Expected life from vesting date	1.3 years	1.7 years	1.9 years

Dividend yield	0%	0%	0%

Stock purchase rights:			
Expected volatility	32.7%	64.3%	53.3%
Risk-free interest rate	1.1%	3.5%	4.6%
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 $2.38, $3.70 and $10.29, and for stock purchase rights $1.61, $5.32 and $5.92, for 2003, 2002, and 2001, 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.

(13)—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

2003 and 2002, the provision charged to operations for this plan was not significant. In 2001, approximately $2.1 million was charged against operations in connection with the plan.

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 15% of their eligible earnings to the plan Trust. The plan does not allow investments in our securities. The plan allows for us to make discretionary matching contributions in cash. For the years presented, matching contributions of up to 5% of base pay, vesting over four years, were made through the second quarter of 2001. There was no expense recorded related to matching contributions in 2003 and 2002. Expense related to our matching contributions was approximately $1.0 million for 2001.

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, 2003 and 2002 of approximately $12.7 million and $11.8 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.

(14)—Commitments and Contingencies:

We are exposed to certain asserted and unasserted potential claims. There can be no assurance that, with respect to potential claims made against us, that we could resolve such claims under terms and conditions that would not have a material adverse effect on our financial position, cash flows or results of operations.

(15)—Related Party:

Larry W. Sonsini is a member of our Board of Directors and is presently the Chairman of the Executive Management Committee of Wilson Sonsini Goodrich & Rosati, Professional Corporation, a law firm that provides us with corporate legal services. Legal services billed to Lattice aggregated approximately $499,000, $885,000, and $1,314,000, respectively, for 2003, 2002 and 2001. Amounts payable to the law firm were not significant at December 31, 2003 or 2002, respectively.

(16)—Segment and Geographic Information:

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

	2003	2002	2001
United States	$ 66,740	$ 92,086	$ 135,832
Export sales:			
Europe	52,142	58,871	81,177
Japan	23,000	17,635	26,427

Asia Pacific (other than Japan)	57,360	49,689	36,155
Other	10,420	10,845	15,735
	142,922	137,040	159,494
	$ 209,662	$ 229,126	$ 295,326

Resale of product through two distributors accounted for approximately 18% and 19%, 22% and 29%, and 18% and 20% of total worldwide revenue for 2003, 2002, and 2001, 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. Other long-lived assets located outside the United States consist primarily of foundry investments and advances (see note 7).

(17)—Subsequent Events:

In the first quarter of 2004, we sold 10.0 million of our unrestricted UMC shares (see note 7) for approximately $9.2 million in cash, resulting in a gain of approximately $2.5 million. This gain will be reflected in Other Income, net, in our consolidated financial statements for the quarter ended March 31, 2004.

Report of Independent Auditors

To the Board of Directors and Stockholders of
Lattice Semiconductor Corporation

In our opinion, the accompanying consolidated balance sheet and the related consolidated statements of operations, of changes in stockholders' equity, and of cash flows present fairly, in all material respects, the financial position of Lattice Semiconductor Corporation and its subsidiaries (the "Company") at December 31, 2003 and 2002, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2003 in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of the Company's management; our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with auditing standards generally accepted in the United States of America, which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit 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.

As discussed in Note 1 to the consolidated financial statements, on January 1, 2002 the Company changed its method of accounting for goodwill.

/s/ PRICEWATERHOUSECOOPERS LLP

March 31, 2004

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

None.

Item 9A. Controls and Procedures.

This portion of our annual report is our disclosure of the conclusions of our management, including our Chief Executive Officer and Chief Financial Officer, regarding the effectiveness of our disclosure controls and procedures as of the end of the period covered by this report, based on management's evaluation of those disclosure controls and procedures. You should read this disclosure in conjunction with the certifications attached as Exhibit 31.1 and 31.2 to this annual report for a more complete understanding of the topics presented.

In January 2004, the Audit Committee of our Board of Directors, with the assistance of outside legal counsel and our independent auditor, 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 condensed 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 concurs with the Audit Committee that improvements to internal controls are 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 auditor that, in connection with the 2003 year-end audit, the auditor has identified a material weakness relating to our internal controls and procedures. Certain of these internal control deficiencies may also constitute deficiencies in our disclosure controls. While we are in the process of implementing a more effective system of controls and procedures, we have instituted controls, procedures and other changes to ensure that information required to be disclosed in this annual report on Form 10-K has been recorded, processed, summarized and reported accurately.

The incremental steps that we have taken as a result of the aforementioned control deficiencies to ensure that all material information about our company is accurately disclosed in this report include:

1. Performed an analytical review of all journal entries processed for the year;

2. Applied additional methods and techniques to evaluate the accuracy of the deferred income account balance;

3. Instituted an additional level of approval for non recurring journal entries;

4. Strengthened segregation of duties by adding an additional level of review for authorization and review of significant transactions; and

5. Made appropriate personnel changes.

Based in part on the steps listed above, our Chief Executive Officer and our Chief Financial Officer have concluded that our disclosure controls and procedures are effective to ensure that information we are required to disclose in reports that we file or submit under the Securities Exchange Act of 1934 is recorded, processed, summarized and reported accurately within the time periods specified in Securities and Exchange Commission rules and forms.

In addition, in order to address further the deficiencies described above and to improve our internal disclosure and control procedures for future periods, we will:

1. Review, select and implement available improvements to information systems for distribution accounting;

---

2. Separate responsibilities for preparing financial statements and maintaining accounts in the company's general ledger;

3. Perform a review of internal controls and procedures in connection with Section 404 of Sarbanes Oxley legislative requirements;

4. Perform more detailed quarterly reconciliations and analyses of the company's deferred revenue accounts related to its distributors;

5. Enhance quarterly accounting review procedures requiring an independent review of material general ledger accounts;

6. Require all non recurring journal entries to be approved by an independent reviewer; and

7. Enhance staffing to provide sufficient resources to accomplish the foregoing objectives.

These steps will constitute significant changes in internal controls. We will continue to evaluate the effectiveness of our disclosure controls and internal controls and procedures on an ongoing basis, and will take further action as appropriate.

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 11, 2004, 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 attached 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.

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 2003," "Report on Stock Option Exchange Programs" 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 "Equity Compensation Plan Information" and "Security Ownership of Certain Beneficial Owners and Management" in the Proxy Statement is incorporated herein by reference.

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 Accounting Fees and Services.

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

PART IV

Item 15. Exhibits, Financial Statement Schedules and Reports on Form 8-K.

(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.

3.1 The Company's Restated Certificate of Incorporation filed February 24, 2004.

3.2 The Company's Bylaws, as amended and restated as of February 3, 2004.

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 May 7, 2002 (Incorporated by reference to Exhibit 4.3 filed with the Company's Registration Statement on Form S-8 filed September 6, 2002).

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. (Incorporated by reference to Exhibit 10.23 filed with the Company's Annual Report on Form 10-K for the fiscal year ended March 29, 1997)(1).

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.
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.
14.1	Standard of Ethics and Conduct.
21.1	Subsidiaries of the Registrant.
23.1	Consent of Independent Accountants.
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.

(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.

* Management contract or compensatory plan or arrangement required to be filed as an Exhibit to this Annual Report on Form 10-K pursuant to Item14(c) thereof.

** Cerdelinx Technologies, Inc. was initially incorporated as Octillion Communications Inc.

(b) Reports on Form 8-K.

On October 20, 2003, we filed a Current Report on Form 8-K describing changes in our senior management as announced in a press release dated October 16, 2003 and announcing the retirement of Mr. Steven A. Laub from our Board of Directors effective November 30, 2003.

On October 21, 2003, we filed a Current Report on Form 8-K to furnish (not file) our press release of October 20, 2003 reporting our financial results for the quarter ended September 30, 2003.

(c) See (a)(3) above.

(d) 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 1st of April, 2004.

LATTICE SEMICONDUCTOR CORPORATION

/s/ JAN JOHANNESSEN

Jan Johannessen
Corporate Vice President and
Chief Financial Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this Report has been signed below by the following persons on the 1st of April, 2004 on behalf of the Registrant and in the capacities indicated:

Signature	Title
/s/ CYRUS Y. TSUI Cyrus Y. Tsui	Chief Executive Officer and Chairman of the Board (Principal Executive Officer)
/s/ JAN JOHANNESSEN Jan Johannessen	Corporate Vice President and Chief Financial Officer (Principal Financial and Accounting Officer)
/s/ MARK O. HATFIELD Mark O. Hatfield	Director
/s/ DANIEL S. HAUER Daniel S. Hauer	Director
/s/ SOO BOON KOH Soo Boon Koh	Director
/s/ HARRY A. MERLO Harry A. Merlo	Director
/s/ LARRY W. SONSINI Larry W. Sonsini	Director

Report of Independent Auditors on
Financial Statement Schedule

To the Board of Directors of
Lattice Semiconductor Corporation

Our audits of the consolidated financial statements referred to in our report dated March 31, 2004 appearing in the 2003 Annual Report to Stockholders of Lattice Semiconductor Corporation and subsidiaries (which report and consolidated financial statements are also included in this Annual Report on Form 10-K) also included an audit of the financial statement schedule listed in Item 15(a)(2) of this Form 10-K. In our opinion, this financial statement schedule presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements.

/s/ PRICEWATERHOUSECOOPERS LLP

March 31, 2004

Schedule II

LATTICE SEMICONDUCTOR CORPORATION
VALUATION AND QUALIFYING ACCOUNTS
(In thousands)

Column A	Column B	Column C	Column D	Column E	Column F

Classification	Balance at beginning of period	Charged to costs and expenses	Charged to other accounts (describe)	Write-offs, net of recoveries	Balance at end of period
Fiscal year ended December 31, 2001:					
Allowance for deferred taxes	$ —	$ —	$ —	$ —	$ —
Allowance for doubtful accounts	1,700	(225)	—	—	1,475
	$ 1,700	$ (225)	$ —	$ —	$ 1,475
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
	$ 1,475	$ 118,247	$ —	$ —	$ 127,069
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
	$ 127,069	$ 35,591	$ —	$ —	$ 162,660

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

QuickLinks

LATTICE SEMICONDUCTOR CORPORATION FORM 10-K ANNUAL REPORT TABLE OF CONTENTS

Item 1. Business.
Item 2. Properties.
Item 3. Legal Proceedings.

PART II

Item 5. Market for the Registrant's Common Stock and Related Stockholder Matters.
Item 6. Selected Financial Data.
Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

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

Item 8. Financial Statements and Supplementary Data.

Index to Consolidated Financial Statements and Consolidated Financial Statement Schedules
LATTICE SEMICONDUCTOR CORPORATION CONSOLIDATED BALANCE SHEET (In thousands, except share and par value amounts)
LATTICE SEMICONDUCTOR CORPORATION CONSOLIDATED STATEMENT OF OPERATIONS (In thousands, except per share amounts)
LATTICE SEMICONDUCTOR CORPORATION CONSOLIDATED STATEMENT OF CHANGES IN STOCKHOLDERS' EQUITY (In thousands, except par value)
LATTICE SEMICONDUCTOR CORPORATION CONSOLIDATED STATEMENT OF CASH FLOWS (In thousands)
LATTICE SEMICONDUCTOR CORPORATION NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
Report of Independent Auditors

Item 9. Changes in and Disagreements with Accountants On Accounting and Financial Disclosure.
Item 9A. Controls and Procedures.

PART III

Item 10. Directors and Executive Officers of the Registrant.
Item 11. Executive Compensation.
Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.
Item 13. Certain Relationships and Related Transactions.
Item 14. Principal Accounting Fees and Services.

PART IV

Item 15. Exhibits, Financial Statement Schedules and Reports on Form 8-K.

SIGNATURES
Report of Independent Auditors on Financial Statement Schedule

Schedule II

LATTICE SEMICONDUCTOR CORPORATION VALUATION AND QUALIFYING ACCOUNTS (In thousands)

Exhibit 3.1

RESTATED

CERTIFICATE OF INCORPORATION

OF

LATTICE SEMICONDUCTOR CORPORATION

Lattice Semiconductor Corporation, a corporation organized and existing under the General Corporation Law of the State of Delaware (the "Corporation"), does hereby certify:

1. The Corporation initially filed its Certificate of Incorporation in the Office of the Secretary of State of the State of Delaware on the first day of March 1985.

2. The Corporation filed a Restated Certificate of Incorporation on the thirty-first day of May 1988 (the "Original Restated Certificate"), a Certificate of Designation on the sixth day of June 1988, a Certificate of Amendment on the thirteenth day of November 1989, a Certificate of Designation on the first day of March 1990, a Certificate of Designation on the eighteenth day of September 1991, a Certificate of Amendment on the fourteenth day of September 1993, a Certificate of Amendment on the twenty-eighth day of June 2000, and a Certificate of Designation on the fifth day of February 2004.

3. Pursuant to Section 245 of the General Corporation Law of the State of Delaware (the "DGCL"), this Restated Certificate of Incorporation restates and integrates the provisions of the Original Restated Certificate of the Corporation, as previously amended or supplemented.

4. This Restated Certificate of Incorporation does not amend the provisions of the Corporation's Original Restated Certificate, as previously amended or supplemented, and there is no discrepancy between the provisions in this Restated Certificate of Incorporation and the provisions in the Corporation's Original Restated Certificate, as previously amended or supplemented.

5. This Restated Certificate of Incorporation has been duly approved by the Board of Directors of the Corporation in accordance with Sections 245 of the DGCL.

THEREFORE, pursuant to Section 245 of the General Corporation Law of the State of Delaware, the undersigned Corporation adopts the following Restated Certificate of Incorporation which shall supersede the Original Restated Certificate and all amendments thereto (including but not limited to all certificates or statements of designation of series of preferred stock) filed prior to the effective date of this Restated Certificate of Incorporation. The Restated Certificate of Incorporation shall read as follows:

"ARTICLE I

The name of the Corporation is: Lattice Semiconductor Corporation.

ARTICLE II

The registered office and place of business of the Corporation in the State of Delaware is 1209 Orange Street, City of Wilmington, County of New Castle, and the name of the registered agent of the Corporation in the State of Delaware at such address is The Corporation Trust Company.

ARTICLE III

The purpose of the Corporation is to conduct any lawful business, to promote any lawful purpose, and to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law of the State of Delaware.

ARTICLE IV

The total number of shares of all classes of stock which the Corporation shall have authority to issue is Three Hundred Ten Million (310,000,000) shares, par value One Cent ($0.01) each, consisting of Three Hundred Million (300,000,000) shares of Common Stock, par value One Cent ($0.01) each ("Common Stock") and Ten Million (10,000,000) shares of Preferred Stock, par value One Cent ($0.01) each ("Preferred Stock").

A. PREFERRED STOCK. The Preferred Stock may be issued from time to time in one or more series. The Board of Directors of the Corporation ("Board of Directors") is hereby expressly authorized by resolution or resolutions adopted from time to time: to divide the Preferred Stock into series; to designate any such series appropriately so as to distinguish the shares of a series from shares of all other series; to fix, determine or alter the voting and other powers, designations, preferences, and rights, and the qualifications, limitations and restrictions granted to or imposed upon any series of Preferred Stock to the fullest extent permitted by law; to fix the number of shares initially constituting any such series; and to increase or decrease the number of shares constituting any such series from time to time subsequent to the issue of shares of that series, but not below the number of shares of such series then outstanding. In case the number of shares of any series shall be so decreased, the shares constituting such decrease shall resume the status which they had prior to the adoption of the resolution originally fixing the number of shares of such series. Failure of the Board of Directors to specify the powers, rights and preferences in the resolution establishing any series of Preferred Stock shall be deemed a denial of any such powers, rights and preferences so omitted.

B. COMMON STOCK. Subject to all of the rights and preferences of the Preferred Stock, the Common Stock shall have the following rights and limitations:

Section 1. DIVIDEND RIGHTS. The holders of Common Stock shall be entitled to receive, when, as and if declared by the Board of Directors, out of any assets of the Corporation legally available therefor, such dividends as may be declared from time to time by the Board of Directors. No

dividend or other distribution (other than pro rata dividends or distributions payable solely in Common Stock) shall be paid at any time at which the total assets of the Corporation would be less than the sum of its total liabilities, plus that amount that would be needed if the Corporation

were to be dissolved at the time of the dividend or distribution to satisfy the preferential rights upon dissolution of shareholders whose preferential rights are superior to those receiving the distribution.

Section 2. LIQUIDATION RIGHTS. After the payment or distribution to the holders of the Preferred Stock of their full preferential amounts has been made, all of the remaining assets of the Corporation available for distribution to its stockholders shall be distributed ratably to the holders of the outstanding Common Stock.

Section 3. VOTING RIGHTS. Holders of Common Stock shall be entitled to one vote per share on any matter submitted to the stockholders of the Corporation.

ARTICLE V

After the original or other Bylaws of the Corporation have been adopted, amended, or repealed, as the case may be, in accordance with the provisions of Section 109 of the General Corporation Law of the State of Delaware, and, after the Corporation has received any payment for any of its stock, the power to adopt, amend, or repeal the Bylaws of the Corporation may be exercised by the Board of Directors of the Corporation.

ARTICLE VI

No director of the Corporation shall be personally liable to the Corporation or its stockholders for monetary damages for conduct as a director; provided that this Article VI shall not eliminate the liability of a director for any act or omission for which such elimination of liability is not permitted under the Delaware General Corporation Law. No amendment to the Delaware General Corporation Law that further limits the acts or omissions for which elimination of liability is permitted shall affect the liability of a director for any act or omission which occurs prior to the effective date of such amendment.

ARTICLE VII

1. NUMBER AND TENURE OF DIRECTORS. The number of directors of the corporation shall be as set forth in the bylaws. The directors shall be divided into three classes, as nearly equal in number as possible, with the term of office of the first class (“Class I”) to expire at the 1990 annual meeting of shareholders, the term of office of the second class (“Class II”) to expire at the 1991 annual meeting of shareholders and the term of office of the third class (“Class III”) to expire at the 1992 annual meeting of shareholders. At each annual meeting of shareholders following such initial classification and election, directors elected to succeed those directors whose terms expire shall be elected to serve three-year terms and until their successors are elected and qualified, so that the term of one class of directors will expire each year. When the number of directors is changed, any newly created directorships, or any decrease in directorships, shall be so apportioned among the classes so as to make all classes as nearly equal as possible, provided that no decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director.

2. This Article VII may not be amended, altered, changed or repealed in any respect unless such action is approved by the affirmative vote of the holders of not less than 66 2/3 percent of the shares then entitled to vote at an election of directors.

ARTICLE VIII

1. Whether or not a vote of shareholders is otherwise required, the affirmative vote of the holders of not less than 66 2/3 percent of the outstanding shares of “Voting Stock” (as hereinafter defined) of the corporation shall be required for the approval or authorization of any “Business Combination” (as hereinafter defined) with any Substantial Shareholder (as hereinafter defined) or any Business Combination in which a Substantial Shareholder has an interest (except proportionately as a shareholder of the corporation); provided, however, that the 66 2/3 percent voting requirement shall not be applicable if either:

(i) The “Continuing Directors” (as hereinafter defined) of the corporation by at least a two-thirds vote (a) have expressly approved in advance the acquisition of the outstanding shares of Voting Stock that caused such Substantial Shareholder to become a Substantial Shareholder, or (b) have expressly approved such Business Combination; or

(ii) The cash or fair market value (as determined by at least a majority of the Continuing Directors) of the property, securities or other consideration to be received per share by holders of Voting Stock of the corporation (other than the Substantial Shareholder) in the Business Combination is not less than the “Highest Per Share Price” or the “Highest Equivalent Price” (as those terms are hereinafter defined) paid by the Substantial Shareholder involved in the Business Combination in acquiring any of its holdings of the corporation's Voting Stock acquired in the last two years.

2. For purposes of this Article VIII:

(i) The Term “Business Combination” shall include, without limitation, (a) any merger, exchange or consolidation of the corporation, or any entity controlled by or under common control with the corporation, with or into any Substantial Shareholder, or any entity controlled by or under common control with such Substantial Shareholder, (b) any merger, exchange or consolidation of a Substantial Shareholder, or any entity controlled by or under common control with such Substantial Shareholder, with or into the corporation or any entity controlled by or under common control with the corporation, (c) any sale, lease, exchange, transfer or other disposition (in one transaction or a series of transactions), including without limitation a mortgage or any other security device, of all or any Substantial Part (as hereinafter defined) of the property and assets of the corporation, or any entity controlled by or under common control with the corporation, to a Substantial Shareholder, or any entity controlled by or under common control with such Substantial Shareholder, (d) any purchase, lease, exchange, transfer or other acquisition (in one transaction or a series of transactions), including without limitation a mortgage or any other security device, of all or any Substantial Part of the property and assets of a Substantial Shareholder or any entity controlled by or

under common control with such Substantial Shareholder, by the corporation, or any entity controlled by or under common control with the corporation, (e) any recapitalization of the corporation that would have the effect of increasing the voting power of a Substantial Shareholder,

(f) the issuance, sale, exchange or other disposition of any securities of the corporation, or of any entity controlled by or under common control with the corporation, by the corporation or by any entity controlled by or under common control with the corporation, (g) any liquidation, spinoff, splitoff, split-up or dissolution of the corporation, and (h) any agreement, contract or other arrangement providing for any of the transactions described in this definition of Business Combination.

(ii) The term "Substantial Shareholder" shall mean and include (a) any "Person" (as that term is defined in Section 2(2) of the Securities Act of 1933, as in effect on October 20, 1989) which, together with its "Affiliates" (as hereinafter defined) and "Associates" (as hereinafter defined), "Beneficially Owns" (as defined in Rule 13d-3 of the General Rules and Regulations under the Securities Exchange Act of 1934 as in effect at October 20, 1989) in the aggregate 15 percent or more of the outstanding Voting Stock of the corporation, and (b) any Affiliate or Associate (other than the corporation or a wholly owned subsidiary of the corporation) of any such Person. Two or more Persons acting in concert for the purpose of acquiring, holding or disposing of Voting Stock of the Corporation shall be deemed a "Person."

(iii) Without limitation, any share of Voting Stock of the corporation that any Substantial Shareholder has the right to acquire at any time (notwithstanding that Rule 13d-3 deems such shares to be beneficially owned only if such right may be exercised within 60 days) pursuant to any agreement, contract, arrangement or understanding, or upon exercise of conversion rights, warrants or options, or otherwise, shall be deemed to be Beneficially Owned by such Substantial Shareholder and to be outstanding for the purposes of clause (ii) above.

(iv) For the purposes of subparagraph (ii) of paragraph 1 of this Article VIII, the term "other consideration to be received" shall include, without limitation, Common Stock or other capital stock of the corporation retained by its existing shareholders, other than any Substantial Shareholder or other Person who is a party to such Business Combination, in the event of a Business Combination in which the corporation is the survivor.

(v) The term "Voting Stock" shall mean all of the outstanding shares of capital stock of the corporation entitled to vote generally in the election of directors, considered as one class, and each reference to a proportion of shares of Voting Stock shall refer to such proportion of the votes entitled to be cast by such shares.

(vi) The term "Continuing Director" shall mean a director of the corporation who served as a director on October 20, 1989 or who was a member of the board of directors of the corporation immediately prior to the time that the Substantial Shareholder involved in a Business Combination became a Substantial Shareholder.

(vii) A Substantial Shareholder shall be deemed to have acquired a share of the Voting Stock of the corporation at the time when such Substantial Shareholder became the Beneficial Owner thereof. With respect to the shares owned by Affiliates, Associates or other Persons whose ownership is attributed to a Substantial Shareholder under the foregoing definition of Substantial Shareholder, if the price paid by such Substantial Shareholder for such shares is not determinable by a majority of the Continuing Directors, the price so paid shall be deemed to be the

higher of (a) the price paid upon the acquisition thereof by the Affiliate, Associate or other Person or (b) the market price of the shares in question at the time when such Substantial Shareholder became the Beneficial Owner thereof.

(viii) The terms "Highest Per Share Price" and "Highest Equivalent Price" as used in this Article VIII shall mean the following: If there is only one class of capital stock of the corporation issued and outstanding, the Highest Per Share Price shall mean the highest price that can be determined to have been paid at any time by the Substantial Shareholder involved in the Business Combination for any share or shares of that class of capital stock. If there is more than one class of capital stock of the corporation issued and outstanding, the Highest Equivalent Price shall mean, with respect to each class and series of capital stock of the corporation, the amount determined by a majority of the Continuing Directors, on whatever basis they believe is appropriate, to be the highest per share price equivalent to the highest price that can be determined to have been paid at any time by the Substantial Shareholder for any share or shares of any class or series of capital stock of the Corporation. The Highest Per Share Price and the Highest Equivalent Price shall include any brokerage commissions, transfer taxes and soliciting dealers' fees paid by a Substantial Shareholder with respect to the shares of capital stock of the corporation acquired by such Substantial Shareholder. In the case of any Business Combination with a Substantial Shareholder, the Continuing Directors shall determine the Highest Per Share Price or the Highest Equivalent Price for each class and series of the capital stock of the corporation. The Highest Per share Price and Highest Equivalent Price shall be appropriately adjusted to reflect the occurrence of any reclassification, recapitalization, stock split, reverse stock split or other readjustment in the number of outstanding shares of capital stock of the corporation, or the declaration of a stock dividend thereon, between the last date upon which the Substantial Shareholder paid the Highest Per Share Price or Highest Equivalent Price and the effective date of the merger or consolidation or the date of distribution to shareholders of the Corporation of the proceeds from the sale of all or substantially all of the assets of the corporation.

(ix) The term "Substantial Part" shall mean 15 percent or more of the fair market value of the total assets of the Person in question, as reflected on the most recent balance sheet of such Person existing at the time the shareholders of the Corporation would be required to approve or authorize the Business Combination involving the assets constituting any such Substantial Part.

(x) The term "Affiliate," used to indicate a relationship with a specified Person, shall mean a Person that directly, or indirectly through one or more intermediaries, controls, or is controlled by, or is under common control with, the Person specified.

(xi) The term "Associate," used to indicate a relationship with a specified Person, shall mean (a) any entity of which such specified Person is an officer or partner or is, directly or indirectly, the beneficial owner of 10 percent or more of any class of equity securities, (b) any trust or other estate in which such specified Person has a substantial beneficial interest or as to which such specified Person serves as trustee or in a similar fiduciary capacity, (c) any relative or spouse of such specified Person, or any relative of such spouse, who has the same home as such specified Person or who is a

director or officer of the corporation or any of its subsidiaries, and (d) any Person who is a director or officer of such specified entity or any of its parents or subsidiaries

(other than the corporation or any entity controlled by or under common control with the corporation).

3. For the purposes of this Article VIII, a majority of the Continuing Directors shall have the power to make a good faith determination, on the basis of information known to them, of: (i) the number of shares of Voting Stock that any Person Beneficially Owns, (ii) whether a Person is an Affiliate or Associate of another, (ii) whether a Person has an agreement, contract, arrangement or understanding with another as to the matters referred to in subparagraph (2)(i)(h) or (2)(iii) hereof, (iv) whether any Business Combination is one in which a Substantial Shareholder has an interest (except proportionately as a shareholder of the corporation), and (vi) such other matters with respect to which a determination is required under this Article VIII.

4. The provisions set forth in this Article VIII may not be amended, altered, changed or repealed in any respect unless such action is approved by the affirmative vote of the holders of not less than a majority of the outstanding shares of Voting Stock (as defined in this Article VIII) of the corporation at a meeting of the shareholders duly called for the consideration of such amendment, alteration, change or repeal; provided, however, that if there is a Substantial Shareholder who is not a Continuing Director, such action must also be approved by the affirmative vote of the holders of not less than 66 2/3 percent of the outstanding shares of Voting Stock.”

IN WITNESS WHEREOF, Lattice Semiconductor Corporation has duly caused this Restated Certificate of Incorporation to be signed by Stephen A. Skaggs, its Secretary and President, this 24th day of February 2004.

LATTICE SEMICONDUCTOR CORPORATION
A Delaware Corporation

/s/ Stephen A. Skaggs
Stephen A. Skaggs,
President and Secretary

Exhibit 3.2

BYLAWS

OF

LATTICE SEMICONDUCTOR CORPORATION

(As amended and restated as of February 3, 2004)

TABLE OF CONTENTS

ARTICLE I CORPORATE OFFICES

1.1 REGISTERED OFFICE
1.2 OTHER OFFICES

ARTICLE II MEETINGS OF STOCKHOLDERS

2.1 PLACE OF MEETINGS
2.2 ANNUAL MEETING
2.3 SPECIAL MEETING
2.4 NOTICE OF STOCKHOLDERS' MEETINGS
2.5 MANNER OF GIVING NOTICE; AFFIDAVIT OF NOTICE
2.6 NOTICE BY ELECTRONIC TRANSMISSION
2.7 QUORUM
2.8 ADJOURNED MEETING; NOTICE
2.9 ORGANIZATION
2.10 INSPECTORS OF ELECTION
2.11 VOTING
2.12 WAIVER OF NOTICE
2.13 STOCKHOLDER ACTION BY WRITTEN CONSENT WITHOUT A MEETING
2.14 RECORD DATE FOR STOCKHOLDER NOTICE; VOTING; GIVING CONSENTS
2.15 PROXIES
2.16 LIST OF STOCKHOLDERS ENTITLED TO VOTE
2.17 NOMINATIONS AND STOCKHOLDER BUSINESS

ARTICLE III DIRECTORS

3.1 POWERS
3.2 NUMBER OF DIRECTORS
3.3 ELECTION, QUALIFICATION AND TERM OF OFFICE OF DIRECTORS
3.4 RESIGNATION AND VACANCIES
3.5 PLACE OF MEETINGS; MEETINGS BY TELEPHONE
3.6 REGULAR MEETINGS
3.7 SPECIAL MEETINGS; NOTICE
3.8 QUORUM
3.9 WAIVER OF NOTICE
3.10 BOARD ACTION BY WRITTEN CONSENT WITHOUT A MEETING
3.11 FEES AND COMPENSATION OF DIRECTORS
3.12 APPROVAL OF LOANS TO OFFICERS
3.13 REMOVAL OF DIRECTORS

ARTICLE IV COMMITTEES

4.1 COMMITTEES OF DIRECTORS
4.2 COMMITTEE MINUTES
4.3 MEETINGS AND ACTION OF COMMITTEES

ARTICLE V OFFICERS

5.1 OFFICERS
5.2 ELECTION OF OFFICERS
5.3 SUBORDINATE OFFICERS
5.4 REMOVAL AND RESIGNATION OF OFFICERS
5.5 VACANCIES IN OFFICES
5.6 CHAIRMAN OF THE BOARD
5.7 CHIEF EXECUTIVE OFFICER
5.8 PRESIDENT

5.9 VICE PRESIDENT
5.10 SECRETARY
5.11 CHIEF FINANCIAL OFFICER
5.12 ASSISTANT SECRETARY
5.13 ASSISTANT TREASURER
5.14 AUTHORITY AND DUTIES OF OFFICERS

ARTICLE VI INDEMNITY

6.1 RIGHT TO INDEMNIFICATION
6.2 RIGHT TO ADVANCEMENT OF EXPENSES
6.3 RIGHT OF INDEMNITEE TO BRING SUIT
6.4 NON-EXCLUSIVITY OF RIGHTS
6.5 INSURANCE
6.6 INDEMNIFICATION OF EMPLOYEES AND AGENTS OF THE CORPORATION
6.7 DEFINITIONS

ARTICLE VII RECORDS AND REPORTS

7.1 MAINTENANCE AND INSPECTION OF RECORDS
7.2 INSPECTION BY DIRECTORS
7.3 REPRESENTATIONS OF SHARES OF OTHER CORPORATIONS

ARTICLE VIII GENERAL MATTERS

8.1 CHECKS
8.2 EXECUTION OF CORPORATE CONTRACTS AND INSTRUMENTS
8.3 STOCK CERTIFICATES; PARTLY PAID SHARES
8.4 SPECIAL DESIGNATION ON CERTIFICATES
8.5 LOST CERTIFICATES
8.6 CONSTRUCTION; DEFINITIONS

8.7 DIVIDENDS
8.8 FISCAL YEAR
8.9 SEAL
8.10 TRANSFER OF STOCK
8.11 STOCK TRANSFER AGREEMENTS
8.12 REGISTERED STOCKHOLDERS

ARTICLE IX AMENDMENTS

BYLAWS

OF

LATTICE SEMICONDUCTOR CORPORATION

ARTICLE I

CORPORATE OFFICES

1.1 REGISTERED OFFICE

The registered office of the corporation shall be fixed in the certificate of incorporation of the corporation.

1.2 OTHER OFFICES

The board of directors may at any time establish other offices at such other places both within and without the State of Delaware as the board of directors may from time to time determine or the business of the corporation may require.

ARTICLE II

MEETINGS OF STOCKHOLDERS

2.1 PLACE OF MEETINGS

Meetings of stockholders shall be held at any place, within or outside the State of Delaware, designated by the board of directors. The board of directors may, in its sole discretion, determine that the meeting shall not be held at any place, but may instead be held solely by means of remote communication in accordance with the General Corporation Law of Delaware. In the absence of any such designation or determination, stockholders' meetings shall be held at the principal executive office of the corporation.

2.2 ANNUAL MEETING

An annual meeting of the stockholders shall be held each year on such date and at such time as designated by the board of directors for the purpose of electing directors and for the transaction of such other business as may properly come before the meeting.

2.3 SPECIAL MEETING

(a) Special meetings of the stockholders, for any purpose or purposes, unless otherwise prescribed by the General Corporation Law of Delaware or by the certificate of incorporation, may be called by a majority of the total number of authorized directors of the board of directors, the chairman of the board of directors or the chief executive officer.

(b) If a special meeting is called by any person or persons other than the board of directors, the request shall be in writing, specifying the general nature of the business proposed to be transacted, and shall be delivered personally or sent by registered mail or by telegraphic or other facsimile transmission to the chairman of the board of directors, the chief executive officer, or the secretary of the corporation. No business may be transacted at a special meeting otherwise than specified in the notice. The board of directors shall determine the time and place of such special meeting, which shall be held not less than thirty-five (35) nor more than one hundred twenty (120) days after the date of the receipt of the request. Upon determination of the time and place of the meeting, the officer receiving the request shall cause notice to be given to the stockholders entitled to vote, in accordance with the provisions of Sections 2.4, 2.5 and 2.6 of these bylaws. If the notice is not given within sixty (60) days after the receipt of the request, the person or persons requesting the meeting may set the time and place of the meeting and give the notice. Nothing contained in this paragraph (b) shall be construed as limiting, fixing, or affecting the time when a meeting of stockholders called by action of the board of directors may be held.

2.4 NOTICE OF STOCKHOLDERS' MEETINGS

All notices of meetings of stockholders shall be sent or otherwise given in accordance with Section 2.5 or Section 2.6 of these bylaws not less than ten (10) nor more than sixty (60) days before the date of the meeting to each stockholder entitled to vote at such meeting. The notice shall specify the place, if any, date, and hour of the meeting, the means of remote communication, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such meeting and, in the case of a special meeting, the purpose or purposes for which the meeting is called. Any previously scheduled meeting of the stockholders may be postponed, and (unless the certificate of incorporation otherwise provides) any special meeting of the stockholders may be cancelled, by resolution of the board of directors, upon public notice given prior to the date previously scheduled for such meeting of stockholders.

2.5 MANNER OF GIVING NOTICE; AFFIDAVIT OF NOTICE

Notice of any meeting of stockholders shall be given either personally, by mail or, subject to Section 2.6 of these bylaws, by electronic transmission. Notices not personally delivered shall be sent charges prepaid and shall be addressed to the stockholder at the address of that stockholder appearing on the books of the corporation or given by the stockholder to the corporation for the purpose of notice. If no address is known, such notice may be sent to the principal executive office of the corporation. Notice shall be deemed to have been given at the time when delivered personally or deposited in the mail or, if electronically transmitted, as provided in Section 2.6 of these bylaws. An affidavit of the secretary or an assistant secretary or

of the transfer agent or other agent of the corporation that the notice has been given shall, in the absence of fraud, be prima facie evidence of the facts stated therein.

2.6 NOTICE BY ELECTRONIC TRANSMISSION

Without limiting the manner by which notice otherwise may be given effectively to stockholders, any notice to stockholders given by the corporation under any provision of the General Corporation Law of Delaware, the certificate of incorporation or these bylaws shall be effective if given by a form of electronic transmission consented to by the stockholder to whom the notice is given. Any such consent shall be revocable by the stockholder by written notice to the corporation. Any such consent shall be deemed revoked if (a) the corporation is unable to deliver by electronic transmission two (2) consecutive notices given by the corporation in accordance with such consent, and (b) such inability becomes known to the secretary or an assistant secretary of the corporation, the transfer agent or other person responsible for the giving of notice; provided, however, that the inadvertent failure to treat such inability as a revocation shall not invalidate any meeting or other action.

Notice given pursuant to the immediately preceding paragraph shall be deemed given (a) if by facsimile telecommunication, when directed to a number at which the stockholder has consented to receive notice, (b) if by electronic mail, when directed to an electronic mail address at which the stockholder has consented to receive notice, (c) if by a posting on an electronic network together with a separate notice to the stockholder of such specific posting, upon the later of (i) such posting, and (ii) the giving of such separate notice, and (d) if by any other form of electronic transmission, when directed to the stockholder. An affidavit of the secretary or assistant secretary, the transfer agent or other agent of the corporation that the notice has been given by a form of electronic transmission shall, in the absence of fraud, be prima facie evidence of the facts stated therein.

For purposes of these bylaws, "electronic transmission" means any form of communication, not directly involving the physical transmission of paper, that creates a record that may be retained, retrieved and reviewed by a recipient thereof, and that may be directly reproduced in paper form by such a recipient through an automated process.

2.7 QUORUM

The holders of a majority of the stock issued and outstanding and entitled to vote thereat, present in person or represented by proxy, shall constitute a quorum at all meetings of the stockholders for the transaction of business except as otherwise provided by the General Corporation Law of Delaware or by the certificate of incorporation. If, however, such quorum is not present or represented at any meeting of the stockholders, then either (i) the chairman of the meeting or (ii) the stockholders holding a majority of the shares entitled to vote thereat, present in person or represented by proxy, shall have power to adjourn the meeting from time to time, without notice other than announcement at the meeting unless otherwise required by these bylaws, until a quorum is present or represented. At such adjourned meeting at which a quorum was initially present or represented, any business may be transacted that might have been transacted at the meeting as originally noticed notwithstanding the withdrawal of enough

stockholders to leave less than a quorum if any action is taken by a majority of the required quorum for that meeting.

When a quorum is present at any meeting, the vote of the holders of a majority of the stock having voting power present in person or represented by proxy shall decide any question properly brought before such meeting, unless the question is one upon which by express provision of the General Corporation Law of Delaware or of the certificate of incorporation, a different vote is required in which case such express provision shall govern and control the decision of the question.

If a quorum is initially present, the stockholders may continue to transact business until adjournment, notwithstanding the withdrawal of enough stockholders to leave less than a quorum, if any action taken is approved by a majority of the stockholders initially constituting the quorum (or such other vote as is required by express provision of the General Corporation Law of Delaware or the certificate of incorporation).

2.8 ADJOURNED MEETING; NOTICE

Any meeting of stockholders, whether annual or special, may be adjourned from time to time either by the chairman of the meeting or by the vote of a majority of the shares casting votes, excluding abstentions. When a meeting is adjourned to another time or place, if any, notice need not be given of the adjourned meeting if the time, place, if any, thereof and the means of remote communications, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such adjourned meeting, are announced at the meeting at which the adjournment is taken. At the adjourned meeting the corporation may transact any business that might have been transacted at the original meeting. If the adjournment is for more than thirty (30) days, or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting.

2.9 ORGANIZATION

Meetings of stockholders shall be presided over by: (i) the chairman of the board of directors, if any; (ii) in the absence of the chairman of the board of directors, the chief executive officer, if any; or (iii) in the absence of the foregoing persons, a chairman of the meeting, which chairman must be an officer or director of the corporation, designated by the board of directors. The secretary or in his or her absence an assistant secretary or in the absence of the secretary and all assistant secretaries a person whom the chairman of the meeting shall appoint shall act as secretary of the meeting and keep a record of the proceedings thereof.

The board of directors of the corporation shall be entitled to make such rules or regulations for the conduct of meetings of stockholders as it shall deem necessary, appropriate or convenient. Subject to such rules and regulations of the board of directors, if any, the chairman of the meeting shall have the right and authority to prescribe such rules, regulations and procedures and to do all such acts as, in the judgment of the chairman of the meeting, are necessary, appropriate or convenient for the proper conduct of the meeting, including, without

limitation, establishing an agenda or order of business for the meeting, rules and procedures for maintaining order at the meeting and the safety of those present, limitations on participation in such meeting to stockholders of record of the corporation and their duly authorized and constituted proxies, and such other persons as the chairman shall permit, restrictions on entry to the meeting after the time fixed for the commencement thereof, limitations on the time allotted to questions or comments by participants and regulation of the opening and closing of the polls for balloting and matters which are to be voted on by ballot. Unless and to the extent determined by the board of directors or the chairman of the meeting, meetings of stockholders shall not be required to be held in accordance with rules of parliamentary procedure.

2.10 INSPECTORS OF ELECTION

Before any meeting of stockholders, the board of directors may appoint an inspector or inspectors of election to act at the meeting or its adjournment. If no inspector of election is so appointed, then the chairman of the meeting may, and on the request of any stockholder or a stockholder’s proxy shall, appoint an inspector or inspectors of election to act at the meeting. The number of inspectors shall be either one (1) or three (3), and may include individuals who serve the corporation in other capacities, including without limitation as officers, employees or agents. If inspectors are appointed at a meeting pursuant to the request of one (1) or more stockholders or proxies, then the holders of a majority of the voting power of shares or their proxies present at the meeting shall determine whether one (1) or three (3) inspectors are to be appointed. The board of directors may designate one or more persons as alternate inspectors to replace any inspector who fails to act. If any person appointed as inspector fails to appear or fails or refuses to act, and if no alternative inspector has been designated by the board or if so designated fails to appear or fails or refuses to act, then the chairman of the meeting may, and upon the request of any stockholder or a stockholder’s proxy shall, appoint a person to fill that vacancy. The inspectors shall have the duties prescribed pursuant to Section 231 of the General Corporation Law of Delaware. The inspectors shall perform their duties impartially, in good faith, to the best of their ability and as expeditiously as is practical. If there are three (3) inspectors, the decision, act or certificate of a majority is effective in all respects as the decision, act or certificate of all. Any report or certificate made by the inspectors is prima facie evidence of the facts stated therein.

2.11 VOTING

The stockholders entitled to vote at any meeting of stockholders shall be determined in accordance with the provisions of Section 2.14 of these bylaws, subject to the provisions of Sections 217 and 218 of the General Corporation Law of Delaware (relating to voting rights of fiduciaries, pledgors and joint owners of stock and to voting trusts and other voting agreements).

Except as may be otherwise provided in the certificate of incorporation or by the General Corporation Law of Delaware, each stockholder shall be entitled to one vote for each share of capital stock held by such stockholder.

2.12 WAIVER OF NOTICE

Whenever notice is required to be given under any provision of the General Corporation Law of Delaware or of the certificate of incorporation or these bylaws, a written waiver thereof, signed by the person entitled to notice, or a waiver by electronic transmission by the person entitled to notice, whether before or after the time stated therein, shall be deemed equivalent to notice. Attendance of a person at a meeting shall constitute a waiver of notice at such meeting, except when the person attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the stockholders need be specified in any written waiver of notice or any waiver by electronic transmission unless so required by the certificate of incorporation or these bylaws.

2.13 STOCKHOLDER ACTION BY WRITTEN CONSENT WITHOUT A MEETING

No action shall be taken by the stockholders except at an annual or special meeting of stockholders called in accordance with these bylaws, and no action shall be taken by stockholders by written consent.

2.14 RECORD DATE FOR STOCKHOLDER NOTICE; VOTING; GIVING CONSENTS

In order that the corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, or entitled to receive payment of any dividend or other distribution or allotment of any rights, or entitled to exercise any rights in respect of any change, conversion or exchange of stock or for the purpose of any other lawful action, the board of directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the board of directors. The record date shall not be more than sixty (60) nor less than ten (10) days before the date of a meeting of stockholders, nor more than sixty (60) days prior to any other action.

If the board of directors does not so fix a record date:

(i) The record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or, if notice is waived, at the close of business on the day next preceding the day on which the meeting is held.

(ii) The record date for determining stockholders for any other purpose shall be at the close of business on the day on which the board of directors adopts the resolution relating thereto.

A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the board of directors may fix a new record date for the adjourned meeting.

2.15 PROXIES

Each stockholder entitled to vote at a meeting of stockholders may authorize another person or persons to act for the stockholder by a written proxy, signed by the stockholder and filed with the secretary of the corporation, but no such proxy shall be voted or acted upon after three (3) years from its date, unless the proxy provides for a longer period. A proxy shall be deemed signed if the stockholder’s name is placed on the proxy (whether by manual signature, typewriting, telegraphic, facsimile, electronic transmission or otherwise) by the stockholder or the stockholder’s authorized officer, director, employee or agent. The revocability of a proxy that states on its face that it is irrevocable shall be governed by the provisions of Section 212(e) of the General Corporation Law of Delaware.

A proxy is not revoked by the death or incapacity of the maker unless, before the vote is counted, written notice of such death or incapacity is received by the corporation.

2.16 LIST OF STOCKHOLDERS ENTITLED TO VOTE

The officer who has charge of the stock ledger of the corporation shall prepare and make, at least ten (10) days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting, arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. The corporation shall not be required to include electronic mail addresses or other electronic contact information on such list. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, for a period of at least ten (10) days prior to the meeting (i) on a reasonably accessible electronic network, provided that the information required to gain access to such list is provided with the notice of the meeting, or (ii) during ordinary business hours, at the principal executive office of the corporation. The method by which the corporation makes the list available shall be determined by the corporation in its sole discretion. In the event that the corporation determines to make the list available on an electronic network, the corporation may take reasonable steps to ensure that such information is available only to stockholders of the corporation. If the meeting is to be held at a place, then the list shall be produced and kept at the time and place of the meeting during the whole time thereof, and may be inspected by any stockholder who is present. If the meeting is to be held solely by means of remote communication, then the list shall also be open to the examination of any stockholder during the whole time of the meeting on a reasonably accessible electronic network, and the information required

to access such list shall be provided with the notice of the meeting. Such list shall presumptively determine the identity of the stockholders entitled to vote at the meeting and the number of shares held by each of them.

2.17 NOMINATIONS AND STOCKHOLDER BUSINESS

(a) At an annual meeting of the stockholders, only such business shall be conducted as shall have been properly brought before the meeting. To be properly brought before an annual meeting, business must be (i) specified in the notice of meeting (or any supplement thereto) given by or at the direction of the board of directors, (ii) otherwise properly brought before the meeting by or at the direction of the board of directors, or (iii) otherwise properly brought before

the meeting by a stockholder. For business to be properly brought before a stockholders' meeting by a stockholder pursuant to clause (iii) of the preceding sentence, the stockholder must have given timely notice thereof in writing to the secretary of the corporation and such other business must otherwise be a proper matter for stockholder action. To be timely for purposes of advance notice requirements, a stockholder's proposal must be delivered to the secretary at the principal executive office of the corporation not less than ninety (90) nor more than one hundred twenty (120) days in advance of the first anniversary of the date the corporation's proxy statement was first mailed to stockholders for the preceding year's annual meeting of stockholders; provided, however, that in the event that no annual meeting was held in the previous year or the date of the annual meeting has been changed by more than thirty (30) days from the date of the prior year's meeting, notice by the stockholder to be timely must be so received not later than the close of business on the later of one hundred twenty (120) calendar days in advance of such meeting and ten (10) calendar days following the date on which public announcement of the date of such meeting is first made by the corporation. In no event shall the public announcement of an adjournment of a stockholders' meeting commence a new time period for the giving of a stockholder's notice as described above. A stockholder's notice to the secretary shall set forth as to each matter the stockholder proposes to bring before the annual meeting: (A) a brief description of the business desired to be brought before the meeting; (B) the name and address, as they appear on the corporation's books, of the stockholder proposing such business; (C) the class and number of shares of the corporation which are owned beneficially by such stockholder; (D) any material interest of the stockholder in such business; and (E) any other information that is required to be provided by the stockholder pursuant to Regulation 14A under the Securities Exchange Act of 1934, as amended (or any successor thereto) (the "Exchange Act") in such stockholder's capacity as a proponent of a stockholder proposal. Notwithstanding anything in these bylaws to the contrary, no business shall be conducted at any annual meeting except in accordance with the procedures set forth in this paragraph (a). The chairman of the meeting shall, if the facts warrant, determine that business was not properly brought before the meeting in accordance with the provisions of this paragraph (a). If the chairman of the meeting should so determine, the chairman shall so declare at the meeting and any such business not properly brought before the meeting shall not be transacted.

(b) Only persons who are nominated in accordance with procedures set forth in this paragraph (b) shall be eligible for election as directors at a stockholders' meeting. Nominations of persons for election to the board of directors may be made at an annual meeting of stockholders by or at the direction of the board of directors or by any stockholder of the corporation entitled to vote for the election of directors at the meeting who complies with the notice procedures set forth in this paragraph (b). Such nominations, other than those made by or at the direction of the board of directors, shall be made pursuant to timely notice in writing to the secretary of the corporation in accordance with paragraph (a) of this Section 2.17. Such stockholder's notice shall set forth: (i) as to each person whom the stockholder proposes to nominate for election or re-election as a director, (A) the name, age, business address and residence address of such person, (B) the principal occupation or employment of such person, (C) the class and number of shares of the corporation which are beneficially owned by such person, (D) a description of all arrangements or understandings between the stockholder and each nominee and any other person or persons (naming such person or persons) pursuant to which the nominations are to be made by the stockholder, and (E) any other information relating

to such person that is required to be disclosed in solicitations of proxies for election of directors, or is otherwise required, in each case pursuant to Regulation 14A under the Exchange Act (including without limitation such person's written consent to being named in the proxy statement as a nominee and to serving as a director if elected); and (ii) as to the stockholder giving the notice, the information required to be provided pursuant to paragraph (a) of this Section 2.17. At the request of the board of directors, any person nominated by a stockholder for election as a director shall furnish to the secretary of the corporation that information required to be set forth in a stockholder's notice of nomination which pertains to the nominee. No person shall be eligible for election as a director of the corporation unless nominated in accordance with the procedures set forth in this paragraph (b). The chairman of the meeting shall, if the facts warrant, determine that a nomination was not made in accordance with the procedures prescribed by the bylaws. If the chairman of the meeting should so determine, the chairman shall so declare to the meeting and the defective nomination shall be disregarded.

(c) For purposes of this Section 2.17, "public announcement" shall mean disclosure in a press release reported by the Dow Jones News Service, Associated Press or comparable national news service or in a document publicly filed by the corporation with the Securities and Exchange Commission pursuant to Section 13, 14 or 15(d) of the Exchange Act.

ARTICLE III

DIRECTORS

3.1 POWERS

Subject to the provisions of the General Corporation Law of Delaware and any limitations in the certificate of incorporation or these bylaws relating to action required to be approved by the stockholders or by the outstanding shares, the business and affairs of the corporation shall be managed and all corporate powers shall be exercised by or under the direction of the board of directors.

3.2 NUMBER OF DIRECTORS

The board of directors shall consist of one or more members, the number thereof to be determined from time to time by resolution of the board of directors. The number of authorized directors also may be modified from time to time by amendment of this Section 3.2 in accordance with the provisions of Article IX hereof. Except as provided in Section 3.3 of these bylaws, the directors shall be elected by the stockholders at their annual meeting in each year and shall hold office until the next annual meeting and until their successors shall be duly elected and qualified. If for any cause, the directors shall not have

been elected at an annual meeting, they may be elected as soon thereafter as convenient at a special meeting of the stockholders called for that purpose in the manner provided in these bylaws.

No reduction of the authorized number of directors shall have the effect of removing any director before that director's term of office expires.

A majority of the corporation's directors shall be independent, as that term is defined by the then current rules and regulations of the exchange upon which the corporation's stock is listed, or if the corporation's stock is not listed on any exchange, then as defined by applicable rules and regulations of the Securities Exchange Commission or such other method as determined by the board of directors.

3.3 ELECTION, QUALIFICATION AND TERM OF OFFICE OF DIRECTORS

(a) The directors shall be divided into three classes, as nearly equal in number as possible. At each annual meeting of stockholders, directors elected to succeed those directors whose terms expire shall be elected to serve three-year terms and until their successors are elected and qualified, so that the term of one class of directors will expire each year. When the number of directors is changed, any newly created directorships, or any decrease in directorships, shall be so apportioned among the classes so as to make all classes as nearly equal as possible.

(b) Directors need not be stockholders unless so required by the certificate of incorporation or these bylaws, wherein other qualifications for directors may be prescribed. Each director, including a director elected to fill a vacancy, shall hold office until his or her successor is elected and qualified or until his or her earlier resignation or removal.

(c) Elections of directors shall be by written ballot, unless otherwise provided in the certificate of incorporation; if authorized by the board of directors, such requirement of a written ballot shall be satisfied by a ballot submitted by electronic transmission, provided that any such electronic transmission must be either set forth or be submitted with information from which it can be determined that the electronic transmission was authorized by the stockholder or proxy holder.

3.4 RESIGNATION AND VACANCIES

Any director may resign at any time upon notice given in writing or by electronic transmission to the corporation. When one or more directors so resigns and the resignation is effective at a future date, a majority of the directors then in office, including those who have so resigned, shall have power to fill such vacancy or vacancies, the vote thereon to take effect when such resignation or resignations shall become effective, and each director so chosen shall hold office as provided in this section in the filling of other vacancies.

Vacancies and newly created directorships resulting from any increase in the authorized number of directors elected by all of the stockholders having the right to vote as a single class may be filled by a majority of the directors then in office, although less than a quorum, or by a sole remaining director. A director elected to fill a vacancy or a newly created directorship shall serve for the remainder of the full term of the class of directors in which the new directorship was created or the vacancy occurred and until a successor shall be elected and qualified.

3.5 PLACE OF MEETINGS; MEETINGS BY TELEPHONE

The board of directors of the corporation may hold meetings, both regular and special, either within or outside the State of Delaware.

Unless otherwise restricted by the certificate of incorporation or these bylaws, members of the board of directors, or any committee designated by the board of directors, may participate in a meeting of the board of directors, or any committee, by means of conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other, and such participation in a meeting shall constitute presence in person at the meeting.

3.6 REGULAR MEETINGS

Regular meetings of the board of directors may be held without notice at such time and at such place as shall from time to time be determined by the board of directors.

3.7 SPECIAL MEETINGS; NOTICE

Special meetings of the board of directors may be called for any purpose or purposes at any time by the chairman of the board of directors, the chief executive officer or by one-third or more of the authorized number of directors.

Notice of the time and place of special meetings shall be delivered personally or by telephone to each director or sent by mail or electronic transmission, charges prepaid, addressed to each director at that director's address, facsimile number, electronic mail address or other location as is shown on the records of the corporation or given by the director to the corporation for the purpose of notice. If the notice is mailed, it shall be deposited in the United States mail at least four (4) days before the time of the holding of the meeting. If the notice is delivered personally or by telephone or electronic transmission, it shall be given personally or by telephone or other electronic transmission at least twenty-four (24) hours before the time of the holding of the meeting. All notices given by electronic transmission shall be deemed to have been given when directed to the electronic mail address, facsimile number or other location as is shown on the records of the corporation or given by the director to the corporation for the purpose of notice. Any oral notice given personally or by telephone may be communicated either to the director directly or by voice recording or to a person whom the person giving the notice has reason to believe will promptly communicate it to the director. If the meeting is to be held at the principal executive office of the corporation, the notice need not specify the place of the meeting. Moreover, a notice of special meeting need not state the purpose of such meeting, and, unless indicated in the notice thereof, any and all business may be transacted at a special meeting.

3.8 QUORUM

At all meetings of the board of directors, no less than one-third of the authorized number of directors shall constitute a quorum for the transaction of business and the act of a majority of the directors present at any meeting at which there is a quorum shall be the act of the board of directors, except as may be otherwise specifically provided by the General Corporation Law of Delaware or by the certificate of incorporation. If a quorum is not present at any meeting of the board of directors, then the directors present thereat may adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum is present. A meeting at which a quorum is initially present may continue to transact business notwithstanding the

withdrawal of directors, if any action taken is approved by at least a majority of the required quorum for that meeting.

3.9 WAIVER OF NOTICE

Whenever notice is required to be given under any provision of the General Corporation Law of Delaware or of the certificate of incorporation or these bylaws, a written waiver thereof, signed by the person entitled to notice, or a waiver by electronic transmission by the person entitled to notice, whether before or after the time stated therein, shall be deemed equivalent to notice. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the directors, or members of a committee of directors, need be specified in any written waiver of notice or any waiver by electronic transmission unless so required by the certificate of incorporation or these bylaws.

3.10 BOARD ACTION BY WRITTEN CONSENT WITHOUT A MEETING

Unless otherwise restricted by the certificate of incorporation or these bylaws, any action required or permitted to be taken at any meeting of the board of directors, or of any committee thereof, may be taken without a meeting if all members of the board of directors or committee, as the case may be, consent thereto in writing or by electronic transmission and the writing or writings or electronic transmission or transmissions are filed with the minutes of proceedings of the board of directors or committee, as the case may be.

3.11 FEES AND COMPENSATION OF DIRECTORS

Unless otherwise restricted by the certificate of incorporation or these bylaws, the board of directors or a committee thereof shall have the authority to fix the compensation of directors. The directors may be paid their expenses, if any, of attendance of each meeting of the board of directors and may be paid a fixed sum for attendance at each meeting of the board of directors or a stated salary as director. No such payment shall preclude any director from serving the corporation in any other capacity and receiving compensation therefor. Members of special or standing committees of the board of directors may be allowed, and the board of directors shall have the authority to fix, like compensation for attending committee meetings.

3.12 APPROVAL OF LOANS TO OFFICERS

Subject to the provisions of the Sarbanes-Oxley Act of 2002 and other applicable law, the corporation may lend money to, or guarantee any obligation of, or otherwise assist any officer or other employee of the corporation or any of its subsidiaries, including any officer or employee who is a director of the corporation or any of its subsidiaries, whenever, in the judgment of the directors, such loan, guaranty or assistance may reasonably be expected to benefit the corporation. The loan, guaranty or other assistance may be with or without interest and may be

unsecured, or secured in such manner as the board of directors shall approve, including, without limitation, a pledge of shares of stock of the corporation.

3.13 REMOVAL OF DIRECTORS

Unless otherwise provided in the certificate of incorporation, any director or the entire board of directors may be removed only for cause by the holders of a majority of the shares then entitled to vote at an election of directors.

ARTICLE IV

COMMITTEES

4.1 COMMITTEES OF DIRECTORS

The board of directors may designate one or more committees, each committee to consist of one or more of the directors of the corporation. The board of directors may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of a committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not such member or members constitute a quorum, may unanimously appoint another member of the board of directors to act at the meeting in the place of any such absent or disqualified member. Any such committee, to the extent provided in the resolution of the board of directors or in these bylaws, shall have and may exercise all the powers and authority of the board of directors in the management of the business and affairs of the corporation, and may authorize the seal of the corporation to be affixed to all papers that may require it; but no such committee shall have the power or authority to (i) approve or adopt, or recommend to the stockholders, any action or matter expressly required by the General Corporation Law of Delaware to be submitted to stockholders for approval, or (ii) adopt, amend or repeal any bylaw of the corporation.

4.2 MEETINGS AND ACTION OF COMMITTEES

Meetings and actions of committees shall be governed by, and held and taken in accordance with, the following provisions of these bylaws: Section 3.5 (place of meetings and meetings by telephone), Section 3.6 (regular meetings), Section 3.7 (special meetings and notice), Section 3.8 (quorum), Section 3.9 (waiver of notice), and Section 3.10 (action without a meeting), with such changes in the context of those bylaws as are necessary to substitute the committee and its members for the board of directors and its members; provided, however, that the time of regular meetings of committees may also be called by resolution of the board of directors and that notice of special meetings of committees shall also be given to all alternate members, if any, who shall have the right to attend all meetings of the committee. The board of directors may adopt rules for the government of any committee not inconsistent with the provisions of these bylaws.

ARTICLE V

OFFICERS

5.1 OFFICERS

The officers of the corporation shall be a chief executive officer, one or more vice presidents, a secretary, and a chief financial officer. The corporation may also have, at the discretion of the board of directors, a chairman of the board of directors, a president, one or more assistant vice presidents, assistant secretaries, assistant treasurers, and any such other officers as may be appointed in accordance with the provisions of Section 5.3 of these bylaws. Any number of offices may be held by the same person.

5.2 APPOINTMENT OF OFFICERS

The board of directors shall appoint the officers of the corporation, except such officers as may be appointed in accordance with the provisions of Section 5.3 of these bylaws.

5.3 SUBORDINATE OFFICERS

The board of directors may appoint, or empower the chief executive officer to appoint, such other officers and agents as the business of the corporation may require, each of whom shall hold office for such period, have such authority, and perform such duties as are provided in these bylaws or as the board of directors may from time to time determine.

5.4 REMOVAL AND RESIGNATION OF OFFICERS

Subject to the rights, if any, of an officer under any contract of employment, any officer may be removed, either with or without cause, by an affirmative vote of the majority of the board of directors at any regular or special meeting of the board or, except in the case of an officer chosen by the board of directors, by any officer upon whom such power of removal may be conferred by the board of directors.

Any officer may resign at any time by delivering notice of his or her resignation in writing or by electronic transmission to the corporation. Any resignation shall take effect at the date of the receipt of the notice of resignation or at any later time specified in that notice; and, unless otherwise specified in that notice, the acceptance of the resignation shall not be necessary to make it effective. Any resignation is without prejudice to the rights, if any, of the corporation under any contract to which the officer is a party.

5.5 VACANCIES IN OFFICES

Any vacancy occurring in any office of the corporation shall be filled as provided under Section 5.2 or Section 5.3 of these bylaws.

5.6 CHAIRMAN OF THE BOARD

The chairman of the board of directors, if such an officer be elected, shall, if present, preside at meetings of the board of directors and exercise and perform such other powers and duties as may from time to time be assigned to him or her by the board of directors or as may be prescribed by these bylaws. If there is no chief executive officer, then the chairman of the board shall also be the chief executive officer of the corporation and shall have the powers and duties prescribed in Section 5.7 of these bylaws.

5.7 CHIEF EXECUTIVE OFFICER

Subject to such supervisory powers, if any, as may be given by the board of directors to the chairman of the board of directors, if there be such an officer, the chief executive officer shall, subject to the control of the board of directors, have general supervision, direction, and control of the business and the officers of the corporation. In the absence or nonexistence of a chairman of the board of directors, the chief executive officer shall preside at all meetings of the board of directors. The chief executive officer shall have the general powers and duties of management usually vested in the office of chief executive officer of a corporation and shall have such other powers and duties as may be prescribed by the board of directors or these bylaws.

5.8 PRESIDENT

In the absence or disability of the chief executive officer, the president, if any, shall perform all the duties of the chief executive officer. When acting as the chief executive officer, the president shall have all the powers of, and be subject to all the restrictions upon, the chief executive officer. The president shall have such other powers and perform such other duties as from time to time may be prescribed for him or her by the board of directors, these bylaws, the chief executive officer or the chairman of the board of directors.

5.9 VICE PRESIDENT

In the absence or disability of the president, the vice presidents, if any, in order of their rank as fixed by the board of directors or, if not ranked, a vice president designated by the board of directors, shall perform all the duties of the president and when so acting shall have all the powers of, and be subject to all the restrictions upon, the president. The vice presidents shall have such other powers and perform such other duties as from time to time may be prescribed for them respectively by the board of directors, these bylaws, the chief executive officer, the president or the chairman of the board of directors.

5.10 SECRETARY

The secretary shall keep or cause to be kept, at the principal executive office of the corporation or such other place as the board of directors may direct, a book of minutes of all meetings and actions of directors, committees of directors, and stockholders. The minutes shall show the time and place of each meeting, whether regular or special (and, if special, how authorized and the notice given), the names of those present at directors' meetings or committee

meetings, the number of shares present or represented at stockholders' meetings, and the proceedings thereof.

The secretary shall keep, or cause to be kept, at the principal executive office of the corporation or at the office of the corporation's transfer agent or registrar, as determined by resolution of the board of directors, a stock ledger, or a duplicate stock ledger, showing the names of all stockholders and their addresses, the number and classes of shares held by each, the number and date of certificates evidencing such shares, and the number and date of cancellation of every certificate surrendered for cancellation.

The secretary shall give, or cause to be given, notice of all meetings of the stockholders and of the board of directors required to be given by the General Corporation Law of Delaware or by these bylaws. The secretary shall keep the seal of the corporation, if one be adopted, in safe custody and shall have such other powers and perform such other duties as may be prescribed by the board of directors or by these bylaws.

5.11 CHIEF FINANCIAL OFFICER

The chief financial officer shall be the treasurer of the corporation, and shall keep and maintain, or cause to be kept and maintained, adequate and correct books and records of accounts of the properties and business transactions of the corporation, including accounts of its assets, liabilities, receipts, disbursements, gains, losses, capital, retained earnings, and shares. The books of account shall at all reasonable times be open to inspection by any director.

The chief financial officer shall deposit all money and other valuables in the name and to the credit of the corporation with such depositaries as may be designated by the board of directors. The chief financial officer shall disburse the funds of the corporation as may be ordered by the board of directors, shall render to the chief executive officer and directors, whenever they request it, an account of all of his or her transactions as chief financial officer and of the financial condition of the corporation, and shall have such other powers and perform such other duties as may be prescribed by the board of directors or these bylaws.

5.12 ASSISTANT SECRETARY

The assistant secretary, or, if there is more than one, the assistant secretaries in the order determined by the board of directors (or if there be no such determination, then in the order of their election) shall, in the absence of the secretary or in the event of his or her inability or refusal to act, perform the duties and exercise the powers of the secretary and shall perform such other duties and have such other powers as the board of directors may from time to time prescribe.

5.13 ASSISTANT TREASURER

The assistant treasurer, or, if there is more than one, the assistant treasurers, in the order determined by the board of directors (or if there be no such determination, then in the order of their election), shall, in the absence of the chief financial officer or in the event of his or her inability or refusal to act, perform the duties and exercise the powers of the chief financial officer

and shall perform such other duties and have such other powers as the board of directors may from time to time prescribe.

5.14 AUTHORITY AND DUTIES OF OFFICERS

In addition to the foregoing authority and duties, all officers of the corporation shall respectively have such authority and perform such duties in the management of the business of the corporation as may be designated from time to time by the board of directors.

ARTICLE VI

INDEMNITY

6.1 RIGHT TO INDEMNIFICATION

Each person who was or is made a party or is threatened to be made a party to or is otherwise involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative (collectively, a "Proceeding"), by reason of the fact that he or she, or a person of whom he or she is the legal representative, is or was a director of the corporation (or any predecessor), or is or was serving at the request of the corporation (or any predecessor) as a director of another corporation or of a partnership, joint venture, trust or other enterprise (or any predecessor of such entities), including service with respect to an employee benefit plan maintained or sponsored by the corporation (or any predecessor) (collectively, an "Indemnitee"), whether the basis of such Proceeding is alleged action in an official capacity as a director or in any other capacity while serving as a director, shall be indemnified and held harmless by the corporation to the fullest extent authorized by the General Corporation Law of Delaware as the same exists or may hereafter be amended (but, in the case

of any such amendment, only to the extent that such amendment permits the corporation to provide broader indemnification rights than such law permitted the corporation to provide prior to such amendment), against all expense, liability and loss (including attorney's fees, judgments, fines, ERISA excise taxes or penalties and amounts paid in settlement) reasonably incurred or suffered by such Indemnitee in connection therewith and such indemnification shall continue as to an Indemnitee who has ceased to be a director or officer and shall inure to the benefit of the Indemnitee's heirs, executors and administrators; provided, however, that, except as provided in Section 6.3 below with respect to proceedings to enforce rights to indemnification, the corporation shall indemnify any such Indemnitee seeking indemnification in connection with a Proceeding (or part thereof) initiated by such Indemnitee only if such Proceeding (or part thereof) was authorized by the board of directors.

6.2 RIGHT TO ADVANCEMENT OF EXPENSES

In addition to the right to indemnification conferred in Section 6.1, an Indemnitee shall also have the right to be paid by the corporation the expenses incurred in defending against any such Proceeding in advance of its final disposition (an "Advancement of Expenses"), such Advancement to be paid by the corporation within twenty (20) calendar days after the receipt by

the corporation of a statement(s) from the Indemnitee requesting such Advancement of Expenses from time to time; provided, however, that if the General Corporation Law of Delaware requires, the payment of an Advancement of Expenses incurred by a director in his or her capacity as a director in advance of the final disposition of a proceeding, shall be made only upon delivery to the corporation of an undertaking (an "Undertaking"), by or on behalf of such director, to repay all amounts so advanced if it should ultimately be determined that such director is not entitled to be indemnified for such Expenses under this Article VI or otherwise. The rights to indemnification and to the Advancement of Expenses conferred in Sections 6.1 and 6.2 shall be contract rights.

6.3 RIGHT OF INDEMNITEE TO BRING SUIT

To obtain indemnification under this Article VI, an Indemnitee shall submit to the corporation a written request, including such documentation and information as is reasonably available to the Indemnitee and is reasonably necessary to determine whether and to what extent the Indemnitee is entitled to indemnification. Upon such written request, a determination, if required by applicable law, with respect to the Indemnitee's entitlement thereto shall be made as follows: (a) if requested by the Indemnitee, by Independent Counsel (as defined below); or (b) if no request is made by the Indemnitee for a determination by Independent Counsel, (i) by the board of directors by a majority vote of a quorum consisting of Disinterested Directors (as defined below), or (ii) if a quorum of the board of directors consisting of Disinterested Directors is not obtainable or, even if obtainable, such quorum of Disinterested Directors so directs, by Independent Counsel in a written opinion to the board of directors, a copy of which shall be delivered to the Indemnitee; or (c) if a quorum of Disinterested Directors so directs, by the stockholders of the corporation. In the event the determination of entitlement to indemnification is to be made by Independent Counsel at the request of the Indemnitee, the Independent Counsel shall be selected by the board of directors, unless there shall have occurred within two (2) years prior to the date of the commencement of the action, suit or proceeding for which indemnification or Advancement of Expenses is claimed a Change of Control (as defined below), in which case the Independent Counsel shall be selected by the Indemnitee unless the Indemnitee shall request that such selection be made by the board of directors. If it is so determined that the Indemnitee is entitled to indemnification, payment to the Indemnitee shall be made within forty-five (45) calendar days after such determination.

If a claim under Section 6.1 or 6.2 is not paid in full by the corporation within forty-five (45) calendar days after a written claim has been received by the corporation as set forth above, except in the case of a claim for an Advancement of Expenses, in which case the applicable period shall be twenty (20) calendar days, the Indemnitee may at any time thereafter bring suit against the corporation to recover the unpaid amount of the claim and, if successful, the Indemnitee shall be entitled to be paid also the expense of prosecuting such claim. In (a) any suit brought by the Indemnitee to enforce a right to indemnification hereunder (but not in a suit brought by the Indemnitee to enforce a right to an Advancement of Expenses where the required Undertaking, if any is required, has been tendered to the corporation) it shall be a defense that, and (b) in any suit brought by the corporation to recover an Advancement of Expenses pursuant to the terms of an Undertaking, the corporation shall be entitled to recover such Expenses upon a determination that, the Indemnitee has not met any applicable standard for indemnification set

forth in the General Corporation Law of Delaware. Neither the failure of the corporation (including its board of directors, a committee of the board of directors, Independent Counsel or its stockholders) to have made a determination prior to the commencement of such suit that indemnification of the Indemnitee is proper in the circumstances because the Indemnitee has met the applicable standard of conduct set forth in the General Corporate Law of Delaware, nor an actual determination by the corporation (including its board of directors, a committee of the board of directors, Independent Counsel or its stockholders) that the Indemnitee has not met such applicable standard of conduct, shall create a presumption that the Indemnitee has not met the applicable standard of conduct or, in the case of such suit brought by the Indemnitee, be a defense to such suit. In any suit brought by the Indemnitee to enforce a right to indemnification or to an Advancement of Expenses hereunder, or brought by the corporation to recover an Advancement of Expenses pursuant to the terms of an Undertaking, the burden of proving that the Indemnitee is not entitled to be indemnified, or to such Advancement of Expenses, shall be on the corporation.

6.4 NON-EXCLUSIVITY OF RIGHTS

If a determination shall have been made pursuant to this Article VI that the Indemnitee is entitled to indemnification or Advancement of Expenses, the corporation shall be bound by such determination in any judicial proceeding commenced pursuant to Section 6.3 above. The corporation shall be precluded from asserting in any judicial proceeding commenced pursuant to Section 6.3 above that the procedures and presumptions of these bylaws are not valid, binding and enforceable and shall stipulate in such proceeding that the corporation is bound by all the provisions of this Article VI.

The rights to indemnification and to the Advancement of Expenses conferred in this Article VI shall not be exclusive of any other right which any person may have or hereafter acquire under any statute, the certificate of incorporation, these bylaws, agreement, vote of stockholders or Disinterested Directors or otherwise. No repeal or modification of this Article VI shall in any way diminish or adversely affect the rights of any director, officer, employee or agent of the corporation hereunder in respect of any occurrence or matter arising prior to any such repeal or modification.

If any provision(s) of this Article VI of these bylaws shall be held to be invalid, illegal or unenforceable for any reasons whatsoever: (a) the validity, legality and enforceability of the remaining provisions of this Article VI shall not in any way be affected or impaired thereby; and (b) to the fullest extent possible, the provisions of this Article VI shall be construed so as to give effect to the intent manifested by the provision held invalid, illegal or unenforceable.

6.5 INSURANCE

The corporation may maintain insurance to protect itself and any director, officer, employee or agent of the corporation or another corporation, partnership, joint venture, trust or other enterprise, against any expense, liability or loss, whether or not the corporation would have the power to indemnify such person against such expense, liability or loss under the General Corporation Law of Delaware.

6.6 INDEMNIFICATION OF OFFICERS, EMPLOYEES AND AGENTS OF THE CORPORATION

The corporation may, to the maximum extent and in the manner permitted by the General Corporation Law of Delaware and as authorized from time to time by the board of directors, grant rights to indemnification and to the Advancement of Expenses to any officer, employee or agent of the corporation to the fullest extent of the provisions of this Article VI with respect to the indemnification and Advancement of Expenses of directors of the corporation.

6.7 DEFINITIONS

For the purposes of this Article VI:

(a) "Change of Control" means:

(i) The acquisition by any individual, entity or group (within the meaning of Section 13(d)(3) or 14(d)(2) of the Exchange Act)(a "Person") of beneficial ownership (within the meaning of Rule 13d-3 promulgated under the Exchange Act) of twenty percent (20%) or more of either (A) the then outstanding shares of common stock of the corporation (the "Outstanding Corporation Common Stock"), or (B) the combined voting power of the then outstanding voting securities of the corporation entitled to vote generally in the election of directors (the "Outstanding Corporation Voting Securities"); provided, however, that for purposes of this subsection (i), the following acquisitions shall not constitute a Change of Control: (I) any acquisition directly from the corporation or any acquisition from other stockholders where (aa) such acquisition was approved in advance by the board of directors, and (bb) such acquisition would not constitute a change of control under subsection (iii) of this definition; (II) any acquisition by the corporation; (III) any acquisition by an employee benefit plan (or related trust) sponsored or maintained by the corporation or any corporation controlled by the corporation; or (IV) any acquisition by any corporation pursuant to a transaction which complies with subsections (A), (B) or (C) of subsection (iii) of this definition; or

(ii) Individuals who, as of the date hereof, constitute the board of directors (the "Incumbent Board of Directors") cease for any reason to constitute at least a majority of the board of directors; provided, however, that any individual becoming a director subsequent to the date hereof whose election, or nomination for election by the stockholders, was approved by a vote of at least a majority of the directors then comprising the Incumbent Board of Directors shall be considered as though such individual were a member of the Incumbent Board of Directors, but excluding, for this purpose, any such individual whose initial assumption of office occurs as a result of an actual or threatened election contest with respect to the election or removal of directors or other actual or threatened solicitation of proxies by or on behalf of a Person other than the board of directors; or

(iii) Consummation of a reorganization, merger or consolidation or sale or other disposition of all or substantially all of the assets of the corporation (a "Business Combination"), in each case, unless, following such Business Combination, (A) all or substantially all of the individuals and entities who were the beneficial owners, respectively, of the Outstanding

---

Corporation Common Stock and Outstanding Corporation Voting Securities immediately prior to such Business Combination beneficially own, directly or indirectly, more than fifty percent (50%) of, respectively, the then outstanding shares of common stock and the combined voting power of the then outstanding voting securities entitled to vote generally in the election of directors, as the case may be, of the corporation resulting from such Business Combination (including without limitation a corporation which as a result of such transaction owns the corporation or all or substantially all of the corporation's assets either directly or through one or more subsidiaries) in substantially the same proportions as their ownership immediately prior to such Business Combination of the Outstanding Corporation Common Stock and Outstanding Corporation Voting Securities, as the case may be, (B) no Person (excluding any corporation resulting from such Business Combination or any employee benefit plan (or related trust) of the corporation or such corporation resulting from such Business Combination) beneficially owns, directly or indirectly, twenty percent (20%) or more of, respectively, the then outstanding shares of common stock of the corporation resulting from such Business Combination or the combined voting power of the then outstanding voting securities of such corporation except to the extent that such ownership existed prior to the Business Combination, and (C) at least a majority of the members of the board of directors of the corporation resulting from such Business Combination were members of the Incumbent board of directors at the time of the execution of the initial agreement, or of the action of the board of directors, providing for such Business Combination; or

(iv) Approval by the stockholders of a complete liquidation or dissolution of the corporation.

(b) "Disinterested Director" means a director of the corporation who is not and was not a party to the matter in respect of which indemnification or Advancement of Expenses is sought by the Indemnitee.

(c) "Independent Counsel" means a law firm, a member of a law firm or an independent practitioner that is experienced in matters of corporation law and shall include any person who, under the applicable standards of professional conduct then prevailing, would not have a conflict of interest in representing either the corporation or the Indemnitee in an action to determine the Indemnitee's rights under this Article VI.

Any notice, request or other communication required or permitted to be given to the corporation under this Article VI shall be in writing and either delivered in person or sent by telecopy, telex, telegram, overnight mail or courier service, or certified or registered mail, postage prepaid, return receipt requested, to the secretary of the corporation and shall be effective only upon receipt by the secretary of the corporation.

ARTICLE VII

RECORDS AND REPORTS

7.1 MAINTENANCE AND INSPECTION OF RECORDS

The corporation shall, either at its principal executive office or at such place or places as designated by the board of directors, keep a record of its stockholders listing their names and addresses and the number and class of shares held by each stockholder, a copy of these bylaws as amended to date, accounting books, and other records.

Any stockholder of record, in person or by attorney or other agent, shall, upon written demand under oath stating the purpose thereof, have the right during the usual hours for business to inspect for any proper purpose the corporation's stock ledger, a list of its stockholders, and its other books and records and to make copies or extracts therefrom. A proper purpose shall mean a purpose reasonably related to such person's interest as a stockholder. In every instance where an attorney or other agent is the person who seeks the right to inspection, the demand under oath shall be accompanied by a power of attorney or such other writing that authorizes the attorney or agent to so act on behalf of the stockholder. The demand under oath shall be directed to the corporation at its registered office in Delaware or at its principal executive office.

7.2 INSPECTION BY DIRECTORS

Any director shall have the right to examine the corporation's stock ledger, a list of its stockholders, and its other books and records for a purpose reasonably related to his or her position as a director.

7.3 REPRESENTATIONS OF SHARES OF OTHER CORPORATIONS

The chairman of the board, the chief executive officer, any vice president, the chief financial officer, the secretary or any assistant secretary of this corporation, or any other person authorized by the board of directors, the chief executive officer or a vice president, is authorized to vote, represent, and exercise on behalf of this corporation all rights incident to any and all shares of any other corporation or corporations standing in the name of this corporation. The authority granted herein may be exercised either by such person directly or by any other person authorized to do so by proxy or power of attorney duly executed by such person having the authority.

ARTICLE VIII

GENERAL MATTERS

8.1 CHECKS

From time to time, the board of directors shall determine by resolution which person or persons may sign or endorse all checks, drafts, other orders for payment of money, notes or other

evidences of indebtedness that are issued in the name of or payable to the corporation, and only the persons so authorized shall sign or endorse those instruments.

8.2 EXECUTION OF CORPORATE CONTRACTS AND INSTRUMENTS

The board of directors, except as otherwise provided in these bylaws, may authorize any officer or officers, or agent or agents, to enter into any contract or execute any instrument in the name of and on behalf of the corporation; such authority may be general or confined to specific instances. Unless so authorized or ratified by the board of directors or within the agency power of an officer, no officer, agent or employee shall have any power or authority to bind the corporation by any contract or engagement or to pledge its credit or to render it liable for any purpose or for any amount.

8.3 STOCK CERTIFICATES; PARTLY PAID SHARES

The shares of the corporation shall be represented by certificates, provided that the board of directors may provide by resolution or resolutions that some or all of any or all classes or series of its stock shall be uncertificated shares. Any such resolution shall not apply to shares represented by a certificate until such certificate is surrendered to the corporation. Notwithstanding the adoption of such a resolution by the board of directors, every holder of stock represented by certificates and upon request every holder of uncertificated shares shall be entitled to have a certificate signed by, or in the name of the corporation by the chairman of the board of directors, or the chief executive officer or a vice president, and by the chief financial officer or an assistant treasurer, or the secretary or an assistant secretary of such corporation representing the number of shares registered in certificate form. Any or all of the signatures on the certificate may be a facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate has ceased to be such officer, transfer agent or registrar before such certificate is issued, it may be issued by the corporation with the same effect as if he or she were such officer, transfer agent or registrar at the date of issue.

The corporation may issue the whole or any part of its shares as partly paid and subject to call for the remainder of the consideration to be paid therefor. Upon the face or back of each stock certificate issued to represent any such partly paid shares, or upon the books and records of the corporation in the case of uncertificated partly paid shares, the total amount of the consideration to be paid therefor and the amount paid thereon shall be stated. Upon the declaration of any dividend on fully paid shares, the corporation shall declare a dividend upon partially paid shares of the same class, but only upon the basis of the percentage of the consideration actually paid thereon.

8.4 SPECIAL DESIGNATION ON CERTIFICATES

If the corporation is authorized to issue more than one class of stock or more than one series of any class, then the powers, the designations, the preferences, and the relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights shall be set forth in full

or summarized on the face or back of the certificate that the corporation shall issue to represent such class or series of stock; provided, however, that, except as otherwise provided in Section 202 of the General Corporation Law of Delaware, in lieu of the foregoing requirements there may be set forth on the face or back of the certificate that the corporation shall issue to represent such class or series of stock a statement that the corporation will furnish without charge to each stockholder who so requests a statement of the powers, the designations, the preferences, and the relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights.

8.5 LOST CERTIFICATES

Except as provided in this Section 8.5, no new certificates for shares shall be issued to replace a previously issued certificate unless the latter is surrendered to the corporation and cancelled at the same time. The corporation may issue a new certificate of stock or uncertificated shares in the place of any certificate theretofore issued by it, alleged to have been lost, stolen or destroyed, and the corporation may require the owner of the lost, stolen or destroyed certificate, or such owner's legal representative, to give the corporation a bond sufficient to indemnify it against any claim that may be made against it on account of the alleged loss, theft or destruction of any such certificate or the issuance of such new certificate or uncertificated shares.

8.6 CONSTRUCTION; DEFINITIONS

Unless the context requires otherwise, the general provisions, rules of construction, and definitions in the General Corporation Law of Delaware shall govern the construction of these bylaws. Without limiting the generality of this provision, the singular number includes the plural, the plural number includes the singular, and the term "person" includes both a corporation and a natural person.

8.7 DIVIDENDS

The directors of the corporation, subject to any restrictions contained in the certificate of incorporation, may declare and pay dividends upon the shares of its capital stock pursuant to the General Corporation Law of Delaware. Dividends may be paid in cash, in property, or in shares of the corporation's capital stock.

The directors of the corporation may set apart out of any of the funds of the corporation available for dividends a reserve or reserves for any proper purpose and may abolish any such reserve. Such purposes shall include but not be limited to equalizing dividends, repairing or maintaining any property of the corporation, and meeting contingencies.

8.8 FISCAL YEAR

The fiscal year of the corporation shall be fixed by resolution of the board of directors and may be changed by the board of directors.

8.9 SEAL

The corporate seal shall have inscribed thereon the name of the corporation, the year of its organization and the words "Corporation Seal, Delaware." The seal may be used by causing it or a facsimile thereof to be impressed or affixed or reproduced or otherwise.

8.10 TRANSFER OF STOCK

Upon surrender to the corporation or the transfer agent of the corporation of a certificate for shares duly endorsed or accompanied by proper evidence of succession, assignation or authority to transfer, it shall be the duty of the corporation to issue a new certificate to the person entitled thereto, cancel the old certificate, and record the transaction in its books.

8.11 STOCK TRANSFER AGREEMENTS

The corporation shall have power to enter into and perform any agreement with any number of stockholders of any one or more classes of stock of the corporation to restrict the transfer of shares of stock of the corporation of any one or more classes owned by such stockholders in any manner not prohibited by the General Corporation Law of Delaware.

8.12 REGISTERED STOCKHOLDERS

The corporation shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends and to vote as such owner, shall be entitled to hold liable for calls and assessments the person registered on its books as the owner of shares, and shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of another person, whether or not it shall have express or other notice thereof, except as otherwise provided by the General Corporation Law of Delaware.

ARTICLE IX

AMENDMENTS

These bylaws may be adopted, amended or repealed by the stockholders entitled to vote; provided, however, that the corporation may, in its certificate of incorporation, confer the power to adopt, amend or repeal bylaws upon the board of directors. The fact that such power has been so conferred upon the board of directors shall not divest the stockholders of the power, nor limit their power to adopt, amend or repeal bylaws. Notwithstanding the foregoing, in addition to any vote of the holders of any class or series of stock of the corporation required by the General Corporation Law of Delaware or by the certificate of incorporation, the amendment or repeal of all or any portion of Section 2.3 (Special Meeting), Section 3.2 (Number of Directors), Section 3.3(a) (Election, Qualification and Term of Office of Directors), Article VI (Indemnification) or this Article IX (Amendments) by the stockholders shall require the affirmative vote of the holders of at least sixty-six and two-thirds percent (66 2/3%) of the shares of voting stock then entitled to vote generally in the election of directors, voting together as a single class.

CERTIFICATE OF AMENDMENT AND RESTATEMENT OF BYLAWS

OF

LATTICE SEMICONDUCTOR CORPORATION

CERTIFICATE BY SECRETARY OF AMENDMENT AND RESTATEMENT
BY BOARD OF DIRECTORS

The undersigned hereby certifies that he is the duly elected, qualified, and acting Secretary of Lattice Semiconductor Corporation and that the foregoing amended and restated bylaws were adopted as the bylaws of the corporation on February 3, 2004 by the board of directors of the corporation.

IN WITNESS WHEREOF, the undersigned has hereunto set his hand and affixed the corporate seal this 5th day of February, 2004.

/s/ Stephen A. Skaggs
Stephen A. Skaggs, Secretary

Exhibit 10.40

LATTICE SEMICONDUCTOR CORPORATION

EXECUTIVE INCENTIVE PLAN

2002 RESTATEMENT

The Lattice Semiconductor Executive Incentive Plan (the "Plan"), originally approved by the Board of Directors on August 13, 1990 and subsequently restated in 1992 and 1999, is hereby restated in its entirety.

1. Purpose

The purpose of the Plan is to provide Lattice Semiconductor Corporation (the "Company") with an effective and competitive bonus plan that enables the Company to attract and retain senior management, and to provide incentives that promote the financial objectives of the Company, thereby enhancing shareholder value. The executive cash compensation program of the Company is highly leveraged on the basis of Company profitability.

2. Administration

This Plan shall be administered by the Compensation Committee of the Board of Directors (the "Administrator"), which is composed entirely of independent outside directors. The Compensation Committee is responsible for setting and administering the policies which govern both cash compensation and stock ownership programs. The Compensation Committee meets without the Chief Executive Officer's presence, on at

---

least an annual basis, to evaluate and review the Company's compensation plans and reports their findings to the full Board of Directors.

The Administrator shall interpret the Plan, determine eligibility to participate, and generally be responsible for seeing that the purposes of the Plan are accomplished. The Administrator may delegate all of part of its administrative duties to others.

3. Plan Year

The Plan Year shall be the Company's fiscal year.

4. Eligibility

The Chief Executive Officer, President and certain Vice Presidents and Directors of the Company shall be eligible to participate in the Plan. Vice Presidents and Directors will be eligible upon selection by the Chief Executive Officer.

5. Computation of Bonus

The total bonus amount available for distribution under the Plan shall equal seven percent (7%) of the Company's operating income. For this purpose, operating income shall mean the amount determined by the Company from its official financial statements in accordance with generally accepted accounting principles with the exception that one-time in-process research and development and intangible asset amortization charges are to be excluded from the calculation. The bonus computation will be made on a quarterly basis.

---

6. Allocation of Bonus

The bonus amount will be allocated among the eligible participants according to the following criteria (see Exhibit A for formula calculating individual amounts):

a). participant's base salary;

b). participant's position;

c). participant's performance to objectives as determined by the Chief Executive Officer.

The bonus amount allocated to the Chief Executive Officer will be calculated solely as a function of 6a) x 6b) above according to the formula in Exhibit A.

7. Time of Payment

Bonus payment will be made to eligible participants on a quarterly basis within 90 days after the end of the Company's fiscal quarter.

8. Terminated Participants

A participant who terminates his/her employment with the Company, either voluntarily or involuntarily, forfeits any undistributed bonus amount that he/she might otherwise have been eligible to receive.

9. Amendment/Termination

The Company may amend or terminate this Plan at any time by action of the Compensation Committee of the Board of Directors.

---

10. Interpretation

All questions of interpretation under this Plan shall be decided by the Compensation Committee of the Board of Directors of the Company, whose judgement shall be final and binding.

Lattice Semiconductor Corporation

By: /s/ Cyrus Tsui

Chief Executive Officer

February 5, 2002

EXHIBIT A
FORMULA FOR CALCULATION OF BONUSES

I. TOTAL BONUS EARNED DURING PERIOD (“TB”):

TB = Operating Income x 7%

II. BONUS CALCULATION FOR CEO (“Bp”):

Bp = [(S x W) / T] x TB

III. BONUS CALCULATION FOR PLAN PARTICIPANTS EXCEPT

CEO (“B”):

B = [(S x W) / T] x TB x IP

IV. KEY:

S = Annual Base Salary

W = Weighting according to position:

CEO	50%
President	50%
Vice President Sales	40%
Other Vice Presidents	35%
Directors	25%

T = Weighted total of all salaries (“S”) multiplied by the position weighting (“W”)

IP = Individual performance as determined by CEO

LATTICE SEMICONDUCTOR CORPORATION

INDEMNIFICATION AGREEMENT

This Indemnification Agreement ("**Agreement**") is made as of May 6, 2003 by and between Lattice Semiconductor Corporation, a Delaware corporation (the "**Company**"), and (“**Indemnitee**”).

Recitals

A. The Company desires to attract and retain qualified directors, officers, employees and other agents, and to provide them with protection against liability and expenses incurred while acting in that capacity;

B. The Certificate of Incorporation and Bylaws of the Company contain provisions for indemnifying directors and officers of the Company, and the Bylaws and Delaware law contemplate that separate contracts may be entered into between the Company and its directors and officers, employees and other agents with respect to their indemnification by the Company, which contracts may provide greater protection than is afforded by the Certificate of Incorporation and Bylaws;

C. The Company understands that Indemnitee has reservations about serving or continuing to serve the Company without adequate protection against personal liability arising from such service, and that it is also of critical importance to Indemnitee that adequate provision be made for advancing costs and expenses of legal defense; and

D. The Board of Directors has approved as being in the best interests of the Company indemnity contracts substantially in the form of this Agreement for directors and officers of the Company and its subsidiaries and for certain other employees and agents of the Company designated by the Board of Directors.

NOW, THEREFORE, in order to induce Indemnitee to serve or to continue to serve as a director, officer, employee or agent of the Company, and in consideration of Indemnitee's service to the Company, the parties agree as follows:

1. Contractual Indemnity. In addition to the indemnification provisions of the Certificate of Incorporation and Bylaws of the Company, the Company hereby agrees, subject to the limitations of Sections 2 and 5 hereof:

(a) To indemnify, defend and hold Indemnitee harmless to the greatest extent possible under applicable law from and against any and all judgments, fines, penalties, amounts paid in settlement and any other amounts reasonably incurred or suffered by Indemnitee (including attorneys' fees) if Indemnitee acted in good faith and in a manner Indemnitee reasonably believed to be in or not opposed to the best interests of the Company, and, with respect to any criminal action or proceeding, had no reasonable cause to believe Indemnitee's conduct was unlawful, in connection with any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, including an action by or in the right of the Company, to which Indemnitee is, was or at any time becomes a party, or is threatened to be made a

party, by reason of the fact that Indemnitee is, was or at any time becomes a director, officer, employee or agent of the Company or is or was serving or at any time serves at the request of the Company as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise (collectively referred to hereafter as a "Claim"), whether or not arising prior to the date of this Agreement.

(b) To pay any and all expenses reasonably incurred by Indemnitee in defending any Claim or Claims (including reasonable attorneys' fees and expenses and other reasonable costs of investigation and defense), as the same are incurred and in advance of a final judicial determination (as to which all rights of appeal therefrom have been exhausted or lapsed) (the "Final Judicial Determination") of any such Claim or Claims, upon receipt of a written undertaking by or on behalf of Indemnitee (which shall be unsecured and shall not bear interest) to reimburse such amounts if a Final Judicial Determination determines that Indemnitee (i) is not entitled to be indemnified by the Company under this Agreement, and (ii) is not entitled to be indemnified by the Company under the Certificate of Incorporation or the Bylaws of the Company.

(c) The termination of any action or proceeding by judgment, order, settlement, conviction, or upon a plea of nolo contendere or its equivalent, shall not, of itself, create a presumption that (i) Indemnitee did not act in good faith and in a manner which Indemnitee reasonably believed to be in the best interests of the Company, or (ii) with respect to any criminal action or proceeding, Indemnitee had reasonable cause to believe that Indemnitee's conduct was unlawful.

2. Limitations on Contractual Indemnity. Indemnitee shall not be entitled to indemnification or advancement of expenses under Section 1:

(a) if a court of competent jurisdiction, by a Final Judicial Determination, shall determine that (i) the Claim or Claims in respect of which indemnity is sought arise from Indemnitee's fraudulent, dishonest or willful misconduct, or (ii) such indemnity is not permitted under applicable law; or

(b) on account of any suit in which judgment is rendered for an accounting of profits made from the purchase or sale by Indemnitee of securities of the Company in violation of the provisions of Section 16(b) of the Securities Exchange Act of 1934 and amendments thereto or similar provisions of any federal, state or local statutory law; or

(c) for any acts or omissions or transactions from which Indemnitee may not be relieved of liability under the Delaware General Corporation Law; or

(d) with respect to proceedings or claims initiated or brought voluntarily by Indemnitee and not by way of defense, except (i) with respect to proceedings brought in good faith to establish or enforce a right to indemnification under this Agreement or any other statute or law, or (ii) at the Company's discretion, in specific cases if the Board of Directors of the Company has approved the initiation or bringing of such suit; or

(e) for expenses or liabilities of any type whatsoever (including, but not limited to, judgments, fines, ERISA excise taxes or penalties, and amounts paid in

settlement) which have been paid directly to Indemnitee by an insurance carrier under a policy of liability insurance maintained by the Company; or

(f) for any expenses incurred by the Indemnitee with respect to any proceeding instituted by Indemnitee to enforce or interpret this Agreement, if a court of competent jurisdiction determines that each of the material assertions made by the Indemnitee in such proceeding was not made in good faith or was frivolous.

Notwithstanding any limitations set forth in this Section 2, regarding the Company's obligation to provide indemnification, Indemnitee shall be entitled under Section 4 to receive expense advances hereunder with respect to any such Claim unless and until a court having jurisdiction over the Claim shall have made a Final Judicial Determination that Indemnitee has engaged in acts, omissions or transactions for which Indemnitee is prohibited from receiving indemnification under this Section 2.

3. Continuation of Contractual Indemnity. Subject to the termination provisions of Section 11, all agreements and obligations of the Company contained herein shall continue for so long as Indemnitee shall be subject to any possible action, suit, proceeding or other assertion of a Claim or Claims.

4. Expenses; Indemnification Procedure. The Company shall advance all expenses incurred by Indemnitee in connection with the investigation, defense, settlement or appeal of any civil or criminal action or proceeding referenced in Section 1 hereof (but not amounts actually paid in settlement of any such action or proceeding). Indemnitee hereby undertakes to repay such amounts advanced if, and to the extent that, a Final Judicial Determination determines that Indemnitee is not entitled to be indemnified by the Company as authorized hereby. The advances to be made hereunder shall be paid by the Company to Indemnitee within twenty (20) days following delivery of a written request therefor by Indemnitee to the Company.

5. Notification and Defense of Claim. If any action, suit, proceeding or other Claim is brought against Indemnitee in respect of which indemnity may be sought under this Agreement:

(a) Indemnitee will promptly notify the Company in writing of the commencement thereof, and the Company and any other indemnifying party similarly notified will be entitled to participate therein at its own expense or to assume the defense thereof and to employ counsel reasonably satisfactory to Indemnitee provided however, that failure to provide such notice in accordance with this Section 2(b) shall not affect Indemnitee's rights to receive any expenses or expense advances hereunder unless and except to the extent that the Company did not otherwise learn of such Claim and such failure of Indemnitee to provide such notice results in the forfeiture by the Company of substantial rights and defenses. Notice to the Company shall be directed to the Chief Executive Officer of the Company at the address shown on the signature page of this Agreement (or such other address as the Company shall designate in writing to Indemnitee). Notice shall be deemed received three (3) business days after the date postmarked if sent by domestic certified or registered mail, properly addressed; otherwise

notice shall be deemed received when such notice shall actually be received by the Company. If the Company does not assume the defense of a Claim or the Indemnitee reasonably determines that there may be a conflict between the positions of the Company in conducting the defense or a Claim, the counsel to Indemnitee shall be entitled to conduct the defense as reasonably determined by such counsel to be necessary or desirable to protect the interests of the Indemnitee and the Company shall not have the right to assume the defense of such Claim and the reasonable fees and expenses of such counsel to the Indemnitee shall be borne by the Company upon delivery to the Company of the undertaking referred to in subparagraph (b) of Section 1. However, in no event will the Company be obligated to pay the fees or expenses of more than one firm of attorneys representing Indemnitee and any other agents of the Company in connection with any one Claim or separate but substantially similar or related Claims in the same jurisdiction arising out of the same general allegations or circumstances, unless Indemnitee reasonably determines that representation of Indemnitee and other agents of the Company by the same firm of attorneys would present a conflict of interest that materially prejudices the interests of Indemnitee.

(b) The Company shall not be liable to indemnify Indemnitee for any amounts paid in settlement of any Claim effected without the Company's written consent, and the Company shall not settle any Claim in a manner which would impose any penalty or limitation on Indemnitee or require the admission of guilt or responsibility without Indemnitee's written consent; provided, however, that neither the Company nor Indemnitee will unreasonably withhold its consent to any proposed settlement and, provided further, that if a claim is settled by the Indemnitee with the Company's written consent, or if there is a Final Judicial Determination for the plaintiff in connection with the Claim by a court of competent jurisdiction, the Company shall indemnify and hold harmless Indemnitee from and against any and all losses, costs, expenses and liabilities incurred by reason of such settlement or judgment.

(c) Indemnitee shall give the Company such information in the possession of, or reasonably obtainable by, Indemnitee, and cooperation as it may reasonably require and as shall be within Indemnitee's power and control.

(d) Any indemnification provided for in Section 1 shall be made no later than forty-five (45) days after receipt of the written request of Indemnitee. If a Claim under this Agreement, under any statute, or under any provision of the Company's Certificate of Incorporation or Bylaws providing for indemnification, is not paid in full by the Company within forty-five (45) days after a written request for payment thereof has first been received by the Company, Indemnitee may, but need not, at any time thereafter bring an action against the Company to recover the unpaid amount of the claim and, subject to Section 13 of this Agreement, Indemnitee shall also be entitled to be reimbursed for the expenses (including attorneys' fees) of bringing such action. It shall be a defense to any such action (other than an action brought to enforce a claim for expenses incurred in connection with any action or proceeding in advance of its final disposition) that Indemnitee has not met the standards of conduct which make it permissible under applicable law for the Company to indemnify Indemnitee for the amount claimed but the burden of proving such defense shall be on the Company, and

Indemnitee shall be entitled to receive interim payments of expenses pursuant to Subsection 4 unless and until there is a Final Judicial Determination for such defense. It is the parties' intention that if the Company contests Indemnitee's right to indemnification, the question of Indemnitee's right to indemnification shall be for the court to decide, and neither the failure of the Company (including its Board of Directors, any committee or subgroup of the Board of Directors, independent legal counsel, or its stockholders) to have made a determination that indemnification of Indemnitee is proper in the circumstances because Indemnitee has met the applicable standard of conduct required by applicable law, nor an actual determination by the Company (including its Board of Directors, any committee or subgroup of the Board of Directors, independent legal counsel, or its stockholders) that Indemnitee has not met such applicable standard of conduct, shall create a presumption that Indemnitee has or has not met the applicable standard of conduct.

(e) If, at the time of the receipt of a notice of a Claim, the Company has director and officer liability insurance in effect, the Company shall give prompt notice of the commencement of such proceeding to the insurers in accordance with the procedures set forth in the respective policies. The Company shall thereafter take all necessary or desirable action to cause such insurers to pay, on behalf of the Indemnitee, all amounts payable as a result of such proceeding in accordance with the terms of such policies, provided however, that nothing contained in this Section 5(e) shall excuse the Company from its obligations to pay expenses or expense advances to Indemnitee as provided herein.

6. Scope. Notwithstanding any other provision of this Agreement, the Company hereby agrees to indemnify the Indemnitee against any Claim to the fullest extent permitted by law, notwithstanding that such indemnification is not specifically authorized by the other provisions of this Agreement, the Company's Certificate of Incorporation, the Company's Bylaws or by statute. In the event of any change, after the date of this Agreement, in any applicable law, statute or rule which expands the right of a Delaware corporation to indemnify a member of its board of directors, an officer or other corporate agent, such changes shall be, ipso facto, within the purview of Indemnitee's rights and Company's obligations, under this Agreement. In the event of any change in any applicable law, statute, or rule which narrows the right of a Delaware corporation to indemnify a member of its Board of Directors, an officer, or other corporate agent, such changes, to the extent not otherwise required by applicable law to be applied to this Agreement, shall have no effect on this Agreement or the parties' rights and obligations hereunder.

7. Partial Indemnification. If Indemnitee is entitled under any provision of this Agreement to indemnification by the Company for some or a portion of the expenses, judgments, fines or penalties actually or reasonably incurred by him in the investigation, defense, appeal or settlement of any civil or criminal action or proceeding, but not, however, for the total amount thereof, the Company shall nevertheless indemnify Indemnitee for the portion of such expenses, judgments, fines or penalties to which Indemnitee is entitled.

8. Public Policy. Both the Company and Indemnitee acknowledge that in certain instances, Federal law or applicable public policy may prohibit the Company from indemnifying its directors and officers under this Agreement or otherwise. Indemnitee understands and acknowledges that the Company has undertaken or may be required in the future to undertake with the Securities and Exchange Commission to submit the question of indemnification to a court in certain circumstances for a determination of the Company's right under public policy to indemnify Indemnitee.

9. Insurance. Although the Company may from time to time maintain insurance for the purpose of indemnifying Indemnitee and other agents of the Company against personal liability, including costs of legal defense, nothing in this Agreement shall obligate the Company to do so.

10. No Restrictions. The rights and remedies of Indemnitee under this Agreement shall not be deemed to exclude or impair any other rights or remedies to which Indemnitee may be entitled under the Certificate of Incorporation or Bylaws of the Company, or under any other agreement, provision of law or otherwise, nor shall anything contained herein restrict the right of the Company to indemnify Indemnitee in any proper case even though not specifically provided for in this Agreement, nor shall anything contained herein restrict Indemnitee's right to contribution as may be available under applicable law. The indemnification provided under this Agreement shall continue as to Indemnitee for any action Indemnitee took or did not take while serving in an indemnified capacity even though Indemnitee may have ceased to serve in such capacity.

11. Termination. The Company may terminate this Agreement at any time upon ninety (90) days written notice, but any such termination will not affect Claims relating to events occurring prior to the effective date of termination.

12. Severability. Each of the provisions of this Agreement is a separate and distinct agreement and independent of the others, so that if any provision hereof shall be held to be invalid or unenforceable for any reason, such invalidity or unenforceability shall not affect the validity or enforceability of the other provisions hereof. Furthermore, to the fullest extent possible, the provisions of this Agreement (including, without limitations, each portion of this Agreement containing any provision held to be invalid, void or otherwise unenforceable, that is not itself invalid, void or unenforceable) shall be construed so as to give effect to the intent manifested by the provision held invalid, illegal or unenforceable.

13. Attorneys' Fees. In the event of any litigation or other action or proceeding to enforce or interpret this Agreement, the prevailing party as determined by the court shall be entitled to an award of its reasonable attorneys' fees and other costs, in addition to such relief as may be awarded by a court or other tribunal.

14. Further Assurances. The parties will do, execute and deliver, or will cause to be done, executed and delivered, all such further acts, documents and things as may be reasonably required for the purpose of giving effect to this Agreement and the transactions contemplated hereby.

15. Acknowledgment. The Company expressly acknowledges that it has entered into this Agreement and assumed the obligations imposed on the Company hereunder in order to induce Indemnitee to serve or to continue to serve as an agent of the Company, and acknowledges that Indemnitee is relying on this Agreement in serving or continuing to serve in such capacity.

16. Construction of Certain Phrases.

(a) “Company”. For purposes of this Agreement, references to the “Company” shall also include, in addition to the resulting corporation in any consolidation or merger to which the Company is a party, any constituent corporation (including any constituent of a constituent) absorbed in consolidation or merger which, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, employees or

agents, so that if Indemnitee is or was a director, officer, employee or agent of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, Indemnitee shall stand in the same position under the provisions of this Agreement with respect to the resulting or surviving corporation as Indemnitee would have with respect to such constituent corporation if its separate existence had continued.

(b) Benefit Plans. References to "fines" contained in this Agreement shall include any excise taxes assessed on Indemnitee with respect to an employee benefit plan; and references to "serving at the request of the Company" shall include any service as a director, officer, employee or agent of the Company which imposes duties on, or involves services by, such director, officer, employee or agent with respect to an employee benefit plan, its participants, or beneficiaries.

17. Counterparts. This Agreement may be executed (including by facsimile) in one or more counterparts, each of which shall constitute an original and together shall constitute one instrument.

18. Notice. All notices, requests, demands and other communications under this Agreement shall be in writing and shall be deemed duly given (i) if delivered by hand and receipted for by the party addressee, on the date of such receipt, or (ii) if mailed by domestic certified or registered mail with postage prepaid, on the third business day after the date postmarked. Addresses for notice to either party are as shown on the signature page of this Agreement, or as subsequently modified by written notice.

19. Subrogation. In the event of payment under this Agreement, the Company shall be subrogated to the extent of such payment to all of the rights of recovery of Indemnitee, who shall execute all documents required and shall do all acts that may be necessary to secure such rights and to enable the Company effectively to bring suit to enforce such rights.

---

20. Governing Law; Binding Effect; Amendment.

(a) This Agreement shall be interpreted and enforced in accordance with the laws of the State of Delaware applicable to contracts entered into in Delaware.

(b) This Agreement shall be binding upon Indemnitee and the Company, their successors and assigns, and shall inure to the benefit of Indemnitee, his heirs, personal representatives and assigns and to the benefit of the Company, its successors and assigns.

(c) No amendment, modification, termination or cancellation of this Agreement shall be effective unless in writing signed by both parties hereto.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first above written.

LATTICE SEMICONDUCTOR CORPORATION

By: ______________________________

Title: ______________________________

Address: ______________________________

____

AGREED TO AND ACCEPTED:

____

Address:

____

____

Policy #:	**600**
Effective Date:	**2/6/04**
Page:	**1 of 7**
Supersedes Issue:	**2/15/00**
Approval:	**/s/ Cyrus Tsui**

STANDARDS OF ETHICS AND CONDUCT

INTENT

To create and maintain a legal, ethical and professional business environment.

All our employees are expected to obey the law, observe high ethical standards and avoid any actions that may compromise this environment. Furthermore, all employees are expected to uphold the Standards of Ethics and Conduct described in this policy in all day-to-day activities and help ensure that all co-workers, contractors and agents are aware of and adhere to our standards.

This policy is a statement of general principles and standards and should be broadly applied.

Management is committed to ensuring that each employee has received, read, understood and acknowledged their compliance with this policy on an annual basis.

POLICY

Whenever a possible compromise of our Standards of Ethics and Conduct exists, employees are expected to promptly correct the situation. Violations of our Standards of Ethics and Conduct will lead to disciplinary action that may include termination of employment.

All members of management are expected to enforce this policy and to lead by example, exercising sound and mature judgment in all business relationships. All employees are also expected to support the policy and assist management with its enforcement. Individual employees have an affirmative obligation to be alert for violations of this policy, to raise concerns with management and to participate in any internal or external investigation of possible violations. Reprisal, threats, retribution or retaliation against any employee who has in good faith reported a violation or a suspected violation of the

law or of this policy, or against any person who is assisting in any investigation or process related to such a violation, is prohibited.

If at any time you have any questions concerning the specific application of this policy, you should ask your immediate supervisor and the Human Resources department. Questions that are unresolved should be referred to higher levels of management and the Legal department until the question is resolved.

<u>Compliance with the Law</u>

Our policy is to comply with all federal, state, local and foreign laws governing our operations. Employees located outside the United States are expected to comply with applicable laws of the United States including the Foreign Corrupt Practices Act, the U.S. Export Control Act and U.S. Insider Trading Laws in addition to applicable local laws. See Policies #610 – Accepting and Giving Gifts, #620 – Trading in Lattice Stock, #630 – Compliance with Export Controls and #705 – Personal Computer Software.

It is not expected that every employee be fully versed in all laws affecting their specific responsibilities. However, it is expected that each employee acquire appropriate knowledge of the requirements related to his or her duties sufficient to enable the employee to recognize potential violations and to know when to seek advice from management or the Human Resources department with regard to permissible activities.

Specifically, with respect to financial matters generally and working with the Company's independent accountants, it is illegal for an employee to either independently, or acting under the direction of an officer, attempt to improperly influence our independent accountant. Examples of improper influence are: providing information that is deliberately misleading or inaccurate, offering incentives or making threats.

<u>Conflict of Interest</u>

Conflict of interest is any activity or interest that is inconsistent with or not in the best interest of the Company. Employees must not place themselves, or allow themselves to be placed, in a situation in which personal interest conflicts, or might appear to conflict, with the interest of the Company. Lattice does recognize an employees' right to invest and to participate in outside activities. However, these activities should in no way conflict with the Company's interest and welfare and may not interfere with an employee's responsibilities or job performance.

Although it is not possible to mention all situations that might be considered as a conflict of interest, the following are examples of situations that employees should avoid:

Other Business Interests:

- Any outside directorship must be approved in advance by the CEO. Employees may not serve as a director of any company that competes with the Company. Any compensation received by an employee for any outside directorships must be solely related to and commensurate with responsibilities as a director and not based on any current or potential business arrangement or relationship between the Company and the company providing the directorship.
- If an employee anticipates acquiring, directly or indirectly, a substantial interest in a supplier of materials or services to the Company, or in a competitor of the Company, the employee must disclose such intention to management and the Human Resources department. Interest in such an enterprise of greater than three (3) percent ownership is considered substantial. Based on the specific circumstances the Company will determine if a conflict of interest exists. Many factors may be considering in making this determination including: the size and nature of the proposed investment, the ability for the employee to influence the decisions of the Company and the decision of the other company, the employee's access to confidential information of the Company and the other company and the nature of the relationship between the Company and the other company. If a conflict of interest is deemed to exist, the employee will be prohibited from making a substantial investment in the other company.
- Employees may not borrow money from individuals or firms (other than as ordinary customers of banks or other lending institutions) doing, or seeking to do, business with the Company.

Outside Employment or Consulting:

- Employees must not undertake any outside employment, consulting or other outside activities that constitute a conflict of interest or interfere with their job responsibilities or performance for the Company. The Human Resources department and the employee's supervisor must be informed of and approve in advance any outside employment, consulting or similar activities. Failure to disclose any outside employment, consulting or similar activities or to obtain advance approval is a violation of this policy.
- Employees must not render services in any capacity to any individual or firm who is in any way competitive with the Company or who is a supplier of materials or services to the Company.

Accepting or Giving Gifts:

Employees must not seek or accept gifts or favors that might influence, or appear to influence, an employee's judgment in representing the Company. See Policy #610 - Accepting and Giving Gifts.

Related Party Transactions:

- As a general rule, employees should avoid conducting Company business or entering any Company business agreements or arrangements with a relative or significant other, or with a business in which a relative or significant other has an influential role. Business agreements or arrangements of this type are referred to, in aggregate, as related party transactions.
- If such a related party transaction is unavoidable, the nature of the transaction must be fully disclosed to the Chief Financial Officer prior to entering into such a transaction. If the specific transaction is determined to be material by the Chief Financial Officer, the transaction must be reviewed by the Audit Committee of the Board of Directors. The Audit Committee must approve, in writing, in advance, all material related party transactions.
- Any related party transactions involving the Company's directors or executive officers, are by definition material. As such, all related party transactions of this type must be reviewed and approved, in writing, in advance by the Audit Committee.
- Any approved related party transactions must be structured and conducted in a manner such that no preferential treatment is given to the related party.
- The Company discourages the employment of relatives or significant others within the same department and prohibits the employment of relatives in positions that have, or may appear to have, a dependence or potential financial influence (e.g. supervisor/subordinate relationship). The Human Resources department is responsible for interpretation and clarification of our policy regarding prohibition of the employment of relatives. If a prohibited reporting relationship exists or develops between two employees, the employee in the senior position must bring the relationship to the attention of the Human Resources department. The Company reserves the right to separate the employees at the earliest possible time, either by reassignment, transfer or, if necessary, termination. Willful withholding of information regarding a prohibited relationship/reporting arrangement will be subject to disciplinary action that may include termination of employment.

Use and Care of Company Assets

Protection of the Company's assets is the responsibility of every employee. Appropriate care must be taken to ensure that our assets are not misappropriated, loaned to others, transferred, sold or donated without authorization. All employees are responsible for the

proper use of our assets and must safeguard our assets against loss, damage, misuse or theft. Company assets are to be used for Company business purposes only. Employees may not use Company assets for personal gain, nor may they allow any other person, not employed or authorized by the Company, to use Company assets. Employees who violate this policy will be subject to disciplinary action that may include termination of employment.

Physical Access Control:

The Company has policies and procedures covering physical and computer network access control. See Policy #500 - - Access Control and #700 - Computer and Data Network Usage. Each employee is responsible for complying with these policies and ensuring that others, including contractors and agents, comply with these policies. Employees must not gain permanent or temporary access to physical or network locations for which they are not approved.

Physical Assets:

The Company strives to furnish employees with the equipment necessary to perform their job efficiently and effectively. Employees must care for the equipment under their control and use it in a responsible manner. Equipment is not to be removed from Company property without a property pass. Prior to termination of employment, all Company owned equipment must be returned.

Company Funds and Payment Practices:

Each employee is personally responsible for all Company funds over which he or she exercises control. Every employee has an affirmative obligation to ensure that steps are taken to ensure the Company receives value for any funds spent and that the Company is billed appropriately.

Company funds must only be used for business purposes. Contractors or agents must not be allowed to exercise control over Company funds.

All expense reports must be accurate and submitted in a timely manner.

Records Management:

The Company has policies and procedures covering the management of Company records. Each employee is responsible for complying with the relevant policies.

At times, specific Company records may be placed on a legal hold by the Legal department in order to preserve appropriate records to support special circumstances, such as litigation or governmental investigations. Employees must not alter or destroy, or

---

cause to be altered or destroyed, Company records that have been placed on a legal hold. Employees who violate this policy will be subject to disciplinary action that may include termination of employment.

Confidential Information:

The Company has policies and procedures covering the management of confidential material. See Policy #710 - - Confidential Material. Each employee is responsible for complying with this policy and ensuring that others, including contractors and agents comply with this policy.

In addition, at times the Company may receive confidential information from a third party. Employees must handle this information responsibly and in accordance with any agreements signed with the third party.

Employees usually should not accept information offered by a third party that is represented as confidential, or which appears from the context and circumstances to be confidential, unless an appropriate nondisclosure agreement has been signed with the party offering the information. Employees should consult with the Legal department before accepting information of this type from a third party.

Ethical Conduct

Beyond the clear cases of conflicts of interest or misuse of Company assets described above, there are many situations that are inconsistent with acceptable business ethics.

Situations that are inconsistent with accepted standards of ethical conduct arise under a variety of circumstances. It is not feasible to describe every situation, or even to prepare a detailed listing of potential violations. Nevertheless, it is helpful to give examples of a few situations that clearly represent unacceptable ethical conduct:

- the unauthorized disclosure of any confidential information to any person, or the release of any such information in advance of its authorized release date;
- the use of Company position for personal gain;
- the falsification of records or accounting entries;
- the unauthorized copying or distribution of Company confidential or proprietary material.

The fundamental principle to keep in mind is that there can be no compromise with our Standards of Ethics and Conduct. If there is room for suspicion that an employee’s actions might affect that employee’s judgment in acting for the Company, or might embarrass or discredit the Company in the eyes of the public, the employee must promptly correct the situation.

Public Disclosure

All employees involved in the preparation of financial reports or documents shall endeavor, at all times, to ensure that full, accurate, timely and understandable disclosures are made in the documents that the Company files or submits to the Securities and Exchange Commission.

All employees involved in the preparation of other public communications by the Company shall endeavor, at all times, to ensure that fair and accurate statements are made in these documents.

INFRACTIONS

Our Standards of Ethics and Conduct are of great importance and are essential to the Company's ability to conduct our business consistent with the law and our desired ethical standards. We expect all of our employees to adhere to this policy when conducting business on behalf of the Company.

The Company will take appropriate action against any employee whose actions are found to violate this policy. Disciplinary actions may include immediate termination of employment. The Company may also pursue appropriate remedies against the individual or entities responsible. In the event laws are violated, the Company will cooperate fully with the appropriate authorities.

WAIVERS

Any wavier of any provision of this Standards of Business Conduct policy for any employee must be approved in writing by the Vice President of Human Resources and the CEO.

Notwithstanding the foregoing, any wavier of any provision of this Standards of Ethics and Conduct policy for an executive officer must be approved in writing by the Governance Committee of the Company's Board of Directors and promptly disclosed.

Reference to Policies:
Access Control #500
Accepting and Giving Gifts #610
Trading in Lattice Stock #620
Compliance with Export Controls #630Computer and Data Network Usage #700
Personal Computer Software #705
Confidential Information #710

STANDARDS OF ETHICS & CONDUCT ACKNOWLEDGMENT

(To be signed by each employee upon start of employment and annually in conjunction with performance review.)

I have received and read the Company's Standards of Ethics and Conduct policy. I understand and agree to comply with this policy.

Should I have questions or concerns regarding the legal, regulatory or ethical requirements applicable to my job, the application of this policy within the Company or potential violations of this policy within the Company, I know I can confidentially consult either my management or the Human Resource department in order to resolve my questions or concerns.

____
Name (Print)

____
Signature

____
Date

QuickLinks -- Click here to rapidly navigate through this document

Exhibit 21.1

LATTICE SEMICONDUCTOR CORPORATION

SUBSIDIARIES OF THE REGISTRANT

	Name	Jurisdiction of Incorporation
1.	Lattice Semiconductor GmbH	Germany
2.	Lattice Semiconducteurs SARL	France
3.	Lattice Semiconductor AB	Sweden
4.	Lattice Semiconductor Asia Limited	Hong Kong
5.	Lattice Semiconductor KK	Japan
6.	Lattice Semiconductor (Shanghai) Co. Ltd.	China
7.	Lattice UK Limited	United Kingdom
8.	Lattice Semiconductor SRL	Italy
9.	Vantis International Limited	Delaware, USA
10.	Lattice Semiconductor Canada Corporation	Canada
11.	Lattice Semiconductor Corp. Worldwide	Cayman Islands

QuickLinks

Exhibit 21.1

LATTICE SEMICONDUCTOR CORPORATION SUBSIDIARIES OF THE REGISTRANT

QuickLinks -- Click here to rapidly navigate through this document

Exhibit 23.1

Consent of Independent Accountants

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (No. 33-33933, No. 33-35259, No. 33-38521, No. 33-76358, No. 33-51232, No. 33-69496, No. 333-15737, No. 333-40031, No. 333-59990, No. 333-69467, No. 333-81035, No. 333-67274 and No. 333-99247) and the Registration Statements on Form S-3 (No. 333-93289, No. 333-50192, No. 333-88128, No. 333-99249, No. 333-107946 and No. 333-110595) of Lattice Semiconductor Corporation and subsidiaries of our report dated March 31, 2004 relating to the consolidated financial statements, which appears in this Form 10-K. We also consent to the incorporation by reference of our report dated March 31, 2004 relating to the financial statement schedule, which appears in this Form 10-K.

/s/ PRICEWATERHOUSECOOPERS LLP

Portland, Oregon
March 31, 2004

QuickLinks

Exhibit 23.1

Consent of Independent Accountants

Exhibit 31.1

CERTIFICATION

I, Cyrus Y. Tsui, certify that:

1. I have reviewed this annual report on Form 10-K of Lattice Semiconductor Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (c) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: April 1, 2004

/s/ CYRUS Y. TSUI

Cyrus Y. Tsui
Chief Executive Officer

QuickLinks

Exhibit 31.1

CERTIFICATION

QuickLinks -- Click here to rapidly navigate through this document

Exhibit 31.2

CERTIFICATION

I, Jan Johannessen, certify that:

1. I have reviewed this annual report on Form 10-K of Lattice Semiconductor Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:

    (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    (b) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    (c) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

    (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: April 1, 2004

/s/ JAN JOHANNESSEN

Jan Johannessen
Chief Financial Officer

QuickLinks

Exhibit 31.2

CERTIFICATION

QuickLinks -- Click here to rapidly navigate through this document

Exhibit 32.1

**CERTIFICATION OF CHIEF EXECUTIVE OFFICER AND CHIEF FINANCIAL OFFICER
PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

I, Cyrus Y. Tsui, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Annual Report of Lattice Semiconductor Corporation on Form 10-K for the year ended December 31, 2003 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in such Annual Report fairly presents, in all material respects, the financial condition and results of operations of Lattice Semiconductor Corporation.

By: /s/ CYRUS Y. TSUI

Name: Cyrus Y. Tsui
Title: *Chief Executive Officer*

I, Jan Johannessen, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Annual Report of Lattice Semiconductor Corporation on Form 10-K for the year ended December 31, 2003 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in such Annual Report fairly presents, in all material respects, the financial condition and results of operations of Lattice Semiconductor Corporation.

By: /s/ JAN JOHANNESSEN

Name: Jan Johannessen
Title: *Chief Financial Officer*

QuickLinks

Exhibit 32.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER AND CHIEF FINANCIAL OFFICER PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002