

LOGICVISION INC  
Form 10-K  
March 18, 2002

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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

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**FORM 10-K**

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

For the fiscal year ended December 31, 2001

OR

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

For the transition period from        to

Commission File Number: 0-31773

**LOGICVISION, INC.**

(Exact name of registrant as specified in its charter)

**Delaware**  
(State or other jurisdiction of incorporation  
or organization)

**101 Metro Drive, Third Floor  
San Jose, California 95110**  
(Address of principal executive offices)

**94-3166964**  
(IRS Employer Identification No.)

**(408) 453-0146**  
(Registrant's telephone number,  
including area code)

Securities registered to Section 12(b) of the Act: None

Securities registered pursuant to Section 12(g) of the Act:  
Common Stock, par value \$0.0001 per share

Indicate by check mark whether the registrant (1) has filed all reports required 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.

## Edgar Filing: LOGICVISION INC - Form 10-K

Yes  No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (Section 229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

The aggregate market value of Common Stock held by non-affiliates (based upon the closing sale price on the Nasdaq National Market on March 11, 2002) was approximately \$108,319,000.

As of March 11, 2002, there were 14,875,904 shares of Common Stock, \$0.0001 per share par value, outstanding.

### **DOCUMENTS INCORPORATED BY REFERENCE**

Items 10 (as to directors), 11, 12 and 13 of Part III incorporate by reference information from the registrant's proxy statement to be filed with the Securities and Exchange Commission in connection with the solicitation of proxies for the registrant's 2002 Annual Meeting of Stockholders to be held on May 21, 2002.

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LOGICVISION, INC.

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## PART I

### Item 1. Business

*When used in this Report, the words expects, anticipates, estimates, plans, and similar expressions are intended to identify forward-looking statements. These are statements that relate to future periods and include statements about the features, benefits and performance of our current and future products, services and technology, marketing and commercialization of our products under development, our estimates for future revenues and profitability, expectations regarding fluctuations in future operating results, our expectations regarding future expenses, including research and development, sales and marketing, and general and administrative expenses, our estimates regarding our capital requirements and our needs for additional financing, use of our working capital, plans for future products and services and for enhancements of existing products and services, our patent applications and licensed technology regarding our products and technology, our efforts to enter into technology development contracts and develop relationships with industry partners, the expected benefits of those contracts and relationships, our competitive position, our ability to attract customers and establish license agreements, and sources of revenue and anticipated revenues, including licenses of our intellectual property and software, technology development and design contracts and postcontract customer support, and the continued viability and duration of those agreements. Forward-looking statements are subject to risks and uncertainties that could cause actual results to differ materially from those projected. These risks and uncertainties include, but are not limited to, those risks discussed below, as well as the seasonality of the buying patterns of our customers, the concentration of sales to large customers, dependence upon and trends in capital spending budgets in the semiconductor industry and fluctuations in general economic conditions, our ability to rapidly develop new technology and introduce new products, our ability to safeguard our intellectual property and the risks set forth below under Item 7,*

*Management's Discussion and Analysis of Financial Condition and Results of Operations Factors That May Affect Results. These forward-looking statements speak only as of the date hereof. The Company expressly disclaims any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements contained herein to reflect any change in the Company's expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based.*

*In the sections of this report entitled Business and Management's Discussion and Analysis of Financial Condition and Results of Operations Factors That May Affect Results, all references to LogicVision, we, us, our or the Company mean LogicVision, Inc. and its subsidiaries, except where it is made clear that the term means only the parent company.*

*LogicVision and the LogicVision logo are our registered trademarks. We also refer to trademarks of other corporations and organizations in this document.*

### Overview

Our proprietary technologies for embedded test enable the more efficient design and manufacture of complex semiconductors by allowing integrated circuit designers to embed into a semiconductor design test functionality that addresses each key stage of a complex semiconductor's life cycle. We incorporated in July 1992 and engaged principally in research and development activities through 1994. We first generated meaningful commercial revenues from the license of our initial embedded test product in 1995. We believe our solution can reduce a customer's time-to-market, reduce manufacturing costs, improve manufacturing yields and reduce system software complexity. Our solution also allows testing of integrated circuits after they have been assembled onto boards and systems, which enables diagnostic test throughout the product's life cycle. Our embedded test solution has been successfully deployed in complex semiconductors for gigabit switches, voice and data routers, high performance servers and wireless products.

We were incorporated as LV Software, Inc. in California in July 1992. In June 1996, we changed our corporate name to LogicVision, Inc. We reincorporated in Delaware in September 2000.

## Technology

### *Embedded test*

We believe that the fundamental solution to the limits of semiconductor test lies in embedded test technology. Our embedded test technology exploits strategically placed proprietary circuit structures within an integrated circuit to test and diagnose the chip at its intended operating speed. Conventional test is performed solely with external equipment, while embedded test is performed primarily using circuitry resident in the semiconductor design. By embedding test circuit structures on the semiconductor itself, our embedded test solution eliminates many of the key limitations associated with conventional external testing. Our embedded test software automatically analyzes the structure of complex circuits to determine requirements for at-speed testing and diagnostics. Our embedded test technology creates and integrates our proprietary circuits with the existing design functions to address these requirements. Our technology also enables integrated circuit debug, board and system level diagnostics, system bring-up and in-field testing and diagnostics.

### *Design phase*

Our embedded test technology is incorporated into integrated circuits in the form of user-configurable circuit structures that provide four functions:

*access management* necessary scan chains, shared isolation collars, boundary scan and test points to enable access to any point within complex designs;

*timing management* proprietary functionality for clock skew management, multiple cycle paths and multiple frequencies;

*test signal generation and analysis* proprietary functionality created for each design block to algorithmically generate and analyze circuit test data; and

*external control* IEEE 1149.1 compliant test access port.

### *Manufacturing phase*

Because our embedded test circuits are incorporated in semiconductor designs, they are manufactured as part of the semiconductor. Our embedded testers facilitate at-speed test during wafer probe. Semiconductor devices that pass wafer probe test are then packaged, and our embedded testers are used again for final test. Our embedded test circuits are designed to be activated with simple external test signals applied through the industry standard IEEE 1149.1 test access port.

*Test Development Functions.* Using our technology, the bulk of the patterns applied to test the integrated circuit are created on-chip, with only minimal external control needed to achieve a pass-fail test. Our test development tools provide the engineer with the ability to create pass-fail test patterns, then optimize them for speed, execution time, accuracy, power and results.

*Debug and Diagnostic Functions.* Our embedded test provides a number of diagnostic modes to facilitate debug and diagnosis.

### *Implementation technologies*

We have developed several technologies to facilitate the mainstream design and manufacturing use of embedded test technology. These include:

design automation algorithms and implementation for embedded test;

hierarchical isolation, access and assembly technologies;

embedded test design verification technologies;

high-performance circuit fault simulation algorithms and automation technologies;

capture-by-domain for multiple-clock timing;

at-speed, multi-frequency, multi-clock logic embedded test technology;

fault-insertion technology for system diagnostics;

at-speed, embedded and external memory test technologies;

at-speed interconnect test technology;  
and

test and measurement technologies for embedded phase-locked-loops.

## **Products**

We offer a portfolio of products for the automated development, integration, and deployment of embedded test technology:

### *Technology products*

*Embedded Circuit Structures.* Our embedded test technology enables our customers to design and manufacture our embedded test circuit structures for a specific design. For a typical design of 1 million gates and above, our embedded testers are less than a few thousand gates and represent only 1% to 2% of chip area. Our user-configurable embedded test circuit structures are designed to test memory, logic, cores, hierarchical blocks and interconnect.

### *Software products*

We provide a suite of highly integrated software products for embedded test implementation on application specific integrated circuits and system-on-a-chip designs. We provide design software that automatically analyzes the structure of complex circuits to determine requirements for at-speed testing and diagnostics. Our software creates and integrates our proprietary circuits with the existing design circuits to address these requirements. We provide access and control software for use during chip and system test program development and manufacturing test. This enables user interaction with the embedded test circuits to evaluate and diagnose chip- and board-level failures during manufacturing. This includes pass-fail testing and basic failure diagnostics.

*Product offerings*

We currently offer our embedded test circuits, design software and manufacturing software products bundled together for each integrated circuit function. Our key embedded test products and their capabilities are described below.

<b>Products</b>	<b>Applications</b>
<b>Chip Test Assembly</b>	<p>Embedded test intellectual property for IEEE 1149.1 Test Access Port and Boundary Scan functionality.</p> <p>Automates the integration and control of all embedded test functions in a given integrated circuit.</p> <p>Can support up to 2048 scan chains and 30 embedded test controllers per design.</p> <p>Includes manufacturing tools for integrated circuit and system test and diagnosis of input/outputs.</p>
<b>IC Memory BIST</b>	<p>Provides intellectual property for flexible, area-optimized, at-speed, memory embedded test functionality.</p> <p>Supports single and multiport SRAMs, DRAMs and ROMs.</p> <p>Supports any size memory manufacturable in given technology.</p> <p>Provides manufacturing tools for integrated circuit and system test and diagnosis of embedded memories.</p>
<b>Logic BIST</b>	<p>Provides intellectual property for at-speed, multi-frequency logic self-test and scan test functionality.</p> <p>Automates analysis, generation, assembly and verification of logic test intellectual property.</p> <p>Supports high-speed multiple clock domains, including those in excess of 100 megahertz, pipelining and multi-cycle paths.</p>
<b>Embedded Logic Test</b>	<p>Embedded test intellectual property for hierarchical, at-speed, embedded logic core test functionality.</p> <p>Automates a complete, hierarchical methodology for system-on-a-chip design and test.</p> <p>Supports design partitioning and core reuse for concurrent engineering.</p> <p>Facilitates transportable embedded test for functional block re-use.</p>
<b>Core Test</b>	<p>Provides intellectual property for direct test access and isolation of legacy core functionality.</p> <p>Automates generation, assembly and verification of legacy core test collars and buses.</p> <p>Supports a dedicated test bus per core and sharing of input/output pins for test and diagnosis.</p> <p>Provides manufacturing tools for integrated circuit test and diagnosis of legacy cores.</p>
<b>PLL BIST</b>	<p>Embedded test intellectual property for accurate, specification-driven test of phase-locked-loop functionality.</p> <p>Automates generation, assembly and verification of embedded test circuitry for phase-locked-loops.</p> <p>Supports measurement-based tests of jitter, loop-gain and lock-range specifications.</p> <p>Measurement resolution to 0.125 of a gate delay.</p>

Products	Applications
<b>Programmable IC Memory BIST</b>	<p>Provides intellectual property for runtime programmable, at-speed, memory embedded test functionality.</p> <p>Supports large, embedded DRAMs and high density, embedded SRAMs.</p> <p>Supports both standard and user-proprietary memory test algorithms.</p> <p>Usable during memory debug/characterization and go/no-go manufacturing test.</p>
<b>External Memory Test</b>	<p>Provides intellectual property for flexible, high-speed, board-level memory module test functionality.</p> <p>Supports timing and algorithms for use with SRAMs, DRAMs, SDRAMs and others.</p> <p>Automates generation, assembly and verification of external memory embedded test controller.</p> <p>Includes manufacturing tools for system-level test and diagnosis of board-level memories.</p>
<b>At-Speed Interconnect Test</b>	<p>Provides intellectual property for at-speed, IEEE 1149.1 compliant, board-level interconnect test functionality.</p> <p>Supports at-speed interconnect testing using existing low-speed, test patterns.</p> <p>Automates generation, integration and verification of at-speed interconnect test intellectual property.</p> <p>Provides manufacturing tools for system-level test and diagnosis of board-level interconnects.</p>
<b>IC Debug</b>	<p>Provides intellectual property for facilitating interactive debug of integrated circuits by leveraging the embedded test capabilities that were added to the design.</p> <p>Supports interactive test and debug of the I/O, memory, logic and PLLs in the design.</p> <p>Automates the creation, modification and application of test and debug patterns on specified LogicVision-Ready automatic test equipment.</p> <p>Provides manufacturing tools that reduce time to market for prototype integrated circuits.</p>

**Services**

*Maintenance.* We assist our customers with telephone support, bug fixes and upgrade privileges on a when and if available basis.

*Design Services.* We assist our customers with the design and manufacturing deployment of embedded test. Our design services help our customers analyze, generate, assemble and verify embedded test circuits. Our design services help our customers and partners rapidly adopt our technologies.

*Technology Development Contracts.* As a part of our strategy to make embedded test technology more applicable to custom designs, we enter into time-limited development contracts with industry leaders for specific projects. Our development contracts include developing new embedded test capabilities and appropriate modifications to our standard automation software. These contracts help our customers and partners to rapidly adopt our technologies.

**Customers**

We license our proprietary technologies and software products to companies in key markets within the semiconductor and systems industries. Our customers include application specific integrated circuit or system-



on-a-chip designers in system companies, fabless companies and integrated device manufacturers. During the year ended December 31, 2001, no customer accounted for 10% or more of total revenues. During the year ended December 31, 2000, LSI Logic Corporation accounted for 15% of total revenues, and during the year ended December 31, 1999, Fujitsu Limited and TRW Inc. accounted for 12% and 11% of total revenues, respectively.

### **Seasonality**

Our past operating results have been, and we expect that our future operating results will be, subject to fluctuations due to a number of factors, including seasonality of the buying patterns of our customers, the concentration of sales to large customers, dependence upon capital spending budgets and fluctuations in general economic conditions. The seasonal fluctuations occur in summer and in December, primarily due to vacation seasons and winter holidays.

### **Research and Development**

Our ability to meet customer needs for improved technology, and maintain our technology leadership, depends largely on whether we can continue to rapidly develop new technology and introduce new products. We have made, and intend to continue to make, significant investments in research and development. In addition to an overall knowledge of test methodologies, embedded test requires an expertise in three diverse areas: integrated circuit design and verification, electronic design automation algorithms and software development, and software development for manufacturing test and test equipment. We have assembled a highly skilled and multi-disciplinary team for this purpose.

As of December 31, 2001 our engineering team comprised 38 employees, 22 of whom have advanced degrees, and most of whom have extensive industry experience in one or more of the aforementioned areas of expertise. Our engineering team is organized into three development groups, each focusing on one of these three areas of expertise, and each contributing the related portion to the bundled product offerings. The development groups are:

*Integrated Circuit Design* Our integrated circuit design team focuses on the overall embedded test intellectual property architecture and its implementation and verification.

*Design Software* Our design software team focuses on developing the software that analyzes, generates, assembles, and verifies an integrated circuit design with embedded test.

*Manufacturing Software* Our manufacturing software team focuses on developing software for enabling test and diagnostic in manufacturing.

In addition to the three development groups, we have product engineering groups focused on software builds and release, documentation and quality assurance.

Research and development expenses were \$5.1 million, \$5.0 million and \$4.5 million during the fiscal years ended December 31, 2001, 2000 and 1999, respectively.

### **Sales and Marketing**

The majority of our sales are generated by a direct sales force. We have sales offices located throughout major cities in the United States, including San Jose, Los Angeles, San Diego, Dallas, Raleigh and Boston. Internationally we have a sales office in the United Kingdom, and our sales in Asia are handled by distributors or sales representatives in Japan, Taiwan, Korea and Singapore. Field personnel consist of account managers who are responsible for all business aspects of the customer relationship, field application engineers who manage all the technical pre-sales issues and corporate application engineers who support customers post sales. As of December 31, 2001, we had 37 employees involved in sales and marketing and seven in customer service and operations.

The main goal of our sales force is to work with major systems and semiconductor companies who have the expertise to implement our technology today. We focus on leading companies because they are influential in setting standards. We focus on developing customer relationships with companies in the areas of cellular, wireline and satellite communications, computer servers and graphics. Additionally, as systems companies use our technology, they often require their component suppliers to supply semiconductors with embedded test already designed in for their system use. In this way we can create both push and pull demand for our technology.

Our marketing efforts include product/technical marketing and merchandising, public relations, corporate communications and business development functions. We strive to develop relationships with industry partners such as application specific integrated circuit suppliers, silicon foundries, electronic design automation tool suppliers and intellectual property providers.

### **Intellectual Property**

We have a large portfolio of intellectual property covering the areas of test and diagnosis of logic, memory and mixed-signal circuits with focus on embedded, at-speed and parametric aspects. Both design and manufacturing methods are covered. As of December 31, 2001, our intellectual property portfolio consisted of 12 issued US patents, one allowed US patent, 20 pending US patent applications, five issued Canadian patents, 10 pending Canadian patent applications and eight pending Patent Cooperation Treaty, or PCT, patent applications filed with the World Intellectual Property Organization and which serve as the basis of national patent filings in countries of interest. Our issued patents expire at various times between June 2016 and December 2021. Generally, the term of patent protection is 20 years from the earliest effective filing date of the patent application. Our portfolio also includes two patents for testing embedded memories and digital systems we have licensed from Nortel Networks. Our license agreement with Nortel may be terminated if we fail to make payments as required or otherwise materially violate the terms of the agreement, if a competitor of Nortel acquires a significant percentage of our common stock without first obtaining Nortel's consent or if we bring patent infringement proceedings against Nortel under any patent embodied in, or acquired as a result of access to, the technology we license from Nortel. After September 2002, we will not be required to make further royalty payments under our Nortel license agreement. Our patents, and the Nortel patents we license, cover technology intended to address problems we consider fundamental to embedded test, such as timing, power consumption and parametric testing.

We generally enter into confidentiality agreements with our employees, industry partners and customers, as well as generally control access to and distribution of our documentation and other proprietary information. Despite this protection, unauthorized parties may copy aspects of our current or future software products or obtain and use information that we regard as proprietary.

Our existing and future patents may be circumvented, blocked, licensed to others or challenged as to inventorship, ownership, scope, validity or enforceability. We may not receive competitive advantages from the rights granted under our patents. Furthermore, our current or future patent applications may not be issued with the scope of the claims sought by us, if at all. In addition, others may develop technologies that are similar or superior to our proprietary technologies, duplicate our proprietary technologies or design around the patents owned or licensed by us. If our products, patents or patent applications are found to conflict with any patents held by third parties, we could be prevented from selling our products, our patents may be declared invalid or our patent applications may not result in issued patents. In addition, in foreign countries, we may not receive effective patent and trademark protection. We cannot be sure that steps we take to protect our proprietary technologies will prevent misappropriation of our technologies.

Litigation may be necessary to enforce our intellectual property rights or to determine the validity or scope of the proprietary rights of others. As a result of any such litigation, we could lose our proprietary rights and incur substantial unexpected operating costs. We may need to take legal action to enforce our proprietary rights

in the future. Any action we take to protect our intellectual property rights could be costly and could absorb significant management time and attention.

The semiconductor industry is characterized by vigorous protection and pursuit of intellectual property rights or positions. There are numerous patents in the semiconductor industry and new patents are being issued at a rapid rate. This often results in significant and often protracted and expensive litigation. From time to time third parties may notify us of intellectual property infringement claims. If it is necessary or desirable, we may seek licenses under these third party patents or intellectual property rights. However, we cannot be sure that third parties will offer licenses to us or that we will find acceptable the terms of any offered licenses.

If we fail to obtain a license from a third party for proprietary technologies that we use, we could incur substantial liabilities, or be compelled suspend sales of our products or our use of processes requiring the technologies. Litigation could cause us to incur significant expenses, harm our sales of the challenged technologies or products and divert the efforts of our technical and management personnel, whether or not a court decides the litigation is in our favor. In the event we receive an adverse result in any litigation, we could be required to pay substantial damages, stop selling of infringing products, expend significant resources to develop or acquire non-infringing technology and discontinue the use of processes requiring the infringing technology or obtain licenses to the infringing technology. We may not be successful in the development or acquisition of intellectual property, or the necessary licenses may not be available under reasonable terms, and any development, acquisition or license could require us to expend a substantial amount of time and other resources. Any of these developments would harm our business.

### **Competition**

The semiconductor and system industries are highly competitive and characterized by rapidly changing technology. The market for embedded test is still evolving and we expect competition to continue to emerge.

#### *Design*

In the design phase of product development, we face competition from traditional broad line electronic design automation providers like Mentor Graphics and Synopsys, and from smaller test tool providers such as Syntest Technologies. These companies provide competing design-for-test technologies and some level of built-in self-test. We also face competition from methodologies developed internally at large integrated device manufacturers and systems companies, like IBM.

#### *Manufacturing*

Because embedded test has the potential to impact the external test market, we believe traditional hardware tester manufacturers such as Advantest, Agilent, Credence, LTX Corporation, Schlumberger Limited and Teradyne all view embedded test and LogicVision as competition. Many of these companies are devoting significant resources to developing external solutions to testing complex integrated circuits, including working closely with some of our current and potential customers. Their efforts may result in the development of solutions that compete with our embedded test solution.

Many of the companies with whom we compete are significantly larger than we are and have greater financial resources. As embedded test is more broadly adopted in the market, we face the potential of one or more larger companies appearing as direct competition. We believe that the principal competitive factors in our market include proven technology, effective intellectual property, deployment automation, comprehensive manufacturing control and customer service. We believe we compete favorably with respect to all these factors.

**Employees**

As of December 31, 2001, we employed 95 full time employees and one part time employee worldwide of which 71 employees were located in the United States, 18 employees were located in Canada and seven employees were located overseas. This included 37 in sales and marketing, seven in customer service and operations, 38 in research and development, and 14 in finance and administration. Our employees are not covered by any collective bargaining agreements, and we consider our relations with our employees to be good.

**Item 2. Properties**

Our principal executive offices are currently located in San Jose, California, where we lease approximately 17,690 square feet. We believe that these offices will be adequate to meet our requirements for the next 12 months. We have research and development offices in Montreal and Ottawa, Canada. We have domestic sales offices in Del Mar, Pasadena and Redondo Beach, California; Cary, North Carolina; Franklin, Massachusetts; and Addison, Texas. Our European headquarters are in the United Kingdom.

**Item 3. Legal Proceedings**

None.

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

None.

## PART II

**Item 5. Market for Registrant's Common Equity and Related Stockholder Matters**

The Company's common stock, par value \$0.0001 ( Common Stock ), is traded on the Nasdaq National Market ( Nasdaq ) under the symbol LGVN. The following table sets forth, for the periods indicated, the range of high and low sales prices for the Common Stock on Nasdaq, since October 31, 2001, the date of the Company's initial public offering, as reported by the Nasdaq.

	<u>High</u>	<u>Low</u>
<b>2001</b>		
Fourth Quarter (since October 31, 2001)	\$ 14.68	\$ 9.00
<b>2002</b>		
First Quarter (through March 11, 2002)	\$ 15.45	\$ 6.56

As of March 11, 2002, the Common Stock was held by 197 stockholders of record. The Company has never declared or paid dividends on its capital stock and does not currently intend to pay any cash dividends on its Common Stock in the foreseeable future. The Company expects to retain future earnings, if any, to fund the development and growth of its business. The Company's board of directors will determine future dividends, if any.

**Recent Sales of Unregistered Securities**

On various dates between January 1, 2001 and November 29, 2001, the Company issued 64,135 shares of our common stock to 18 employees pursuant to the exercise of options granted under its 1994 Flexible Stock Incentive Plan. The exercise prices per share ranged from \$0.50 to \$5.00, for aggregate consideration of \$107,897. The sales of these securities were considered to be exempt from registration under the Securities Act in reliance on Rule 701 promulgated under Section 3(b) of the Securities Act, as transactions under compensatory benefit plans and contracts relating to compensation as provided under Rule 701.

**Use of Proceeds from Sales of Registered Securities**

On November 5, 2001, we closed the sale of a total of 4,500,000 shares of our Common Stock at a price of \$9.00 per share in a firm commitment underwritten public offering. In connection with the offering, we granted an option to the underwriters to purchase up to an additional 675,000 shares for up to 30 days after the offering to cover over-allotments, if any. On November 23, 2001, we closed the sale of a total of 585,000 shares of our Common Stock pursuant to the exercise of the underwriters' over-allotment option. The offering was effected pursuant to a Registration Statement on Form S-1 (File No. 333-43654), which the Securities and Exchange Commission declared effective on October 30, 2001. The managing underwriters in the offering were UBS Warburg LLC, SG Cowen Securities Corporation and Dain Rauscher Incorporated.

Of the \$45,765,000 in aggregate proceeds raised by us in the offering:

1. approximately \$3.2 million was paid to the underwriters in connection with the underwriting discount;
2. approximately \$1.5 million was paid by us in connection with offering expenses, printing fees, listing fees, filing fees, accounting fees and legal fees; and
3. the remainder of the proceeds from the offering has been invested in interest bearing, investment grade marketable securities. As of December 31, 2001, approximately \$29.1 million of the proceeds was invested in money market funds and short-term municipal securities and approximately \$12.0 million was invested in long-term government securities.

**Item 6. Selected Consolidated Financial Data**

The following selected consolidated financial data are qualified by reference to, and should be read in conjunction with, Management's Discussion and Analysis of Financial Condition and Results of Operations Consolidated Financial Statements and related Notes included in Item 8 of this Report. The selected consolidated balance sheet data as of December 31, 2001 and 2000 and selected consolidated statements of operations data for the years ended December 31, 2001, 2000 and 1999, are derived from our audited consolidated financial statements included elsewhere in this Report. The selected consolidated balance sheet data as of December 31, 1999, 1998 and 1997 and the selected consolidated statements of operations data for the years ended December 31, 1998 and 1997 were derived from audited consolidated financial statements not included in this Report. Our historical results are not necessarily indicative of our future results.

	Years ended December 31				
	2001	2000	1999	1998	1997
	(in thousands, except per share data)				
<b>Consolidated statements of operations data</b>					
Revenues:					
License	\$ 12,079	\$ 5,597	\$ 4,096	\$ 2,165	\$ 2,294
Service	5,153	3,686	1,344	851	1,910
<b>Total revenues</b>	<b>17,232</b>	<b>9,283</b>	<b>5,440</b>	<b>3,016</b>	<b>4,204</b>
Cost of revenues:					
License	803	583	214	400	389
Service	2,141	1,955	1,080	620	2,378
<b>Total cost of revenues</b>	<b>2,944</b>	<b>2,538</b>	<b>1,294</b>	<b>1,020</b>	<b>2,767</b>
<b>Gross profit</b>	<b>14,288</b>	<b>6,745</b>	<b>4,146</b>	<b>1,996</b>	<b>1,437</b>
Operating expenses					
Research and development	5,093	4,987	4,519	4,373	4,251
Sales and marketing	9,947	8,930	5,434	4,378	4,552
General and administrative	2,768	4,012	2,060	1,503	1,593
Amortization of deferred stock compensation (2)	2,859	2,106	367	214	
<b>Total operating expenses</b>	<b>20,667</b>	<b>20,035</b>	<b>12,380</b>	<b>10,468</b>	<b>10,396</b>
<b>Loss from operations</b>	<b>(6,379)</b>	<b>(13,290)</b>	<b>(8,234)</b>	<b>(8,472)</b>	<b>(8,959)</b>
Interest Income	366	583	155	260	306
Other income (expense), net	(6)		(16)	18	
<b>Loss before provision for income taxes</b>	<b>(6,019)</b>	<b>(12,707)</b>	<b>(8,095)</b>	<b>(8,194)</b>	<b>(8,653)</b>
Provision for income taxes	124	9	3	5	12
<b>Net loss</b>	<b>(6,143)</b>	<b>(12,716)</b>	<b>(8,098)</b>	<b>(8,199)</b>	<b>(8,665)</b>
Accretion of redeemable convertible preferred stock	130	173	173		
<b>Net loss attributable to common stockholders</b>	<b>\$ (6,273)</b>	<b>\$ (12,889)</b>	<b>\$ (8,271)</b>	<b>\$ (8,199)</b>	<b>\$ (8,665)</b>
<b>Net loss per share, basic and diluted (1)</b>	<b>\$ (1.54)</b>	<b>\$ (7.79)</b>	<b>\$ (6.29)</b>	<b>\$ (7.41)</b>	<b>\$ (9.50)</b>
<b>Weighted average common shares, basic and diluted (1)</b>	<b>4,063</b>	<b>1,654</b>	<b>1,315</b>	<b>1,106</b>	<b>912</b>



	December 31,				
	2001	2000	1999	1998	1997
	(in thousands, except per share data)				
<b>Consolidated statements of operations data</b>					
Cash and cash equivalents	\$ 34,496	\$ 9,708	\$ 3,170	\$ 2,100	\$ 9,202
Marketable securities	\$ 11,984				
Working capital	31,373	5,708	1,471	904	8,554
Total assets	52,732	15,170	7,510	3,993	12,038
Redeemable convertible preferred stock		46,071	31,765	24,209	24,203
Total stockholders' equity (deficit)	44,240	(39,822)	(29,500)	(22,668)	(14,736)

- (1) The diluted net loss per share computation excludes potential shares of common stock (redeemable convertible preferred stock, options to purchase common stock and warrants to purchase common stock), as their effect would be antidilutive.
- (2) Amortization of deferred stock compensation:

	Years ended December 31,				
	2001	2000	1999	1998	1997
	(in thousands)				
Total cost of revenues	\$ 115	\$ 71	\$ 7	\$ 6	\$
Research and development	801	630	103	104	
Sales and marketing	1,453	888	155	84	
General and administrative	490	517	102	20	
	\$ 2,859	\$ 2,106	\$ 367	\$ 214	\$



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

The following discussion and analysis of the Company's financial condition and results of operations should be read in conjunction with Selected Consolidated Financial Data and the Consolidated Financial Statements and related Notes included elsewhere in this Report.

*When used in this discussion, the words expects, anticipates, estimates, and similar expressions are intended to identify forward-looking statements. These statements, which include statements as to our critical accounting policies, our estimates for future revenues, profitability and cost of revenues, our expectations regarding future expenses, including research and development, sales and marketing, and general and administrative expenses, our estimates regarding the adequacy of our capital resources, our capital requirements and our needs for additional financing, planned capital expenditures, use of our working capital, sources of revenue and anticipated revenues, including licenses of our intellectual property and software, technology development and design contracts and postcontract customer support, and the continued viability and duration of those agreements, our expectations regarding royalty features in license agreements and increased revenues from royalties, the anticipated growth of our business, our ability to attract customers and establish license agreements and the impact of recent accounting pronouncements, are subject to risks and uncertainties that could cause actual results to differ materially from those projected. These risks and uncertainties include, but are not limited to, those risks discussed below, as well as the seasonality of the buying patterns of our customers, the concentration of sales to large customers, dependence upon and trends in capital spending budgets in the semiconductor industry and fluctuations in general economic conditions, our ability to rapidly develop new technology and introduce new products, our ability to safeguard our intellectual property and the matters discussed in Factors That May Affect Results. These forward-looking statements speak only as of the date hereof. The Company expressly disclaims any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements contained herein to reflect any change in the Company's expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based.*

### Critical Accounting Policies

We believe that the following accounting policies are most important to the portrayal of our financial condition and results.

We recognize revenues in accordance with the provisions of AICPA Statement of Position 97-2, Software Revenue Recognition as amended by Statement of Position 98-4 and Statement of Position 98-9. We recognize the full amount of license fees upon shipment only when there is persuasive evidence of an arrangement, shipment has occurred, the fee is fixed or determinable, and collectibility of the sales proceeds is considered probable. When multiple elements exist and where vendor-specific objective evidence, or VSOE, of the fair value of undelivered elements such as postcontract customer support exists, we apply the residual method of accounting to the delivered elements. Our history of selling postcontract customer support provides VSOE of fair value of postcontract customer support through contractual renewal rates. Accordingly, because we have VSOE for the postcontract customer support sold in connection with our licenses of more than one year, we typically recognize the residual amount of the contract fee as license fee upon delivery of the software. When vendor-specific objective evidence of the fair value of the undelivered element cannot be established, and the undelivered element is postcontract customer support, all related revenues are recognized ratably over the term of our postcontract customer support obligations. As a result of this policy, because we are generally unable to establish vendor-specific objective evidence of the undelivered elements with respect to our one-year licenses, we recognize revenues from one-year licenses ratably over the license term. We also recognize the maintenance elements of all contracts ratably over the period of the maintenance contract. When we enter into a multiple element arrangement which includes the future delivery of a specified product or upgrade, all revenues under the agreement are deferred until the specified product or upgrade has been delivered. On occasion, we offer extended payment terms beyond our normal business practice of between 30 and 60 days to certain customers. We do not

have sufficient experience collecting under these extended payment term arrangements. As a result, when payment terms are extended, the fee is not considered fixed or determinable and, therefore, we recognize revenues when those payments become due. Consulting service revenues are generally recognized on a percentage of completion basis.

We review the ability of our customers to pay the indebtedness they incur with us and we provide an allowance for doubtful accounts for those receivables for which we consider collection to be unlikely or which are more than 90 days past due. We review these estimated allowances periodically based on the customer's payment history and information we may have regarding their credit worthiness.

We have established a full valuation allowance against our deferred tax assets due to the uncertainty surrounding the realization of such assets. We evaluate, on an annual basis, the recoverability of the deferred tax assets and the level of the valuation allowance.

### **Overview**

We provide proprietary technologies for embedded test that enable the more efficient design and manufacture of complex semiconductors. Our embedded test solution allows integrated circuit designers to embed into a semiconductor design test functionality that can be used during semiconductor production and throughout the useful life of the chip. We incorporated in July 1992 and engaged principally in research and development activities through 1994. We first generated meaningful commercial revenues from the license of our initial embedded test product in 1995. Although our revenues from licenses of our embedded test solutions increased significantly since the beginning of 1999, we experienced net losses in each period since inception, and, as of December 31, 2001, we had an accumulated deficit of \$50.1 million.

From 1995 to 1998, most of our customers were large systems companies that used our technology in their application specific integrated circuits as part of system development and diagnostics. Beginning in 1998, we expanded our customer base to include semiconductor companies that use our technology for complex chip development and testing. We license our intellectual property and software through a direct sales force in the US and Europe, and through a distributor in Japan and sales representatives in Singapore, Korea and Taiwan.

We derive our license revenues from licenses of our intellectual property and software. We derive service revenues from fixed fee technology development and design contracts and postcontract customer support. Our licenses typically have terms ranging from one year to three years. The majority of our contracts are three-year licenses. Our pricing depends upon a number of factors, including the type of intellectual property, contract terms, number and complexity of designs and number of design teams and their locations. Some of our license agreements include a royalty feature under which the customer pays us additional fees for each chip design they complete that incorporates our technology. In the future, we anticipate that more of our license agreements will include a royalty feature and that revenues from royalties will increase.

Cost of license revenues consists of shipping, product packaging, software license and maintenance costs, and royalties paid to third party vendors. Cost of service revenues consists of compensation and related costs and third party consultant costs associated with providing postcontract customer support and consulting services.

Research and development expenses consist primarily of compensation and related costs for personnel. All research and development costs are expensed as incurred.

Sales and marketing expenses consist primarily of compensation and related costs for sales and marketing personnel, marketing programs, public relations, promotional materials, travel and related trade show expenses.

General and administrative expenses consist primarily of compensation and related costs for general management, information technology, finance and accounting personnel, insurance, allowance for doubtful accounts, professional services and related fees and expenses.

In connection with the grant of stock options in 2001, 2000 and 1999, we recorded an aggregate of \$8.6 million in deferred stock-based compensation within stockholders' equity. These options were considered compensatory because the deemed fair value was greater than the exercise prices determined by the board of directors on the date of grant. As of December 31, 2001, we had an aggregate of \$2.9 million of deferred stock-based compensation remaining to be amortized. This deferred stock-based compensation balance will be amortized as follows: \$1.7 million during 2002; \$854,000 during 2003; \$272,000 during 2004; and \$26,000 during 2005. We are amortizing the deferred compensation on an accelerated basis over the vesting period of the related options, which is generally four years. The amount of stock-based compensation amortization actually recognized in future periods could decrease if options for which accrued but unvested compensation has been recorded are forfeited.

### Results of Operations

The following table shows the percentage relationship of the listed items from our consolidated statements of operations, sets forth, for the periods indicated, certain financial data as a percentage of revenues for the periods indicated:

	Years Ended December 31,		
	2001	2000	1999
<b>Consolidated statements of operations data</b>			
Revenues:			
License	70%	60%	75%
Service	30	40	25
<b>Total revenues</b>	<b>100</b>	<b>100</b>	<b>100</b>
Cost of revenues:			
License	5	6	4
Service	12	21	20
<b>Total cost of revenues</b>	<b>17</b>	<b>27</b>	<b>24</b>
<b>Gross profit</b>	<b>83</b>	<b>73</b>	<b>76</b>
Operating expenses:			
Research and development	30	54	83
Sales and marketing	58	96	100
General and administrative	16	43	38
Amortization of deferred stock compensation	17	23	7
<b>Total operating expenses</b>	<b>121</b>	<b>216</b>	<b>228</b>
<b>Total operating loss</b>	<b>(38)</b>	<b>(143)</b>	<b>(152)</b>
Interest Income	2	6	3
<b>Net loss</b>	<b>(36)%</b>	<b>(137)%</b>	<b>(149)%</b>

### Comparison of years ended December 31, 2001 and 2000

#### Total revenues

Total revenues for the year ended December 31, 2001 were \$17.2 million compared to \$9.3 million for the year ended December 31, 2000, an increase of \$7.9 million or 86%. License revenues accounted for \$6.5 million of the increase and were primarily due to increased demand from fabless semiconductor companies, integrated device manufacturers, systems companies and our distributor in Japan. 74% and 66% of our total revenues were generated from existing customers during the years ended December 31, 2001 and 2000, respectively. Service revenues increased

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by \$1.4 million due to increases in postcontract customer support services, which in turn increased as a result of the increase in license revenues.

*Total cost of revenues*

Total cost of revenues for the year ended December 31, 2001 increased to \$2.9 million or 17% of revenues, from \$2.5 million or 27% of revenues for the year ended December 31, 2000. The increase was primarily due to the amortization of \$447,000 relating to capitalized technology license costs. The capitalized technology license costs relate to our amended license agreement with Nortel Networks. In the first quarter of 2001, we amended that agreement to provide that we will pay, in addition to royalties on future licenses, a total of \$850,000 in seven equal quarterly payments through September 2002. We have capitalized the \$850,000 and are amortizing the amount over the period commencing March 2001 through September 2002. Cost of license revenues as a percentage of total revenues decreased from 6% to 5% due to an increase in license revenues compared to an increase in license cost. Cost of service revenues as a percentage of total revenues decreased from 21% to 12% as a result of the change in mix from engineering services to higher margin postcontract customer support services. We anticipate that total cost of revenues will increase in absolute dollars to the extent that our license revenues increase, but decline as a percentage of total revenues as fixed costs are allocated over a higher total revenue base and beginning in the fourth quarter of 2002 we will no longer be required to make royalty payments under our Nortel license agreement.

*Research and development*

Research and development expenses increased to \$5.1 million or 30% of revenues for the year ended December 31, 2001 from \$5.0 million or 54% of revenues for the year ended December 31, 2000. We anticipate that research and development expenses will increase in absolute dollars as we continue to commit substantial resources to research and development efforts to be competitive in the future.

*Sales and marketing*

Sales and marketing expenses increased to \$9.9 million or 58% of revenues for the year ended December 31, 2001 from \$8.9 million or 96% of revenues for the year ended December 31, 2000. The increase in expenses was primarily due to higher sales and marketing personnel expenses of \$832,000 associated with hiring 11 additional employees since January 2000, higher commission expenses of \$462,000 and higher travel expenses of \$364,000, partly offset by a decrease in trade show and related expenses of \$206,000 and a reallocation of our sales support and marketing personnel in 2000 to consulting and postcontract customer support services in 2001 of \$598,000. We anticipate that our sales and marketing expenses will increase in absolute dollars as we expand our sales and marketing efforts.

*General and administrative*

General and administrative expenses decreased \$1.2 million to \$2.8 million or 16% of revenues for the year ended December 31, 2001 compared to \$4.0 million or 43% of revenues for the year ended December 31, 2000. In 2000 our general and administrative expenses included public offering costs of \$1.1 million which we wrote off because we decided to delay our initial public offering due to market conditions at that time. The decrease in expenses in 2001 was also due to a decrease in professional fees of \$210,000, partly offset by higher payroll and related expenses of \$221,000 associated with hiring two additional employees. We expect that general and administrative expenses will increase in absolute dollars as we hire additional personnel and incur costs related to the anticipated growth of our business, increased insurance costs, our operation as a public company and improvements to our information technology infrastructure.

*Interest income*

Interest income decreased \$217,000 to \$366,000 for the year ended December 31, 2001 from \$583,000 for the year ended December 31, 2000. The decrease was primarily due to decreased interest income from lower average short-term investment balances before the receipt of the net proceeds of \$41.1 million from our initial public offering in November 2001 and decreases in interest rates.

*Income taxes*

From inception through December 31, 2001, we incurred net losses for federal and state tax purposes. As of December 31, 2001, we had approximately \$35.0 million of federal and \$10.5 million of California net operating loss carryforwards available to offset future taxable income which expire beginning 2007 and 2021, respectively, if not utilized. Utilization of the net operating losses and credits is subject to a substantial annual limitation due to the ownership change provisions of the Internal Revenue Code of 1986 and similar state provisions. The annual limitation may result in expiration of net operating losses and credits before utilization.

**Comparison of years ended December 31, 2000 and 1999**

*Total revenues*

Total revenues for the year ended December 31, 2000 were \$9.3 million compared to \$5.4 million for the year ended December 31, 1999, an increase of \$3.9 million or 72%. License revenues accounted for \$1.5 million of the increase primarily due to increased customer demand and increasing market acceptance of our products. Service revenues increased by \$2.3 million due to increases in engineering service contracts and postcontract customer support services.

*Total cost of revenues*

Total cost of revenues for the year ended December 31, 2000 increased to \$2.5 million or 27% of revenues, from \$1.3 million or 24% of revenues for the year ended December 31, 1999. Cost of license revenues as a percentage of total revenues increased from 4% to 6% due to higher royalty expenses of \$235,000 for technology licensed from Nortel Networks. Cost of service revenues as a percentage of total revenues increased from 20% to 21% due to increases in personnel-related expenses in support of relatively higher service revenue activities.

*Research and development*

Research and development expenses increased to \$5.0 million or 54% of revenues for the year ended December 31, 2000 from \$4.5 million or 83% of revenues for the year ended December 31, 1999. The increase in expenses was primarily due to higher payroll and related expenses of \$234,000 associated with hiring five additional employees.

*Sales and marketing*

Sales and marketing expenses increased in absolute terms to \$8.9 million or 96% of revenues for the year ended December 31, 2000 from \$5.4 million or 100% of revenues for the year ended December 31, 1999. The increase in expenses was primarily due to increases in sales and marketing personnel expenses of \$1.0 million associated with hiring nine additional employees, higher commission expenses of \$1.3 million associated with increased revenues, and higher consulting fees of \$249,000, partly offset by a decrease in advertising expenses of \$113,000.

*General and administrative*

General and administrative expenses increased to \$4.0 million or 43% of revenues for the year ended December 31, 2000 from \$2.1 million or 38% of revenues for the year ended December 31, 1999. The increase in expenses was primarily due to increases in payroll and related expenses of \$202,000 associated with hiring two additional employees, allowance for doubtful accounts of \$104,000, and public offering costs of \$1.1 million. The increase in allowance for doubtful accounts was attributable to one customer whose account was over 90 days past due at December 31, 2000.

*Interest income*

Interest income increased \$428,000 to \$583,000 for the year ended December 31, 2000 from \$155,000 for the year ended December 31, 1999. The increase was primarily due to increased interest income from higher cash and cash equivalent balances.

*Income taxes*

From inception through December 31, 2000, we incurred net losses for federal and state tax purposes. As of December 31, 2000, we had approximately \$24.1 million of federal and \$6.4 million of California net operating loss carryforwards available to offset future taxable income which expire through 2020 and 2005, respectively, if not utilized. Utilization of the net operating losses and credits is subject to a substantial annual limitation due to the ownership change provisions of the Internal Revenue Code of 1986 and similar state provisions. The annual limitation may result in expiration of net operating losses and credits before utilization.

**Liquidity and Capital Resources**

In November 2001, we completed our initial public offering of common stock with net proceeds of \$41.1 million. As of December 31, 2001, we had \$34.5 million in cash and cash equivalents and \$12.0 million in long-term, interest bearing marketable securities.

Cash used in operating activities was \$2.9 million for the year ended December 31, 2001, \$6.9 million in 2000 and \$7.0 million in 1999. Cash used in operating activities in the year ended December 31, 2001 reflected a net loss of \$6.1 million, an increase in prepaid and other current assets of \$576,000 and decreases in royalties payable of \$1.2 million and accrued liabilities of \$267,000, partly offset by non-cash charges relating to depreciation and amortization of deferred stock-based compensation, decreases in accounts receivable of \$198,000 and unbilled receivables of \$233,000, and increases in accounts payable of \$264,000 and deferred revenues of \$749,000. In 2000, cash used in operating activities reflected a net loss of \$12.7 million and an increase in accounts receivable of \$510,000, partly offset by non-cash charges, increases in royalties payable of \$317,000, accrued liabilities of \$572,000 and deferred revenues of \$2.7 million. In 1999, cash used in operating activities reflected a net loss of \$8.1 million, partly offset by non-cash charges, increases in accounts receivable of \$2.4 million, deferred revenues of \$1.9 million and accrued liabilities of \$950,000. The increase in deferred revenues in 2001 was primarily due to increases in postcontract customer support contracts. The increase in deferred revenues in 2000 and 1999 was mainly due to increases in the number of one-year term licenses and postcontract customer support contracts for which postcontract customer support revenues are recognized over the term of the related contract, as well as payments received pursuant to the terms of contracts that included the delivery of future specified software upgrades. As a result, payments received were included in deferred revenue and no revenue was recognized pursuant to these contracts.

Cash used in investing activities was \$13.6 million for the year ended December 31, 2001, \$1.1 million in 2000 and \$386,000 in 1999. Cash used in investing activities in the year ended December 31, 2001 was primarily for the purchase of long-term, interest bearing marketable securities of \$12.0 million, the payments of \$850,000 relating to the amendment of our technology license agreement with Nortel Networks, the purchase and implementation of customer support software for \$320,000 and purchases of computer hardware and other equipment for \$465,000. Cash used in investing activities in 2000 was primarily to purchase and implement enterprise software, computer hardware and other equipment. Cash used in investing activities in 1999 was primarily due to the purchase of computer hardware, software and other equipment.

Cash provided by financing activities was \$41.3 million for the year ended December 31, 2001, \$14.5 million in 2000 and \$8.5 million in 1999. Cash provided by financing activities in 2001 was primarily due to the sale of common stock in our initial public offering. Cash provided by financing activities in 2000 was primarily related to the sale of our Series I convertible preferred stock. Cash provided by financing activities in 1999 was primarily related to the sale of our Series G and Series H convertible preferred stock.

In December 2001, we amended and restated our Loan Agreement with a bank under which we may borrow, on a revolving basis, up to \$5.0 million at an interest rate equal to prime rate, which was equal to an annual rate of 4.75% at December 31, 2001. Under the amended and restated agreement, the loan is unsecured and is not collateralized by our assets. Under the agreement, we must comply with certain operating and reporting

covenants and are not permitted to pay dividends, or make material investments or dispositions without the prior written consent of the bank. If we fail to comply with our covenants under the agreement, the bank can declare any outstanding amounts immediately due and payable and cease advancing money or extending credit to or for us. The agreement expires in December 2002. At December 31, 2001, there were no amounts outstanding under this agreement.

As of December 31, 2001, our principal source of liquidity consisted of \$46.5 million in cash and cash equivalents and interest bearing marketable securities, compared with \$9.7 million at December 31, 2000. Additionally, as of December 31, 2001, we had a \$5.0 million unsecured revolving line of credit, under which no amounts were outstanding. We believe that our existing cash and cash equivalents, interest bearing marketable securities, the revolving line of credit available under our Loan Agreement and anticipated cash flow from operations will be sufficient to meet our anticipated cash needs in the ordinary course of business for at least the next 12 months.

We expect to experience growth in our operating expenses, particularly in sales and marketing expenses, for the foreseeable future in order to execute our business strategy. As a result, we anticipate that operating expenses, as well as planned capital expenditures, will constitute a material use of our cash resources. In addition, we may utilize cash resources to fund acquisitions of, or investments in, complementary businesses, technologies or product lines. Any transactions, if consummated, may consume a portion of our working capital or require the issuance of equity securities that may result in further dilution to existing stockholders.

### **Recent Accounting Pronouncements**

In June 1998, the Financial Accounting Standards Board, or FASB, issued SFAS No. 133, *Accounting for Derivative Instruments and Hedging Activities*. The new standard establishes accounting and reporting standards for derivative instruments, including certain derivative instruments embedded in other contracts, and for hedging contracts. In July 1999, the FASB issued SFAS No. 137, *Accounting for Derivative Instruments and Hedging Activities - Deferral of the Effective Date of FASB Statement No. 133*. SFAS No. 137 deferred the effective date of SFAS No. 133 until fiscal years beginning after June 15, 2000. The adoption of this pronouncement did not have an impact on our financial statements.

In June 2001, the FASB issued SFAS No. 141, *Business Combinations*. SFAS No. 141 addresses accounting and financial reporting for business combinations. Also in June 2001, the FASB issued SFAS No. 142, *Goodwill and Other Intangible Assets*. SFAS No. 142 changes the accounting for goodwill from an amortization method to an impairment-only approach. We have adopted SFAS No. 141 and SFAS No. 142. Adoption of SFAS No. 141 and 142 did not impact our financial statements.

In October 2001, the FASB issued Statement of Accounting Standards No. 144 *Accounting for the Impairment or Disposal of Long-Lived Assets* ( FAS 144 ). FAS 144 supersedes FAS 121 *Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of*. FAS 144 applies to all long-lived assets (including discontinued operations) and consequently amends Accounting Principles Board Opinion No. 30 (APB 30), *Reporting Results of Operations Reporting the Effects of Disposal of a Segment of a Business*. FAS 144 develops one accounting model for long-lived assets that are to be disposed of by sale. FAS 144 requires that long-lived assets that are to be disposed of by sale be measured at the lower of book value or fair value less cost to sell. Additionally, FAS 144 expands the scope of discontinued operations to include all components of an entity with operations that (1) can be distinguished from the rest of the entity and (2) will be eliminated from the ongoing operations of the entity in a disposal transaction. FAS 144 is effective for the Company for all financial statements issued in fiscal 2003. The Company expects that the initial application of SFAS 144 will not have a material impact on its financial statements.



### FACTORS THAT MAY AFFECT RESULTS

**If the semiconductor industry does not adopt embedded test technology, our revenues could decline and our stock price could fall.**

To date, the semiconductor industry has not adopted embedded test technology as an alternative to current testing methods on a widespread basis. If the semiconductor industry does not adopt embedded test technology widely and in the near future, our growth will be limited, our revenues could decline, and our stock price could fall. We cannot assure you that integrated circuit designers and design companies' customers will accept embedded test technology as an alternative to current testing methods in the time frame we anticipate, or at all. The industry may fail to adopt embedded test technology for many reasons, including the following:

potential customers may determine that existing solutions adequately address their testing needs, or the industry may develop alternative technologies to address their testing needs;

our existing and potential customers may react to declining demand for semiconductors by curtailing or delaying new initiatives for new complex semiconductors or by extending the approval process for new projects, thereby lengthening our sales cycles;

potential customers may not be willing to accept the perceived delays in the early design stages associated with implementing embedded test technology in order to achieve potential time savings at later stages of silicon debugging and production testing;

potential customers may have concerns over the reliability of embedded testing methods relative to existing test methods;  
and

designers may be reluctant to take on the added responsibility of incorporating embedded test technology as part of their design process, or to learn how to implement embedded test technology.

**We have a history of losses and an accumulated deficit of approximately \$50.1 million as of December 31, 2001. If we do not generate sufficient net revenue in the future to achieve or sustain profitability, our stock price could decline.**

We have incurred significant net losses since our inception, including losses of \$6.3 million in 2001 and 12.9 million in 2000. At December 31, 2001, we had an accumulated deficit of approximately \$50.1 million. To achieve profitability, we will need to generate and sustain substantially higher revenue while maintaining reasonable cost and expense levels. If we fail to achieve profitability within the time frame expected by securities analysts or investors, the market price of our common stock will likely decline. We may not achieve profitability if our revenues do not increase or if they increase more slowly than we expect. In addition, our operating expenses are largely fixed, and any shortfall in anticipated revenues in any given period could harm our operating results. If we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or an annual basis.

**The sales and implementation cycles for our products are typically long and unpredictable, taking from six months to two years for sales and an additional six to twelve months for implementation. As a result, we may have difficulty predicting future revenues and our revenue and operating results may fluctuate significantly, which could cause our stock price to fluctuate.**

We believe that convincing a potential customer to integrate our technology into an integrated circuit at the design stage, which we refer to as a design win, is critical to retaining existing customers and to obtaining new customers. However, acceptance of our embedded test technology generally involves a significant commitment of resources by prospective customers and a fundamental change in their method of designing and testing integrated circuits. Many of our potential customers are large enterprises that generally do not adopt new design methodologies quickly. Also, we may have limited access to the key decision-makers of potential customers who can authorize the adoption of our technology. As a result, the period between our initial contact with a potential

customer and the sale of our products to that customer, if any, is often lengthy and may include delays associated with our customers' budgeting and approval processes, as well as a substantial investment of our time and resources. We have incurred high customer engagement and support costs, including sales commissions, and the failure to manage these costs could harm our operating results.

Historically, our sales cycle has ranged from six months to two years and our customers' implementation cycle has been approximately an additional six to twelve months. If we fail to achieve a design win with a potential customer early in a given product cycle, it is unlikely that the potential customer will become a customer before its next product cycle, if at all. Because of the length of our sales cycle, our failure to achieve design wins could have a material and prolonged adverse effect on our sales and revenue growth. Our revenue streams may fluctuate significantly due to the length of our sales cycle, which may make our future revenues difficult to project and may cause our stock price to fluctuate.

**Fluctuations in our revenues and operating results could cause the market price of our common stock to decline.**

Our revenues and operating results have fluctuated significantly from quarter to quarter in the past and may do so in the future, which could cause the market price of our common stock to decline. Accordingly, you should not rely on quarter-to-quarter comparisons of our results of operations as an indication of our future performance. In future periods, our revenues and results of operations may be below the estimates of public market analysts and investors. This discrepancy could cause the market price of our common stock to decline.

Fluctuations in our revenues and operating results may be caused by:

- timing, terms and conditions of customer agreements;

- timing of sales commission expenses and the recognition of license revenues from related customer agreements;

- timing and acceptance of new technologies, product releases or enhancements by us, our competitors or our customers;

- timing and completion of milestones under customer agreements;

- the mix of our license and services revenues;

- changes in our and our customers' development schedules and levels of expenditures on research and development;

- customers placing orders at the end of the quarter;

- industry patterns and changes or cyclical and seasonal fluctuations in the markets we target; and

- market and general economic conditions.

Delays or deferrals in purchasing decisions by our customers may increase as we develop new or enhanced products. Our current dependence on a small number of customers increases the revenue impact of each customer's actions relative to these factors. Our expense levels are based, in large part, on our expectations regarding future revenue, and as a result net income for any quarterly period in which material customer agreements are delayed could vary significantly from our budget projections.

**The accounting rules regarding revenue recognition may cause fluctuations in our revenue independent of our booking position.**

The accounting rules we are required to follow require us to recognize revenues only when certain criteria are met. As a result, for a given quarter it is possible for us to fall short in our revenues and/or earnings estimates even though total orders are according to our plan or, conversely, to meet our revenue and/or earnings estimates even though total orders fall short of our plan, due to revenues produced by deferred revenues. Orders for software support and professional services yield revenues over multiple quarters, often rather than at the time of sale. The specific terms agreed to with a customer and/or any changes to the rules interpreting such terms may have the effect of requiring deferral of product revenues in whole or in part or, alternatively, of requiring us to accelerate the recognition of such revenues for products to be used over multiple years.

**Intense competition in the semiconductor and systems industries, particularly in the design and test of semiconductors, could prevent us from increasing or sustaining our revenues and prevent us from achieving or sustaining profitability.**

The semiconductor and system industries are extremely competitive and characterized by rapidly changing technology. The market for embedded test solutions is still evolving, and we expect competition to become more intense in the future. Our current principal competitors in the design phase of product development include:

electronic design automation providers such as Mentor Graphics Corporation and Synopsys, Inc., both of which offer basic built-in self-test capability;

smaller test tool providers such as SynTest Technologies, Inc.;

potential customers that develop test solutions internally;  
and

integrated device manufacturers, such as IBM, that use their own test solutions in chips manufactured for and sold to others.

Our embedded test technology also has the potential to impact the automated test equipment market, which may place us in competition with traditional hardware tester manufacturers such as Teradyne, Inc., Credence Systems Corporation, Advantest Corporation, Agilent Technologies, Inc., LTX Corporation and Schlumberger Limited. As embedded test becomes adopted more widely in the market, any of these automated test equipment companies, or others, may offer their own embedded test solutions.

Some of our competitors are significantly larger than we are and have greater financial resources, greater name recognition and longer operating histories than we have. Some of our competitors offer a more comprehensive range of products than we do, and they may be able to respond more quickly or adjust prices more effectively to take advantage of new opportunities or customer requirements. Increased competition could result in pricing pressures, reduced sales, reduced margins or failure to achieve or maintain widespread market acceptance, any of which could prevent us from increasing or sustaining our revenues and achieving or sustaining profitability.

**Our target markets are comprised of a limited number of customers. If we fail to obtain or retain customer relationships, our revenues could decline.**

We derive a significant portion of our revenues from a small number of customers. For example, 15 customers accounted for approximately 50% of revenues in the year ended December 31, 2001. Additionally, one of our customers accounted for approximately 15% of our revenues in the year ended December 31, 2000, and four customers accounted for approximately 32% of our revenues in the year ended December 31, 2000. We anticipate that we will continue to rely on a limited number of customers for a substantial portion of our revenues in the future. As a result, we must obtain orders from new significant customers on an ongoing basis to increase our revenues and grow our business. In addition, the loss of any significant or well-known customer could harm our operating results or our reputation. In particular, a loss of a significant customer could cause fluctuations in

our results of operations because our expenses are fixed in the short term, it takes us a long time to replace customers and, because of required methods of revenue recognition, any offsetting license revenues may need to be recognized over a period of time.

**Our products incorporate technology licensed from third parties, including Nortel Networks. If any of these licenses is terminated, our ability to develop and license our products could be delayed or reduced.**

We use technology, including software, which we license from third parties. In particular, we license technology from Nortel Networks under two patents for testing embedded memories and digital systems, and we use the Nortel technology in our embedded test technology. Our license agreement with Nortel may be terminated if we fail to make payments as required or otherwise materially violate the terms of the agreement, if a competitor of Nortel acquires a significant percentage of our common stock without first obtaining Nortel's consent or if we bring patent infringement proceedings against Nortel under any patent embodied in, or acquired as a result of access to, the technology we license from Nortel. If we do not maintain our existing third party technology licenses, particularly our Nortel license, or enter into licenses for alternative technologies, we could be required to cease or delay product shipments while we seek to develop alternative technologies.

**We depend on third parties to provide electronic design automation software that is compatible with our solution. If these third parties do not continue to provide compatible design products, we would need to develop alternatives, which could delay product introductions and cause our revenues and operating results to decline.**

Our customers depend on electronic design automation software to design their products using our solution. We depend on the same software to develop our products. Although we have established relationships with a variety of electronic design automation vendors to gain access to this software and to assure compatibility, these relationships may be terminated with limited notice. If any of these relationships were terminated and we were unable to obtain alternative software in a timely manner, our customers could be unable to use our solution. In addition, we could experience a significant increase in development costs, our development process could take longer, product introductions could be delayed and our revenues and operating results could decline.

**If automated test equipment companies are unwilling to work with us to make our technology compatible with theirs, we may need to pursue alternatives, which could increase the time it takes us to bring our solution to market and decrease customer acceptance of our technology.**

Although we are presently working with a number of automated test equipment companies to achieve optimal compatibility of our technologies, these companies may elect not to work with us in the future. If automated test equipment companies are unwilling to incorporate modifications into their equipment and operating systems to allow them to work with our technology, we may need to seek alternatives. These alternatives might not provide optimal levels of test function, and pursuing these alternatives could increase the time and expense it takes us to bring our technology to market, either of which could decrease customer acceptance of our technology and cause our revenues and margins to decline.

**Our future success will depend on our ability to keep pace with rapid technological advancements in the semiconductor industry. If we fail to develop and introduce new products and enhancements on a timely basis, our ability to attract and retain customers could be impaired, which would cause our operating results to decline.**

The semiconductor industry is characterized by rapidly changing technology, evolving industry standards, rapid changes in customer requirements, frequent product introductions and ongoing demands for greater speed and functionality. We must continually design, develop and introduce new products with improved features to be competitive. Our products may not achieve market acceptance or adequately address the changing needs of the marketplace, and we may not be successful in developing and marketing new products or enhancements to our

existing products on a timely basis. The introduction of products embodying new technologies, the emergence of new industry standards or changes in customer requirements could render our existing products obsolete and unmarketable. We may not have the financial resources necessary to fund future innovations. If we are unable, for technical, legal, financial or other reasons, to respond in a timely manner to changing market conditions or customer requirements, our business and operating results could be seriously harmed.

**Future changes in financial accounting standards, including pronouncements and interpretations of accounting pronouncements on software revenue recognition, may cause adverse unexpected revenue fluctuations and affect our reported results of operations.**

A change in accounting policies can have a significant effect on our reported results and may even affect our reporting of transactions completed before a change is announced. In particular, new pronouncements and varying interpretations of pronouncements on software revenue recognition have occurred with frequency, may occur in the future and could impact our revenues. Required changes in our methods of revenue recognition could result in deferral of revenues recognized in current periods to subsequent periods or accelerated recognition of deferred revenues to current periods, each of which could cause shortfalls in meeting the expectations of investors and securities analysts. Our stock price could decline as a result of any shortfall.

Accounting policies affecting many other aspects of our business, including rules relating to revenue recognition, purchase accounting for business combinations and employee stock option grants have recently been revised or are under review. Changes to those rules or the questioning of current practices may adversely affect our reported financial results or the way we conduct our business.

**Our embedded test products may have errors or defects that users identify after deployment, which could harm our reputation and our business.**

Our products may contain undetected errors when first introduced or when new versions or enhancements are released. We have from time to time found errors in versions of our embedded test products, and we may find errors in our products in the future. The occurrence of errors could cause sales of our products to decline, divert the attention of management and engineering personnel from our product development efforts and cause significant customer relations problems. Customer relations problems could damage our reputation, hinder market acceptance of our products and result in loss of future revenues.

**We must continually attract and retain engineering personnel, or we will be unable to execute our business strategy.**

We have experienced, and we expect to continue to experience, difficulty in hiring and retaining highly skilled engineers with appropriate qualifications to support our rapid growth and expansion. In particular, our strategy for encouraging the adoption of our technology requires that we employ highly skilled applications engineers to work with our customers. As a result, our future success depends in part on our ability to identify, attract, retain and motivate qualified engineering personnel. Competition for qualified engineers is intense, especially in the Silicon Valley where our headquarters are located. If we lose the services of a significant number of our engineers and we cannot hire and integrate additional engineers, it could disrupt our ability to develop our products and implement our business strategy.

**Our chief executive officer, chief scientist and vice president of engineering are critical to our business, and they may not remain with us in the future.**

Our future success depends to a significant extent on the continued services of Vinod K. Agarwal, our President and Chief Executive Officer, Benoit Nadeau-Dostie, our Chief Scientist, and Michael C. Howells, our Vice President of Engineering. We do not have employment agreements with these executives, and we do not maintain key person life insurance policies except on Vinod K. Agarwal. The loss of the services of any of these

key executives could slow our product development processes. Searching for replacements could divert senior management's attention and increase our operating expenses. In addition, our industry partners and customers could become concerned about our future operations, which could injure our reputation.

**If we fail to protect our intellectual property rights, competitors may be able to use our technologies, which could weaken our competitive position, reduce our revenues or increase our costs.**

Our success and ability to compete depend largely upon the protection of our proprietary technology. We rely on a combination of patent, copyright, trademark and trade secret laws, confidentiality procedures and licensing arrangements to establish and protect our proprietary rights. Our pending patent applications may not result in issued patents, and our existing and future patents may not be sufficiently broad to protect our proprietary technologies. Policing unauthorized use of our products is difficult and we cannot be certain that the steps we have taken will prevent the misappropriation or unauthorized use of our technologies, particularly in foreign countries where the laws may not protect our proprietary rights as fully as US law. Any patents we obtain or license may not be adequate to protect our proprietary rights. Our competitors may independently develop similar technology, duplicate our products or design around any patents issued to us or other intellectual property rights.

Litigation may be necessary to enforce our intellectual property rights or to determine the validity or scope of the proprietary rights of others. As a result of any such litigation, we could lose our proprietary rights and incur substantial unexpected operating costs. We may need to take legal action to enforce our proprietary rights in the future. Any action we take to protect our intellectual property rights could be costly and could absorb significant management time and attention. In addition, failure to adequately protect our trademark rights could impair our brand identity and our ability to compete effectively.

**Any dispute involving our patents or other intellectual property could include our industry partners and customers, which could trigger our indemnification obligations to them and result in substantial expense to us.**

In any dispute involving our patents or other intellectual property, our licensees could also become the target of litigation. This could trigger technical support and indemnification obligations in some of our license agreements which could result in substantial expenses. In addition to the time and expense required for us to support or indemnify our licensees, any such litigation could severely disrupt or shut down the business of our licensees, which in turn could hurt our relations with our customers and cause the sale of our proprietary technologies and products to decrease.

**We have limited control over third-party distributors who market, sell and support our products in foreign markets. Loss of these relationships could decrease our revenues and harm our business.**

We sell our products and services through a distributor in Japan and sales representatives in Singapore, Korea and Taiwan. We anticipate that sales in these markets will account for a significant percentage of our total revenues in future periods. Our third-party distributors are not obligated to continue selling our products, and they may terminate their arrangements with us at any time with limited prior notice. Establishing alternative distribution channels in any of these markets could consume substantial time and resources, decrease our revenues and increase our expenses.

**We face business, political and economic risks because a significant portion of our sales are to customers outside of the United States.**

International revenues from sales outside the United States and Canada accounted for 27%, 19% and 7% of our revenues in the years ended December 31, 2001, 2000 and 1999, respectively. Our success depends upon

continued expansion of our international operations, and we expect that a significant portion of our total future revenues will be generated from international sales. Our international business involves a number of risks, including:

our ability to adapt our products to foreign design methods and practices;

cultural differences in the conduct of business;

difficulty in attracting qualified personnel;

longer payment cycles for and greater difficulty collecting accounts receivable;

unexpected changes in regulatory requirements, royalties and withholding taxes that restrict the repatriation of earnings;

tariffs and other trade barriers;

the burden of complying with a wide variety of foreign laws; and

political, economic or military conditions associated with current worldwide conflicts and events.

Our international sales are currently denominated in US dollars, creating a risk that fluctuation in currency exchange rates will make our prices uncompetitive. To the extent that profit is generated or losses are incurred in foreign countries, our effective income tax rate may be significantly affected. Any of these factors could significantly harm our future international sales and, consequently, our revenues and results of operations and business and financial condition.

**Our growth places a significant strain on our management systems and resources, and if we fail to manage this growth, our business will be harmed.**

The growth which we have experienced has placed a significant strain on our resources and increased demands on our management information and reporting systems, financial and management controls and personnel. To manage our growth, we must implement and improve additional and existing administrative, financial and operations systems, procedures and controls. We may not be able to develop the internal capabilities or collaborative relationships required to manage future growth and expansion or to support future operations. If we are unable to manage growth effectively, our revenues could decline.

**We may be unable to consummate potential acquisitions or investments or successfully integrate them with our business, which may disrupt our business, divert management's attention and slow our ability to expand the range of our proprietary technologies and products.**

To expand the range of our proprietary technologies and products, we may acquire or make investments in additional complementary businesses, technologies or products, if appropriate opportunities arise. We may be unable to identify suitable acquisition or investment candidates at reasonable prices or on reasonable terms, or consummate future acquisitions or investments, each of which could slow our growth strategy. If we do acquire additional companies or make other types of acquisitions, we may have difficulty integrating the acquired products, personnel or technologies. We may not be able to retain key management, technical or sales personnel after an acquisition. These difficulties could disrupt our ongoing business, distract our management and employees and increase our expenses.

**If the industries into which we sell our products experience recession or other cyclical effects impacting our customers' research and development budgets, our operating results could be negatively impacted.**

Our sales are dependent upon capital spending trends and new design projects, and a substantial portion of our costs is fixed in the near term. The demand from our customers, including integrated device manufacturers, fabless semiconductor companies and systems providers, is uncertain and difficult to predict. Slower growth in

the semiconductor and systems industries, such as postponed or canceled capital expenditures for previously planned expansions or new fabrication facility construction projects, a reduced number of design starts, reduction of design and test budgets or continued consolidation among our customers would harm our business and financial condition.

The primary customers for semiconductors that incorporate our embedded test technology are companies in the communications, networking, server and high-end consumer products industries. Any significant downturn in these particular markets or in general economic conditions which result in the cutback of research and development budgets or capital expenditures would likely result in a reduction in demand for our products and services and could harm our business. For example, the US economy, including the semiconductor industry, is currently experiencing a slowdown, which may negatively impact our business and operating results. Some analysts have predicted that a further decline in the United States economy will result from the terrorist attacks in the United States. If the economy continues to decline as a result of the recent economic, political and social turmoil, existing and prospective customers may reduce their design budgets or delay implementation of our products, which could harm our business and operating results.

In addition, the markets for semiconductor products are cyclical. In recent years, some Asian countries have experienced significant economic difficulties, including devaluation and instability, business failures and a depressed business environment. These difficulties triggered a significant downturn in the semiconductor market, resulting in reduced budgets for chip design tools. In addition, the electronics industry has historically been subject to seasonal and cyclical fluctuations in demand for its products, and this trend may continue in the future. These industry downturns have been, and may continue to be, characterized by diminished product demand, excess manufacturing capacity and subsequent erosion of average selling prices. As a result, our future operating results may reflect substantial fluctuations from period to period as a consequence of these industry patterns, general economic conditions affecting the timing of orders from customers and other factors. Any negative factors affecting the semiconductor industry, including the downturns described here, could significantly harm our business, financial condition and results of operations.

**Intellectual property litigation, which is common in our industry, could be costly, harm our reputation, limit our ability to license or sell our proprietary technologies or products and divert the attention of management and technical personnel.**

The semiconductor industry is characterized by frequent litigation regarding patent and other intellectual property rights. While we have not received formal notice of any infringement of the rights of any third party, questions of infringement in the semiconductor field involve highly technical and subjective analyses. Litigation may be necessary in the future to enforce any patents we may receive and other intellectual property rights, to protect our trade secrets, to determine the validity and scope of the proprietary rights of others, or to defend against claims of infringement or invalidity, and we may not prevail in any future litigation. Any such litigation, whether or not determined in our favor or settled, could be costly, could harm our reputation and could divert the efforts and attention of our management and technical personnel from normal business operations. Adverse determinations in litigation could result in the loss of our proprietary rights, subject us to significant liabilities, require us to seek licenses from third parties or prevent us from licensing our technology or selling our products, any of which could harm our business.

**Our stock price may decline significantly because of stock market fluctuations that affect the prices of technology stocks. A decline in our stock price could result in securities class action litigation against us that could divert management's attention and harm our business.**

The stock market has experienced significant price and trading volume fluctuations that have adversely affected the market prices of common stock of technology companies. These broad market fluctuations may reduce the market price of our common stock. In the past, securities class action litigation has often been brought against a company after periods of volatility in the market price of securities. In the future, we may be a target of



similar litigation. Securities litigation could result in substantial costs and divert our management's attention and resources, which in turn could harm our ability to execute our business plan.

**Our ability to raise capital in the future may be limited and our failure to raise capital when needed could prevent us from growing.**

We believe that our existing cash and cash equivalents, together with the net proceeds from the sale of our common stock in our initial public offering in November 2001, will be sufficient to meet our anticipated cash needs for at least the next 12 months. However, the timing and amount of our working capital and capital expenditure requirements may vary significantly depending on numerous factors, including:

market acceptance of our products;

the need to adapt to changing technologies and technical requirements;

the existence of opportunities for expansion; and

access to and availability of sufficient management, technical, marketing and financial personnel.

If our capital resources are insufficient to satisfy our liquidity requirements, we may seek to sell additional equity securities or debt securities or obtain debt financing. The sale of additional equity securities or debt securities would result in additional dilution to our stockholders. Additional debt would result in increased expenses and could result in covenants that would restrict our operations. If adequate funds are not available or are not available on acceptable terms, this would significantly limit our ability to hire, train or retain employees, support our expansion, take advantage of unanticipated opportunities such as acquisitions of businesses or technologies, develop or enhance products, or respond to competitive pressures.

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

Substantially all of our revenues are earned in US dollars. Operating expenses incurred by our foreign subsidiaries are denominated in local currencies. Accordingly, we are subject to exposure from movements in foreign currency exchange rates. To date, the effect of changes in foreign currency exchange rates on our financial position and operating results have not been material. We currently do not use financial instruments to hedge foreign currency risks. We intend to assess the use of financial instruments to hedge currency exposures on an ongoing basis.

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

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Financial statement schedules not listed above are either omitted because they are not applicable or the required information is shown in the Consolidated Financial Statements or in the Notes thereto.

**Report of Independent Accountants**

To the Board of Directors and Stockholders  
of LogicVision, Inc.:

In our opinion, the consolidated financial statements listed in the accompanying index present fairly, in all material respects, the financial position of LogicVision, Inc. and its subsidiaries at December 31, 2001 and 2000, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2001 in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedule listed in the accompanying index presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements. These financial statements and the financial statement schedule are the responsibility of the Company's management; our responsibility is to express an opinion on these financial statements and financial statement schedule based on our audits. We conducted our audits of these statements in accordance with 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.

/s/ PricewaterhouseCoopers LLP

San Jose, California  
January 15, 2002

## LOGICVISION, INC.

**CONSOLIDATED BALANCE SHEETS**  
(in thousands, except share and per share data)

	December 31,	
	2001	2000
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 34,496	\$ 9,708
Accounts receivable, net of allowance for doubtful accounts of \$21 and \$104	3,184	3,299
Unbilled receivables		233
Prepaid and other current assets	866	290
Total current assets	38,546	13,530
Property and equipment, net	1,453	1,332
Marketable securities	11,984	
Notes receivable, related parties	100	75
Other long-term assets	649	233
Total assets	\$ 52,732	\$ 15,170
<b>LIABILITIES, REDEEMABLE CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS EQUITY</b>		
Current liabilities:		
Accounts payable	\$ 740	\$ 476
Accrued expenses and other liabilities	1,766	3,208
Deferred revenue	4,667	4,138
Total current liabilities	7,173	7,822
Deferred revenue	1,319	1,099
Total liabilities	8,492	8,921
Commitments (See Note 5)		
Redeemable convertible preferred stock		46,071
Stockholders' equity (deficit):		
Preferred stock, \$0.0001 par value:		
Authorized: 5,000,000 shares;		
Issued and outstanding: none in 2001 and 2000, respectively		
Common stock, \$0.0001 par value:		
Authorized: 125,000,000 shares;		
Issued and outstanding: 14,872,411 and 1,895,540 shares in 2001 and 2000, respectively	1	
Additional paid in capital	97,179	8,172
Deferred stock based compensation	(2,863)	(4,039)
Accumulated other comprehensive income (loss)	17	(4)
Accumulated deficit	(50,094)	(43,951)
Total stockholders' equity (deficit)	44,240	(39,822)
Total liabilities, redeemable convertible preferred stock and stockholders equity	\$ 52,732	\$ 15,170

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The accompanying notes are an integral part of these financials statements.

## LOGICVISION, INC.

**CONSOLIDATED STATEMENTS OF OPERATIONS**  
(in thousands, except per share data)

	Years Ended December 31,		
	2001	2000	1999
Revenues:			
License	\$ 12,079	\$ 5,597	\$ 4,096
Service	5,153	3,686	1,344
<b>Total revenues</b>	<b>17,232</b>	<b>9,283</b>	<b>5,440</b>
Cost of revenues:			
License	803	583	214
Service	2,141	1,955	1,080
<b>Total cost of revenues</b>	<b>2,944</b>	<b>2,538</b>	<b>1,294</b>
<b>Gross profit</b>	<b>14,288</b>	<b>6,745</b>	<b>4,146</b>
Operating expenses:			
Research and development	5,093	4,987	4,519
Sales and marketing	9,947	8,930	5,434
General and administrative	2,768	4,012	2,060
Amortization of deferred stock compensation	2,859	2,106	367
<b>Total operating expenses</b>	<b>20,667</b>	<b>20,035</b>	<b>12,380</b>
<b>Loss from operations</b>	<b>(6,379)</b>	<b>(13,290)</b>	<b>(8,234)</b>
Interest income	366	583	155
Other income (expense), net	(6)		(16)
<b>Loss before provision for income taxes</b>	<b>(6,019)</b>	<b>(12,707)</b>	<b>(8,095)</b>
Provision for income taxes	124	9	3
<b>Net loss</b>	<b>(6,143)</b>	<b>(12,716)</b>	<b>(8,098)</b>
Accretion of redeemable convertible preferred Stock	130	173	173
<b>Net loss attributable to common stockholders</b>	<b>\$ (6,273)</b>	<b>\$ (12,889)</b>	<b>\$ (8,271)</b>
<b>Net loss per common share, basic and diluted</b>	<b>\$ (1.54)</b>	<b>\$ (7.79)</b>	<b>\$ (6.29)</b>
Weighted average number of shares outstanding, basic and diluted	4,063	1,654	1,315

The accompanying notes are an integral part of these financials statements.

## LOGICVISION, INC.

**CONSOLIDATED STATEMENTS OF STOCKHOLDERS EQUITY  
AND COMPREHENSIVE INCOME (LOSS)**  
For the Years Ended December 31, 2001, 2000 and 1999  
(in thousands)

	Common stock		Additional paid-in capital	Deferred stock-based Compensation	Accumulated deficit	Accumulated other comprehensive income (loss)	Total stockholders equity (deficit)
	Shares	Amount					
<b>Balances, December 31, 1998</b>	1,187	\$	\$ 693	\$ (198)	\$ (23,137)	\$ (26)	\$ (22,668)
Stock options exercised	232		181				181
Stock options cancelled			(16)	16			
Deferred stock-based Compensation			762	(762)			
Amortization of deferred stock-based compensation				367			367
Fair value of warrants issued with preferred stock			900				900
Accretion of redeemable preferred Stock			(173)				(173)
Net loss					(8,098)		(8,098)
Foreign currency translation adjustment						(9)	(9)
<b>Comprehensive loss</b>							(8,107)
<b>Balances, December 31, 1999</b>	1,419		2,347	(577)	(31,235)	(35)	(29,500)
Stock options exercised	474		324				324
Stock options cancelled			(49)	49			
Common stock issued for services	3		34				34
Deferred stock-based compensation			5,617	(5,617)			
Amortization of deferred stock-based compensation				2,106			2,106
Fair value of warrants issued as issuance cost			72				72
Accretion of redeemable preferred stock			(173)				(173)
Net loss					(12,716)		(12,716)
Foreign currency translation adjustment						31	31
<b>Comprehensive loss</b>							(12,685)
<b>Balances, December 31, 2000</b>	1,896		8,172	(4,039)	(43,951)	(4)	(39,822)
Stock options exercised	65		110				110
Stock options cancelled			(132)	132			
Common stock issued in connection with initial public offering	5,085	1	41,143				41,144
Conversion of preferred stock	7,666		46,201				46,201
Exercise of preferred stock warrants	161						
Deferred stock-based compensation			1,815	(1,815)			
Amortization of deferred stock-based compensation				2,859			2,859
Accretion of redeemable preferred stock			(130)				(130)
Net loss					(6,143)		(6,143)
Foreign currency translation adjustment						21	21

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Comprehensive loss							(6,122)
<b>Balances, December 31, 2001</b>	14,873	\$ 1	\$ 97,179	\$ (2,863)	\$ (50,094)	\$ 17	\$ 44,240

The accompanying notes are an integral part of these financials statements.



## LOGICVISION, INC.

**CONSOLIDATED STATEMENTS OF CASH FLOWS**  
(in thousands)

	Years Ended December 31,		
	2001	2000	1999
Cash flow from operating activities:			
Net loss	\$ (6,143)	\$ (12,716)	\$ (8,098)
Adjustments to reconcile net loss to net cash used in operating activities			
Depreciation	1,099	566	423
Amortization of deferred stock compensation	2,859	2,106	367
Increase/(Decrease) in allowance for doubtful Accounts	(83)	116	36
Issuance of common stock for services		34	
Changes in operating assets and liabilities:			
Accounts receivable	198	(510)	(2,358)
Unbilled receivable	233	(234)	40
Prepaid expenses and other current assets	(576)	214	(194)
Notes receivable, related parties	(25)	40	
Other long-term assets		(171)	(7)
Trade accounts payable	264	123	159
Deferred revenue	749	2,665	1,928
Contract payable			(250)
Accrued compensation, vacation, royalties and other accrued liabilities	(1,442)	889	955
<b>Net cash used in operating activities</b>	<b>(2,867)</b>	<b>(6,878)</b>	<b>(6,999)</b>
Cash flows from investing activities:			
Purchases of long-term investments	(11,984)		
Purchases of property and equipment	(785)	(1,144)	(386)
Payment for technology license	(850)		
<b>Net cash used in investing activities</b>	<b>(13,619)</b>	<b>(1,144)</b>	<b>(386)</b>
Cash flow from financing activities:			
Proceeds from initial public offerings	41,143		
Proceeds from exercise of common stock options	110	324	181
Proceeds from issuance of preferred stock		14,205	8,283
<b>Net cash provided by financing activities</b>	<b>41,253</b>	<b>14,529</b>	<b>8,464</b>
Effect of exchange rates on cash	21	31	(9)
<b>Net increase in cash and cash equivalents</b>	<b>24,788</b>	<b>6,538</b>	<b>1,070</b>
Cash and cash equivalents, beginning of year	9,708	3,170	2,100
<b>Cash and cash equivalents, end of year</b>	<b>\$ 34,496</b>	<b>\$ 9,708</b>	<b>\$ 3,170</b>

The accompanying notes are an integral part of these financials statements.

**LOGICVISION, INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**1. FORMATION AND BUSINESS OF THE COMPANY**

**Nature of Business**

LogicVision, Inc. (the Company) was incorporated on July 23, 1992 and on September 15, 2000, the Company was reincorporated in the State of Delaware. The Company provides proprietary technologies for embedded test that enable the more efficient design and manufacture of complex semiconductors. The embedded test solution allows integrated circuit designers to embed into a semiconductor design test functionality that can be used during semiconductor production and throughout the useful life of the chip. The technology also allows integrated circuits to be tested after they have been assembled onto boards and systems.

**Stock Split**

On September 28, 2000, the Company's Board of Directors approved a one-for-two stock split of the Company's common stock. All share and per share amounts have been restated to reflect this share split.

**Initial Public Offering**

In November 2001, the Company completed its initial public offering of 5,085,000 shares of common stock (including 585,000 shares purchased by underwriters over-allotment option) at \$9.00 per share. Net proceeds totaled \$41.1 million, net of issuance costs. At the closing of the offering, all of the then issued and outstanding shares of preferred stock were converted into shares of common stock.

**2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

**Basis of Presentation**

The consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries. All significant intercompany accounts and transactions have been eliminated in consolidation.

**Reclassifications**

Certain prior year balances have been reclassified to conform with the current year presentation.

**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 and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

**Cash and Cash Equivalents**

The Company considers all highly liquid investments with original maturities of three months or less at the date of acquisition to be cash equivalents.

**Marketable Securities**

The Company accounts for investments in accordance with Statement of Financial Accounting Standards No. 115, Accounting for Certain Investments in Debt and Equity Securities. Management determines the

**LOGICVISION, INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

appropriate classification of marketable securities at the time of purchase and evaluates such designation as of each balance sheet date. As of December 31, 2001, there were no marketable securities with contractual maturities in excess of ninety days but less than twelve months. Approximately \$12.0 million of marketable securities had contractual maturities of more than one year. All marketable securities have been classified as held-to-maturity. Interest and realized gains and losses are included in interest income. Realized gains and losses are recognized based on specific identification method.

**Property and Equipment**

Property and equipment are stated at cost and are depreciated on a straight-line basis over their estimated useful lives of three to five years. Leasehold improvements are amortized on a straight-line basis over the estimated useful life of the asset or the lease term, if shorter. Maintenance and repairs are charged to operations as incurred.

**Long-lived Assets**

The Company accounts for impairment of long-lived assets in accordance with Statement of Financial Accounting Standards No. 121, Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to be Disposed Of ( SFAS 121 ), which was issued in March 1995. SFAS 121 requires that long-lived assets be reviewed for impairment whenever events or changes in circumstances indicate that the book value of the asset may not be recoverable. The Company evaluates at each balance sheet date whether events and circumstances have occurred that indicate possible impairment. In accordance with SFAS 121, the Company uses an estimate of the future undiscounted net cash flow of the related asset or asset grouping over the remaining life in measuring whether the assets are recoverable. During the years ended December 31, 2001, 2000 and 1999, the Company did not record any impairment to its long-lived assets.

**Stock-Based Compensation**

The Company accounts for stock-based employee compensation arrangements in accordance with provisions of APB Opinion No. 25, Accounting for Stock Issued to Employees and Financial Accounting Standards Board Interpretation ( FIN ) No. 28, Accounting for Stock Appreciation Rights and Other Variable Stock Option or Award Plans, and complies with the disclosure provisions of SFAS No. 123, Accounting for Stock-Based Compensation. Under APB Opinion No. 25, compensation expense is based on the difference, if any, on the date of the grant, between the fair value of the Company's stock and the exercise price. SFAS No. 123 requires a fair value based method of accounting for an employee stock option or similar equity instrument. The pro forma disclosures of the difference between compensation expense included in net loss and the related cost measured by the fair value method are presented in Note 8.

The Company accounts for equity instruments issued to non-employees in accordance with the provisions of SFAS No. 123 and Emerging Issues Task Force ( EITF ) No. 96-18, Accounting for Equity Instruments That Are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling Goods or Services. The Company believes that the fair value of the stock options is more reliably measured than the fair value of the services received. The fair value of each non-employee stock award is remeasured at each period end until a commitment date is reached, which is generally the vesting date.

**Revenue Recognition**

The Company derives license revenues from software and intellectual property licenses, and derives service revenues from maintenance and consulting service contracts.

**LOGICVISION, INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

The Company derives revenues from licenses generally with terms between one and three years, which are charged for the right to use the Company's software and intellectual property. Maintenance revenues consist of postcontract customer support ( PCS ). PCS includes telephone support, bug fixes and upgrade privileges on a when and if available basis. Consulting service revenues typically consist of charges for design service contracts, technology development contracts, installation and training.

The Company accounts for its revenues under the provisions of AICPA Statement of Position 97-2, Software Revenue Recognition ( SOP 97-2 ) as amended by SOP 98-4 and SOP 98-9. The Company recognizes license revenues upon shipment only when there is persuasive evidence of an arrangement, shipment has occurred, the fee is fixed or determinable, and collectibility of the sales proceeds is considered probable. The Company applies the residual method to those arrangements that include multiple elements, where vendor-specific objective evidence ( VSOE ) of fair value of the undelivered elements exists. The Company establishes VSOE of fair value for PCS through the use of maintenance renewal clauses in its contracts, which are substantive, and have historically been purchased by its customers at prices established by management.

When VSOE of the undelivered elements cannot be established and the undelivered element is PCS, the entire revenue is recognized ratably over the term of the PCS. The maintenance elements of these contracts are recognized ratably over the period of the maintenance contract. The Company, on occasion, offers extended payment terms beyond its normal business practice of between 30 and 60 days to certain customers. The Company does not have sufficient experience collecting under these extended payment term arrangements. As a result, when payment terms are extended, the fee is not considered fixed or determinable and, therefore, the Company recognizes revenues when such payments become due. When the Company enters into a multiple element arrangement which includes the future delivery of a specified product or upgrade, all revenue under the agreement is deferred until the specified product or upgrade has been delivered.

Consulting service revenues are generally fixed-fee contracts recognized on a percentage of completion basis. Provisions for estimated losses, if any, on such contracts, which are primarily short-term in nature, are recorded in the period identified. The balances of unbilled receivables related to these contracts at December 31, 2001 and 2000 were \$0 and \$233,500, respectively.

**Research and Development**

Research and development costs are charged to operations as incurred.

**Software Development Costs and Capitalized Technology License**

Software development costs incurred in the research and development of new products and enhancements to existing products are charged to expense as incurred. Software development costs are capitalized after technological feasibility has been established. The period between achievement of technological feasibility, which the Company defines as the establishment of a working model, until the general availability of such software to customers, has been short, and software development costs qualifying for capitalization have been insignificant. During the year ended December 31, 2001, the Company amended its license agreement with Nortel Networks. Pursuant to this amendment, the Company agreed to pay \$850,000 in seven quarterly installments of \$121,000 beginning March 31, 2001. This amount is included in other long-term assets and is being amortized over the period of the technology license obligation. At December 31, 2001, \$403,000 of this asset remained unamortized.

## LOGICVISION, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

**Certain Risks and Concentrations**

The Company's cash and cash equivalents and marketable securities are maintained at six financial institutions, four in the United States, one in Canada and one in the United Kingdom. Deposits in these institutions may exceed the amount of insurance provided on such deposits.

For accounts receivable, management of the Company performs ongoing credit evaluations of its customers' financial condition and, generally, requires no collateral from its customers. Based on the expected collectibility of the accounts receivable balance, the Company maintains an allowance for doubtful accounts. At December 31, 2001, four customers accounted for approximately 46% of net accounts receivable and 15 customers accounted for approximately 50% of total revenues (none exceeded 10%). At December 31, 2000, two customers accounted for approximately 38% of net accounts receivable and six customers accounted for approximately 28% of total revenues.

The Company operates in one industry segment. The following is a summary of the Company's revenues by geographic operations. Revenues are attributed to the countries in which the products and services are delivered.

	(In thousands)		
	2001	2000	1999
North America	\$ 12,616	\$ 7,511	\$ 5,035
Europe	603	833	171
Asia	3,743	939	234
Others	270		
	<u>\$ 17,232</u>	<u>\$ 9,283</u>	<u>\$ 5,440</u>

For all periods presented, substantially all of the Company's long-lived assets were located in the United States.

There can be no assurance that the market will accept the Company's technology as an alternative to current design test development methods. If the market does not accept the Company's technology at all or in the time frame anticipated in the Company's projections, the Company's revenues and results of operations would be materially affected.

The Company's products include components subject to rapid technological change. Significant technological change could adversely affect the Company's future operating results. While the Company has ongoing programs to minimize the adverse effect of such changes and considers technological change in estimating its allowances, such estimates could change in the future.

**Income Taxes**

The Company accounts for income taxes using the liability method under which deferred tax assets and liabilities are determined based on the difference between the financial statement and tax bases of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to affect taxable income. Valuation allowances are established when necessary to reduce deferred tax assets to the amounts expected to be realized.

**Foreign Currency Translation**

The Company has foreign subsidiaries whose financial statements are denominated in the local currency. Foreign exchange gains and losses, which result from the process of remeasuring foreign currency financial

**LOGICVISION, INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

statements into U.S. dollar, have been included on the balance sheet as a cumulative foreign currency translation adjustment included in accumulated other comprehensive income.

**Fair Value of Financial Instruments**

Carrying amounts of certain of the Company's financial instruments including cash and cash equivalents, marketable securities, accounts receivable, accounts payable and other accrued liabilities approximate fair value due to their short maturities.

**Net Loss Per Share**

Basic net loss per share is computed by dividing the net loss attributable to common stockholders for the period by the weighted average number of the common shares outstanding during the period. Diluted net loss per share does not differ from basic net loss per share since potential common shares from conversion of preferred stock, stock options and warrants and outstanding shares of common stock subject to repurchase are anti-dilutive for all periods presented.

**Comprehensive Income (Loss)**

The Company adopted Statement of Financial Accounting Standards No. 130, Reporting Comprehensive Income. This statement requires companies to classify items of other comprehensive income by their nature in the financial statements and display the accumulated balance of other comprehensive income separately from retained earnings and additional paid-in-capital in the equity section of the balance sheet. For all periods presented, the primary differences between the Company's net income (loss) and comprehensive income (loss) arise from foreign currency translation adjustments.

**Recent Accounting Pronouncements**

In June 1998, the Financial Accounting Standards Board, or FASB, issued SFAS No. 133, Accounting for Derivative Instruments and Hedging Activities. The new standard establishes accounting and reporting standards for derivative instruments, including certain derivative instruments embedded in other contracts, and for hedging contracts. In July 1999, the FASB issued SFAS No. 137, Accounting for Derivative Instruments and Hedging Activities - Deferral of the Effective Date of FASB Statement No. 133. SFAS No. 137 deferred the effective date of SFAS No. 133 until fiscal years beginning after June 15, 2000. The adoption of this pronouncement did not have an impact on our financial statements.

In June 2001, the FASB issued SFAS No. 141, Business Combinations. SFAS No. 141 addresses accounting and financial reporting for business combinations. Also in June 2001, the FASB issued SFAS No. 142, Goodwill and Other Intangible Assets. SFAS No. 142 changes the accounting for goodwill from an amortization method to an impairment-only approach. The Company has adopted SFAS No. 141 and SFAS No. 142. Adoption of SFAS No. 141 and 142 did not impact the Company's financial statements.

In October 2001, the FASB issued Statement of Accounting Standards No. 144 Accounting for the Impairment or Disposal of Long-Lived Assets (FAS 144). FAS 144 supersedes FAS 121 Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of. FAS 144 applies to all long-lived assets (including discontinued operations) and consequently amends Accounting Principles Board Opinion No. 30 (APB 30), *Reporting Results of Operations Reporting the Effects of Disposal of a Segment of a Business*. FAS 144 develops one accounting model for long-lived assets that are to be disposed of by sale. FAS 144

## LOGICVISION, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

requires that long-lived assets that are to be disposed of by sale be measured at the lower of book value or fair value less cost to sell. Additionally, FAS 144 expands the scope of discontinued operations to include all components of an entity with operations that (1) can be distinguished from the rest of the entity and (2) will be eliminated from the ongoing operations of the entity in a disposal transaction. FAS 144 is effective for the Company for all financial statements issued in fiscal 2003. The Company expects that the initial application of SFAS 144 will not have a material impact on its financial statements.

**3. PROPERTY AND EQUIPMENT**

Property and equipment comprise (in thousands):

	December 31,		
	2001	2000	1999
Computer equipment and software	\$ 3,511	\$ 2,844	\$ 1,938
Office equipment and leasehold improvement	326	453	378
	3,837	3,297	2,316
Less: Accumulated depreciation	(2,384)	(1,965)	(1,562)
	\$ 1,453	\$ 1,332	\$ 754

**4. LOAN AGREEMENT**

In December 2001, the Company signed an agreement with a bank under which the Company may borrow, on a revolving basis, up to \$5 million with interest at the bank's prime rate (4.75% at December 31, 2001). The Company must maintain certain operating and reporting covenants and is not permitted to pay dividends, or make material investments or dispositions without the prior written consent of the bank. The agreement expires on December 18, 2002. At December 31, 2001, there were no amounts outstanding under this agreement.

**5. COMMITMENTS**

Both the Company and its subsidiaries in Canada and the United Kingdom rent office facilities under noncancelable operating leases which expire through July 2006. The Company and its subsidiaries are responsible for certain maintenance costs, taxes and insurance under the respective leases.

At December 31, 2001, total future minimum payments under operating leases were as follows (in thousands):

2002	\$	924
2003		942
2004		950
2005		332
2006		58
	\$	3,206

Rent expense for the years ended December 31, 2001, 2000 and 1999 was \$1,095,000, \$888,000 and \$769,000, respectively.

## LOGICVISION, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

**6. PREFERRED STOCK**

Upon the closing of our initial public offering on November 5, 2001, all of the then outstanding shares of Series A Preferred Stock, Series B Preferred Stock, Series C-1 Preferred Stock, Series C-2 Preferred Stock, Series C-3 Preferred Stock, Series D Preferred Stock, Series E Preferred Stock, Series F Preferred Stock, Series G Preferred Stock, Series H-1 Preferred Stock and Series I Preferred Stock were automatically converted into shares of our Common Stock. Warrants to purchase shares of our Series F Preferred Stock, Series H-2 Preferred Stock and Series I Preferred Stock were also automatically converted into warrants to purchase shares of our Common Stock. Following that conversion, the Company filed with the Secretary of State of the State of Delaware a Restated Certificate of Incorporation that reflects the deletion of provisions relating to those series of preferred stock. As a result, 5,000,000 shares of undesignated preferred stock, \$0.0001 par value, are authorized. The board of directors has the authority, without further action by the stockholders, to issue from time to time the preferred stock in one or more series and to fix the number of shares, designations, preferences, powers, and other rights of those shares. The preferences, powers, rights and restrictions of different series of preferred stock may differ with respect to dividend rates, amounts payable on liquidation, voting rights, conversion rights, redemption provisions, sinking fund provisions, and purchase funds and other matters. No such preferred stock was issued or outstanding as of December 31, 2001.

**7. RECONCILIATION OF THE BASIC AND DILUTED LOSS PER SHARE**

Following is a reconciliation of the numerators and denominators of the basic and diluted loss per share computations for the periods presented below (in thousands except per share data):

	Years Ended December 31,								
	2001			2000			1999		
	Loss (Numerator)	Shares (denominator)	Per share Amount	Loss (Numerator)	Shares (denominator)	Per share Amount	Loss (Numerator)	Shares (denominator)	Per share Amount
Basic Loss Per Share:									
Net loss attributable to common stockholders	\$ (6,273)	4,063	\$ (1.54)	\$ (12,889)	1,654	\$ (7.79)	\$ (8,271)	1,315	\$ (6.29)
Effect of dilutive securities:									
Diluted Loss Per Share:									
Net loss attributable to common stockholders assuming dilution	\$ (6,273)	4,063	\$ (1.54)	\$ (12,889)	1,654	\$ (7.79)	\$ (8,271)	1,315	\$ (6.29)

**8. STOCK OPTION PLANS AND WARRANTS**

On August 3, 2000, the Board of Directors authorized the establishment of the 2000 Stock Incentive Plan (the 2000 Plan) with 1,000,000 shares reserved for grant under the Plan. The Plan was approved by the Company's stockholders in November 2000 and was effective upon the Company's October 2001 initial public offering. The number of shares reserved for issuance under the 2000 Plan will be increased on the first day of each of the Company's fiscal years from 2002 to 2010 by the lesser of 750,000 shares, 3.5% of the outstanding shares of the Company's common stock on that date or a lesser amount determined by the Board of Directors. The 2000 Plan is intended to serve as a successor to the 1994 Flexible Stock Option Plan (the 1994 Plan) and all remaining shares available for grant under the 1994 Plan were authorized for issuance under the 2000 Plan. As of December 31, 2001, no options were available for further grant under the 1994 Plan.

Under the 2000 Plan, the Board of Directors has the authority to determine the type of option and the number of shares subject to each option. The exercise price is generally equal to fair value of the underlining



## LOGICVISION, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

stock at the date of grant. Options generally become exercisable over a four-year period and, if not exercised, expire ten years from the date of grant.

Under the 2000 Plan, the Board of Directors has the discretion to grant options to nonemployee directors. Each nonemployee director who first becomes a Board member after the date of the initial public offering may be granted an option to purchase 7,500 shares. In addition, each nonemployee director may be granted on an annual basis an option to purchase of 2,500 shares.

The following table summarizes option activities from December 31, 1998 through December 31, 2001:

	Shares available for grant	Number of options outstanding	Exercise price	Aggregate price	Weighted average exercise price
(in thousands, except per share amounts)					
<b>Balances, December 31, 1998</b>	467	970	\$0.20-\$1.00	682	\$0.704
Options authorized	500				
Options granted	(809)	809	\$1.00-\$1.76	1,301	\$1.607
Options exercised		(232)	\$0.20-\$1.76	(181)	\$0.781
Options cancelled	80	(80)	\$0.50-\$1.76	(78)	\$0.971
<b>Balances, December 31, 1999</b>	238	1,467	\$0.20-\$1.76	1,724	\$1.175
Options authorized	1,000				
Options granted	(972)	972	\$2.56-\$5.00	4,003	\$4.119
Options exercised		(226)	\$0.20-\$2.56	(204)	\$0.906
Stocks granted under plan	(3)				
Options cancelled	150	(150)	\$0.50-\$5.00	(346)	\$2.310
<b>Balances, December 31, 2000</b>	413	2,063	\$0.20-\$5.00	5,177	\$2.509
Options authorized	1,500				
Options granted	(405)	405	\$5.00-\$6.00	2,171	\$5.359
Options exercised		(65)	\$0.50-\$5.00	(109)	\$1.691
Options cancelled	108	(108)	\$0.20-\$5.00	(308)	\$2.686
<b>Balances, December 31, 2001</b>	1,616	2,295	\$0.20-\$6.00	6,931	\$3.020

At December 31, 2001, 2000 and 1999, options under the 1994 Plan and 2000 Plan to purchase approximately 1,556,000, 625,000 and 524,000 shares of common stock, respectively, were exercisable.

In addition to the options granted under the 1994 Plan, 437,500, 248,000 and 15,000 non-qualified options were granted outside the 1994 Plan in 1995, 1996 and 2000 at an exercise price of \$0.50, \$0.50 and \$5.00 per share, respectively. The outstanding balances of the non-qualified options were 452,500, 452,500 and 685,500 at December 31, 2001, 2000 and 1999. All of the non-qualified options were fully vested at December 31, 2001.

**Unearned Stock Compensation**

In connection with certain stock option grants during 2001, 2000 and 1999, the Company recorded unearned stock compensation cost totaling \$1,815,000, \$5,617,000 and \$762,000, respectively, representing the difference between the deemed fair market value of the Company's common stock and the exercise price of the options on the date of grant. The Company recorded a compensation charge equal to the difference between the exercise price of the stock and the deemed fair value of the Company's stock at the date of grant. Amortization expense

## LOGICVISION, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

associated with unearned stock compensation totaled \$2,859,000, \$2,106,000 and \$367,000 in 2001, 2000 and 1999, respectively.

Had compensation cost for the Company's stock-based compensation plan been determined based on the minimum value at the grant date for awards for 2001, 2000 and 1999 consistent with the provisions of SFAS No. 123, the Company's net loss would have been increased to the pro forma amounts indicated below (in thousands):

	<u>2001</u>	<u>2000</u>	<u>1999</u>
Net loss as reported	\$ 6,143	\$ 12,716	\$ 8,098
Pro forma net loss	\$ 6,758	\$ 13,167	\$ 8,175

The value of the option grants has been calculated on the date of grant using the minimum value method under the Black-Scholes options pricing model with the following weighted-average assumptions:

	<u>2001</u>	<u>2000</u>	<u>1999</u>
Expected average life of option	4 years	4 years	4 years
Risk-free interest rate	5.17%	6.26%	5.55%
Expected dividends			
Volatility	70%		

The options outstanding and currently exercisable by exercise price at December 31, 2001 are as follows (in thousands):

Exercise Price	Number	Weighted average remaining contractual life (years)	Weighted average exercise price	Number exercisable	Weighted average exercise price
\$0.20-\$1.00	532	5.3	\$ 0.75	449	\$ 0.70
\$1.76-\$3.60	950	7.9	\$ 2.45	469	\$ 2.26
\$5.00	667	8.8	\$ 5.00	185	\$ 5.00
\$6.00	146	9.7	\$ 6.00		\$
	<u>2,295</u>	<u>7.7</u>	<u>\$ 3.02</u>	<u>1,103</u>	<u>\$ 2.08</u>

## Warrants

At December 31, 2001, the Company had warrants to purchase common stock outstanding as follows:

Warrants type	Number outstanding	Expiration date	Exercise price
Warrants issued for Series F financing (Class 1)	119,673	May 2002	\$ 7.53
Warrants issued for Series F financing (Class 2)	20,505	May 2002	\$
Warrants issued for Series G financing	317,057	December 2009	\$ 1.00
Warrants issued for Series H financing	271,309	May 2004	\$ 4.86
Warrants issued for Series I financing	22,847	January 2005	\$ 8.50

The fair value of these warrants was determined using the Black-Scholes model assuming volatility factors of 0.60, contractual lives between 4 and 10 years, and risk-free rates of return between 5.3% and 5.6%.

**LOGICVISION, INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

On November 5, 2001, warrants to purchase 287,505 shares of common stock were exercised on a net issuance basis for a total of 161,167 shares of common stock in accordance with the warrant agreements issued in connection with the issuances of Series F and G preferred stock. The exercise prices of these warrants ranged from \$0 to \$7.53.

**9. STOCK PURCHASE PLAN**

On September 25, 2000, the Board of Directors approved the 2000 Employee Stock Purchase Plan. The stockholders approved the Plan in November 2000. The Plan was effective upon the Company's October 2001 initial public offering and a total of 250,000 shares of common stock has been reserved for issuance under the Plan. The number of shares reserved for issuance under the Plan will be increased on the first day of each fiscal year, commencing in 2002, by the lesser of 125,000 shares, 1% of the outstanding shares on that date or a lesser amount as determined by the board of directors. On January 17, 2002, the Board of Directors approved an increase of 125,000 shares reserved for future issuance under the Plan. The Plan, which is intended to qualify under Section 423 of the Internal Revenue Code of 1986, as amended, is administered by the compensation committee of the Company's board of directors.

**10. INCOME TAXES**

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

	<b>December 31, 2001</b>
Current:	
Federal	
State and Foreign	124
	<b>124</b>
Deferred	
	<b>124</b>
Total provision for income taxes	<b>124</b>

## LOGICVISION, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Significant components of our deferred tax assets and liabilities are as follows (in thousands):

	December 31,	
	2001	2000
Deferred tax assets:		
Net operating losses	12,535	8,500
Depreciation and amortization		29
Reserves	539	928
Credits	1,557	1,225
Capitalized research and development costs	2,005	1,478
Deferred revenue	1,263	2,086
	<u>17,899</u>	<u>14,246</u>
Deferred tax liability:		
Depreciation and amortization	(778)	
	<u>(778)</u>	
Gross deferred tax asset	17,121	14,246
Less: Valuation allowance	(17,121)	(14,246)
Net deferred tax assets		

The Company has established a full valuation allowance against its deferred tax assets due to the uncertainty surrounding the realization of such assets. Management evaluates, on an annual basis, the recoverability of the deferred tax assets and the level of the valuation allowance.

As of December 31, 2001, the Company had federal and California net operating loss carryforwards of approximately \$35,068,000 and \$10,481,000 available to reduce future federal and California taxable income, respectively. These federal and California carryforwards begin to expire in 2007 and 2002, respectively, if not utilized. The extent to which these carryforwards can be used to offset future taxable income may be limited under Section 382 of the Internal Revenue Code and applicable state tax law.

At December 31, 2001, the Company had federal and California research and experimentation tax credit carryforwards of approximately \$1,067,000 and \$484,000 respectively. These federal tax credit carryforwards begin to expire in 2007, if not utilized; the California tax credit carryforwards do not expire. The extent to which these tax credit carryforwards can be used to offset future taxes may be limited under Section 383 of the Internal Revenue Code and applicable state law.

For financial reporting purposes the tax effect of the net operating loss and tax credit carryforwards have been recorded as deferred tax assets.

## LOGICVISION, INC.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The effective tax rate differs from the statutory federal income tax rate as follows:

	December 31,	
	2001	2000
Statutory federal income tax rate	(34.0)%	(34.0)%
State income taxes, net of federal benefit	(2.6)%	0.0%
Stock-based compensation	16.2%	9.0%
Credits	(3.1)%	(2.3)%
Change in Valuation Allowance	26.8%	26.9%
Foreign taxes	(3.5)%	0.0%
Other	2.3%	0.4%
	<u>          </u>	<u>          </u>
Effective tax rate	2.1%	0.0%
	<u>          </u>	<u>          </u>

**11. BENEFIT PLAN**

The Company has a defined contribution savings plan (the 401(k) Plan ) to provide retirement income to all qualified employees of the Company. The 401(k) Plan is intended to be qualified under Section 401(k) of the Internal Revenue Code of 1986, as amended. The 401(k) Plan is funded by voluntary pre-tax contributions from employees. Contributions are invested, as directed by the participant, in investment funds available under the 401(k) Plan. The Company is not required to make, and has not made, any contributions to the Plan.

**12. RELATED PARTY TRANSACTIONS**

The Company has loans outstanding to an officer and an employee of the Company. The loans are collateralized by the Company's common stock owned by the officer and the employee. The interest rates and repayment schedules on these loans are 8% and 6%, respectively, and 10 and 3 years, respectively. As of December 31, 2001, the total outstanding balance on these loans was \$100,000.

**SELECTED QUARTERLY CONSOLIDATED FINANCIAL DATA (Unaudited)**

The following table presents selected unaudited consolidated financial results for each of the eight quarters in the two-year period ended December 31, 2001. In the Company's opinion, this unaudited information has been prepared on the same basis as the audited information and includes all adjustments (consisting of only normal recurring adjustments) necessary for a fair statement of the financial information for the period presented.

	Quarters Ended			
	March 31,	June 30,	Sept. 30,	Dec. 31,
	(In thousands, except per share data)			
<b>Year Ended December 31, 2001:</b>				
Revenues	\$ 3,139	\$ 3,881	\$ 4,804	\$ 5,408
Cost of Revenues	464	767	924	789
Gross profit	2,675	3,114	3,880	4,619
Research and development	1,378	1,398	1,135	1,182
Sales and marketing	2,678	2,514	2,246	2,509
General and administrative	933	656	442	737
Amortization of deferred stock compensation	673	694	750	742
Total operating expenses	5,662	5,262	4,573	5,170
Loss from operations	(2,987)	(2,148)	(693)	(551)
Net loss	(2,931)	(2,134)	(713)	(495)
Net loss per share, basic and diluted	\$ (1.54)	\$ (1.11)	\$ (0.37)	\$ (0.05)
<b>Year Ended December 31, 2000:</b>				
Revenues	\$ 2,067	\$ 2,247	\$ 2,303	\$ 2,666
Cost of revenues	642	551	522	823
Gross profit	1,425	1,696	1,781	1,843
Research and development	1,199	1,178	1,253	1,357
Sales and marketing	1,605	1,822	2,101	3,402
General and administrative	592	596	786	2,038
Amortization of deferred stock compensation	488	211	640	767
Total operating expenses	3,884	3,807	4,780	7,564
Loss from operations	(2,459)	(2,111)	(2,999)	(5,721)
Net loss	(2,434)	(2,015)	(2,860)	(5,580)
Net loss per share, basic and diluted	\$ (1.69)	\$ (1.34)	\$ (1.61)	\$ (2.95)

LOGICVISION, INC.

**SCHEDULE II VALUATION AND QUALIFYING ACCOUNTS**

**For the Years Ended December 31, 2001, 2000 and 1999**

(in thousands)

<u>Description</u>	<u>Balance at Beginning of Period</u>	<u>Addition/Charged to Costs Expenses</u>	<u>Recoveries</u>	<u>Balance at End of Period</u>
Allowance for doubtful accounts receivables:				
Fiscal year ended December 1999	\$	\$	\$	\$
Fiscal year ended December 2000		104		104
Fiscal year ended December 2001	104	268	(351)	21

**Item 9. Changes In and Disagreements With Accountants on Accounting and Financial Disclosure**

None.

**PART III**

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

The information required by this item (with respect to Directors) is incorporated by reference from the information under the caption "Election of Directors" contained in the Company's Proxy Statement to be filed with the Securities and Exchange Commission in connection with the solicitation of proxies for the Company's 2002 Annual Meeting of Stockholders to be held on May 21, 2002 (the "Proxy Statement").

Item 405 of Regulation S-K calls for disclosure of any known late filing or failure by an insider to file a report required by Section 16(a) of the Exchange Act. This information is contained in the section called "Other Information - Section 16(a) Beneficial Ownership Reporting Compliance" in the Proxy Statement and is incorporated herein by reference.

The executive officers and key employees of the Company are as follows:

*Vinod K. Agarwal, PhD*, 49, founded LogicVision in 1992 and has served as our President, Chief Executive Officer and a director since 1992. Prior to founding LogicVision, Dr. Agarwal was the Nortel/NSERC Industrial Research Chair Professor at McGill University in Montreal and served as a consultant to Nortel Networks Corporation, Hitachi, Ltd. and Eastman Kodak Company for developing their design-for-test/embedded test environment. In 1992, Dr. Agarwal was elected to be a Fellow of The Institute of Electrical and Electronics Engineers, Inc., or IEEE, for his contributions to built-in self-test and fault-tolerant computing. Dr. Agarwal is a co-inventor of several US patents on embedded test technology. He holds a BE in Electronics from Birla Institute of Technology and Science, Pilani, India, an M.S. in Electrical Engineering from University of Pittsburgh and a PhD in Electrical Engineering from Johns Hopkins University.

*John H. Barnet*, 66, has served as Vice President of Finance and Chief Financial Officer since September 1999, after having served as a financial consultant since January 1999. From 1996 to 1998, Mr. Barnet was Vice President of Finance and Administration and Chief Financial Officer of ESS Technology, Inc., a fabless semiconductor company. From 1992 to 1996, Mr. Barnet served as Executive Vice President, Finance and Chief Financial Officer for Trimble Navigation, Ltd., a manufacturer of global positioning satellite instruments. Prior to 1992, he held Vice President of Finance and Chief Financial Officer positions with Centex Telemanagement, Inc., Philips-Signetics Corporation, Teledyne Semiconductor and Acurex Corporation. Mr. Barnet holds a BS in Industrial Engineering from Stanford University and an MBA from Columbia University.

*Michael C. Howells*, 40, has served as our Vice President of Engineering since 1994 and joined us as our Director of Marketing in 1993. Prior to joining LogicVision, Mr. Howells was a Senior Product Marketing Engineer with Mitsubishi Electronics America in their application specific integrated circuit group. While at Mitsubishi, Mr. Howells was involved in marketing deep sub-micron application specific integrated circuits, as well as development of related design flows and electronic design automation tools, and was also responsible for Mitsubishi's Ottawa application specific integrated circuit design center. He holds a BEng and an MEng in Electrical Engineering from McGill University.

*Mukesh J. Mowji*, 43, has served as our Vice President of Marketing since January 2002. From August 2000 to January 2002, he served as our Vice President of Manufacturing Business and was responsible for business development and marketing in semiconductor manufacturing. From 1988 to 2000 Mr. Mowji held various senior positions in marketing, sales, and field operations at LTX Corporation, and, from 1979 to 1988, Mr. Mowji held various senior positions in engineering, operations and sales with the test equipment division of Schlumberger Limited's test equipment business. He holds a BS in Electrical Engineering from San Francisco State University.

*Benoit Nadeau-Dostie, PhD*, 45, has served as our Chief Scientist since 1994. He was the primary architect of Bell-Northern Research and Northern Telecom's, now Nortel Networks, design-for-test/embedded test



program that resulted in several key patents related to built-in self-test. He has been published in numerous journals, magazines and conference proceedings, specifically in the areas of memory, logic and printed circuit board embedded test. Dr. Nadeau-Dostie is an active member of several conference program committees, and is on the editorial board of Design & Test of Computers magazine. He is also a senior member of the IEEE 1149.1 Standard Working Group. He was elected a senior member of the IEEE based on his contributions in embedded test and design-for-test. Dr. Nadeau-Dostie has been co-inventor of several of our issued patents and the editor of Design for At-Speed Test, Diagnosis and Measurement. He holds a BS and a PhD from Universite de Sherbrooke.

*Dale S. Olstinske*, 46, has served as our Vice President of Sales since April 1998. He has directed and managed worldwide sales and marketing efforts for electronics companies in areas of design tools, electronic components, system-level products and application specific integrated circuit foundry services. Prior to joining LogicVision, Mr. Olstinske held the position of Executive Vice President at Frequency Technology, Inc. from August 1996 to April 1998. From February 1991 to August 1996, he held senior sales management and general management positions at LSI Logic Corporation. Prior to that, he held senior sales management and general management positions at Martan, Inc., Ready Systems and Intel Corporation. He holds a BS in Electrical and Computer Engineering from the University of Wisconsin.

*Rodger W. Sykes, PhD*, 45, has served as our Vice President of System Business since January 2002. From July 1999 to January 2002, he served as our Vice President of Marketing and Business Development. Prior to joining LogicVision, Dr. Sykes was the Marketing and Business Development Director for Philips Semiconductors, a division of Royal Dutch Philips, in the Windows Systems IC business unit from April 1997 to June 1999. Prior to serving at Philips, Dr. Sykes spent 13 years at Texas Instruments Incorporated in Europe and the U.S. in various technical, marketing and business management roles in the ASIC sector. He holds a BS in Electronics and Applied Physics and a PhD in Semiconductor Device Physics from Durham University, UK.

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

The information required by this item is incorporated by reference from the information under the captions Election of Directors Compensation of Directors, Executive Compensation, and Election of Directors Compensation Committee Interlocks and Insider Participation contained in the Proxy Statement.

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

The information required by this item with respect to security ownership of certain beneficial owners and management is incorporated by reference from the information under the caption Security Ownership of Certain Beneficial Owners and Management contained in the Proxy Statement.

**Equity Compensation Plan Information**

The following table sets forth certain information regarding the Company's equity compensation plans as of December 31, 2001:

<u>Plan Category</u>	<u>Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)</u>	<u>Weighted average exercise price of outstanding options, warrants and rights (b)</u>	<u>Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)</u>
Equity compensation plans approved by security holders	2,317,939(1)	\$ 3.07	1,616,709(2)
Equity compensation plans not approved by security holders	452,500(3)	\$ 0.65	
<b>Total</b>	<b>2,770,439</b>	<b>\$ 2.68</b>	<b>1,616,709</b>

- (1) Includes warrants to purchase 22,847 shares of common stock, which warrants were issued to the Company's financial adviser in connection with the issuance of the Company's Series I preferred stock.
- (2) The number of shares reserved for issuance under the Company's 2000 Stock Incentive Plan will be increased on the first day of each of the Company's fiscal years from 2002 to 2010 by the lesser of 750,000 shares, 3.5% of the outstanding shares of the Company's common stock on that date or a lesser amount determined by the Company's board of directors.
- (3) Consists of non-qualified options granted outside of the Company's 1994 Flexible Stock Incentive Plan in 1995 and 2000.

The material features of the outstanding options which were granted outside of the 1994 Plan are as follows:

**1995 Non-plan Option Grant.** An option to purchase 437,500 shares of common stock was granted to Vinod K. Agarwal, the Company's President and Chief Executive Officer, at an exercise price of \$0.50 per share, which price was not less than the per share fair market value on the date of grant as determined by the board of directors. The option vested at a rate of 4.17% per month and has vested in full. The option has a ten year term, subject to earlier termination, and includes provisions to adjust for any change in the Company's common stock through merger, recapitalization, stock split or other change in the capital structure of the Company to preserve but not increase the benefits to the optionee.

**2000 Non-plan Option Grants.** Options to purchase 7,500 shares of common stock each were granted to two of the members of the Company's board of directors, Richard C. Black and Navindra Jain, at an exercise price of \$5.00 per share, which price was not less than the per share fair market value on the date of grant as determined by the board of directors. The options were partially vested on the date of grant and have since vested in full. Each option has a ten year term, subject to earlier termination, and includes provisions to adjust for any change in the Company's common stock through merger, recapitalization, stock split or other change in the capital structure of the Company to preserve but not increase the benefits to the optionee.

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

The information required by this item is incorporated by reference from the information contained under the caption "Certain Relationships and Related Party Transactions" contained in the Proxy Statement.

**PART IV**

**Item 14. Exhibits, Financial Statement Schedules, and Reports on Form 8-K**

**(a) Documents filed as part of this report:**

- (1) Financial Statements

See Index under Item 8.

- (2) Financial Statement Schedule

See Index under Item 8.

- (3) Exhibits

See Item 14(c) below. Each management contract or compensatory plan or arrangement required to be filed has been identified.

**(b) Reports on Form 8-K.**

The Company filed no reports on Form 8-K during the fiscal quarter ended December 31, 2001.

(c) Exhibits

Exhibit Number	Description of Document
3(i)	Restated Certificate of Incorporation.
3(ii)	Restated Bylaws (incorporated by reference to Exhibit 3(ii).2 to Amendment No. 8 to the Company's Registration Statement on Form S-1 (File No. 333-43654)).
4.1	Form of Common Stock Certificate (incorporated by reference to the exhibit of the same number to Amendment No. 8 to the Company's Registration Statement on Form S-1 (File No. 333-43654)).
4.2	Form of Class 1 Warrant to Purchase Shares of Series F Convertible Preferred Stock (incorporated by reference to the exhibit of the same number to Amendment No. 1 to the Company's Registration Statement on Form S-1 (File No. 333-43654)).
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4.6	Form of Warrant to Purchase Series H-2 Preferred Stock (incorporated by reference to the exhibit of the same number to Amendment No. 8 to the Company's Registration Statement on Form S-1 (File No. 333-43654)).
4.7	Warrant to Purchase Series I Preferred Stock (incorporated by reference to the exhibit of the same number to Amendment No. 1 to the Company's Registration Statement on Form S-1 (File No. 333-43654)).
4.8.1#	Stock Option Agreement between the Registrant and Vinod K. Agarwal (incorporated by reference to the exhibit of the same number to Amendment No. 6 to the Company's Registration Statement on Form S-1 (File No. 333-43654)).
4.8.2#	Form of Stock Option Agreement (incorporated by reference to the exhibit of the same number to Amendment No. 6 to the Company's Registration Statement on Form S-1 (File No. 333-43654)).
10.1.1#	Form of agreements under the 1994 Flexible Stock Incentive Plan (incorporated by reference to the exhibit of the same number to the Company's Registration Statement on Form S-1 (File No. 333-43654)).
10.1.2#	1994 Flexible Stock Incentive Plan, as amended (incorporated by reference to Exhibit 99.2 to the Company's Registration Statement on Form S-8 (File No. 333-74336)).
10.2#	Amended and Restated 2000 Stock Incentive Plan, Amendment No. 1 thereto, and form of agreements thereunder.
10.3#	Form of Indemnification Agreement between the Registrant and its officers and directors (incorporated by reference to the exhibit of the same number to Amendment No. 2 to the Company's Registration Statement on Form S-1 (File No. 333-43654)).
10.4	Sixth Amended and Restated Registration Rights Agreement dated as of January 28, 2000 (incorporated by reference to the exhibit of the same number to the Company's Registration Statement on Form S-1 (File No. 333-43654)).
10.5	Lease, dated as of August 13, 1998, by and between Spiker Properties, L.P. and the Registrant (incorporated by reference to the exhibit of the same number to Amendment No. 1 to the Company's Registration Statement on Form S-1 (File No. 333-43654)).
10.6	Extension Agreement, dated as of January 17, 2000, by and between Spiker Properties, L.P. and the Registrant (incorporated by reference to the exhibit of the same number to Amendment No. 1 to the Company's Registration Statement on Form S-1 (File No. 333-43654)).

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10.7.2	Amendment, dated as of October 1, 1993, to the Agreement between Northern Telecom Limited and the Registrant (incorporated by reference to the exhibit of the same number to Amendment No. 9 to the Company's Registration Statement on Form S-1 (File No. 333-43654)).
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10.7.4	Amendment, dated as of March 20, 2001, to the Agreement between Nortel Networks Limited (formerly Northern Telecom Limited) and the Registrant (incorporated by reference to the exhibit of the same number to Amendment No. 9 to the Company's Registration Statement on Form S-1 (File No. 333-43654)).
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10.10	Amended and Restated Loan Agreement, dated as of December 19, 2001, by and between Comerica Bank-California and the Registrant.
21.1	Subsidiaries of the Company (incorporated by reference to the exhibit of the same number to Amendment No. 8 to the Company's Registration Statement on Form S-1 (File No. 333-43654)).
23.1	Consent of PricewaterhouseCoopers LLP, Independent Accountants.
24.1	Power of Attorney (see page 57 of this Form 10-K).

Confidential treatment has been granted with respect to certain portions of these agreements.

# Indicates management contract or compensatory plan or arrangement.

**SIGNATURES**

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Company has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

LOGICVISION,  
INC.

Date: March 15, 2002

/s/ VINOD K. AGARWAL  
By: \_\_\_\_\_  
**Vinod K. Agarwal, Ph.D.**  
**President and Chief**  
**Executive Officer**

**POWER OF ATTORNEY**

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Vinod K. Agarwal, Ph.D. and John H. Barnet, and each of them, his true and lawful attorneys-in-fact, each with full power of substitution, for him or her in any and all capacities, to sign any amendments to this report on Form 10-K and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that each of said attorneys-in-fact or their substitute or substitutes may do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

<u>Name</u>	<u>Title</u>	<u>Date</u>
/s/ VINOD K. AGARWAL _____ <b>Vinod K. Agarwal, Ph.D.</b>	President and Chief Executive Officer (Principal Executive Officer), Director and Secretary	March 15, 2002
/s/ JOHN H. BARNET _____ <b>John H. Barnet</b>	Vice President of Finance and Chief Financial Officer (Principal Financial and Accounting Officer)	March 15, 2002
/s/ NAVINDRA JAIN _____ <b>Navindra Jain</b>	Chairman of the Board	March 15, 2002
/s/ RICHARD C. BLACK _____ <b>Richard C. Black</b>	Director	March 15, 2002
/s/ D. JAMES GUZY _____ <b>D. James Guzy</b>	Director	March 15, 2002
/s/ DAVID L. SULMAN _____ <b>David L. Sulman</b>	Director	March 15, 2002
/s/ JON D. TOMPKINS _____ <b>Jon D. Tompkins</b>	Director	March 15, 2002

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