UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

FORM 10-K

[X]	ANNUAL REPORT PURSUANT TO SECTION 13 or 15(d) For the fiscal year ended December 31, 2002.	OF THE SECURITIES EXCHANGE ACT OF 1934
[]	TRANSITION REPORT PURSUANT TO SECTION 13 OR For the transition period from to	15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
	Commission File Nun	nber 0-25236
	MICREL, INCO (Exact name of Registrant as s	
	California	94-2526744
(State	e or other jurisdiction of incorporation or Organization)	(I.R.S. Employer Identification No.)
	2180 Fortune Drive, San Jo (Address of principal executiv	
	Registrant's telephone number, includi	ng area code: (408) 944-0800
Secui	rities registered pursuant to Section 12(b) of the Act:	None
Secui	rities registered pursuant to Section 12(g) of the Act:	Common Stock, no par value
	Indicate by check mark whether the registrant (1) has filed a rities Exchange Act of 1934 during the preceding 12 months e such reports), and (2) has been subject to such filing requiren	or for such shorter period that the registrant was required
	Indicate by check mark if disclosure of delinquent filers p n, and will not be contained, to the best of registrant's kn porated by reference in Part III of this Form 10-K or any amen	owledge, in definitive proxy or information statements
	Indicate by check mark whether the registrant is an accelerate	ed filer (as defined in Rule 12b-2 of the Act. Yes [X] No [
Mark outsta	As of March 14, 2003, the aggregate market value of the approximately \$459,603,118 based upon the closing sales price ter on such date. Shares of Common Stock held by office anding Common Stock have been excluded from this calculate determination of affiliate status is not necessarily a conclusive of the status of the stat	e of the Common Stock as reported on the Nasdaq Stock rs, directors and holders of more than ten percent of the on because such persons may be deemed to be affiliates.
As of	March 14, 2003, the Registrant had outstanding 92,064,679 s	nares of Common Stock.
	DOCUMENTS INCORPORAT	ED BY REFERENCE:

This Report on Form 10-K includes 71 pages with the Index to Exhibits located on page 68.

incorporated by reference in Part III of this Report.

Portions of the Registrant's Proxy Statement for its Annual Meeting of Shareholders to be held on May 22, 2003 are

MICREL, INCORPORATED

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ANNUAL REPORT ON FORM 10-K

FOR YEAR ENDED DECEMBER 31, 2002

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PART I

ITEM 1. BUSINESS

General

The Company was incorporated in California in July 1978. References to the "Company" and "Micrel" refer to Micrel, Incorporated and subsidiaries, which also does business as Micrel Semiconductor. The Company's principal executive offices are located at 2180 Fortune Drive, San Jose, California 95131. The Company's telephone number is (408) 944-0800. We maintain a corporate website located at www.micrel.com, however none of the information contained on our website is incorporated into this annual report. Our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports are made available, free of charge, on the website noted above as soon as reasonably practicable after filing with the Securities and Exchange Commission.

Micrel designs, develops, manufactures and markets a range of high-performance analog power integrated circuits and mixed-signal and digital integrated circuits. The Company currently ships over 1,700 standard products and has derived the majority of its product revenue for the year ended December 31, 2002 from sales of standard analog and high speed communications integrated circuits. These products address a wide range of end markets including cellular handsets, portable computing, enterprise and home networking, wide area and metropolitan area networks and industrial equipment. For the years ended December 31, 2002, 2001, and 2000, the Company's standard products accounted for 88%, 84%, and 79%, respectively, of the Company's net revenues. In addition, the Company manufactures custom analog and mixed-signal circuits and provides wafer foundry services for customers who produce electronic systems for communications, consumer and military applications. In May 2001, Micrel completed its acquisition of Kendin Communications, Inc. ("Kendin"), a privately held fabless semiconductor company that designs, develops and markets high performance integrated circuits for the communications and networking markets. This acquisition enabled Micrel to enter the high growth Ethernet market with a family of Ethernet switch products targeting the small office, home office ("SOHO") and enterprise networking markets. This product portfolio consists of transceiver and switch devices that support various Ethernet protocols supporting communication transmission speeds from 10 megabits per second to 100 megabits per second. Micrel's Kendin operations are also currently developing products to serve the gigabit Ethernet communication protocol.

Continuing trends to lower voltages and higher currents in the communications, networking and computing markets have created demand for high performance analog products to accurately control, regulate, convert and route voltage and current in electronic systems. The demand for these high performance power management circuits has been further fueled by the growth of portable communications and computing devices (e.g. cellular telephones, personal digital assistants ("PDA"), MP3 players and notebook computers). The Company sells a wide range of switching and linear regulators, power switches, voltage supervisors, and thermal management products for these portable devices. Micrel was one of the first companies to offer analog products for the PCMCIA Card and universal serial bus ("USB") market. In additional to USB power switches the Company now offers a family of transceiver products to support USB connectivity from a PC to a USB equipped peripheral at data rates up to 12 Megabits per second.

The Company also has an extensive power management offering for the networking and communications infrastructure markets including PC servers, network switches and routers, storage area networks and wireless base stations. This offering includes a new family of switching regulators for point of load applications in distributed power schemes, and a new family of hot swap power controllers. These hot swap controllers support 24 hours a day, 7 days per week operations by enabling customers to remove

and insert printed circuit boards during system operation. Future families of hot swap controllers are being developed to address the higher voltage requirements of the telecommunications market. The Company also offers standard analog products that address other markets, including industrial, defense, avionics and automotive electronics.

In addition to power and thermal management products, Micrel also offers a family of highly integrated radio frequency ("RF") products. Micrel's QwikRadioTM products enable customers to develop wireless control systems significantly improving the consumer experience of their products. Applications for the QwikRadioTM products include remote keyless entry for automobiles, TV remote controls, wireless game controllers, keyboards and mice. The Company introduced a new family of RF products in 2002 to address high data rate two-way wireless links. Micrel's new RadioWireTM transceivers provide frequency hopping capability to extend the range and improve the integrity of the data link for applications including remote metering, security surveillance and factory automation.

The Company's standard mixed-signal and digital integrated circuits are used primarily for enterprise switch networks, storage area networks and metropolitan area networks. Micrel provides a complete chipset solution for fiber optic module transceivers to support data rates up to 10 Gigabits per second (OC-192). With form factor and size reductions critical to the continued growth of this technology, Micrel has utilized its own process technology and innovative packaging to address these challenges. In 2002, the Company introduced the first integrated controller solution to support the new digital diagnostic standard for optical transceivers to improve system reliability and networking support costs. The MIC3000 controller replaces 4-5 integrated circuits ("ICs") in the current solution with a 75% reduction in size.

In addition to standard analog and mixed signal products, Micrel offers customers various combinations of design, process and foundry services. Through interaction with customers in its custom and foundry business, we have been able to enhance our design and process technology capabilities, which in turn provides engineering and marketing benefits to the Company's standard products business.

Industry Background

Analog Circuit, Mixed-Signal and Digital Integrated Circuits Markets

Integrated circuits may be divided into three general categories — digital, analog (also known as "linear") and mixed-signal. Digital circuits, such as memories and microprocessors, process information in the form of on-off electronic signals and are capable of implementing only two values, "1" or "0." Analog circuits, such as regulators, converters and amplifiers, process information in the form of continuously varying voltages and currents that have an infinite number of values or states. Analog circuits condition, process, and measure or control real world variables such as current, sound, temperature, pressure or speed. Mixed-signal integrated circuits combine analog and digital functions on one chip.

Analog circuits are used in virtually every electronic system, and the largest markets for such circuits are computers, telecommunications and data communications, industrial equipment, military, consumer and automotive electronics. Because of their numerous applications, analog circuits have a wide range of operating specifications and functions. For each application, different users may have unique requirements for circuits with specific resolution, linearity, speed, power and signal amplitude capability. Such differentiation results in a high degree of market fragmentation, which provides smaller companies an opportunity to compete successfully against larger suppliers in certain market segments.

Mixed-signal and digital integrated circuits may be divided into six general categories, LSI/MSI logic, data processing, signal processing, memory, FPGA and application specific.

Mixed-signal and digital integrated circuits are used in computer and communication systems and in industrial products. The primary markets for such circuits are consumer, communications, personal computer systems, and industrial. The primary advantages of the Company's bipolar integrated circuits are high speed and low noise.

As compared with the digital integrated circuit industry, the analog integrated circuit industry has the following important characteristics:

- Dependence on Individual Design Teams. The design of analog circuits involves the complex and critical placement of various circuits. Analog circuit design has traditionally been highly dependent on the skills and experience of individual design engineers.
- Interdependence of Design and Process. Analog designers, especially at companies having their own wafer fabrication facility ("fab"), are able to select from several wafer fabrication processes in order to achieve higher performance and greater functionality from their designs.
- Longer Product Cycles and More Stable Pricing. Analog circuits generally have longer product cycles as compared to digital circuits.

Analog, mixed-signal and digital integrated circuits are sold to customers as either standard products or custom products. Standard analog products are available to customers "off-the-shelf" and are often sold in large volumes to a wide variety of customers in different industries. Custom products are designed to an individual customer's specifications.

Recent Trends in Analog Power Management, Mixed-Signal and Digital Integrated Circuits

Most electronic systems utilize analog circuits to perform power management functions ("power analog circuits") such as the control, regulation, conversion and routing of voltages and current. The computer and communications markets have emerged as two of the largest markets for power analog circuits. In particular, the recent growth and proliferation of portable, battery powered devices, such as cellular telephones and laptop computers, continue to increase demand and create new technological challenges for power analog circuits.

Cellular telephones, which are composed of components and subsystems that utilize several different voltage levels, require multiple power analog circuits to precisely regulate and control voltage. Manufacturers continue to pack more processing power and functionality into smaller form factors placing severe demands on the battery. To maintain or extend talk times, high performance power management products are required. With the introduction of new color displays, "boost" voltage regulators are now required to step up the battery voltage to the higher voltage required to backlight the display with white or blue light emitting diodes ("LED"s). Several manufacturers are also adding USB connectivity to their cellular phones to enable efficient downloads from their PCs or PDAs and Micrel offers a family of USB transceivers to support this emerging trend. Another emerging trend is the use of switching regulators to improve efficiency in power hungry devices such as the base-band processor and power amplifier. This results in longer standby and talk times for the cellular handset and provides a significant opportunity for the Company's high frequency switching regulators.

The rapid adoption of the Internet for information exchange, in business and consumer markets, has led to a significant increase in the need for broadband communications technology. In 2002 there has been a significant expansion in the number of broadband subscribers for both DSL and cable modem services. The

increased bandwidth demand of these users will continue to consume the installed capacity in the metropolitan and wide area networks. The additional demand of new wireless services utilizing the transmission of video will further consume this installed capacity. It is anticipated these trends will continue in 2003. Micrel has maintained significant investment in its communications products to ensure the Company is positioned with new products to capitalize on the return to growth in communications equipment. The Company has significantly expanded its high-speed interface portfolio of logic, level translation, clocking and physical media products with the introduction of 44 new products in 2002.

In the networking market, Ethernet has been widely adopted as the communication standard. Ethernet ports are now being provided on equipment ranging from PCs and PC peripherals such as printers, media converters, set-top boxes, internet protocol ("IP") phones and game consoles. This is driving rapid growth in the SOHO market to connect multiple PCs and peripherals. With its acquisition of Kendin Communications, Micrel has entered this market with leadership products and technology. Micrel's networking products transmit, receive and switch data in local area networks utilizing Ethernet data transmission protocols. Micrel offers a broad range of physical layer ("PHY"), media access controllers ("MAC"s) and switch products for the 10/100 Megabit Ethernet standard.

With the continued development of the standard to Gigabit and now 10 Gigabit data rates Ethernet is now starting to challenge the SONET standard in the metropolitan area network. As applications such as voice over IP ("VOIP"), video conferencing and video multicasting continue to grow in the corporate enterprise, video streaming of movies and online gaming continue to increase over the Internet, and broadband DSL connections continue to grow worldwide, there is an ever increasing demand for more bandwidth. Micrel is positioned with the capabilities to provide the Gigabit and 10-Gigabit Ethernet components that enable these applications. Micrel has recently introduced a Gigabit MAC and is currently developing a family of switch and PHY products for Gigabit Ethernet together with several products in support of the emerging 10 Gigabit Ethernet standard.

Micrel's Strategy

Micrel seeks to capitalize on the growth opportunities within the high-performance analog, mixed-signal and digital semiconductor markets. The Company's core competencies are its analog design and process technology, its large, in-house wafer fabrication capability and its manufacturing expertise. The Company also seeks to capitalize on growth opportunities within the communications and networking markets and has successfully acquired companies serving these market segments. The Company intends to build a leadership position in its targeted markets by pursuing the following strategies:

- Focus on Standard Products for High Growth Markets. Currently, Micrel ships over 1,700 standard products, with net revenues from standard products generating 88% of the Company's net revenues for the year ended December 31, 2002. Micrel believes that its long-term growth will depend substantially on its ability to increase standard product sales in its existing markets and to penetrate new standard product markets. The Company, however, will pursue additional custom and foundry business as opportunities arise.
- Target Power Analog, High-Speed Mixed-signal and Digital Markets. Micrel has leveraged its expertise in power analog circuits by addressing market opportunities in cellular telephones, battery powered computers and desktop personal computers. A majority of the Company's standard products net revenues for the year ended December 31, 2002 were derived from products relating to power management. Through the acquisitions of Synergy Semiconductor, Altos Semiconductor, Electronic Technology and Kendin, the Company has gained expertise in high-speed, mixed-signal and system-level digital integrated circuits, required to address the wide area, metropolitan area and local area

network communication markets as well as increase its penetration of the power and thermal management markets.

- Maintain Technological Leadership. The Company seeks to utilize its design strengths and its process expertise to enhance what the Company believes are its competitive advantages in linear and switching regulators, PCMCIA and USB power switches, hot swap power controllers, high speed interface and communications devices. In order to maintain its technology leadership, the Company has developed plans for successive generations of products with increased functionality. The Company's process technology is a key aspect of the products' value proposition to the customer and enables the Company to differentiate itself from the competition. The Company now has its sub-micron CMOS and bipolar processes in production. The Company is currently developing an in-house silicon germanium process.
- Develop/Acquire New Complementary Businesses. The Company seeks to identify complementary business opportunities building on its core strengths in the analog and mixed signal area. The Company has significantly expanded its product scope through the acquisition of Kendin's high performance transceiver and switch products that address local area network communication applications. The Company has also expanded its product portfolio to include hot swap power controllers, thermal management products and voltage supervisors. This enables Micrel to provide a more complete solution to its customers and facilitates the Company's growth.
- Capitalize on In-house Wafer Fab Facility. The Company believes that its six-inch in-house wafer fab
 facility provides a significant competitive advantage because it facilitates close collaboration between
 design and process engineers in the development of the Company's products.
- Maintain a Strategic Level of Custom and Foundry Products Revenue. Micrel believes that its custom
 and foundry products business complements its standard products business by generating a broader
 revenue base and lowering overall per unit manufacturing costs through greater utilization of its
 manufacturing facilities. Through interaction with customers, Micrel has been able to enhance its
 design and process technology capabilities.

Products and Markets

Overview

The following table sets forth the net revenues attributable to the Company's two segments, standard products and custom and foundry products expressed in dollars and as a percentage of total net revenues.

Net Revenues by Segment (Dollars in thousands)

Voors Ended Docombor 31

	rears Ended December 31,				
	2002	2001	2000		
Net Revenues:					
Standard Products	\$ 180,407	\$ 183,103	\$ 275,306		
Custom and Foundry Products	24,297	34,705	71,029		
Total net revenues	<u>\$ 204,704</u>	<u>\$ 217,808</u>	<u>\$ 346,335</u>		
As a Percentage of Total Net Revenues:					
Standard Products	88%	84%	79%		
Custom and Foundry Products	12	<u> </u>	21		
Total net revenues	<u>100</u> %	<u>100</u> %	<u>100</u> %		

The Company's products address a wide range of end markets. The following table presents the Company's revenues by end market as a percentage of total net revenues.

	Years Ended December 31,			
	2002	2001	2000	
As a Percentage of Total Net Revenues:				
High-Speed Communications	27%	32%	33%	
Wireless Handsets	17	15	16	
Computer	34	30	27	
Industrial	19	20	22	
Military & Consumer	3	3	2	
Total net revenues	<u>100</u> %	<u>100</u> %	<u>100</u> %	

For a discussion of the changes in net revenues from period to period, see "Management's Discussion and Analysis of Financial Condition and Results of Operations."

Standard Products

In recent years, the Company has directed a majority of its development, sales and marketing efforts towards standard products in an effort to address the larger markets for these products and to broaden its customer base. The Company offers a broad range of high performance analog circuits that address high growth markets including cellular telephones, portable computers and desktop personal computers. The majority of the Company's revenue is derived from power management standard products which, in addition to the above markets, are also used in the industrial, defense, and automotive electronics markets. In addition to power management, the Company offers a variety of standard products that serve the communications market including high-speed mixed-signal and digital integrated circuits sold to customers within the networking, communications and computing markets.

Portable Battery Powered Computer Market. The Company makes power analog circuits for laptop, palmtop computers and PDAs. Products in this growing segment are differentiated on the basis of power efficiency, weight, small size and battery life.

Cellular Telephone Market. Micrel offers a range of power control and regulating analog circuits to address the demand for cellular telephones with longer battery lives. Micrel supplies a range of high performance low drop out ("LDO") regulators and higher efficiency switching regulators that convert, regulate, switch and control the DC voltages used in cellular telephones. Micrel's SuperBeta PNPTM LDO and CMOS regulators enable cellular telephones to continue to operate effectively until the battery is almost completely exhausted. Micrel products are designed to reduce board space and decrease system cost. The introduction of new, large display technologies to the cellular handset has created a demand for new "boost" converters to provide higher voltages from single cell lithium batteries. This includes products for both electro-luminescent and color LCD displays. In addition, Micrel offers switch mode power supply ("SMPS") regulators that convert AC to useable DC power in battery chargers and cellular base stations.

Universal Serial Bus Market. USB is a novel method of connecting computer peripherals to a host computer that improves upon the bandwidth and ease-of-use of previously used computer interconnect solutions. In addition to implementing data communications between the connected devices, USB also provides a power source capable of powering the peripheral. Micrel believes that it is the leader in the design and manufacture of circuits that safely control the delivery of this power source. Micrel also pioneered switch products utilizing the new Advanced Control and Power Interface ("ACPI") standard for

lower power consumption. Micrel has also added to its USB product portfolio recently with the introduction of a family of USB transceivers to support connectivity from the PC host to a USB peripheral at data rates up to 12 Megabits per second and is actively developing products to address the new "On the Go" USB standard for peer-to-peer communications.

PCMCIA Card and Socket Markets. The Personal Computer Memory Card International Association, of which Micrel is a member, has established standards for personal computer cards that are the size of credit cards and for sockets that allow insertion of such cards into personal computers. Micrel believes that it is a leader in the design and manufacture of integrated circuits that enable PC Card sockets to have such compatibility.

Power Supply Market. Most electronic equipment includes a power supply that converts and regulates the electrical power source into usable current for the equipment. During 2002 Micrel introduced several families of high voltage switching controllers for the networking, telecommunications and computing markets. These devices offer high efficiency to minimize power loss through heat and high switching frequencies to minimize solution size. Applications for these products include DC-DC converter modules, VOIP phones, network switches and routers, wireless base-stations, wireless access points and PC servers. In addition to SMPS controllers and single chip SMPS regulators, Micrel offers a full line of MOSFET drivers, smart switches, voltage supervisors, LDOs and Super LDOs.

General Purpose Analog. Micrel sells a variety of general purpose analog products including high speed, low power op-amps, comparators, fan controllers and intelligent protected power switches. All of these general purpose devices were focused on low voltage and low current applications.

Thermal Management. Micrel's thermal management products address the need to accurately measure temperature in several system locations and control cooling fans. The ability to measure temperature accurately allows customers to optimize system performance and is critical to both the reliability and operating life of today's electronic systems. Micrel's thermal management technology enables high accuracy at low system cost by sensing the temperature at each location using only one pin connection. Applications for these products include notebook computers, enterprise storage, printers, copiers and settop boxes.

Hot Swap Controllers. Micrel's hot swap power controllers support the requirement for 24/7 operation in servers and communications equipment. These products allow customers to upgrade or replace system boards without having to power down the system. This family offers the industry's most integrated hot swap solution for CompactPCITM applications. These devices build on Micrel's expertise in power control and distribution and target the PC server and industrial computing market segments. Micrel's dual channel hot swap controller to support Intel's ItaniumTM 64-bit microprocessor for the latest generation of PC servers and the next generation product to support the latest PCI-Express standard is in development. The Company also offers high voltage (+/- 48V) controllers for the telecommunications and networking equipment markets.

Radio Frequency Data Communications. Micrel's QwikRadio[™] family of RF receivers are designed for use in any system requiring a cost effective, low data-rate wireless link. Typical examples include garage door openers, wireless computer peripherals, lighting and fan controls, utility metering, automotive keyless entry and security systems. The Company also introduced its first generation RadioWire™ products. The MICRF500, is the Company's first RF transceiver product that is capable of supporting data rates up to 115 Kilobits per second. This device is particularly well suited for home and industrial automation products as well as wireless game controllers and PC peripherals.

Networking and High-Speed Communications Circuits Market. The Company's High Bandwidth division has directed a majority of its development, sales and marketing efforts towards high-speed media interface for SONET/synchronous digital hierarchy ("SDH") markets. The group develops and produces communications products targeted at fiber optic modules and wave division multiplex ("WDM"), dense wave division multiplex ("DWDM") modules as well as clock recovery, clock distribution and level translation circuits. During 2002, the division expanded its high speed interface portfolio with the introduction of 44 new products. These products offer the highest signal integrity in the industry to ensure minimal data loss at transmission speeds in excess of 10 Gigabits per second. Micrel continues to innovate through the addition of novel level translation techniques and the introduction of new data transmission functions. In the fiber optics market Micrel continued to innovate with the introduction of the world's first fiber optic module controller to support the new SFF-8472 digital diagnostic standard it co-authored. This offers optical transceiver customers the highest integration and the lowest solution cost in the market.

Micrel entered the Ethernet networking market with its acquisition of Kendin Communications in May 2001. Micrel's networking products transmit, receive and switch data in local area networks utilizing Ethernet data transmission protocols. Micrel offers a broad range of PHYs, MACs and switch products for the 10/100 Megabit Ethernet standard. The primary applications for the switch products are home and small office computer networks, VOIP phones and media converters, used to convert signals transmitted optically over fiber to standard cable (copper) and vice versa. In 2002 Micrel introduced the KS8695, the world's first integrated SOHO router solution using the ARM 9 processor core. The device is capable of utilizing a broadband connection (cable modem or DSL) to connect up to four PCs with 10/100 Ethernet to realize a home or small business network. Single 10/100 Megabit PHYs are also used in set-top boxes, cable modems, game consoles, printers, copiers and a host of other PC peripherals. Micrel also recently introduced a Gigabit MAC and is currently developing a family of switch and PHY products for Gigabit Ethernet together with several products in support of the emerging 10 Gigabit Ethernet standard.

The Company's future success will depend in part upon the timely completion, introduction, and market acceptance of new standard products. As compared with the Company's custom and foundry products business, the standard products business is characterized by generally shorter product lifecycles, greater pricing pressure, larger competitors and more rapid technological change. Generally, the standard products market is a rapidly changing market in which the Company faces the risk that its product offerings can quickly become obsolete. The success of new standard products depends on a variety of factors, including product selection, successful and timely completion of product development, achievement of acceptable manufacturing yields by the Company's foundry and the Company's ability to offer products at competitive prices.

Micrel's new products are generally incorporated into a customer's products or systems at the design stage. The value of any design win largely depends upon the commercial success of the customer's product and on the extent to which the design of the customer's electronic system accommodates incorporation of components manufactured by the Company's competitors. In addition, products or systems may be subsequently redesigned so that they no longer require the Company's products. No assurance can be given that the Company will achieve design wins or that any design win will result in future revenues. The failure of the Company to achieve design wins would materially and adversely affect the Company's financial condition, results of operations and cash flows.

Custom and Foundry Products

Micrel offers customers various combinations of design, process and foundry services in order to provide them with the following alternatives:

Full Service Custom. Based on a customer's specification, Micrel designs and then manufactures integrated circuits for the customer.

Custom and Semi-Custom. Based on a customer's high level or partial circuit design, Micrel uses varying levels of its design and process technologies to complete the design and then manufactures integrated circuits for the customer.

R&D Foundry. Micrel modifies a process or develops a new process for a customer. Using that process and mask sets provided by the customer, Micrel manufactures fabricated wafers for the customer.

Foundry. Micrel duplicates a customer's process to manufacture fabricated wafers designed by the customer.

Micrel's full service custom, custom and semi-custom products primarily address high bandwidth communications, consumer, automotive and military applications and use both analog and digital technologies. The military applications include communications and transport aircraft.

Sales, Distribution and Marketing

The Company sells its products through a worldwide network of independent sales representative firms and distributor firms and through a direct sales staff. In the year ended December 31, 2002, sales through North American distributor firms accounted for 11% of the Company's net revenues.

The Company sells its products in Europe through a direct sales staff in England and France as well as independent sales representative firms, independent distributors and independent stocking representative firms. Asian sales are handled through Micrel sales offices in Korea, Japan, Taiwan and China and independent stocking representative firms. The stocking representative firms may buy and stock the Company's products for resale or may act as the Company's sales representative in arranging for direct sales from the Company to an OEM customer.

Sales to customers in North America, Asia and Europe accounted for 31%, 60% and 9%, respectively, of the Company's net revenues for the year ended December 31, 2002 compared to 39%, 50% and 11%, respectively, of the Company's net revenues for the year ended December 31, 2001 and 58%, 32% and 10%, respectively, of the Company's net revenues for 2000. The Company's standard products are sold throughout the world, while its custom and foundry products are primarily sold to North American customers. The Company's net revenues by country, including the United States, is included in Note 12 of Notes to Consolidated Financial Statements.

The Company's international sales are primarily denominated in U.S. currency. Consequently, changes in exchange rates that strengthen the U.S. dollar could increase the price in local currencies of the Company's products in foreign markets and make the Company's products relatively more expensive than competitors' products that are denominated in local currencies, leading to a reduction in sales or profitability in those foreign markets. The Company has not taken any protective measures against exchange rate fluctuations, such as purchasing hedging instruments with respect to such fluctuations.

Customers

For the year ended December 31, 2002 one customer, an Asian stocking representative, accounted for 13% of the Company's net revenues. For the year ended December 31, 2001 the same customer, accounted for 11% of the Company's net revenues. For the year ended December 31, 2000 one customer, a North American distributor, accounted for 10% of the Company's net revenues.

Design and Process Technology

Micrel's analog proprietary design technology depends on the skills of its analog design team. The Company has experienced analog design engineers who utilize an extensive macro library of analog and mixed-signal circuits and computer simulation models.

Micrel can produce integrated circuits using a variety of manufacturing processes, some of which are proprietary and provide enhanced product features. Designers at companies that do not have in-house fabs or have a limited selection of available processes often have to compromise design methodology in order to match process parameters.

Micrel produces high-speed communication transceivers, clock generation/distribution circuits, clock recovery circuits as well as high-speed logic using the Company's proprietary All Spacer Separated Element Transistor ("ASSET") process.

The Company utilizes the following process technologies:

- *Bipolar* Bipolar technology is one of the oldest technologies. It is utilized where precision analog elements are required.
- *High Speed Bipolar* This is a variation of bipolar technology that is specially optimized for very fast transistors and is used where high-speed switching or signal conditioning is required.
- SuperBeta PNPTM The Company's proprietary SuperBeta PNPTM process technology allows power transistors to be driven with much lower current as compared to conventional PNP Bipolar technology, which gives such transistors a competitive advantage.
- *CMOS* CMOS technology is the technology most widely used in digital applications. It has the advantages of low power consumption and high packing density.
- *BiCMOS* Bipolar/CMOS ("BiCMOS") merges the Bipolar and CMOS technologies and offers the benefits of both technologies. This process, however, adds more expense to a product.
- BCD Bipolar/CMOS/DMOS ("BCD") merges three technologies, Bipolar, CMOS and DMOS.
 DMOS is best suited for handling high current and is used in the output section of the circuit. BCD combines the high speed, ruggedness and power of DMOS and the benefits of BiCMOS.
- ASSET ASSET technology is the Company's proprietary high-speed Bipolar process developed by
 the Company's High Bandwidth division. This technology allows high speed with low jitter and is
 ideally suited for high-speed mixed-signal designs.

The Company continues to develop each of these technologies to improve both the performance and cost of its new products. Micrel is also developing new process technologies to support its own product development and the needs of its foundry customers. For example, a new Silicon Germanium process is currently in development to meet the needs of the next generation communication products operating at 10Gbps. Silicon Germanium is ideally suited for these products given its combination of high speed with low power consumption.

The Company utilizes third party wafer fabrication foundries for advanced CMOS fabrication processes and other advanced processes that are not available in-house. For the year ended December 31, 2002 14% of Micrel's wafer requirements were fabricated at third party foundry suppliers, which includes all of Micrel's Ethernet networking products.

Research and Development

The ability of the Company to compete will substantially depend on its ability to define, design, develop and introduce on a timely basis new products offering design or technology innovations. Research and development in the analog integrated circuit industry is characterized primarily by circuit design and product engineering that enables new functionality or improved performance. Research and development in the high-speed communications circuit industry is characterized primarily by innovative process technologies, novel design techniques and high-speed test methodology. The Company's research and development efforts are also directed at its process technologies and focus on cost reductions to existing manufacturing processes and the development of new process capabilities to manufacture new products and add new features to existing products. With respect to more established products, the Company's research and development efforts also include product redesign, shrinkage of device size and the reduction of mask steps in order to improve die yields per wafer and reduce per device costs.

The Company's analog design engineers principally focus on developing next generation standard products. The Company's new product development strategy emphasizes a broad line of standard products that are based on customer input and requests. The Company often develops new standard analog products with the cooperation of customers in order to better ensure market acceptance. The Company is currently developing products to expand its line of USB and PCMCIA switches, SMPS regulators, LDOs, MOSFET drivers and RF transmitters, receivers and transceivers. New development areas in analog standard products include high speed, low power operational amplifiers, thermal management devices, hot swap power controllers, display drivers and voltage supervisors.

The Company's mixed-signal design engineers principally focus in two areas. The first is high speed, low noise media driving and clock/data recovery devices used in communication and advanced computer systems. New product development in this area includes high speed Current Mode Logic ("CML") for optical networking, high speed, precision timing devices for next generation servers and enterprise networking, fiber optic module components for 1.25, 2.5 and 10Gbps optical networking, and communications transceivers for OC-12, OC-48 and 10 Gigabit Ethernet applications. The second area of focus is Ethernet based local area network devices. New product development in this area includes three and five port switches for the SOHO market, switch products for IP telephony, and switch products for business enterprises. The Company has also developed a media access controller for the gigabit Ethernet market and has transceiver and switch products for gigabit Ethernet applications in development.

In 2002, 2001, and 2000 the Company spent \$53.3 million \$51.3 million, and \$42.2 million, respectively, on research and development. The Company expects that it will continue to spend substantial funds on research and development activities. The Company is currently developing, and may in the future develop, certain types of standard products with which the Company has only limited experience. Certain of

these new standard products will be targeted at emerging market segments in which the Company has not previously participated. Additionally, there can be no assurance that the Company will be able to identify new standard product opportunities successfully and develop and bring to market such new products or that the Company will be able to respond effectively to new technological changes or new product announcements by others.

Patents and Intellectual Property Protection

The Company seeks patent protection for those inventions and technologies for which such protection is suitable and is likely to provide competitive advantage to the Company. The Company currently holds 74 United States patents on semiconductor devices and methods, with various expiration dates through 2022. The Company has applications for 59 United States patents pending. The Company holds 39 issued foreign patents and has applications for 15 foreign patents pending. There can be no assurance that any patent owned by the Company will not be invalidated, circumvented or challenged, that the rights granted thereunder will provide competitive advantages to the Company or that any of the Company's pending or future patent applications will issue or will be issued with the scope of the claims sought by the Company.

The semiconductor industry is characterized by frequent litigation regarding patent and other intellectual property rights. To the extent that the Company becomes involved in such intellectual property litigation, it could result in substantial costs and diversion of resources to the Company and could have a material adverse effect on the Company's financial condition, results of operations, or cash flows. See Note 11 of Notes to Consolidated Financial Statements.

Supply of Materials and Purchased Components

Micrel currently purchases certain components from a limited group of vendors. The packaging of the Company's products which is performed by, and certain of the raw materials included in such products are obtained from, a limited group of suppliers. The wafer supply for the Company's Ethernet products is currently dependent upon a single large third party wafer foundry supplier. Although the Company seeks to reduce its dependence on its sole and limited source suppliers, disruption or termination of any of these sources could occur and such disruptions could have an adverse effect on the Company's financial condition, results of operations, or cash flows. The Company has rarely experienced delays in obtaining raw materials which have adversely affected production.

Manufacturing

The Company produces the majority of its wafers at the Company's wafer fabrication facilities located in San Jose and Santa Clara, California while a small percentage of wafer fabrication is subcontracted to outside foundries, including 100% of Micrel's Ethernet product wafer requirements. The San Jose facility includes a 57,000 square foot office and manufacturing facility containing a 24,800 square foot clean room facility, which provides production processes. The San Jose facility is classified as a Class 10 facility, which means that the facility achieves a clean room level of fewer than 10 foreign particles larger than 0.5 microns in size in each cubic foot of space. The facility uses six-inch wafer technology. The Company also owns approximately 63,000 square feet of additional adjacent space in San Jose that is used as a testing facility.

In September 2002, the Company approved a plan to close its Santa Clara, CA wafer fabrication facility to reduce costs and improve operating efficiencies. Management believes that these actions are prudent given the current excess capacity levels within its wafer fabrication facilities combined with the uncertain demand in the high-speed communications market. As a result of this action, overall operating

expenses are expected to decline by approximately \$500,000 per quarter beginning in the fourth quarter of 2002, with a total expense reduction of over \$2 million per quarter after the Santa Clara facility is exited in the fall of 2003. Associated with the facility closure, the Company accrued \$5.5 million in restructuring expenses, primarily for equipment disposal costs of \$1.0 million and contractual building lease costs, less estimated sublease income, of \$4.5 million that will provide no future benefit. These restructuring costs are expected to be paid in cash over the remaining facility lease term, which expires in October 2006. Of the \$5.5 million in accrued restructuring costs, \$1.4 million has been classified as other current liabilities and the remaining \$4.1 million has been classified as other long-term obligations as of December 31, 2002. Also related to the planned facility closure, the Company concluded that the future undiscounted cash flows from this facility would not be sufficient to recover the net book value of the facility and accordingly recorded a \$23.4 million impairment of long-lived assets to reduce the net book value of the facility's leasehold improvements and equipment to fair value. The fair value was estimated by management based primarily on a third party estimate of the current net sales value of equipment totaling \$3.8 million at September 30, 2002.

The fabrication of integrated circuits is a highly complex and precise process. Minute impurities, contaminants in the manufacturing environment, difficulties in the fabrication process, defects in the masks used to print circuits on a wafer, manufacturing equipment failure, wafer breakage or other factors can cause a substantial percentage of wafers to be rejected or numerous die on each wafer to be nonfunctional. There can be no assurance that the Company in general will be able to maintain acceptable manufacturing yields in the future.

Generally, each die on the Company's wafers is electrically tested for performance, and most of the wafers are subsequently sent to independent assembly and final test contract facilities in Malaysia and certain other Asian countries. At such facilities, the wafers are separated into individual circuits and packaged. The Company's reliance on independent assemblers may subject the Company to longer manufacturing cycle times. The Company from time to time has experienced competition with respect to these contractors from other manufacturers seeking assembly of circuits by independent contractors. Although the Company currently believes that alternate foreign assembly sources are readily available, there can be no assurance that such alternate sources could be obtained without significant interruptions.

The Company manufactures the majority of its products at one wafer fabrication facility. Given the nature of the Company's products, it would be difficult to arrange for independent manufacturing facilities to supply such products. Any prolonged inability to utilize the Company's manufacturing facilities as a result of fire, utility interruptions, natural disaster or otherwise, would have a material adverse effect on the Company's financial condition, results of operations and cash flows.

Competition

The semiconductor industry is highly competitive and subject to rapid technological change. Significant competitive factors in the market for standard products include product features, performance, price, the timing of product introductions, the emergence of new technological standards, quality and customer support. The Company believes that it competes favorably in all these areas.

Because the standard products market for analog integrated circuits is diverse and highly fragmented, the Company encounters different competitors in its various market areas. The Company's principal analog circuit competitors include Linear Technology Corporation, Maxim Integrated Products, Inc., and National Semiconductor Corp. in one or more of its product areas. Other competitors include Texas Instruments, Motorola, Fairchild Semiconductor and On Semiconductor. Each of these companies has substantially greater technical, financial and marketing resources and greater name recognition than the Company. The Company's principal competitors for products targeted at the high bandwidth communications market are

On Semiconductor, Applied Micro Circuits Corp., Maxim Integrated Products, Inc., Vitesse Semiconductor Corp. and Conexant. The primary competitors for the Micrel's Ethernet products are Broadcom Corp., Marvell Technology Group Ltd., Conexant, and a number of smaller Taiwanese companies.

With respect to the custom and foundry products business, significant competitive factors include product quality and reliability, established relationships between customers and suppliers, timely delivery of products and price. The Company believes that it competes favorably in all these areas.

Backlog

At December 31, 2002, the Company's backlog was approximately \$27 million, all of which was scheduled to be shipped during the first six months of 2003. At December 31, 2001, the Company's backlog was approximately \$20 million. Orders in backlog are subject to cancellation or rescheduling by the customer, generally with a cancellation charge in the case of custom and foundry products. The Company's backlog consists of distributor and customer released orders requesting shipment within the next six months. Shipments to United States, Canadian and certain other international distributors are not recognized as revenue by the Company until the product is sold from the distributor stock and through to the end-users. Because of possible changes in product delivery schedules and cancellation of product orders and because an increasing percentage of the Company's sales are shipped in the same quarter that the orders are received, the Company's backlog at any particular date is not necessarily indicative of actual sales for any succeeding period.

Customer demand for semiconductors can change quickly and unexpectedly. As a result of the slowing global economy, a rapid build-up of semiconductor inventories in global sales channels occurred during 2001, causing lead times for components to fall precipitously. The short lead time environment has continued from the middle of 2001 through the end of 2002. Customers perceive that semiconductor components are readily available and continue to order only for their short-term needs. New order rates have improved during 2002 as compared to 2001, however there is not sufficient backlog for the Company to predict future revenue levels with certainty. The Company's revenue levels are highly dependent on the amount of new orders that are received for which product can be delivered to the customer within the same period. Within the semiconductor industry these orders that are booked and shipped within the period are called "turns fill" orders. Currently, the uncertainty of customer demand, the high turns fill requirement, and associated uncertainty of product mix and pricing, make it difficult to predict future levels of sales and profitability.

Environmental Matters

Federal, state and local regulations impose various environmental controls on the storage, handling, discharge and disposal of chemicals and gases used in the Company's manufacturing process. The Company believes that its activities conform to present environmental regulations. Increasing public attention has, however, been focused on the environmental impact of semiconductor operations. While the Company has not experienced any materially adverse effects on its operations from environmental regulations, there can be no assurance that changes in such regulations will not impose the need for additional capital equipment or other requirements or restrict the Company's ability to expand its operations. Any failure by the Company to restrict the discharge of hazardous substances adequately could subject the Company to future liabilities or could cause its manufacturing operations to be suspended.

Employees

As of December 31, 2002, the Company had 821 full-time employees. The Company's employees are not represented by any collective bargaining agreements, and the Company has never experienced a work stoppage. The Company believes that its employee relations are good.

ITEM 2. PROPERTIES

The majority of the Company's manufacturing operations are located in San Jose, California in a 57,000 square foot facility and an adjacent 63,000 square foot facility which are owned by the Company. The Company fabricates the majority of its wafers at this location in a 24,800 square foot clean room facility, which provides all production processes. In addition to wafer fabrication, the Company also uses this location as a testing facility. The Company's main executive, administrative, and technical offices are located in a 57,000 square foot facility in San Jose, California under a lease agreement that expires in April 2011.

Additional administrative, technical, and wafer production facilities are maintained at a 70,000 square foot facility in Santa Clara, California. This facility is under a lease agreement that expires in 2006. The Company fabricates mixed-signal and digital integrated circuit wafers at this location in a 9,000 square foot clean room facility, which provides all production processes. During the quarter ended September 30, 2002, the Company approved a plan to close this wafer fabrication facility within the next 12 months in order to reduce costs and improve operating efficiencies through improved capacity utilization (see Note 13 of Notes to Consolidated Financial Statements.)

Associated with the acquisition of Kendin, the Company also maintains additional administrative and technical offices at a 10,936 square foot facility located in Sunnyvale, California under a lease agreement that expires in March 2003. The Company currently intends to discontinue its use of this facility upon expiration of the lease agreement on March 31, 2003.

Associated with the acquisition of ETC, the company owns a 12,175 square foot design facility in Huxley, Iowa.

The Company also leases small sales and technical facilities located in Medford, NJ; Coppell, TX; Seattle, WA; Irvine, CA; Raleigh, NC; Seoul, Korea; Taipei, Taiwan; Tokyo, Japan; Newbury, U.K.; Livingston, Scotland; Frankfurt, Germany and Courtaboeuf Cedex, France.

The Company believes that its existing and planned facilities are adequate for its current manufacturing needs. The Company believes that if it should need additional space, such space would be available at commercially reasonable terms.

ITEM 3. LEGAL PROCEEDINGS

The information included in Note 11 of Notes to Consolidated Financial Statements under the caption "Litigation" is incorporated herein by reference.

ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

In the fourth quarter of 2002, no matters were submitted to a vote of security holders.

PART II

ITEM 5. MARKET FOR THE REGISTRANT'S COMMON EQUITY AND RELATED SHAREHOLDER MATTERS

The Company's Common Stock is listed on the Nasdaq Stock Market under the Symbol "MCRL". The range of daily closing sales prices per share for the Company's Common Stock from January 1, 2001 to December 31, 2002 was:

Year Ended December 31, 2002:	<u>High</u>	Low
Fourth quarter	\$ 12.60	\$ 4.57
Third quarter	\$ 15.19	\$ 5.38
Second quarter	\$ 25.65	\$ 13.83
First quarter	\$ 29.52	\$ 18.95
Year Ended December 31, 2001:	<u>High</u>	Low
Fourth quarter	\$ 32.81	\$ 18.15
Third quarter	\$ 36.10	\$ 19.29
Second quarter	\$ 40.47	\$ 23.50
First quarter	\$ 48.94	\$ 26.94

The reported last sale price of the Company's Common Stock on the Nasdaq Stock Market on December 31, 2002 was \$8.98. The approximate number of holders of record of the shares of the Company's Common Stock was 650 as of March 14, 2003. This number does not include shareholders whose shares are held in trust by other entities. The actual number of shareholders is greater than this number of holders of record. The Company estimates that the number of beneficial shareholders of the shares of the Company's Common Stock as of March 14, 2003 was approximately 7,500.

The Company has authorized Common Stock, no par value and Preferred Stock, no par value. The Company has not issued any Preferred Stock.

The Company has not paid any cash dividends on its capital stock. The Company currently intends to retain its earnings to fund the development and growth of its business and, therefore, does not anticipate paying any cash dividends in the foreseeable future. In addition, the Company's existing credit facilities prohibit the payment of cash or stock dividends on the Company's capital stock without the lender's prior written consent. See Item 7 - "Management's Discussion and Analysis of Financial Condition and Results of Operations - Liquidity and Capital Resources" and Note 6 of Notes to Consolidated Financial Statements contained in Item 8.

ITEM 6. SELECTED FINANCIAL DATA

The selected consolidated financial data below should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and related notes thereto.

Note Part Part		Years Ended December 31,				
Net revenues \$204,704 \$217,808 \$346,335 \$200,016 \$149,935 \$205,207		2002				1998
Cost of revenues* 139,554 126,242 149,083 89,572 72,933 Gross profit 65,150 91,560 197,252 10,444 71,926 Operating expenses: Temperating expenses Temperating expenses 32,160 32,862 45,319 29,563 21,373 Selling, general and administrative 32,357 3,722 6,000 2,190 72,573 Amortization of deferred stock compensation* 22,357 9,72 6,000 2,109 72,573 Amortization of deferred stock compensation* 23,357 9,72 6,000 2,109 72,573 Amortization of deferred stock compensation* 23,557 9,72 6,000 2,109 72,573 Acquisition expenses 13,680 102,634 93,580 61,617 48,425 Acquisition expenses 136,800 102,634 93,580 61,6174 48,225 Income (loss) from operations (71,740) (11,068 103,672 48,702 21,353 Other income, let 10,056 6,086 4,239	Income Statement Data:	(ir	ı thousands, o	except per sh	are amounts)
Gross profit. 65,150 91,566 197,252 110,444 71,982 Operating expenses: Research and development. 53,308 51,306 42,201 29,563 21,373 Selling, general and administrative. 32,160 32,862 45,319 29,399 22,562 Amortization of deferred stock compensation* 22,535 9,572 6,660 2,109 753 Maunfacturing facility impairment. 23,537 — — — — Restructuring expenses. 5,536 — — 603 3,737 Restructuring expenses technology — — 603 3,737 Total operating expenses. 136,896 102,634 33,580 61,674 48,425 Income (loss) from operations (71,746) (11,008) 103,672 48,702 23,557 Other income netrese (70,690) (4,982) 108,411 49,462 24,695 Provision (benefit) for income taxes (29,590) (5,534) 35,104 46,019 30,48 15,194 <td< td=""><td>Net revenues</td><td>\$ 204,704</td><td>\$ 217,808</td><td>\$ 346,335</td><td>\$ 200,016</td><td>\$ 144,935</td></td<>	Net revenues	\$ 204,704	\$ 217,808	\$ 346,335	\$ 200,016	\$ 144,935
Research and development	Cost of revenues*	139,554	126,242	149,083	89,572	72,953
Research and development 53,308 51,306 42,201 29,563 21,373 Selling, general and administrative 32,160 32,862 45,319 29,399 22,562 Amortization of deferred stock compensation* 22,357 9,572 6,060 2,109 753 Manufacturing gexpense 5,536 — — — — Acquisition expenses — 8,894 — — — Purchased in-process technology — 102,634 93,580 61,674 48,455 Income (loss) from operations (71,746) (11,068) 103,672 48,770 23,575 Other income, net 1,056 6,086 4,739 46,70 23,587 Other income taxes (70,690) (4,982) 108,411 49,462 24,695 Provision (boss) ber for income taxes (70,690) (5,534) 33,104 16,019 9,304 Net income (loss) per share: — — — 5 0.044 9,01 9,02 9,03 9,18	Gross profit	65,150	91,566	197,252	110,444	71,982
Sclling, general and administrative 32, 160 32,862 45,319 29,399 22,562 Amortization of deferred stock compensation* 22,535 9,572 6,060 2,109 753 Manufacturing facility impairment 23,357 — — — — Acquisition expenses. 5,536 — — — — Purchased in-process technology. — — — 603 3,737 Total operating expenses. 136,896 102,634 93,580 61,674 48,425 Income (loss) from operations. (71,746) (11,068 103,672 48,770 23,557 Other income, net 1,056 6,086 4,739 692 1,138 Income (loss) before income taxes (70,690) (5,534) 35,104 16,019 9,304 Net income (loss) per share: — — 9,001 \$0.01 \$0.82 \$0.39 \$0.19 Basic 9,001 \$0.04 \$0.01 \$0.82 \$0.36 \$0.18 Shares	Operating expenses:					
Amortization of deferred stock compensation* 22,535 9,572 6,660 2,109 753 Manufacturing facility impairment 23,357 — — — — Restructuring expense 5,536 — — — — Acquisition expenses* — 8,894 — — 603 3,737 Total operating expenses 136,896 102,634 93,580 61,674 48,425 Income (loss) from operations (71,746) (11,068) 103,672 48,700 23,557 Other income, net 1,056 6,086 4,739 662 21,38 Income (loss) before income taxes (70,690) (5,534) 33,104 16,019 9,304 Net income (loss) § (14,000) \$ 552 73,307 33,434 \$ 15,99 Diluted \$ (0,44) \$ 0,01 \$ 0,82 \$ 0,39 \$ 0,19 Shares used in computing per share \$ (0,44) \$ 0,01 \$ 0,82 \$ 8,762 \$ 82,258 Diluted \$ (2,20)	Research and development	53,308	51,306	42,201	29,563	21,373
Manufacturing facility impairment 23,357 —	Selling, general and administrative	32,160	32,862	45,319	29,399	22,562
Restructuring expenses* 5,536 —<	Amortization of deferred stock compensation*	22,535	9,572	6,060	2,109	753
Acquisition expenses* — 8,894 — — — Purchased in-process technology — — — — 603 3,737 Total operating expenses 136,896 102,634 93,880 61,674 48,275 Income (loss) from operations (71,746) (11,068) 103,672 48,770 23,557 Other income, net 1,056 6,086 4,739 692 1,138 Income (loss) before income taxes (29,690) (5534) 35,104 16,019 9,304 Provision (benefit) for income taxes (29,690) (5534) 35,104 16,019 9,304 Net income (loss) 8 41,000 \$552 73,307 \$33,43 \$15,391 Net income (loss) per share Basic \$0,044 \$0.01 \$0.82 \$0.36 \$0.19 Shares used in computing per share amounts: **** **** **** **** Basic \$92,600 \$1,888 \$9,242 \$85,762 \$82,588	Manufacturing facility impairment	23,357	_	_	_	_
Acquisition expenses* — 8,894 — — — Purchased in-process technology — — — — 603 3,737 Total operating expenses 136,896 102,634 93,880 61,674 48,275 Income (loss) from operations (71,746) (11,068) 103,672 48,770 23,557 Other income, net 1,056 6,086 4,739 692 1,138 Income (loss) before income taxes (29,690) (5534) 35,104 16,019 9,304 Provision (benefit) for income taxes (29,690) (5534) 35,104 16,019 9,304 Net income (loss) 8 41,000 \$552 73,307 \$33,43 \$15,391 Net income (loss) per share Basic \$0,044 \$0.01 \$0.82 \$0.36 \$0.19 Shares used in computing per share amounts: **** **** **** **** Basic \$92,600 \$1,888 \$9,242 \$85,762 \$82,588	Restructuring expense	5,536	_	_	_	_
Total operating expenses		_	8,894	_	_	_
Income (loss) from operations	Purchased in-process technology				603	3,737
Other income, net 1,056 6,086 4,739 692 1,138 Income (loss) before income taxes (70,690) (4,982) 108,411 49,462 24,695 Provision (benefit) for income taxes (29,690) (5,534) 35,104 16,019 9,304 Net income (loss) (108) \$ (10,00) \$ 552 \$ 73,307 \$ 33,443 \$ 15,391 Net income (loss) per share: \$ (0,44) \$ 0,01 \$ 0.82 \$ 0.39 \$ 0.19 Basic \$ (0,44) \$ 0,01 \$ 0.82 \$ 0.39 \$ 0.19 Shares used in computing per share amounts: \$ (0,44) \$ 0,01 \$ 0.82 \$ 85,762 \$ 82,258 Diluted \$ 29,600 \$ 91,888 \$ 89,242 \$ 85,762 \$ 82,258 Diluted \$ 29,600 \$ 98,092 \$ 98,186 \$ 92,906 \$ 85,878 *Amortization of deferred stock compensation related to: \$ 7,354 \$ 3,141 \$ 2,202 \$ 926 \$ 275 Operating expenses: \$ 11,430 \$ 5,047 \$ 3,347 \$ 1,444 \$ 467	Total operating expenses	136,896	102,634	93,580	61,674	48,425
Name (loss) before income taxes	Income (loss) from operations	(71,746)	(11,068)	103,672	48,770	23,557
Provision (benefit) for income taxes (29,690) (5,534) 35,104 16,019 9,304 Net income (loss) \$(41,000) \$552 \$73,307 \$33,443 \$15,391 Net income (loss) per share: \$(0.44) \$0.01 \$0.82 \$0.39 \$0.19 Diluted \$(0.44) \$0.01 \$0.75 \$0.36 \$0.18 Shares used in computing per share amounts: \$(0.44) \$0.01 \$0.75 \$0.36 \$0.18 Basic \$(0.44) \$0.01 \$0.75 \$0.36 \$0.18 Shares used in computing per share amounts: \$(0.44) \$0.01 \$0.75 \$0.36 \$0.18 Basic \$(0.44) \$(0.44) \$0.01 \$0.82 \$0.36 \$0.18 Shitted \$(0.44) \$(0.44) \$0.01 \$0.82 \$0.36 \$0.18 Shitted \$(0.44) \$(0.44) \$(0.44) \$(0.44) \$(0.44) \$(0.44) \$(0.44) \$(0.44) \$(0.44) \$(0.44) \$(0.44) \$(0.44) \$(0.44) \$(0.44) \$(0.44) </td <td>Other income, net</td> <td>1,056</td> <td>6,086</td> <td>4,739</td> <td>692</td> <td>1,138</td>	Other income, net	1,056	6,086	4,739	692	1,138
Net income (loss) \$ (41,000) \$ 552 \$ 73,307 \$ 33,443 \$ 15,391 Net income (loss) per share: Basic \$ (0.44) \$ 0.01 \$ 0.82 \$ 0.39 \$ 0.19 Diluted \$ (0.44) \$ 0.01 \$ 0.75 \$ 0.36 \$ 0.18 Shares used in computing per share amounts: \$ 92,600 \$ 91,888 \$ 89,242 \$ 85,762 \$ 82,258 Diluted \$ 92,600 \$ 98,092 \$ 98,186 \$ 92,906 \$ 85,878 *Amortization of deferred stock compensation related to: \$ 7,354 \$ 3,141 \$ 2,202 \$ 926 \$ 275 Operating expenses: \$ 7,354 \$ 3,141 \$ 2,202 \$ 926 \$ 275 Operating expenses: \$ 11,430 \$ 5,047 \$ 3,347 \$ 1,444 \$ 467 Selling, general and administrative \$ 11,105 \$ 4,525 \$ 2,713 \$ 665 286 Amortization of deferred stock compensation \$ 22,535 \$ 9,572 \$ 6,060 \$ 2,109 \$ 753 Acquisition expenses \$ 2007 \$ 6,060 \$ 2,109	Income (loss) before income taxes	(70,690)	(4,982)	108,411	49,462	24,695
Net income (loss) per share: Basic \$ (0.44) \$ 0.01 \$ 0.82 \$ 0.39 \$ 0.19 Diluted \$ (0.44) \$ 0.01 \$ 0.75 \$ 0.36 \$ 0.18 Shares used in computing per share amounts: \$ 22,600 \$ 91,888 \$ 89,242 \$ 85,762 \$ 22,528 Diluted \$ 92,600 \$ 98,092 \$ 98,186 \$ 92,906 \$ 85,878 *Amortization of deferred stock compensation related to: Cost of revenues \$ 7,354 \$ 3,141 \$ 2,202 \$ 926 \$ 275 Operating expenses: \$ 11,430 \$ 5,047 \$ 3,347 \$ 1,444 \$ 467 Selling, general and administrative \$ 11,105 \$ 4,525 2,713 665 286 Amortization of deferred stock compensation \$ 22,535 9,572 6,060 2,109 753 Acquisition expenses \$ 2007 \$ 6,060 2,109 753 Acquisition expenses \$ 22,535 \$ 11,579 \$ 6,060 \$ 2,109 \$ 753 Total operating expenses: \$ 2002 \$ 2001 <td>Provision (benefit) for income taxes</td> <td>(29,690)</td> <td>(5,534)</td> <td>35,104</td> <td>16,019</td> <td>9,304</td>	Provision (benefit) for income taxes	(29,690)	(5,534)	35,104	16,019	9,304
Basic \$ (0.44) \$ 0.01 \$ 0.82 \$ 0.39 \$ 0.19 Diluted \$ (0.44) \$ 0.01 \$ 0.75 \$ 0.36 \$ 0.18 Shares used in computing per share amounts: \$ 92,600 91,888 89,242 85,762 82,258 Diluted 92,600 98,092 98,186 92,906 85,878 *Amortization of deferred stock compensation related to: \$ 7,354 \$ 3,141 \$ 2,202 \$ 926 \$ 275 Operating expenses: \$ 7,354 \$ 3,141 \$ 2,202 \$ 926 \$ 275 Operating expenses: \$ 11,430 \$ 5,047 \$ 3,347 \$ 1,444 \$ 467 Selling, general and administrative \$ 11,105 \$ 4,525 2,713 \$ 665 286 Amortization of deferred stock compensation \$ 22,535 9,572 \$ 6,060 2,109 753 Acquisition expenses \$ 2,007 \$ 6,060 \$ 2,109 \$ 753 Acquisition expenses \$ 22,535 \$ 11,579 \$ 6,060 \$ 2,109 \$ 753 Total operating exp	Net income (loss)	<u>\$ (41,000)</u>	<u>\$ 552</u>	\$ 73,307	\$ 33,443	<u>\$ 15,391</u>
Basic \$ (0.44) \$ 0.01 \$ 0.82 \$ 0.39 \$ 0.19 Diluted \$ (0.44) \$ 0.01 \$ 0.75 \$ 0.36 \$ 0.18 Shares used in computing per share amounts: \$ 92,600 91,888 89,242 85,762 82,258 Diluted 92,600 98,092 98,186 92,906 85,878 *Amortization of deferred stock compensation related to: \$ 7,354 \$ 3,141 \$ 2,202 \$ 926 \$ 275 Operating expenses: \$ 7,354 \$ 3,141 \$ 2,202 \$ 926 \$ 275 Operating expenses: \$ 11,430 \$ 5,047 \$ 3,347 \$ 1,444 \$ 467 Selling, general and administrative \$ 11,105 \$ 4,525 2,713 \$ 665 286 Amortization of deferred stock compensation \$ 22,535 9,572 \$ 6,060 2,109 753 Acquisition expenses \$ 2,007 \$ 6,060 \$ 2,109 \$ 753 Acquisition expenses \$ 22,535 \$ 11,579 \$ 6,060 \$ 2,109 \$ 753 Total operating exp	Net income (loss) per share:					
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Shares used in computing per share amounts: Basic 92,600 91,888 89,242 85,762 82,258 Diluted 92,600 98,092 98,186 92,906 85,878 *Amortization of deferred stock compensation related to: Cost of revenues \$7,354 \$3,141 \$2,202 \$926 \$275 Operating expenses: 8 \$11,430 \$5,047 \$3,347 \$1,444 \$467 Selling, general and administrative \$11,105 4,525 2,713 665 286 Amortization of deferred stock compensation 22,535 9,572 6,060 2,109 753 Acquisition expenses — 2,007 — — — Total operating expenses \$22,535 \$11,579 \$6,060 \$2,109 \$753 Working capital \$182,155 \$196,940 \$172,768 \$91,629 \$55,206 Total assets \$330,675 354,813 359,748 214,171 152,207 Long-term debt and other obligations						
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*Amortization of deferred stock compensation related to: Cost of revenues						
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Balance Sheet Data: 2002 2001 2000 1999 1998 Working capital (in thousands) Working capital \$ 182,155 \$ 196,940 \$ 172,768 \$ 91,629 \$ 55,206 Total assets 330,675 354,813 359,748 214,171 152,207 Long-term debt and other obligations 19,237 5,200 9,211 10,648 19,297		December 31				
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Working capital \$ 182,155 \$ 196,940 \$ 172,768 \$ 91,629 \$ 55,206 Total assets 330,675 354,813 359,748 214,171 152,207 Long-term debt and other obligations 19,237 5,200 9,211 10,648 19,297	Balance Sheet Data:					
Total assets 330,675 354,813 359,748 214,171 152,207 Long-term debt and other obligations 19,237 5,200 9,211 10,648 19,297		\$ 182,155	,		\$ 91,629	\$ 55,206
Long-term debt and other obligations						
10tal snarenoiders equity	Total shareholders' equity	273,619	313,330	281,835	157,258	100,693

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

Overview

Micrel designs, develops, manufactures and markets a range of high performance standard analog integrated circuits and high-speed mixed-signal and digital integrated circuits. These circuits are used in a wide variety of electronics products, including those in the computer, telecommunications, industrial and networking markets. In addition to standard products, the Company manufactures custom analog and mixed-signal circuits and provides wafer foundry services.

The Company derives a substantial portion of its net revenues from standard products. For 2002, 2001, and 2000 the Company's standard products sales accounted for 88%, 84%, and 79%, respectively, of the Company's net revenues. The Company believes that a substantial portion of its net revenues in the future will depend upon standard products sales, although such sales as a proportion of net revenues may vary as the Company adjusts product output levels to correspond with varying economic conditions and demand levels in the markets which it serves. The standard products business is characterized by short-term orders and shipment schedules, and customer orders typically can be canceled or rescheduled without significant penalty to the customer. Since most standard products backlog is cancelable without significant penalty, the Company typically plans its production and inventory levels based on internal forecasts of customer demand, which is highly unpredictable and can fluctuate substantially. In addition, the Company is limited in its ability to reduce costs quickly in response to any revenue shortfalls.

The Company may experience significant fluctuations in its results of operations. Factors that affect the Company's results of operations include the volume and timing of orders received, changes in the mix of products sold, the utilization level of manufacturing capacity, competitive pricing pressures and the successful development of new products. These and other factors are described in further detail later in this discussion. As a result of the foregoing or other factors, there can be no assurance that the Company will not experience material fluctuations in future operating results on a quarterly or annual basis, which could materially and adversely affect the Company's business, financial condition, results of operations or cash flows.

Critical Accounting Policies

The financial statements included in this Form 10-K and discussed within this Management's Discussion and Analysis of Financial Condition and Results of Operations have been prepared in accordance with accounting principles generally accepted in the United States of America. Preparation of these financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. On an on-going basis, management evaluates its estimates and judgements. Management bases its estimates and judgements on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions. For a detailed discussion of the Company's significant accounting policies, see Note 1 of Notes to Consolidated Financial Statements. The Company considers certain accounting policies related to revenue recognition, inventory valuation, income taxes, and litigation to be critical to the fair presentation of its financial statements.

Revenue Recognition. Micrel generates revenue by selling products to original equipment manufacturers ("OEM"s), distributors and stocking representatives. The Company's policy is to recognize revenue from sales to customers when the rights and risks of ownership have passed to the customer, when persuasive evidence of an arrangement exists, the product has been delivered, the price is fixed and determinable and collection of the resulting receivable is reasonably assured.

Micrel allows certain distributors, primarily located in North America and Europe, significant return rights and pricing adjustments subsequent to the initial product shipment. Micrel defers recognition of revenue and related cost of sales (in the balance sheet line item deferred income on shipments to distributors) derived from sales to these distributors until they have resold the Company's products to their customers. Sales to OEM customers and stocking representatives, primarily located in Asia, which have limited return rights and pricing adjustments, are recognized upon shipment and a related returns allowance is established based upon historical return rates. The Company's total allowance for returns was \$2.9 million and \$3.1 million as of December 31, 2002 and 2001, respectively. Actual future returns could be different than the returns allowance established.

The Company also maintains an allowance for doubtful accounts for estimated uncollectible accounts receivables. This estimate is based on an analysis of specific customer creditworthiness and historical bad debts experience. The Company's total allowance for doubtful accounts was \$421,000 and \$787,000 for the years ended December 31, 2002 and 2001, respectively. Actual future uncollectible amounts could exceed the doubtful accounts allowance established.

Inventory Valuation. Inventories are stated at the lower of cost (first-in, first-out method) or market. The Company has taken adjustments to write-down the cost of obsolete and excess inventory to the estimated market value based on historical and forecasted demand for its products. If actual future demand for the Company's products is less than currently forecasted, additional inventory adjustments may be required. Once a reserve is established, it is maintained until the product to which it relates is sold or otherwise disposed of. This treatment is in accordance with Accounting Research Bulletin 43 and Staff Accounting Bulletin 100 "Restructuring and Impairment Charges."

Income Taxes. As of December 31, 2002, the Company has net deferred tax assets of \$40.4 million, resulting from temporary timing differences between book and tax valuation of assets and liabilities. The Company believes that future taxable income levels will be sufficient to realize the tax benefits of these deferred tax assets and has not established a valuation allowance.

Litigation. The semiconductor industry is characterized by frequent litigation regarding patent and other intellectual property rights. The Company is currently involved in such intellectual property litigation (see Note 11 of Notes to Financial Statements) and has not accrued a liability for such litigation. The Company regularly evaluates current information available to determine whether such accruals should be made. An estimated liability would be accrued when it is determined to be probable that a liability has been incurred and the amount of loss can be reasonably estimated. If the Company were to determine that such a liability was probable and could be reasonable estimated, the adjustment would be charged to income in the period such determination was made.

Results of Operations

The following table sets forth certain operating data as a percentage of total net revenues for the periods indicated.

	Years Ended December 31,		
	2002	2001	2000
Net revenues	100.0%	100.0%	100.0%
Cost of revenues	68.2	58.0	43.0
Gross profit	<u>31.8</u>	42.0	57.0
Operating expenses:			
Research and development	26.0	23.6	12.2
Selling, general and administrative	15.7	15.1	13.1
Amortization of deferred stock compensation	11.0	4.4	1.8
Manufacturing facility impairment	11.4	_	_
Restructuring expense	2.7	_	_
Acquisition expenses		4.0	
Total operating expenses	66.8	47.1	27.1
Income (loss) from operations	(35.0)	(5.1)	29.9
Other income, net	0.5	2.8	1.4
Income (loss) before income taxes	(34.5)	(2.3)	31.3
Provision (benefit) for income taxes	(14.5)	(2.6)	10.1
Net income	<u>(20.0)</u> %	<u>0.3</u> %	<u>21.2</u> %

Net Revenues. Net revenues decreased 6% to \$204.7 million for the year ended December 31, 2002 from \$217.8 million in 2001 primarily due to lower custom and foundry revenues and, to a lesser extent, lower standard product revenues. Standard product revenues decreased 1% to \$180.4 million, which represented 88% of net revenues for the year ended December 31, 2002, compared to \$183.1 million and 84% of net revenues for 2001. This decrease resulted primarily from decreased average selling prices across all product lines combined with decreased unit shipments of high bandwidth communications products, which were partially offset by increased unit shipments of analog power management products and Ethernet communications products. Sales of standard products were led by low dropout regulators, Ethernet communications products, computer peripheral products, switching regulators and high bandwidth communications products. Such products were sold to manufacturers in the telecommunications, computing, Ethernet communications, high bandwidth communications, and industrial markets. Custom and foundry revenues decreased 30% to \$24.3 million, which represented 12% of net revenues for the year ended December 31, 2002, compared to \$34.7 million and 16% of net revenues for 2001. Such decreases were due primarily to decreased unit shipments of foundry products.

Customer demand for semiconductors can change quickly and unexpectedly. As a result of the slowing global economy, a rapid build-up of semiconductor inventories in global sales channels occurred during 2001, causing lead times for components to fall precipitously. The short lead time environment has continued from the middle of 2001 through the end of 2002. Customers perceive that semiconductor components are readily available and continue to order only for their short-term needs. New order rates have improved during 2002 as compared to 2001, however there is not sufficient backlog for the Company to predict future revenue levels with certainty. The Company's revenue levels are highly dependent on the

amount of new orders that are received for which product can be delivered to the customer within the same period. Within the semiconductor industry these orders that are booked and shipped within the period are called "turns fill" orders. Currently, the uncertainty of customer demand, the high turns fill requirement, and associated uncertainty of product mix and pricing, make it difficult to predict future levels of sales and profitability.

For the year ended December 31, 2001, net revenues decreased 37% to \$217.8 million from \$346.3 million in 2000 due primarily to lower standard product revenues and lower custom and foundry revenues. Standard product revenues decreased to \$183.1 million, which represented 84% of net revenues for the year ended December 31, 2001, compared to \$275.3 million and 79% of net revenues for 2000. This decrease resulted from decreased unit shipments across all significant product lines and end markets except Ethernet communications, combined with decreases in average selling prices. Sales of standard products were led by low dropout regulators, Ethernet communications products, high bandwidth communications products and computer peripheral products. Such products were sold to manufacturers in the computing, Ethernet communications, high bandwidth communications, telecommunications, and industrial markets. Custom and foundry revenues decreased to \$34.7 million, which represented 16% of net revenues for the year ended December 31, 2001, compared to \$71.0 million and 21% of net revenues for 2000. Such decreases were due primarily to decreased sales of custom high bandwidth communications products and to a lesser extent decreased foundry sales.

International sales represented 69%, 61%, and 42% of net revenues for the years ended December 31, 2002, 2001 and 2000, respectively. On a dollar basis, international sales increased 7% to \$142.0 million for the year ended December 31, 2002 from \$132.6 million for the comparable period in 2001. The dollar increase in international sales resulted primarily from increased shipments of telecommunications, personal computer and Ethernet communications products, primarily in Asia. The increased unit shipments to Asian based customers is primarily a result of increased demand from manufacturers of wireless handsets and computers, as well as from customers transferring their manufacturing operations to Asia seeking lower cost structures.

The Company's international sales are denominated in U.S. currency. Consequently, changes in exchange rates that strengthen the U.S. dollar could increase the price in local currencies of the Company's products in foreign markets and make the Company's products relatively more expensive than competitors' products that are denominated in local currencies, leading to a reduction in sales or profitability in those foreign markets. The Company has not taken any protective measures against exchange rate fluctuations, such as purchasing hedging instruments with respect to such fluctuations.

Gross Profit. Gross profit is affected by a variety of factors including the volume of product sales, product mix, manufacturing utilization, product yields and average selling prices. The Company's gross margin decreased to 32% for the year ended December 31, 2002 from 42% for the year ended December 31, 2001. The decrease in gross margin primarily reflected decreased average selling prices, a greater sales mix of lower margin products and decreased capacity utilization as compared to the same periods in 2001. The high level of semiconductor inventories relative to depressed demand resulted in extremely short lead times from semiconductor suppliers and vigorous price competition as customer unit demand increased in the first half of 2002. As a result of slack demand and customer inventory liquidation, the Company's utilization of manufacturing capacity ranged from 45% to 55% during 2002. Despite significant manufacturing cost reductions in 2002, the under utilization of capacity led to a reduction in gross profit due to lower absorption of fixed costs. Consequently, depreciation as a percent of sales rose to 17% in 2002 from 16% in 2001 and 7% in 2000.

For the year ended December 31, 2001, The Company's gross margin decreased to 42% from 57% for the year ended December 31, 2000. The decrease in gross margin primarily reflected decreased capacity utilization, a reduced mix of higher margin standard products and custom products and a decrease in average selling prices compared to the same periods in 2000.

Research and Development Expenses. Research and development expenses include costs associated with the development of new processes and the definition, design and development of new products. The Company also expenses prototype wafers and new production mask sets related to new products as research and development costs until products based on new designs are fully characterized by the Company and are demonstrated to support published data sheets and satisfy reliability tests.

As a percentage of net revenues, research and development expenses represented 26% and 24% for the years ended December 31, 2002 and 2001, respectively. On a dollar basis, research and development expenses increased \$2.0 million or 4% to \$53.3 million for the year ended December 31, 2002 from \$51.3 million in 2001. The dollar increase was primarily due to increased prototype fabrication and new process development costs. The Company believes that the development and introduction of new products is critical to its future success and expects to continue its investment in research and development activities in the future.

For the years ended December 31, 2001 and 2000, research and development expenses represented 24% and 12% of net revenues, respectively. On a dollar basis, research and development expenses increased \$9.1 million or 22% to \$51.3 million for the year ended December 31, 2001 from \$42.2 million in 2000. The dollar increase was primarily due to increased engineering staffing costs and increased prototype fabrication costs and new process development costs.

Selling, General and Administrative Expenses. As a percentage of net revenues, selling, general and administrative expenses represented 16% and 15% for the years ended December 31, 2002 and 2001, respectively. On a dollar basis, selling, general and administrative expenses decreased \$700,000 or 2% to \$32.2 million for the year ended December 31, 2002 from \$32.9 million for the comparable period in 2001. The dollar decrease was principally attributable to decreased sales commissions and decreased staffing expenses, which were partially offset by increased legal costs.

For the years ended December 31, 2001 and 2000, selling, general and administrative expenses represented 15% and 13% of net revenues, respectively. On a dollar basis, selling, general and administrative expenses decreased \$12.5 million or 27% to \$32.9 million for the year ended December 31, 2001 from \$45.3 million for the comparable period in 2000. The dollar decrease was principally attributable to decreased sales commissions and decreased profit sharing accruals.

Amortization of deferred stock compensation. The Company accounts for stock-based awards to employees using the intrinsic value method in accordance with Accounting Principles Board Opinion ("APB") No. 25, "Accounting for Stock Issued to Employees". The Company's practices in effect through December 2001 related to employee stock option pricing resulted in stock compensation expense under APB 25. For the year ended December 31, 2002 total amortization of deferred stock compensation was \$29.9 million of which \$17.1 million resulted from accelerated amortization of deferred stock compensation associated with options cancelled pursuant to an employee option exchange program (see Note 7 of Notes to Consolidated Financial Statements). In addition, the \$29.9 million in amortization of deferred stock compensation for the year ended December 31, 2002 consisted of \$7.4 million included in cost of revenues and \$22.5 million included in amortization of deferred stock compensation. As of December 31, 2002 total

unamortized stock compensation was \$9.9 million with a future amortization schedule of \$4.7 million in 2003, \$1.4 million in 2004 and \$344,000 in 2005.

For the year ended December 31, 2001 total amortization of deferred stock compensation was \$14.7 million of which \$3.1 million was included in cost of revenues, \$9.6 million was included in amortization of deferred stock compensation and \$2.0 million was included in non-recurring acquisition costs. For the year ended December 31, 2000 total amortization of deferred stock compensation was \$8.3 million of which \$2.2 million was included in cost of revenues and \$6.1 million was included in amortization of deferred stock compensation.

Manufacturing Facility Impairment and Restructuring Expense. In September 2002, the Company approved a plan to close its Santa Clara, CA wafer fabrication facility to reduce costs and improve operating efficiencies. Management believes that these actions are prudent given the current excess capacity levels within its wafer fabrication facilities combined with the uncertain demand in the high-speed communications market. As a result of this action, overall operating expenses are expected to decline by approximately \$500,000 per quarter beginning in the fourth quarter of 2002, with a total expense reduction of over \$2 million per quarter after the Santa Clara facility is exited in the fall of 2003. Associated with the facility closure, the Company accrued \$5.5 million in restructuring expenses, primarily for equipment disposal costs of \$1.0 million and contractual building lease costs, less estimated sublease income, of \$4.5 million that will provide no future benefit. These restructuring costs are expected to be paid in cash over the remaining facility lease term, which expires in October 2006. Of the \$5.5 million in accrued restructuring costs, \$1.4 million has been classified as other current liabilities and the remaining \$4.1 million has been classified as other long-term obligations as of December 31, 2002. Also related to the planned facility closure, the Company concluded that the future undiscounted cash flows from this facility would not be sufficient to recover the net book value of the facility and accordingly recorded a \$23.4 million impairment of long-lived assets to reduce the net book value of the facility's leasehold improvements and equipment to fair value. The fair value was estimated by management based primarily on a third party estimate of the current net sales value of equipment totaling \$3.8 million at September 30, 2002.

Acquisition expenses. Acquisition expenses for the year ended December 31, 2001 reflect \$6.9 million in direct transaction costs and \$2.0 million in stock compensation costs related to the acquisition of Kendin.

Other Income, Net. Other income, net reflects interest income from investments in short-term investment grade securities and other non-operating income, offset by interest expense incurred on term notes. Other income, net decreased by \$5.0 million to \$1.1 million in 2002 from \$6.1 million in 2001. The decrease was primarily due to decreased rates of return on cash, cash equivalents and short-term investments combined with a non-recurring expense in 2002 of \$947,000 for the settlement of a patent dispute, partially offset by \$490,000 in non-recurring other income.

For the year ended December 31, 2001, other income, net increased by \$1.3 million to \$6.1 million in 2001 from \$4.7 million in 2000. This increase was primarily due to the receipt of insurance proceeds of \$1.1 million in 2001, combined with decreased interest expense due to a reduction in the average balances of term notes.

Provision (benefit) for Income Taxes. For the year ended December 31, 2002 the benefit for income taxes was \$29.7 million or 42% of loss before taxes. The 2002 benefit for income taxes differs from taxes computed at the federal statutory rate primarily due to the effect of state income taxes, state research and development credits, and state manufacturing credits. For the years ended December 31, 2001 and 2000 the provision for taxes on income was 111% of loss before taxes and 32% of income before taxes,

respectively. The 2001 and 2000 income tax provisions differ from taxes computed at the federal statutory rate due to the effect of state taxes offset by the benefits federal and state research and development credits, and state manufacturing credits.

As of December 31, 2002, the Company has net deferred tax assets of \$40.4 million, resulting from temporary timing differences between book and tax valuation of assets and liabilities. The Company believes that future taxable income levels will be sufficient to realize the tax benefits of these deferred tax assets and has not established a valuation allowance.

Liquidity and Capital Resources

Since inception, the Company's principal sources of funding have been its cash from operations, bank borrowings and sales of common stock. Principal sources of liquidity at December 31, 2002 consisted of cash and short-term investments of \$117 million and a \$5 million revolving line of credit from a commercial bank. There were no borrowings under the revolving line of credit agreement at December 31, 2002. The revolving line of credit agreement expires on June 30, 2003. Borrowings under the revolving line of credit bear interest rates of, at the Company's election, the prime rate (4.25% at December 31, 2002), or the bank's revolving offshore rate, which approximates LIBOR (1.38% at December 31, 2002) plus 2.0%. The agreement contains certain restrictive covenants that include a restriction on the declaration and payment of dividends without the lender's consent. The Company was in compliance with all such covenants at December 31, 2002.

In September 2002, the Company borrowed \$10.7 million through a commercial mortgage financing agreement which was associated with the purchase of its previously leased manufacturing facilities in San Jose, CA. Borrowings under this agreement bear interest, at the Company's election, at the daily floating prime rate (4.25% at December 31, 2002), or adjustable monthly LIBOR (1.38% at December 31, 2002) plus 1.5%. The principal balance of the loan shall be paid in 59 consecutive monthly installments of \$16,890 and one final installment in the amount necessary to pay in full the remaining outstanding principal balance. The mortgage agreement contains certain restrictive covenants. The Company was in compliance with all such covenants at December 31, 2002.

The Company's working capital decreased by \$14.8 million to \$182.2 million as of December 31, 2002 from \$196.9 million as of December 31, 2001. The decrease primarily resulted from cash used to repurchase \$29.1 million of the Company's common stock in 2002 as compared to \$7.3 million in 2001.

The Company generated \$28.7 million in cash flows from operating activities for the year ended December 31, 2002 compared to \$43.6 million for the year ended December 31, 2001. This decrease in cash flows provided by operating activities was primarily due to decreased net income adjusted for non-cash activities. For the year ended December 31, 2002 the Company's cash flows provided by operating activities were primarily attributable to net income after adding back non-cash activities of \$29.8 million. Net income after adding back non-cash activities consisted of a \$41.0 million net loss offset by non-cash activities of \$70.8 million. Non-cash activities for 2002 included additions of \$33.9 million for depreciation and amortization, \$29.9 million for stock compensation and \$23.4 million for manufacturing facility impairment which were partially offset by a \$15.9 increase in net deferred income tax assets.

The Company's investing activities during the year ended December 31, 2002 used cash of \$28.5 million as compared to \$1.9 million of cash used in investing activities during the year ended December 31, 2001. This increase in cash used for investing activities was primarily due to a reduction in net sales of short-term investments. Cash used for investing activities during the year ended December 31, 2002 resulted primarily from \$29.5 in net purchases of property, plant and equipment, which includes \$18.0 million for the purchase of the Company's previously leased manufacturing facilities located in San Jose, CA, combined with the purchase of \$2.1 million in intangible assets, which was partially offset by \$3.1 million in net sales of short-term investments.

The Company's financing activities during the year ended December 31, 2002 used cash of \$13.2 million as compared to cash provided of \$2.5 million during the year ended December 31, 2001. This decrease in cash flow primarily resulted from an increase of \$21.9 million in cash used to repurchase shares of the Company's common stock combined with a decrease of \$6.7 million in proceeds from the issuance of common stock which were partially offset by a \$10.7 million increase in long-term borrowings. Cash used by financing activities during the year ended December 31, 2002 was the result of \$29.1 million to repurchase 2,274,300 shares of common stock and \$3.8 million in repayments of long-term debt, which was partially offset by proceeds from long-term debt borrowings of \$10.7 million related to the purchase of the company's previously leased manufacturing facilities and proceeds from the issuance of common stock through employee stock transactions of \$8.9 million.

The Company currently intends to purchase approximately \$15 million to \$25 million in capital equipment and improvements during the next twelve months. The majority of the anticipated 2003 capital spending is related to equipment and building improvements associated with the consolidation of wafer fabrication operations in its San Jose facility. The Company also expects to purchase additional research and development related software and equipment, and manufacturing equipment for product testing of new products. The Company is currently authorized by its Board of Directors to repurchase an additional \$10.9 million of its common stock in 2003. The Company expects that its cash requirements through 2003 will be met by its cash from operations, existing cash balances and short-term investments, and its credit facility.

Contractual Obligations and Commitments

As of December 31, 2002, the Company had the following contractual obligations and commitments: (in thousands)

	Payments Due By Period				
	Total	Less than 1 Year	1-3 Years	4-5 Years	After 5 Years
Long-term debt (see Note 6 of Notes to					
Consolidated Financial Statements)	\$ 11,894	\$ 911	\$ 1,109	\$ 9,874	\$ —
Operating leases (see Note 9 of Notes to					
Consolidated Financial Statements)	15,078	2,635	7,672	1,048	3,723
Other long-term liabilities (see Note 14 of					
Notes to Consolidated Financial Statements)	6,000	2,000	4,000		
Total	<u>\$ 32,972</u>	\$ 5,546	<u>\$ 12,781</u>	<u>\$ 10,922</u>	\$ 3,723

Factors That May Affect Operating Results

The statements contained in this Report on Form 10-K that are not purely historical are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, including statements regarding the Company's expectations, hopes, intentions or strategies regarding the future. Forward-looking statements include: statements regarding future products or product development; statements regarding future research and development spending and the Company's product development strategy; statements regarding the levels of international sales; statements regarding future expansion or utilization of manufacturing capacity; statements regarding future expenditures; and statements regarding current or future acquisitions. All forward-looking statements included in this document are based on information available to the Company on the date hereof, and the Company assumes no obligation to update any such forward-looking statements. It is important to note that our actual results could differ materially from those in such forward-looking statements. Some of the factors that could cause actual results to differ materially are set forth in Item 1 ("Business"), Item 3 ("Legal Proceedings"), Item 7 ("Management's Discussion and Analysis of Financial Condition and Results of Operations") and in the additional factors set forth below.

The Company is exposed to risks because of the uncertain rate of growth in the global economy.

Although the global economy appears to have grown during 2002 after shrinking for a period in 2001, recent events have cast doubt on the sustainability of future economic growth. Consumer confidence is waning due in part to the recent sharp decline in global equity markets. Reduced corporate profits and weak capital spending, especially for technology related end markets that the Company serves such as the high-speed communications, enterprise computing and telecommunications markets, continue to dampen demand for the Company's products. If economic conditions in the global economy worsen, or if a wider global economic recession materializes, the Company's business, financial condition and results of operations may be materially and adversely affected.

The Company's operating results may fluctuate because of a number of factors, many of which are beyond the its control.

If the Company's operating results are below the expectations of public market analysts or investors, then the market price of its Common Stock could decline. Some of the factors that affect the Company's quarterly and annual results, but which are difficult for the Company to control or predict are:

- disruption of customer demand, transportation or supplier operations due to war or terrorism
- the volume and timing of orders received
- changes in the mix of products sold
- market acceptance of the Company's products and its customers' products
- competitive pricing pressures
- cyclical semiconductor industry conditions
- dependence on third party suppliers
- the ability to introduce new products on a timely basis
- the timing of new product announcements and introductions by the Company or its competitors
- the timing and extent of research and development expenses
- fluctuations in manufacturing yields
- the ability to hire and retain key technical and management personnel
- access to advanced process technologies
- the timing and extent of process development costs

Customer demand for the Company's products is volatile and difficult to predict.

The Company's customers continuously adjust their inventories in response to changes in end market demand for their products and the availability of semiconductor components. This results in frequent changes in demand for the Company's products. The volatility of customer demand limits the Company's ability to predict future levels of sales and profitability. The supply of semiconductors can quickly and unexpectedly match or exceed demand because end customer demand can change very quickly. Also, semiconductor suppliers can rapidly increase production output. This can lead to a sudden oversupply situation and a subsequent reduction in order rates and revenues as customers adjust their inventories to true demand rates. A rapid and sudden decline in customer demand for the Company's products can result in excess quantities of certain of the Company's products relative to demand. Should this occur the Company's operating results may be adversely affected as a result of charges to reduce the carrying value of the Company's inventory to the estimated demand level or market price.

The weakness in the global economy in 2001 and 2002 has caused the end markets that the Company's customers serve to grow less rapidly, or in some cases, contract. The resulting uncertainty of demand has caused most of the Company's customers to err on the side of caution until they see signs of order strength for their end products. In addition, many customers are continuing to deplete inventories in response to short supplier lead times. Semiconductors are perceived to be readily available and supplier lead times are at or near historic lows. In this environment customers are not making large purchase commitments, only ordering small quantities to fill known short-term requirements, greatly reducing our visibility into customer demand. As a result, the Company's revenues are highly dependent upon turns fill orders (orders booked and shipped in the same quarter). The reduced level of order backlog coupled with the short-term nature of customer demand makes it extremely difficult to predict near term revenues and profits.

The semiconductor industry is highly competitive.

The semiconductor industry is highly competitive and subject to rapid technological change, priceerosion and increased international competition. Significant competitive factors include:

- product features
- performance
- price
- timing of product introductions
- emergence of new computer and communications standards
- quality and customer support

In times when economic growth and customer demand is less certain, such as the semiconductor industry is now experiencing, price competition becomes more prevalent. Both the semiconductor industry and the Company have experienced significant price erosion since the beginning of 2001. If this price erosion continues it will have the effect of reducing revenue levels and gross margins in future periods.

Because the standard products market for integrated circuits is diverse and highly fragmented, the Company encounters different competitors in various market areas. Most of these competitors have substantially greater technical, financial and marketing resources and greater name recognition than the Company has. Increased competition could adversely affect the Company's financial condition or results of operations. There can be no assurance that the Company will be able to compete successfully in either the

standard products or custom and foundry products business in the future or that competitive pressures will not adversely affect the Company's financial condition, results of operations, or cash flows.

The cost reduction actions the Company has initiated may not materialize as expected, or be sustained as business improves.

The Company has implemented or initiated a variety of cost reduction actions. The expected future cost savings from these programs may not materialize as anticipated resulting in a smaller benefit to the Company's financial results of operations. Furthermore, when customer demand improves and revenues increase, it is unclear whether Micrel will continue to benefit from all of the cost reduction actions that have been implemented.

The consolidation of wafer fabrication operations into the Company's San Jose facility may negatively impact the results of operations or fail to result in expected cost savings.

In September 2002, the Company approved a plan to close its Santa Clara, CA wafer fabrication facility and transfer the production and research and development processes and certain equipment into its San Jose, CA facility. If the transfer of the equipment and manufacturing processes is not successful or is delayed, this could result in the Company's inability to manufacture certain products and delay certain new product development. In addition, expected cost savings related to this consolidation may be delayed or unachieved. Either of these factors could have an adverse effect on the Company's results of operations and financial condition.

Market conditions may lead the Company to initiate additional cost reduction plans, which may negatively affect near term operating results.

As a result of weak customer demand, competitive pricing pressures, excess capacity, weak economic conditions or other factors, the Company may decide to initiate actions to reduce the Company's cost structure and improve the Company's future operating results. The cost reduction actions may require incremental costs to implement, which could negatively affect the Company's operating results in periods when the incremental costs or liabilities are incurred.

The Company's product offering, while diversified, is highly dependent on certain select end markets.

The Company currently sells a significant portion of its products in the high-speed communications, computer, networking and wireless handset markets. These markets are characterized by short product life cycles, rapidly changing customer demand, evolving and competing industry standards and seasonal demand trends. Additionally, there can be no assurance that these markets will continue to grow. If the markets for high speed communications, computers, networking or wireless handsets that the Company serves fail to grow, or grow more slowly than it currently anticipates, or if there is increased competition in these markets, the Company's business, results of operations and financial condition could be adversely affected.

An important part of the Company's strategy is to continue to focus on the market for high-speed communications integrated circuits. If the severe downturn in the telecommunications infrastructure industry continues resulting in lack of demand for the Company's high bandwidth products, the Company's future revenue growth and profitability could be adversely affected.

The Company's Ethernet products have become an important portion of the Company's revenues. If the Company fails to develop new products to serve this market in a timely manner, or if the market acceptance of the Company's new Ethernet products is poor, if a competitor's products unfavorably affect pricing or demand for the Company's products, the Company's revenues and results of operations could be adversely affected.

The Company currently derives the majority of its product revenues from sales of standard analog and mixed-signal integrated circuits and expects these products to continue to account for the majority of its revenues for the foreseeable future. As a result, factors adversely affecting the pricing of or demand for standard analog integrated and mixed-signal circuits, such as competition, product performance or technological change, could have a material adverse effect on the Company's business and consolidated results of operations and financial condition.

The markets that the Company serves frequently undergo transitions in which products rapidly incorporate new features and performance standards on an industry-wide basis. If the Company's products are unable to support the new features or performance levels required by OEMs in these markets, it would likely lose business from existing or potential customers and would not have the opportunity to compete for new design wins until the next product transition. If the Company fails to develop products with required features or performance standards, or experiences even a short delay in bringing a new product to market, or if its customers fail to achieve market acceptance of their products, its revenues could be significantly reduced for a substantial period of time.

The Company encounters risks associated with its international operations, including geopolitical risks.

It is unclear what effect prolonged military conflict would have on world trade or on economic conditions in specific regions of the world. Reduced levels of economic activity, or disruptions of international transportation, could adversely affect the Company's sales on either a global basis or in specific geographic regions. Two of the Company's top ten direct customers are located in South Korea. In the event that current political tensions surrounding North Korea evolve into military or social conflict, the Company's revenues, results of operations, cash flow and financial condition could be adversely affected.

The Company has generated a substantial portion of its net revenues from export sales. The Company believes that a substantial portion of its future net revenues will depend on export sales to customers in international markets, including Asia. International markets are subject to a variety of risks, including changes in policy by foreign governments, social conditions such as civil unrest, economic conditions including high levels of inflation, fluctuation in the value of foreign currencies and currency exchange rates and trade restrictions or prohibitions. In addition, the Company sells to domestic customers that do business worldwide and cannot predict how the businesses of these customers may be affected by economic or political conditions in Asia or elsewhere in the world. Such factors could adversely affect the Company's future revenues, financial condition, results of operations or cash flows.

The Company is reliant on certain key suppliers for wafer fabrication, circuit assembly and testing services. Most of these suppliers are based outside of the U.S. The Company's supply could be interrupted as a result of any of the previously mentioned risk factors relating to international markets.

The Company's international sales are primarily denominated in U.S. currency. Consequently, changes in exchange rates that strengthen the U.S. dollar could increase the price of the Company's products in the

local currencies of the foreign markets it serves. This would result in making the Company's products relatively more expensive than its competitors' products that are denominated in local currencies, leading to a reduction in sales or profitability in those foreign markets. The Company has not taken any protective measures against exchange rate fluctuations, such as purchasing hedging instruments.

The Company's gross margin is dependent upon a number of factors, including the level of capacity utilization.

Semiconductor manufacturing is a capital-intensive business resulting in high fixed costs. If the Company is unable to utilize its installed wafer fabrication or test capacity at a high level, the costs associated with these facilities and equipment would not be fully absorbed, resulting in higher average unit costs and lower sales margins. The decline in new customer order rates has resulted in reduced capacity utilization of the Company's factories as it has attempted to match production with anticipated customer demand. The Company's gross margins have declined as a result of this reduced utilization of production capacity. Gross margins may deteriorate further should production activity be curtailed in response to lower customer demand in the future.

Dependence on third-party manufacturing and supply relationships increases the risk that the Company will not have an adequate supply of products to meet demand or that its cost of materials will be higher than expected.

The Company faces many risks associated with its dependence upon third parties that manufacture, assemble or package certain of our products. These risks include:

- reduced control over delivery schedules and quality
- risks of inadequate manufacturing yields and excessive costs
- the potential lack of adequate capacity during periods of excess demand
- difficulties selecting and integrating new subcontractors
- limited warranties on wafers or products supplied to the Company
- potential increases in prices
- potential misappropriation of the Company's intellectual property

Any of these risks may lead to increased costs or delay delivery of the Company's products, which would harm its profitability and customer relationships.

Additionally, the Company's wafer and product requirements typically represent a relatively small portion of the total production of the third-party foundries and outside assembly, testing and packaging contractors. As a result, Micrel is subject to the risk that a foundry will provide delivery or capacity priority to other larger customers at the expense of Micrel, resulting in an inadequate supply to meet customer demand or higher costs to obtain the necessary product supply. Also, there is a risk that a third party manufacturer will cease production on an older or lower volume process that it uses to produce the Company's products. The Company cannot be certain that its outside manufacturers will continue to devote resources to the production of its products or continue to advance the process design technologies on which the manufacturing of its products are based. Each of these events could increase the Company's costs and harm its ability to deliver our products on time.

The Company is subject to the risk of litigation and regulatory action in connection with the restatement of its financial statements, and the potential liability from any such litigation or regulatory action could harm its business.

On January 28, 2002, the Company announced that it would restate its consolidated financial statements for the fiscal years ended December 31, 1998, 1999, and 2000, and the fiscal quarters ended March 31, 2001, June 30, 2001, and September 30, 2001. As a result of this restatement, the Company could become subject to litigation or regulatory proceedings, or both. As of the date hereof, the Company is not aware of any litigation having been commenced against it related to this restatement. However, such litigation could be commenced against the Company in the future and, if so, the Company cannot predict the outcome of any such action at this time. However, if an unfavorable result occurred in any such action, the Company's business and financial condition could be harmed. In addition, regulatory agencies, such as the Securities and Exchange Commission, could commence a formal investigation of the Company's restatement. At this time management cannot predict whether or not any regulatory investigation related to the restatement will be commenced or, if it is, the outcome of any such investigation. However, if any such investigation were to result in a regulatory proceeding or action against the Company, its business and financial condition could be harmed. The restatement also involves certain tax issues that need to be resolved with the appropriate taxing authorities. The Company has recorded a liability in its financial statements with respect to these tax issues. The Company cannot predict the results of its discussions with the appropriate tax authorities regarding the tax implications of its restatement and accordingly, the amount of actual financial impact may differ from the amount recorded in the Company's financial statements.

The Company may not be able to protect its intellectual property adequately, or could be harmed by litigation involving its patents and proprietary rights.

The Company's future success depends in part upon its intellectual property, including patents, trade secrets, know-how and continuing technology innovation. There can be no assurance that the steps taken by the Company to protect its intellectual property will be adequate to prevent misappropriation or that others will not develop competitive technologies or products. There can be no assurance that any patent owned by the Company will not be invalidated, circumvented or challenged, that the rights granted thereunder will provide competitive advantages or that any of its pending or future patent applications will be issued with the scope of the claims sought, if at all. Furthermore, there can be no assurance that others will not develop technologies that are similar or superior to the Company's technology, duplicate technology or design around the patents owned by the Company. Additionally, the semiconductor industry is characterized by frequent litigation regarding patent and other intellectual property rights. There can be no assurance that existing claims or any other assertions or claims for indemnity resulting from infringement claims will not adversely affect the Company's business, financial condition, results of operations, or cash flows.

The Company's operating results substantially depend on manufacturing output and yields, which may not meet expectations.

The Company manufactures most of its semiconductors at its San Jose and Santa Clara, California fabrication facilities. Manufacturing semiconductors requires manufacturing tools that are unique to each product being produced. If one of these unique manufacturing tools was damaged or destroyed, then the Company's ability to manufacture the related product would be impaired and its business would suffer until the tool was repaired or replaced. Additionally, the fabrication of integrated circuits is a highly complex

and precise process. Small impurities, contaminants in the manufacturing environment, difficulties in the fabrication process, defects in the masks used to print circuits on a wafer, manufacturing equipment failures, wafer breakage or other factors can cause a substantial percentage of wafers to be rejected or numerous die on each wafer to be nonfunctional.

The Company faces risks associated with acquisitions it has completed and will face risks associated with any future acquisitions.

The Company has made acquisitions in the past and may make acquisitions in the future. The risks involved with acquisitions include:

- diversion of management's attention
- failure to retain key personnel
- amortization of acquired intangible assets
- customer dissatisfaction or performance problems with the acquired company
- the cost associated with acquisitions and the integration of acquired operations
- assumption of unknown liabilities

Any of these risks could materially harm the Company's business, financial condition and results of operations. Additionally, any acquisition involves a significant amount of integration of two companies that have previously operated independently. No assurance can be given that difficulties will not be encountered in integrating certain products, technologies or operations of the acquired companies or that the benefits expected from such integration will be realized. There can be no assurance that any of the acquired companies will retain its key personnel, that the engineering teams of Micrel and the acquired companies will successfully cooperate and realize any technological benefits or that Micrel or the acquired companies will realize any of the other anticipated benefits of the acquisitions. In addition, the consummation of an acquisition could result in the cancellation, termination or non-renewal of arrangements with the acquired company by suppliers, distributors or customers, or the termination of negotiations or delays in ordering by prospective customers as a result of uncertainties that may be perceived as a result of the acquisition. Any significant amount of cancellations, terminations, delays or non-renewals of arrangements with the acquired company or loss of key employees or termination of negotiations or delays in ordering could have a material adverse effect on the business, operating results or financial condition of the acquired company and Micrel after the acquisition.

In addition, some of the past acquisitions have been accounted for using the pooling-of-interests method of accounting which means the acquisitions are subject to rules established by the Financial Accounting Standards Board and the Securities and Exchange Commission. These rules are complex and the interpretation of them is subject to change. Additionally, the availability of pooling of interests accounting treatment for a business combination depends in part upon circumstances and events occurring after the acquisition. The failure of a past business combination that has been accounted for under the pooling of interests accounting method to qualify for this accounting treatment would materially harm the Company's reported and future earnings and likely, the price of its Common Stock.

The Company's future success depends in part on the continued service of its key design engineering, sales, marketing and executive personnel and its ability to identify, hire and retain additional personnel.

There is intense competition for qualified personnel in the semiconductor industry, in particular design engineers, and the Company may not be able to continue to attract and train engineers or other qualified personnel necessary for the development of its business or to replace engineers or other qualified personnel who may leave its employ in the future. Loss of the services of, or failure to recruit, key design engineers or other technical and management personnel could be significantly detrimental to the Company's product and process development programs.

Our ability to manufacture sufficient wafers to meet demand could be severely hampered by natural disasters.

Our existing wafer fabrication facilities are located in Northern California and these facilities may be subject to natural disasters such as earthquakes. A significant natural disaster, such as an earthquake or prolonged drought, could have a material adverse impact on our business, financial condition and operating results.

The Company's business could be adversely affected by electrical power or natural gas supply interruptions.

The majority of the Company's administrative, technical and manufacturing facilities are located in Northern California and these facilities may be subject to electrical power or natural gas supply interruptions. In recent months, electrical power suppliers have experienced shortages in electrical power which has resulted in brief electrical power interruptions. The weak financial condition of California's Public Utilities may aggravate the situation and shortages may develop for natural gas. Semiconductor manufacturing depends upon a controlled environment that requires high usage of electrical power and natural gas. Frequent or extended electrical power interruptions could have a negative impact on production output, manufacturing yields, and manufacturing efficiencies and could have a material adverse impact on the Company's business, financial condition and operating results.

We could incur substantial fines or litigation costs associated with our storage, use and disposal of hazardous materials.

We are subject to a variety of federal, state and local governmental regulations related to the use, storage, discharge and disposal of toxic, volatile or otherwise hazardous chemicals used in our manufacturing process. Any failure to comply with present or future regulations could result in the imposition of fines, the suspension of production, alteration of our manufacturing processes or a cessation of operations. In addition, these regulations could restrict our ability to expand our facilities at their present locations or construct or operate a new wafer fabrication facility or could require us to acquire costly equipment or incur other significant expenses to comply with environmental regulations or clean up prior discharges. Our failure to control the use of, disposal or storage of, or adequately restrict the discharge of, hazardous substances could subject us to future liabilities and could have a material adverse effect on our business.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

At December 31, 2002, the Company held no short-term investments or had any fixed rate long-term debt subject to interest rate risk

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The Company's financial statements are set forth on pages 39 through 65, which follow Item 15.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

The information required by Item 9 of Form 10-K has been previously reported (as that term is defined in Rule 12b-2 of the Securities Exchange Act of 1934.)

PART III

ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT

The information concerning the directors and officers of the Company is included in the Company's Proxy Statement to be filed in connection with the Company's 2003 Annual Meeting of Shareholders under the caption "Election of Directors" and "Certain Information with Respect to Executive Officers," respectively, and is incorporated herein by reference.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this item is included under the caption "Executive Compensation" and "Stock Option Grants and Exercise" in the Company's Proxy Statement to be filed in connection with the Company's 2003 Annual Meeting of Shareholders and is incorporated herein by reference.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED SHAREHOLDER MATTERS

The information required by this item is included under the caption "Security Ownership of Certain Beneficial Owners and Management" in the Company's Proxy Statement to be filed in connection with the Company's 2003 Annual Meeting of Shareholders and is incorporated herein by reference.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

The information required by this item is included under the caption "Certain Transactions" in the Company's Proxy Statement to be filed in connection with the Company's 2003 Annual Meeting of Shareholders and is incorporated herein by reference.

ITEM 14: EVALUATION OF DISCLOSURE CONTROLS AND PROCEDURES

The Company maintains disclosure controls and procedures that are designed to ensure that information required to be disclosed in the Company's reports under the Securities Exchange Act of 1934 is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the Securities and Exchange Commission, and that such information is accumulated and communicated to the Company's management, including its chief executive officer and chief financial officer, as appropriate, to allow timely decisions regarding required disclosure. In designing and evaluating the disclosure controls and procedures, management recognized that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and management necessarily was required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

Within 90 days prior to the date of this report, the Company carried out an evaluation, under the supervision and with the participation of the Company's management, including the Company's chief executive officer and chief financial officer, of the effectiveness of the design and operation of the Company's disclosure controls and procedures. Based on the foregoing, the Company's chief executive officer and chief financial officer concluded that the Company's disclosure controls and procedures appear to be effective.

There have been no significant changes in the Company's internal controls or in other factors that could significantly affect the internal controls subsequent to the date the Company completed its evaluation.

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES, AND REPORTS ON FORM 8-K

- (a) The following documents are filed as part of this Report:
 - 1. <u>Financial Statements.</u> The following financial statements of the Company and the Reports of PricewaterhouseCoopers LLP, Independent Accountants, and Deloitte & Touche LLP, Independent Auditors, are included in this Report on the pages indicated:

	<u>Page</u>
Report of Independent Accountants	39
Independent Auditors' Report	40
Consolidated Balance Sheets as of December 31, 2002 and 2001	41
Consolidated Statements of Income for the Years ended December 31, 2002,	
2001 and 2000	42
Consolidated Statements of Shareholders' Equity and Comprehensive Income for	
the Years ended December 31, 2002, 2001 and 2000	43
Consolidated Statements of Cash Flows for the Years ended December 31, 2002,	
2001 and 2000	44
Notes to Consolidated Financial Statements	45

2. <u>Financial Statement Schedule.</u> The following financial statement schedule of the Company for the years ended December 31, 2002, 2001 and 2000 is filed as part of this report on Form 10-K and should be read in conjunction with the financial statements.

Schedule	<u>Title</u>	<u>Page</u>
II	Valuation and Qualifying Accounts	64

Schedules not listed above have been omitted because they are not applicable, not required, or the information required to be set forth therein is included in the Consolidated Financial Statements or notes thereto.

- 3. <u>Exhibits.</u> Those exhibits required by Item 601 of Regulation S-K to be filed or incorporated by reference as a part of this Report are listed on the Exhibit Index immediately preceding the exhibits filed herewith.
- (b) Reports on Form 8-K. During the quarter ended December 31, 2002, the Company filed a Current Report on Form 8-K, dated October 2, 2002 announcing its preliminary financial results for the third quarter of 2002 and announcing its plans to consolidate its wafer fabrication facilities. Also during the quarter ended December 31, 2002 the Company filed a Current Report on Form 8-K, dated November 8, 2002 announcing that the Company had filed with the Securities and Exchange Commission a Schedule TO in order to initiate an offer to its employees to exchange certain of their outstanding options for new options to be granted six months and two days after expiration of the exchange offer.
 - (c) Exhibits Pursuant to Item 601 of Regulation S-K. See Item 15(a)(3) above.
 - (d) <u>Financial Statement Schedules</u>. The financial statement schedule required by this Item is listed under Item 15(a)(2) above.

Report of Independent Accountants

To the Board of Directors and Shareholders of Micrel, Incorporated:

In our opinion, the consolidated financial statements listed in the accompanying index, appearing under Item 15(a)(1), present fairly, in all material respects, the financial position of Micrel, Incorporated and its subsidiaries at December 31, 2002, and the results of their operations and their cash flows for the year then ended in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedule for the year ended December 31, 2002, listed in the accompanying index appearing under Item 15(a)(2), presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements. These financial statements and financial statement schedule are the responsibility of the Company's management; our responsibility is to express an opinion on these financial statements and financial statement schedule based on our audit. We conducted our audit 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 audit provides a reasonable basis for our opinion.

PricewaterhouseCoopers LLP San Jose, California January 29, 2003, except for Notes 7 and 11, which are as of February 24, 2003

INDEPENDENT AUDITORS' REPORT

To the Board of Directors and Shareholders of Micrel, Incorporated:

We have audited the accompanying consolidated balance sheet of Micrel, Incorporated and its subsidiaries as of December 31, 2001 and the related consolidated statements of income, shareholders' equity and comprehensive income (loss), and cash flows for each of the two years in the period ended December 31, 2001. Our audits included the financial statement schedule for the years ended December 31, 2001 and 2000 listed in the Index at Item 15(a)(2). These financial statements and financial statement schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and financial statement schedule based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of the Company and its subsidiaries at December 31, 2001, and the results of their operations and their cash flows for each of the two years in the period ended December 31, 2001 in conformity with accounting principles generally accepted in the United States of America. Also, in our opinion, such financial statement schedule for the years ended December 31, 2001 and 2000, when considered in relation to the basic financial statements taken as a whole, presents fairly in all material respects the information set forth therein.

The consolidated financial statements referred to above give retroactive effect to the merger of Micrel, Incorporated and Kendin Communications, Inc. which has been accounted for as a pooling of interests as described in Note 2 to the consolidated financial statements.

Deloitte & Touche LLP

San Jose, California January 28, 2002

CONSOLIDATED BALANCE SHEETS DECEMBER 31, 2002 AND 2001

(In thousands, except share amounts)

	2002	2001
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	\$ 117,363	\$ 130,406
Short-term investments	_	3,093
Accounts receivable, less allowances: 2002, \$3,305; 2001, \$3,886	29,577	28,209
Inventories	39,531	35,394
Prepaid expenses and other	2,675	8,754
Deferred income taxes	30,828	27,367
Total current assets	219,974	233,223
PROPERTY, PLANT AND EQUIPMENT, NET	92,318	117,571
INTANGIBLE ASSETS, NET	8,387	3,660
DEFERRED INCOME TAXES	9,606	
OTHER ASSETS	<u>390</u>	<u>359</u>
TOTAL	<u>\$ 330,675</u>	\$ 354,813
LIABILITIES AND SHAREHOLDERS' EQUITY		
CURRENT LIABILITIES:		
Accounts payable	\$ 13,026	\$ 12,737
Accrued compensation	5,403	8,496
Accrued commissions	945	808
Income taxes payable	3,405	
Other accrued liabilities	4,297	850
Deferred income on shipments to distributors	9,832	9,777
Current portion of long-term debt	911	3,615
Total current liabilities	37,819	36,283
LONG-TERM DEBT	10,983	1,299
OTHER LONG-TERM OBLIGATIONS	7,687	
DEFERRED RENT	567	1,020
DEFERRED INCOME TAXES		2,881
COMMITMENTS AND CONTINGENCIES (Notes 9 and 11)		
SHAREHOLDERS' EQUITY:		
Preferred stock, no par value – authorized: 5,000,000 shares;		
issued and outstanding: none		
Common stock, no par value – authorized: 250,000,000 shares;		
issued and outstanding: 2002 – 92,006,571; 2001 – 92,823,677	160,889	194,384
Deferred stock compensation	(9,971)	(44,755)
Accumulated other comprehensive income (loss)	(25)	(25)
Retained earnings	122,726	163,726
Total shareholders' equity	273,619	313,330
TOTAL	\$ 330,675	\$ 354,813
		

CONSOLIDATED STATEMENTS OF INCOME YEARS ENDED DECEMBER 31, 2002, 2001 AND 2000

(In thousands, except per share amounts)

2002	2001	2000
\$ 204,704	\$ 217,808	\$ 346,335
139,554	126,242	149,083
65,150	91,566	197,252
53,308 32,160 22,535 — 23,357 5,536	51,306 32,862 9,572 8,894 ————————————————————————————————————	42,201 45,319 6,060 — — — — 93,580
		103,672
2,014 (499) (459) 1,056	5,596 (583) 1,073 6,086	5,849 (976) (134) 4,739
(70,690)	(4,982)	108,411
(29,690)	(5,534)	35,104
\$ (41,000) \$ (0.44)	\$ 552 \$ 0.01	\$ 73,307 \$ 0.82
\$ (0.44) <u>92,600</u> <u>92,600</u>	\$ 0.01 91,888 98,092	\$ 0.75 89,242 98,186
\$ 7,354 \$ 11,430 11,105 22,535 — \$ 22,535	\$ 3,141 \$ 5,047 <u>4,525</u> 9,572 <u>2,007</u> \$ 11,579	\$ 2,202 \$ 3,347 2,713 6,060 ——— \$ 6,060
	\$ 204,704	\$ 204,704 \$ 217,808

See Notes to Consolidated Financial Statements.

CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY AND COMPREHENSIVE INCOME (LOSS) YEARS ENDED DECEMBER 31, 2002, 2001 AND 2000

(In thousands, except share amounts)

	Commo Shares	n Stock Amount	Accumulated Other Comprehensive Income (Loss)		Retained Earnings	Total Shareholders' <u>Equity</u>	Comprehensive Income (Loss)
Balances, December 31, 1999	87,414,733	\$ 86,051	\$ 15	\$ (18,043)	\$ 89,235	\$ 157,258	
Net income Other comprehensive income, net of tax - change in net unrealized gains from	_	_	_	_	73,307	73,307	\$ 73,307
short-term investments	_	_	(47)		_	(47)	(47)
Comprehensive income							<u>\$ 73,260</u>
Acquisition of ETC	152,234	32		_	632	664	
Deferred stock compensation, net Issuance of common stock Employee stock transactions Tax benefit of employee stock	655,284 2,419,671	36,035 6,629 15,556	_ _ _	(27,977) — —	_ _ _	8,058 6,629 15,556	
transactions		20,410				20,410	
Balances, December 31, 2000	90,641,922	164,713	(32)	(46,020)	163,174	281,835	
Net income Other comprehensive income, net of tax - change in net unrealized gains from short-term investments	_	_	7	_	552	552 7	\$ 552 7
Comprehensive income							\$ 559
Deferred stock compensation, net Issuance of common stock upon	_	13,455	_	1,265	_	14,720	
net exercise of warrants	142,951	_	_	_	_	_	
Repurchase of common stock Employee stock transactions Tax benefit of employee stock	(365,000) 2,403,804	(7,264) 15,653	_	_		(7,264) 15,653	
transactions		7,827	_	<u> </u>		7,827	
Balances, December 31, 2001	92,823,677	194,384	(25)	(44,755)	163,726	313,330	
Net loss	· · · · —	_		_	(41,000)	(41,000)	\$ (41,000)
Comprehensive loss							\$ (41,000)
Deferred stock compensation, net Repurchase of common stock Employee stock transactions Tax effect of employee stock transactions	(2,274,300) 1,457,194	(4,895) (29,127) 8,943 (8,416)		34,784		29,889 (29,127) 8,943 (8,416)	
Balances, December 31, 2002	92,006,571	\$ 160,889	\$ (25)	\$ (9,971)	\$ 122,726	\$ 273,619	

CONSOLIDATED STATEMENTS OF CASH FLOWS YEARS ENDED DECEMBER 31, 2002, 2001 AND 2000

(In thousands)

<u> </u>	2002	2001	2000
CASH FLOWS FROM OPERATING ACTIVITIES:	Φ (41,000)	Φ 550	Φ 72 207
Net income (loss)	\$ (41,000)	\$ 552	\$ 73,307
Adjustments to reconcile net income to net cash			
provided by operating activities:	22.010	22.272	25.705
Depreciation and amortization	33,910	32,373	25,785
Stock based compensation	29,889	14,720	8,262
Manufacturing facility impairment	23,357		(40)
(Gain) loss on disposal of assets	(1)	16	(40)
Deferred rent	(453)	77	319
Deferred income taxes	(15,948)	(2,438)	(7,610)
Changes in operating assets and liabilities, net of			
effects of acquisition:	(1.250)	24 624	(22, 452)
Accounts receivable	(1,368)	34,634	(22,453)
Inventories	(4,137)	(6,411)	(4,390)
Prepaid expenses and other assets	4,157	(7,170)	(198)
Accounts payable	289	(8,605)	8,607
Accrued compensation	(3,093)	(3,000)	5,264
Accrued commissions	137	(1,469)	245
Income taxes payable	(3,120)	(3,978)	19,898
Other accrued liabilities	1,859	(1,279)	693
Other non-current accrued liabilities	4,121		<u> </u>
Deferred income on shipments to distributors	55	(4,447)	7,663
Net cash provided by operating activities	28,654	43,575	115,352
CASH FLOWS FROM INVESTING ACTIVITIES:			
Purchases of property, plant and equipment	(29,532)	(35,720)	(67,483)
Purchase of intangible assets	(2,054)		
Purchases of short-term investments	_	(30,540)	(158,010)
Proceeds from sales and maturities of short-term investments	3,093	64,407	157,681
Net cash used in investing activities	(28,493)	(1,853)	<u>(67,812</u>)
CASH FLOWS FROM FINANCING ACTIVITIES:			
Proceeds from long-term borrowings	10,736		2,000
Repayments of long-term debt	(3,756)	(5,842)	(5,463)
Proceeds from the issuance of common stock	8,943	15,653	21,982
Repurchase of common stock	(29,127)	(7,264)	
Net cash provided (used) by financing activities	(13,204)	2,547	18,519
NET INCREASE (DECREASE) IN CASH AND CASH			
EQUIVALENTS	(13,043)	44,269	66,059
CASH AND CASH EQUIVALENTS - Beginning of year	130,406	86,137	20,078
CASH AND CASH EQUIVALENTS - End of year	<u>\$ 117,363</u>	<u>\$ 130,406</u>	<u>\$ 86,137</u>
SUPPLEMENTAL DISCLOSURE OF CASH FLOW			
INFORMATION:			
Cash paid during the year for:			
Interest	<u>\$ 286</u>	<u>\$ 583</u>	<u>\$ 976</u>
Income taxes	<u>\$ 91</u>	<u>\$ 8,896</u>	<u>\$ 22,709</u>
Non-cash transactions:			
Acquisition of intangible asset under patent cross license			
and settlement agreement	<u>\$ 5,154</u>	<u>\$</u>	<u>\$</u>
Deferred stock compensation (reversal)	<u>\$ (4,895)</u>	<u>\$ 13,455</u>	<u>\$ 36,035</u>
See Notes to Consolidated Financial Statements.			

1. SIGNIFICANT ACCOUNTING POLICIES

Nature of Business — Micrel, Incorporated and its wholly-owned subsidiaries (the "Company") develops, manufactures and markets analog, mixed-signal and digital semiconductor devices. The Company also provides custom and foundry services which include silicon wafer fabrication, integrated circuit assembly and testing. The Company's standard integrated circuits are sold principally in North America, Asia, and Europe for use in a variety of products, including those in the computer, communication, and industrial markets. The Company's custom circuits and wafer foundry services are provided to a wide range of customers that produce electronic systems for communications, consumer, automotive and military applications. The Company produces the majority of its wafers at the Company's wafer fabrication facilities located in San Jose and Santa Clara, California. After wafer fabrication, the completed wafers are then separated into individual circuits and packaged at independent assembly and final test contract facilities primarily located in Malaysia.

Principles of Consolidation — The accompanying consolidated financial statements include the accounts of Micrel, Incorporated and its wholly-owned subsidiaries. All significant intercompany accounts and transactions have been eliminated.

Use of Estimates — In accordance with accounting principles generally accepted in the United States of America, management utilizes certain estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. The primary estimates underlying the Company's financial statements include allowance for doubtful accounts receivable, reserves for product returns, reserves for obsolete and slow moving inventory, income taxes and accrual for other liabilities. Actual results could differ from those estimates.

Cash Equivalents — The Company considers all liquid debt instruments purchased with remaining maturities of three months or less to be cash equivalents.

Short-term Investments — Short-term investments consist primarily of liquid debt instruments purchased with remaining maturity dates of greater than three months. Short-term investments are classified as available-for-sale securities and are stated at market value with unrealized gains and losses included in shareholders' equity, net of income taxes. At December 31, 2002 and 2001, short-term investments consisted of corporate debt securities (commercial paper) with maturities of less than one year.

Short-term investments include the following available-for-sale securities at December 31, 2002 and 2001 (in thousands):

	Amortized Cost	Market Value	Unrealized Holding <u>Gains</u>	Unrealized Holding Losses
December 31, 2002	\$ 25	\$ —	\$ —	\$ 25
December 31, 2001	\$ 3,118	\$ 3,093	\$ —	\$ 25

Certain Significant Risks and Uncertainties — Financial instruments that potentially subject the Company to concentrations of credit risk consist of cash and cash equivalents, short-term investments, and accounts receivable. Risks associated with cash are mitigated by banking with creditworthy institutions. Cash equivalents and short-term investments consist primarily of commercial paper and bank certificates of deposit and are regularly monitored by management. Credit risk with respect to the trade receivables is spread over geographically diverse customers. At December 31, 2002, two customers accounted for 17% and 10% of total accounts receivable. At December 31, 2001, two customers accounted for 18% and 14% of total accounts receivable. In 2002, one customer, an Asian stocking representative, accounted for \$25.6 million (12.5%) of net revenues. In 2001, the same customer accounted for \$24.1 million (11.1%) of net revenues. In 2000, one customer, a North American distributor, accounted for \$32.2 million (10.0%) of net revenues.

The Company participates in a dynamic high technology industry and believes that changes in any of the following areas could have a material adverse effect on the Company's future financial position, results of operations, or cash flows: changes in the overall demand for products offered by the Company; competitive pressures in the form of new products or price reductions on current products; advances and trends in new technologies and industry standards; changes in product mix; changes in third-party manufacturers; changes in key suppliers; changes in certain strategic relationships or customer relationships; litigation or claims against the Company based on intellectual property, patents (Note 11), product, regulatory or other factors; risk associated with the ability to obtain necessary components; risks associated with the Company's ability to attract and retain employees necessary to support its growth.

Inventories — Inventories are stated at the lower of cost (first-in, first-out method) or market. The Company has taken adjustments to write-down the cost of obsolete and excess inventory to the estimated market value based on historical and forecasted demand for its products. If actual future demand for the Company's products is less than currently forecasted, additional inventory adjustments may be required. Once a reserve is established, it is maintained until the product to which it relates is sold or otherwise disposed of. This treatment is in accordance with Accounting Research Bulletin 43 and Staff Accounting Bulletin 100 "Restructuring and Impairment Charges."

Property, Plant and Equipment — Equipment, building and leasehold improvements are stated at cost and depreciated using the straight-line method. Equipment is depreciated over estimated useful lives of three to five years. Buildings are depreciated over an estimated useful life of thirty years. Building improvements are depreciated over estimated useful lives of fifteen to thirty years. Leasehold improvements are amortized over the shorter of the lease term or the useful lives of the improvements which is generally 3 to 5 years.

Intangible Assets — On January 1, 2002, the Company adopted SFAS No. 142, "Goodwill and Other Intangible Assets." SFAS No. 142 supersedes Accounting Principles Board Opinion No. 17, "Intangible Assets," and discontinues the amortization of goodwill. In addition, SFAS No. 142 includes provisions regarding: 1) reclassification of amounts between goodwill and identifiable intangible assets in accordance with the new definition of identifiable intangible assets set forth in Statement of Financial Accounting Standards No. 141, "Business Combinations;" 2) reassessment of the useful lives of existing recognized intangibles; and 3) testing for impairment of existing goodwill and other intangibles using the discounted cash flow method. In accordance with SFAS No. 142, beginning January 1, 2002, goodwill is no longer amortized, but is reviewed at least annually for

impairment. At January 1, 2002, the Company had no goodwill. The Company has determined that its intangible assets were not impaired at December 31, 2002. Acquired technology, patents and other intangible assets continued to be amortized over their estimated useful lives of 5 to 7 years using the straight-line method. No changes were made to the useful lives of amortizable intangible assets or the classification of intangible assets to goodwill in connection with the adoption of SFAS No. 142. Components of intangible assets were as follows (in thousands):

	As of December 31, 2002		As of Decer	nber 31, 2001	
	Gross		Gross		
	Carrying	Accumulated	Carrying	Accumulated	
	<u>Amount</u>	Amortization	<u>Amount</u>	Amortization	
Developed and core technology	\$ 6,843	\$ 5,498	\$ 6,843	\$ 4,130	
Patents and tradename	8,492	1,645	1,285	768	
Customer relationships	1,172	977	1,172	<u>742</u>	
	\$ 16,507	\$ 8,120	\$ 9,300	\$ 5,640	

The increase in patents and tradename during 2002 was due to a patent cross license agreement (see Note 14.) Total intangible amortization expense for the year ended December 31, 2002 was \$2.5 million. Estimated future intangible amortization expense is expected to be \$2.6 million in 2003, \$1.2 million in 2004, \$1.0 million for each of the years 2005, 2006 and 2007 and \$409,000 in 2008.

Impairment of Long-Lived Assets — Pursuant to SFAS No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets," the Company periodically assesses whether long-lived assets have been impaired. An asset is deemed to be impaired if its estimated future undiscounted cash flows are less than the carrying value recorded on the Company's balance sheet. The Company's estimate of fair value is based on the net present value of expected future cash flows attributable to the asset. Predicting future cash flows attributable to a particular asset is difficult, and requires the use of significant judgment.

Revenue Recognition — Micrel generates revenue by selling products to original equipment manufacturers ("OEM"s), distributors and stocking representatives. The Company's policy is to recognize revenue from sales to customers when the rights and risks of ownership have passed to the customer, when persuasive evidence of an arrangement exists, the product has been delivered, the price is fixed and determinable and collection of the resulting receivable is reasonably assured.

Micrel allows certain distributors, primarily located in North America and Europe, significant return rights and pricing adjustments subsequent to the initial product shipment. Micrel defers recognition of revenue and related cost of sales (in the balance sheet line item deferred income on shipments to distributors) derived from sales to these distributors until they have resold the Company's products to their customers. Sales to OEM customers and stocking representatives, primarily located in Asia, which have limited return rights and pricing adjustments, are recognized upon shipment and a related returns allowance is established based upon historical return rates. The Company's total allowance for returns was \$2.9 million and \$3.1 million as of December 31, 2002 and 2001, respectively. Actual future returns could be different than the returns allowance established.

The Company also maintains an allowance for doubtful accounts for estimated uncollectible accounts receivables. This estimate is based on an analysis of specific customer creditworthiness and historical bad debts experience. The Company's total allowance for doubtful accounts was \$421,000 and

\$787,000 for the years ended December 31, 2002 and 2001, respectively. Actual future uncollectible amounts could exceed the doubtful accounts allowance established.

Research and Development Expenses — Research and development expenses are recognized as incurred and include costs associated with the development of new wafer fabrication processes and the definition, design and development of standard products. The Company also expenses prototype wafers and new production mask sets related to new products as research and development costs until products based on new designs are fully characterized by the Company and are demonstrated to support published data sheets and satisfy reliability tests.

Income Taxes — Income taxes are provided at current rates. Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and amounts used for income tax purposes. As of December 31, 2002, the Company has net deferred tax assets of \$40.4 million. The Company believes that future taxable income levels will be sufficient to realize the tax benefits of these deferred tax assets and has not established a valuation allowance.

Stock-based Awards — The Company accounts for stock-based awards to employees using the intrinsic value method in accordance with Accounting Principles Board Opinion ("APB") No. 25, "Accounting for Stock Issued to Employees". Deferred stock compensation balances are recorded as a contra-equity amount and amortized as a charge to operating results over the applicable vesting periods. As of December 31, 2002 total unamortized stock compensation was \$9.9 million with a future amortization schedule of \$4.7 million in 2003, \$1.4 million in 2004 and \$344,000 in 2005.

SFAS No. 123, "Accounting for Stock-Based Compensation," requires the disclosure of pro forma net income and earnings per share had the Company applied the fair value method as of the beginning of fiscal 1995. Under SFAS 123, the fair value of stock-based awards to employees is calculated through the use of option pricing models, even though such models were developed to estimate the fair value of freely tradable, fully transferable options without vesting restrictions, which significantly differ from the Company's stock option awards. These models also require subjective assumptions, including future stock volatility and expected time to exercise, which greatly affect the calculated values. The Company's calculations for the fair value of stock options were made using the Black-Scholes option pricing model with the following weighted average assumptions: expected life, 60 months; stock volatility, 86.1% in 2002, 81.6% in 2001 and 80.1% in 2000; risk free interest rates, 2.94% in 2002, 4.38% in 2001 and 5.33% in 2000; and no dividends during the expected term. The Company's calculations are based on a multiple option valuation approach and forfeitures are recognized as they occur. The weighted average fair value of options granted under the stock option plans during 2002, 2001 and 2000 was \$12.42, \$17.76 and \$27.17 per share. The Company's calculations for the fair value of stock issued under the employee stock purchase plan were made using the Black-Scholes option pricing model with the following weighted average assumptions: expected life, 6 months; stock volatility, 86.1% in 2002, 81.6% in 2001 and 81.4% in 2000; risk free interest rates, 2.94% in 2002, 4.38% in 2001 and 5.6% in 2000; and no dividends during the term. The weighted average fair value of stock issued under the employee stock purchase plan during 2002, 2001 and 2000 was \$7.12, \$13.48 and \$16.36 per share.

SFAS No. 148 amends SFAS No. 123 in December 2002 to require that disclosures of the pro forma effect of using the fair value method of accounting for stock-based employee compensation be

displayed more prominently and in a tabular format. The following table illustrates the effect on the Company's net income (loss) and net income (loss) per share if it had recorded compensation costs based on the estimated grant date fair value as defined by SFAS No. 123 for all granted stock-based awards. (in thousands, except per share amounts):

	Years Ended December 31,		
	2002	2001	2000
Net income (loss) as reported	\$ (41,000)	\$ 552	\$ 73,307
Add: stock-based employee compensation expense included in			
reported net income (loss), net of tax effects	18,173	8,950	4,957
Deduct: stock-based employee compensation expense determined			
under fair value based method, net of tax effects	(18,646)	(32,769)	(29,158)
Pro forma net income (loss)	<u>\$ (41,474)</u>	<u>\$(23,268)</u>	<u>\$ 49,106</u>
Net income (loss) per share as reported:			
Basic	\$ (0.44)	<u>\$ 0.01</u>	\$ 0.82
Diluted	<u>\$ (0.44)</u>	<u>\$ 0.01</u>	<u>\$ 0.75</u>
Pro forma net income (loss) per share:			
Basic	\$ (0.45)	\$ (0.25)	\$ 0.55
Diluted	\$ (0.45)	\$ (0.25)	\$ 0.52

Net Income (Loss) per Share — Basic earnings per share ("EPS") is computed by dividing net income (loss) by the number of weighted average common shares outstanding. Diluted EPS reflects potential dilution from outstanding stock options, using the treasury stock method. The computation of diluted net loss per share, in 2002, excludes common equivalent shares since they are anti-dilutive in a loss period. Reconciliation of weighted average shares used in computing earnings per share is as follows (in thousands):

	Years Ended December 31,		
	2002	2001	2000
Weighted average common shares outstanding Dilutive effect of stock options outstanding, using the	92,600	91,888	89,242
treasury stock method		6,204	8,944
Shares used in computing diluted earnings per share	92,600	98,092	98,186

For the years ended December 31, 2002, 2001 and 2000, 9.2 million, 2.4 million, and 1.2 million stock options, respectively, have been excluded from the weighted-average number of common shares outstanding for the diluted net loss per share computations as they are anti-dilutive.

Fair Value of Financial Instruments — Financial instruments included in the Company's consolidated balance sheets at December 31, 2002 and 2001 consist of cash, cash equivalents, short-term investments and long-term debt. For cash, the carrying amount is a reasonable estimate of the fair value. The carrying amount for cash equivalents and short-term investments approximates fair value because of the short maturity of those investments. The fair value of long-term debt approximates the carrying amount due to the variable interest rate. The fair value of long-term debt is based on the discounted value of the contractual cash flows. The discount rate is estimated using the rates currently offered for debt with similar remaining maturities.

New Accounting Standards — In January 2003, the Financial Accounting Standards Board ("FASB" or the "Board") issued Interpretation No. 46 ("FIN 46") "Consolidation of Variable Interest Entities." Until this interpretation, a company generally included another entity in its consolidated financial statements only if it controlled the entity through voting interests. FIN 46 requires a variable interest entity to be consolidated by a company if that company is subject to a majority of the risk of loss from the variable interest entity's activities or entitled to receive a majority of the entity's residual returns. Management is currently evaluating the effect of this statement on the Company's results of operations and financial position. FIN 46 is effective for public entities for the first interim period beginning after June 15, 2003 except for variable interest entities created after January 31, 2003 where it is effective immediately. The Company does not currently anticipate this statement to have any effect on our financial statements.

In December 2002, the FASB issued Statement of Financial Accounting Standards No. 148 ("SFAS 148"), "Accounting for Stock-Based Compensation—Transition and Disclosure—An Amendment of FASB Statement No. 123." SFAS 148 requires companies to provide alternative methods of transition for a voluntary change to the fair value based method of accounting for stock-based employee compensation. SFAS 148 amends the disclosure requirements of SFAS 123, "Accounting for Stock-Based Compensation" to require prominent disclosures both in annual and interim financial statements about the method of accounting for stock-based employee compensation and the effect of the method used on reported results. The transition and annual disclosure provisions of FAS 148 are effective for fiscal years ending after December 15, 2002. The new interim disclosure provisions are effective for the first interim period beginning after December 15, 2002. The Company has adopted the annual disclosure requirements and will adopt the interim disclosure requirements beginning in the quarter ending March 31, 2003.

In November 2002, the Emerging Issues Task Force reached a consensus on Issue No. 00-21 ("EITF 00-21"), "Revenue Arrangements with Multiple Deliverables." EITF 00-21 provides guidance on how to account for arrangements that involve the delivery or performance of multiple products, services and/or rights to use assets. The provisions of EITF 00-21 will apply to revenue arrangements entered into in fiscal periods beginning after June 15, 2003. The Company does not believe the adoption of EITF 00-21 will have a material impact on its financial position or results of operations.

In November 2002, the Board issued FASB Interpretation No. 45 ("FIN 45" or the "Interpretation"), Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others, an interpretation of FASB Statements No. 5, 57, and 107 and Rescission of FASB Interpretation No. 34. FIN 45 clarifies the requirements of FASB Statement No. 5, Accounting for Contingencies ("FAS 5"), relating to the guarantor's accounting for, and disclosure of, the issuance of certain types of guarantees. FIN 45 is effective for guarantees entered into after December 31, 2002. The Company is currently assessing the impact of this interpretation on its financial statements.

In May 2002, the FASB issued SFAS No. 145, "Rescission of SFAS Nos. 4, 44, and 64, Amendment of SFAS No. 13, and Technical Corrections" ("SFAS 145"). Among other things, SFAS 145 rescinds various pronouncements regarding early extinguishment of debt and allows extraordinary accounting treatment for early extinguishment only when the provisions of Accounting Principles Board Opinion No. 30, "Reporting the Results of Operations—Reporting the Effects of Disposal of a Segment of a Business, and Extraordinary, Unusual and Infrequently Occurring Events and Transactions" are met. SFAS 145 provisions regarding early extinguishment of debt are generally effective for fiscal years

beginning after May 15, 2002. The Company does not currently anticipate this statement to have any effect on our financial statements.

In July 2002, the FASB issued SFAS No. 146, "Accounting for Costs Associated with Exit or Disposal Activities" ("SFAS 146"). SFAS 146 addresses financial accounting and reporting for costs associated with exit or disposal activities and nullifies Emerging Issues Task Force (EITF) Issue No. 94-3, "Liability Recognition for Certain Employee Termination Benefits and Other Costs to Exit an Activity (including Certain Costs Incurred in a Restructuring)." SFAS 146 requires that a liability for costs associated with an exit or disposal activity be recognized and measured initially at fair value only when the liability is incurred. The provisions of SFAS 146 are effective for exit or disposal activities that are initiated after December 31, 2002. The Company does not currently anticipate this statement to have any effect on our financial statements.

2. ACQUISITIONS

On May 30, 2001, the Company completed the acquisition of Kendin Communications, Inc. ("Kendin"), a privately held fabless semiconductor company that designs, develops and markets high performance integrated circuits for the communications and networking markets. Under the terms of the merger agreement, the Company issued 6,138,635 shares of Common Stock and options to purchase 645,097 shares of Common Stock in exchange for all outstanding Kendin securities and options to purchase Kendin securities. The transaction has been accounted for as a pooling of interests, and accordingly all financial statements presented have been restated to include the Kendin results. Associated with the acquisition the Company recorded \$8.9 million in non-recurring acquisition expenses in the quarter ended June 30, 2001. The non-recurring expenses consisted of \$6.9 million in transaction costs and \$2.0 million in stock compensation charges.

The table below sets forth combined revenues and net income of Micrel and Kendin for the three months ended March 31, 2001 (unaudited) and the year ended December 31, 2000: (in thousands)

	Three Months Ended March 31, 2001	Year Ended December 31, 2000
Net revenues:		
Micrel	\$ 64,855	\$ 322,475
Kendin	10,096	23,860
	<u>\$ 74,951</u>	<u>\$ 346,335</u>
Net income:		
Micrel	\$ 9,388	\$ 71,704
Kendin	284	1,603
	<u>\$ 9,672</u>	<u>\$ 73,307</u>

No Micrel or Kendin accounting policies were required to be conformed as a result of the merger. Both Micrel and Kendin have the same fiscal years. There were no intercompany transactions between the two companies.

On April 13, 2000, the Company completed the acquisition of Electronic Technology Corporation ("ETC"), a privately held provider of power management and mixed signal products for the portable computing, communications and automotive markets. Under the terms of the merger agreement, the Company issued 152,234 shares of Common Stock in exchange for the outstanding shares of capital

stock of ETC. The transaction is accounted for as a pooling of interests. Prior period financial statements presented have not been restated to include the ETC results as the impact was not material.

3. INVENTORIES

Inventories at December 31 consist of the following (in thousands):

		2001
Finished goods	\$ 15,597	\$ 16,812
Work in process	22,523	16,506
Raw materials	1,411_	2,076
	<u>\$ 39,531</u>	\$ 35,394

4. PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment at December 31 consist of the following (in thousands):

	2002	2001
Manufacturing equipment	\$ 165,783	\$ 177,472
Land	6,635	36
Buildings and improvements	30,772	323
Leasehold improvements	795	16,990
Office furniture and equipment	<u>7,915</u>	13,919
	211,900	208,740
Accumulated depreciation and amortization	<u>(119,582)</u>	(91,169)
	<u>\$ 92,318</u>	<u>\$ 117,571</u>

In July 2002 the Company completed the purchase of a 57,000 square foot facility and an adjacent 63,000 square foot facility, located in San Jose, California, for \$18.0 million in cash. The Company previously leased these same facilities, which house the majority of the Company's manufacturing operations.

In September, 2002, the Company approved a plan to close its Santa Clara, CA wafer fabrication facility within the next 12 months. Related to the planned facility closure, the Company recorded a \$23.4 million impairment of long-lived assets to reduce the net book value of the facility's leasehold improvements and equipment to fair value (Note 13).

5. OTHER ACCRUED LIABILITES

Other accrued liabilities at December 31 consist of the following (in thousands):

		2001
Accrued current liability under patent license agreement	\$ 1,589	\$ -
Accrued current restructuring expenses	1,415	-
Accrued group insurance	644	640
All other current accrued liabilities	649	210
	<u>\$ 4,297</u>	<u>\$ 850</u>

6. BORROWING ARRANGEMENTS

Borrowing agreements consisted of \$5.0 million revolving line of credit from a commercial bank. There were no borrowings under the revolving line of credit agreement at December 31, 2002. The revolving line of credit agreement expires on June 30, 2003. Borrowings under the revolving line of credit bear interest rates of, at the Company's election, the prime rate (4.25% at December 31, 2002), or the bank's revolving offshore rate, which approximates LIBOR (1.38% at December 31, 2002) plus 2.0%. The agreement contains certain restrictive covenants that include a restriction on the declaration and payment of dividends without the lender's consent. The Company was in compliance with all such covenants at December 31, 2002.

In September 2002, the Company borrowed \$10.7 million through a commercial mortgage financing agreement which was associated with the purchase of its previously leased manufacturing facilities in San Jose, CA. Borrowings under this agreement bear interest, at the Company's election, at the daily floating prime rate (4.25% at December 31, 2002), or adjustable monthly LIBOR (1.38% at December 31, 2002) plus 1.5%. The principal balance of the loan shall be paid in 59 consecutive monthly installments of \$16,890 and one final installment in the amount necessary to pay in full the remaining outstanding principal balance. The mortgage agreement contains certain restrictive covenants. The Company was in compliance with all such covenants at December 31, 2002.

2002

2001

Long-term debt at December 31, consists of the following (in thousands):

	2002	2001
Notes payable bearing interest at prime, payable in monthly installments through		
September 2002	\$ -	\$ 492
Notes payable bearing a fixed interest rate of 7.5%, payable in monthly		
installments through November 2002	=	1,805
Notes payable bearing interest at annual adjustable rate based on the one-year		
U.S. Treasury Bill rate plus 3.0%, payable in monthly installments through		
June 2003 and collateralized by equipment financed.	208	733
Notes payable bearing interest at quarterly adjustable rate based on LIBOR plus		
2.75%, payable in monthly installments through December 2004 and		
collateralized by equipment financed.	1,000	1,500
Notes payable assumed from Synergy Semiconductor bearing fixed rates ranging		
from 8.9% to 9.4%, payable in monthly installments through December 2002	-	384
Notes payable bearing interest at prime, 59 consecutive monthly installments of		
\$16,890 and one final installment in the amount necessary to pay in full the		
remaining outstanding principal balance in December 2007.	10,686	
Total debt	11,894	4,914
Current portion	(911)	(3,615)
Long-term debt	\$10,983	\$ 1,299
Notes payable assumed from Synergy Semiconductor bearing fixed rates ranging from 8.9% to 9.4%, payable in monthly installments through December 2002 Notes payable bearing interest at prime, 59 consecutive monthly installments of \$16,890 and one final installment in the amount necessary to pay in full the remaining outstanding principal balance in December 2007. Total debt Current portion	10,686 11,894 (911)	384

Maturities of long-term debt subsequent to December 31, 2002 are as follows (in thousands): \$911 in 2003, \$703 in 2004, \$203 in 2005, \$203 in 2006 and \$9,874 in 2007.

7. SHAREHOLDERS' EQUITY

Preferred Stock

The Company has authorized 5,000,000 shares of preferred stock, no par value, of which none were issued or outstanding at December 31, 2002. The preferred stock may be issued from time to time in one or more series. The Board of Directors is authorized to determine or alter the rights, preferences, privileges and restrictions of such preferred stock.

In May 2001, the Company issued 142,951 common shares for the net exercise of Common Stock warrants. These warrants were issued in April 2000 in connection with a Kendin Communications Common Stock issuance.

Stock Repurchase Plan

In February 2002, the Company's Board of Directors announced a stock repurchase program under which the Company may purchase up to \$20.0 million of its common stock. In July 2002, the Board of Directors approved an additional \$20.0 million stock repurchase program by increasing the total authorized stock repurchase to \$40.0 million of common stock in 2002. Shares of common stock purchased pursuant to the repurchase program are cancelled upon repurchase, and are intended to offset dilution from the Company's stock option plans, employee stock purchase plans and 401(k). During the year ended December 31, 2002, \$29.2 million have been used to repurchase 2,274,300 shares of common stock. On February 24, 2003 the Board of Directors extended the authorization to repurchase shares of common stock through December 31, 2003, up to a maximum purchase amount of \$40 million for the years 2002 and 2003, of which \$10.9 million remains authorized for repurchases through December 31, 2003.

Stock Option Exchange Program

On November 8, 2002 the Company filed a Schedule TO with the Securities and Exchange Commission in order to initiate an offer to its employees to exchange certain of their outstanding options for new options to be granted six months and two days after expiration of the exchange offer. The Company's Directors, CEO and CFO are not eligible to participate in the stock option exchange program. This offer to exchange contemplates a grant of new options to eligible employees in a ratio equivalent to one new option granted for every two options elected for exchange and cancelled with respect to employees who currently hold the position of vice president or higher, and two new options granted for every three options elected for exchange and cancelled with respect to all other employees.

The replacement options will have an exercise price equal to the closing sales price of the Company's common stock as quoted on the Nasdaq National Market on the date preceding the replacement grant date. The only options eligible to be exchanged are those outstanding employee stock options with an exercise price of \$13 or higher. Options to purchase 3,330,401 shares of the Company's common stock were surrendered on December 11, 2002 and will be replaced with options to purchase approximately 2,131,675 shares on June 13, 2003 in this exchange offer.

As discussed in Note 1, the Company accounts for its stock-based awards using the intrinsic value method in accordance with APB No. 25, "Accounting for Stock Issued to Employees" and its related interpretations. The Company's practices in effect through December 2001 related to employee stock option pricing resulted in stock compensation expense under APB 25. Total amortization of deferred stock compensation for the year ended December 31, 2002 was \$29.9 million, of which \$17.1 million resulted from accelerated amortization of deferred stock compensation associated with options cancelled pursuant to the employee option exchange program discussed above.

Stock Option Plans

Under the Company's 2000 Non-Exempt Option Plan and 1994 and 1989 Stock Option Plans (the "Option Plans"), 35,958,672 shares of Common Stock are authorized for issuance to key employees. The Option Plans provide that the option price will be determined by the Board of Directors at a price not less than the fair value as represented by the closing price of the Company's Common Stock on the last market trading day before the date of grant. Certain shareholder/employees of the Company are granted options at 110% of the current fair market value. Options granted under the 2000 Non-Exempt Option Plan are exercisable in 20% increments with the initial 20% vesting occurring on the date of grant and then in annual increments of 20% per year from the date of grant. Under the 1994 and 1989 Stock Option Plans options granted become exercisable in not less than cumulative annual increments of 20% per year from the date of grant. At December 31, 2002, 16,227,365 total shares were reserved for future issuance, of which 7,005,870 shares were available for future grants under the Option Plans. Option activity under the Option Plans is as follows:

		Weighted Average
	Number of Shares	Exercise Price
Outstanding, December 31, 1999 (2,750,457 exercisable at a weighted		
average price of \$5.00 per share)	14,417,528	\$ 8.77
Granted	3,607,160	33.99
Exercised	(2,319,283)	5.54
Canceled	(646,525)	12.34
Outstanding, December 31, 2000 (3,798,771 exercisable at a weighted		
average price of \$7.62 per share)	15,058,880	15.15
Granted	2,191,194	24.90
Exercised	(2,286,837)	5.59
Canceled	(771,897)	19.55
Outstanding, December 31, 2001 (5,102,650 exercisable at a weighted		
average price of \$12.39 per share)	14,191,340	17.96
Granted	1,069,620	18.36
Exercised	(1,199,771)	5.36
Canceled	(4,839,695)	30.79
Outstanding, December 31, 2002	9,221,494	\$ 12.92

Additional information regarding options outstanding as of December 31, 2002 is as follows:

	Stock Options Outstanding			Options E	<u>xercisable</u>
_		Weighted Average Remaining	Weighted Average		Weighted Average
Range of Exercise Prices	Number Outstanding	Contractual Life (yrs)	Exercise Price	Number Exercisable	Exercise Price
\$ 0.13 to \$ 6.38	1,348,445	5.1	\$ 5.04	1,160,568	\$ 5.12
\$ 6.39 to \$ 12.76	3,958,550	5.7	\$ 8.57	2,663,070	\$ 8.55
\$ 12.77 to \$ 19.14	2,213,055	6.6	\$ 15.73	1,137,555	\$ 15.56
\$ 19.15 to \$ 25.52	1,232,476	7.2	\$ 21.58	468,180	\$ 20.85
\$ 25.53 to \$ 31.90	202,768	7.8	\$ 29.49	86,728	\$ 29.81
\$ 31.91 to \$ 38.28	79,200	7.2	\$ 34.62	34,580	\$ 34.82
\$ 38.29 to \$ 44.66	121,000	7.5	\$ 41.98	48,640	\$ 41.98
\$ 44.67 to \$ 51.05	66,000	7.3	\$ 49.50	26,400	\$ 49.50
\$ 0.13 to \$ 51.05	<u>9,221,494</u>	6.1	\$ 12.92	<u>5,625,721</u>	\$ 11.25

Employee Stock Purchase Plan

Under the 1994 Employee Stock Purchase Plan, (the "Purchase Plan"), eligible employees are permitted to have salary withholdings to purchase shares of Common Stock at a price equal to 85% of the lower of the market value of the stock at the beginning or end of each six-month offer period, subject to an annual limitation. Shares of Common Stock issued under the Purchase Plan were 257,423, 116,774 and 100,389 in 2002, 2001, and 2000, respectively, at weighted average prices of \$9.59, \$24.91 and \$26.47, respectively. At December 31, 2002, there were 1,571,077 shares of Common Stock issued under the Purchase Plan and 828,923 shares are reserved for future issuance under the Purchase Plan.

8. INCOME TAXES

The provision for income taxes for the years ended December 31 consists of the following (in thousands):

	2002	2001	2000
Currently payable (receivable):			
Federal	\$ (15,177)	\$ (4,016)	\$ 38,205
State	1,435	(55)	4,509
Total currently payable (receivable)	(13,742)	(4,071)	42,714
Deferred income taxes:			
Federal	(9,234)	2,241	(3,209)
State	(6,714)	(3,704)	(4,401)
Total deferred	(15,948)	(1,463)	<u>(7,610</u>)
Total provision (benefit)	<u>\$ (29,690</u>)	<u>\$ (5,534</u>)	\$ 35,104

A reconciliation of the statutory federal income tax rate to the effective tax rate for the years ended December 31 is as follows:

	2002	2001	2000
Statutory federal income tax rate	(35)%	(35)%	35%
State income taxes (net of federal income tax benefit)	(7)	(42)	1
Federal research and experimentation tax credits	-	(33)	(2)
Export sales tax credit	-	(4)	(1)
Non-deductible acquisition costs	-	17	(1)
Other		(14)	<u>(1</u>)
Effective tax rate	<u>(42</u>)%	<u>(111</u>)%	<u>32</u> %

Temporary differences that give rise to deferred tax assets and liabilities at December 31 are as follows (in thousands):

	2002	2001
Deferred tax assets:		
Accruals and reserves not currently deductible	\$ 16,065	\$ 13,536
Deferred income	4,080	4,057
Depreciation	3,506	-
Tax net operating loss and credit carryforwards	20,456	16,280
Capitalized research and development	4,449	3,747
Total deferred tax asset	48,556	37,619
Deferred tax liabilities:		
Depreciation	-	(6,599)
State income taxes	(7,375)	(5,016)
Intangible assets	(747)	(1,519)
Total deferred tax liability	(8,122)	(13,133)
Net deferred tax asset (current and non-current)	<u>\$ 40,434</u>	<u>\$ 24,486</u>

The Company believes that future taxable income levels will be sufficient to realize the tax benefits of these deferred tax assets and has not established a valuation allowance.

Included in net deferred assets are tax net operating loss and credit carryforwards. Due to the Company's acquisition of Synergy, the Company has available pre-ownership change federal net operating loss carryforwards of approximately \$6.0 million which expire beginning in 2006. These pre-ownership change net operating loss carryforwards are subject under Section 382 of the Internal Revenue Code to an annual limitation estimated to be approximately \$500,000. Due to the Company's acquisition of Kendin Communications, the Company has available pre-ownership change federal and state net operating loss carryforwards of approximately \$3.8 million and \$3.2 million, respectively, which expire beginning in 2012 and 2005. These pre-ownership change net operating loss carryforwards may be subject under Section 382 of the Internal Revenue Code to an annual limitation. In addition, the Company has available federal research and state credit carryforwards of approximately \$2.0 million and \$14.3 million, respectively. Regarding the state credit carryforwards, approximately \$2.6 million represents pre-ownership change carryforwards subject to the Section 382 annual limitation.

9. OPERATING LEASES

The Company leases its facilities under operating lease agreements that expire in 2003, 2006, and 2011. The lease agreements provide for escalating rental payments over the lease periods. Rent expense is recognized on a straight-line basis over the term of the lease. Deferred rent represents the difference between rental payments and rent expense recognized on a straight-line basis. Future minimum payments under these agreements are as follows (in thousands):

Year Ending	
December 31,	
2003	\$ 2,635
2004	2,584
2005	2,669
2006	2,419
2007	1,048
Thereafter	3,723
	\$ 15,078

Included in contractual lease payments above, are amounts associated with the Company's Santa Clara, CA wafer fab facility, of which \$4.5 million has been recognized in 2002 as restructuring expense associated with the Company's plan to close this facility (Note 13).

Rent expense under operating leases was (in thousands): \$4,131, \$4,593 and \$3,745 for the years ended December 31, 2002, 2001, and 2000, respectively.

10. PROFIT-SHARING 401(k) PLAN

The Company has a profit-sharing plan and deferred compensation plan (the "Plan"). All employees completing one month of service are eligible to participate in the Plan. Participants may contribute 1% to 15% of their annual compensation on a before tax basis, subject to Internal Revenue Service limitations. Profit-sharing contributions by the Company are determined at the discretion of the Board of Directors. The Company accrued and contributed \$0 in 2002, \$0 in 2001 and \$1.8 million in 2000. Participants vest in Company contributions ratably over six years of service.

11. LITIGATION

On July 2, 1999, National Semiconductor Corporation ("National"), a competitor of the Company, filed a complaint against the Company, entitled National Semiconductor Corporation v. Micrel Semiconductor, Inc. in the United States District Court, Northern District of California, in San Jose, California, alleging that the Company infringed five National Semiconductor patents. The complaint in the lawsuit sought unspecified compensatory damages for infringement, and treble damages as well as permanent injunctive relief against further infringement of the National patents at issue. On May 23, 2002 the Company entered into a Patent Cross License and Settlement Agreement with National which resolved all outstanding disputes between the companies and included a stipulated dismissal of the lawsuit as of that date (see Note 14.)

On February 26, 1999, the Lemelson Medical, Education & Research Foundation (the "Lemelson Partnership") filed a complaint which was served on the Company on June 15, 1999, entitled Lemelson Medical, Education & Research Foundation, Limited Partnership v. Lucent Technologies Inc., et al. in the United States District Court in Phoenix, Arizona, against eighty-eight defendants, including the Company, alleging infringement of Lemelson Foundation patents. The complaint in the lawsuit seeks unspecified compensatory damages, treble damages and attorneys' fees, as well as injunctive relief against further infringement of the Lemelson patents at issue. The Company intends to continue to defend itself against these claims. The case is currently in the motion and hearing phase.

On May 9, 1994, Linear Technology Corporation ("Linear" or "LTC"), a competitor of the Company, filed a complaint against the Company, entitled Linear Technology Corporation v. Micrel, Incorporated, in the United States District Court in San Jose, California, alleging patent and copyright infringement and unfair competition. All claims, except the patent infringement claim, have been settled or dismissed. In this lawsuit, Linear claimed that two of the Company's products infringed one of Linear's patents. The complaint in the lawsuit sought unspecified compensatory damages, treble damages and attorneys' fees as well as preliminary and permanent injunctive relief against infringement of the Linear patent at issue. On August 20, 1999, the United States District Court in San Jose adjudicated in favor of the Company in this patent infringement suit brought by the plaintiff. The plaintiff alleged in the suit that the Company had infringed upon U.S. Patent No. 4,755,741, which covers design techniques used to increase the efficiency of switching regulators. The United States District Court in San Jose found the patent to be invalid under the "on sale bar" defense as the plaintiff had placed integrated circuits containing the alleged invention on sale more than a year before filing its patent application. The United States District Court in San Jose dismissed the plaintiff's complaint on the merits of the case and awarded the Company its legal costs. A notice of appeal of the Judgment was filed by Linear with the United States Court of Appeal for the Federal Circuit ("CAFC") on September 17, 1999. After briefing and oral argument by both companies, on December 28, 2001 the CAFC reversed the District Court's judgment of invalidity and remanded the case to the District Court. On January 11, 2002 the Company filed a Petition for Rehearing En Banc with the Court of Appeal, which was subsequently denied. On July 3, 2002, the Company filed a Petition for Writ of Certiorari with the Supreme Court of the United States. Linear filed an opposition to the Petition on September 6, 2002. The Company filed a reply to the opposition on September 19, 2002. The Company is currently awaiting the Supreme Court's decision.

On May 23, 2002, the Company filed a complaint against Nortel Networks Limited ("Nortel") entitled Micrel, Incorporated v. Nortel Networks Corporation, in the Superior Court of the State of California, alleging various causes of action relating to breach of a relationship surrounding the sale of certain custom products by Micrel to Nortel. On December 17, 2002, the parties entered into a settlement agreement that resolved all outstanding disputes between the companies. The Court subsequently dismissed the lawsuit.

On December 27, 2002, the Company filed a complaint against TRW, Inc. ("TRW") entitled Micrel, Incorporated v. TRW, Inc., dba TRW Automotive Electronics Group, in the United States District Court, Northern District of Ohio, Eastern Division, alleging various causes of action relating to breach of a relationship surrounding the development of certain custom products by Micrel for TRW. In this lawsuit, Micrel is alleging that TRW breached various agreements to assist in Micrel's

development of, and to purchase, certain Application Specific Integrated Circuits. The complaint seeks compensatory damages, attorneys' fees and costs of suit. On February 24, 2003, TRW filed an answer to the Company's complaint and a counterclaim alleging various causes of action relating to breach of the above-mentioned relationship concerning ASIC development. The case is currently in the discovery phase prior to an agreed-upon mediation scheduled to take place in the summer of 2003.

The Company believes that the ultimate outcome of the legal actions discussed above will not result in a material adverse effect on the Company's financial condition, results of operation or cash flows. However, litigation is subject to inherent uncertainties, and no assurance can be given that the Company will prevail in these lawsuits. Accordingly, the pending lawsuits, as well as potential future litigation with other companies, could result in substantial costs and diversion of resources and could have a material adverse effect on the Company's financial condition, results of operations or cash flows.

The semiconductor industry is characterized by frequent litigation regarding patent and other intellectual property rights. To the extent that the Company becomes involved in such intellectual property litigation, it could result in substantial costs and diversion of resources to the Company and could have a material adverse effect on the Company's financial condition, results of operation or cash flows.

In the event of an adverse ruling in any intellectual property litigation that now exists or might arise in the future, the Company might be required to discontinue the use of certain processes, cease the manufacture, use and sale of infringing products, expend significant resources to develop non-infringing technology or obtain licenses to the infringing technology. There can be no assurance, however, that under such circumstances, a license would be available under reasonable terms or at all. In the event of a successful claim against the Company and the Company's failure to develop or license substitute technology on commercially reasonable terms, the Company's financial condition, results of operations, or cash flows could be adversely affected.

Certain additional claims and lawsuits have arisen against the Company in its normal course of business. The Company believes that these claims and lawsuits will not have a material adverse effect on the Company's financial condition, results of operation or cash flows.

12. SEGMENT REPORTING

The Company follows the provisions of SFAS No. 131, Disclosures about Segments of an Enterprise and Related Information. SFAS No. 131 establishes standards for reporting information regarding operating segments in annual financial statements and requires selected information for those segments to be presented in interim financial reports issued to stockholders. SFAS No. 131 also establishes standards for related disclosures about products and services and geographic areas. Operating segments are identified as components of an enterprise about which separate discrete financial information is available for evaluation by the chief operating decision maker. The Company operates in two reportable segments: standard products and custom and foundry products. The chief operating decision maker evaluates segment performance based on revenue. Accordingly, all expenses are considered corporate level activities and are not allocated to segments. Therefore, it is not practical to show profit or loss by operating segments. Also, the chief operating decision maker does not assign assets to these segments. Consequently, it is not practical to show assets by operating segments.

Net Revenues by Segment (in thousands):	Years	Years Ended December 31,		
	2002	2001	2000	
Standard Products	\$ 180,407	\$ 183,103	\$ 275,306	
Custom and Foundry Products	24,297	34,705	71,029	
Total net revenues	<u>\$ 204,704</u>	\$ 217,808	<u>\$ 346,335</u>	

For the year ended December 31, 2002, the Company recorded revenue from customers throughout the United States; France, the U.K., Finland, Germany, Italy, Switzerland, Israel, Spain, Ireland, Sweden, and The Netherlands (collectively referred to as "Europe"); Korea; Japan; Taiwan; Singapore, Hong Kong, China, and Malaysia (collectively referred to as "Other Asian Countries"); and Canada.

Geographic Information (in thousands):

	2002	2001		2002 2001		2002		2002 2001		2001		2001	
	Total Net Revenues*	Long- Lived Assets	Total Net Revenues*	Long- Lived Assets	Total Net Revenues*								
United States of America	\$ 52,664	\$ 108,547	\$ 72,755	\$ 118,531	\$ 155,542								
Korea	31,476	32	22,535	2	30,305								
Japan	13,952	61	11,131	14	20,659								
Taiwan	56,632	20	65,831	19	45,109								
Other Asian Countries	20,853	1,178	10,381	1,909	15,551								
Europe	19,083	863	22,673	1,115	34,263								
Canada	10,044	0	12,502		44,906								
Total	<u>\$ 204,704</u>	<u>\$ 110,701</u>	<u>\$ 217,808</u>	<u>\$ 121,590</u>	<u>\$ 346,335</u>								

^{*} Total revenues are attributed to countries based on "ship to" location of customer.

13. CLOSURE OF WAFER FABRICATION FACILITY

In September 2002, the Company approved a plan to close its Santa Clara, CA wafer fabrication facility to reduce costs and improve operating efficiencies. Management believes that these actions are prudent given the current excess capacity levels within its wafer fabrication facilities combined with the uncertain demand in the high-speed communications market. As a result of this action, overall operating expenses are expected to decline by approximately \$500,000 per quarter beginning in the fourth quarter of 2002, with a total expense reduction of over \$2 million per quarter after the Santa Clara facility is exited in the fall of 2003. Associated with the facility closure, the Company accrued \$5.5 million in restructuring expenses, primarily for equipment disposal costs of \$1.0 million and contractual building lease costs, less estimated sublease income, of \$4.5 million that will provide no future benefit. These restructuring costs are expected to be paid in cash over the remaining facility lease term, which expires in October 2006. Of the \$5.5 million in accrued restructuring costs, \$1.4 million has been classified as other current liabilities and the remaining \$4.1 million has been classified as other long-term obligations as of December 31, 2002. Also related to the planned facility closure, the Company concluded that the future undiscounted cash flows from this facility would not be sufficient to recover the net book value of the facility and accordingly recorded a \$23.4 million impairment of long-lived assets to reduce the net book value of the facility's leasehold improvements and equipment to fair value. The fair value was estimated by management based primarily on a third party estimate of the current net sales value of equipment totaling \$3.8 million at September 30, 2002.

14. PATENT CROSS LICENSE AND SETTLEMENT AGREEMENT

On May 23, 2002 the Company entered into a Patent Cross License and Settlement Agreement with National Semiconductor which settled all outstanding patent disputes between the companies and cross licensed the entire patent portfolio of each company. Some of the National patents within certain field of use areas are licensed for the life of the patents, all other patents of both companies are licensed through May 22, 2009. Under the terms of the agreement Micrel agreed to pay National \$9.0 million of which \$3.0 million was paid on May 23, 2002 and the remaining \$6.0 million balance will be paid in \$2.0 million annual installments over the next three years. In addition, at December 31, 2002, \$1.6 million was included in other accrued liabilities and \$3.6 million was included in other long-term obligations, representing the present value of the remaining payments using an imputed annual interest rate of 8.0%.

Based on the estimated historical and future benefits of the Patent Cross License and Settlement Agreement, the Company has allocated the present value of the payments as follows (in thousands):

Settlement of patent disputes	\$ 947
Patent license	 7,207
Present value of payments	\$ 8,154

The \$947,000 valuation of the settlement of patent disputes has been expensed to other income (expense), net in the year ended December 31, 2002. The patent license valuation of \$7.2 million has been recorded as an intangible asset and is being amortized over its estimated useful life of 7-years.

15. QUARTERLY RESULTS — UNAUDITED

(in thousands, except per share amounts)	Three Months Ended							
	<u>N</u>	Iar. 31, 2002		ine 30, 2002		ept. 30, 2002 (1)		ec. 31, 2002 (2)
Net revenues	\$	48,325	\$	55,363	\$	50,367	\$	50,649
Gross profit	\$	17,648	\$	21,224	\$	13,257	\$	13,021
Net income (loss)	\$	(3,981)	\$	270	\$ (24,468)	\$ (12,821)
Net income per share:								
Basic	\$	(0.04)	\$	0.00	\$	(0.26)	\$	(0.14)
Diluted	\$	(0.04)	\$	0.00	\$	(0.26)	\$	(0.14)
Shares used in computing per share amounts:								
Basic		93,180		92,984		92,563		91,783
Diluted		93,180		96,287		92,563		91,783

⁽¹⁾ Net loss for the quarter ended September 30, 2002 includes \$5.5 million in accrued restructuring costs and \$23.4 million for the impairment of long-lived assets associated with the closure of the Company's Santa Clara, CA wafer fab facility (see Note 13).

⁽²⁾ Net loss for the quarter ended December 31, 2002 includes \$20.2 million in amortization of deferred stock compensation of which \$17.1 million resulted from accelerated amortization of deferred stock compensation associated with options cancelled pursuant to an employee option exchange program (see Note 7).

	Three Months Ended							
	N	Mar. 31, 2001		une 30, 2001 ⁽¹⁾	S	ept. 30, 2001	D	ec. 31, 2001
Net revenues	\$	74,951	\$	50,774	\$	45,064	\$	47,019
Gross profit	\$	39,194	\$	19,527	\$	15,226	\$	17,619
Net income	\$	9,672	\$	(8,639)	\$	(1,754)	\$	1,329
Net income per share:								
Basic	\$	0.11	\$	(0.09)	\$	(0.02)	\$	0.01
Diluted	\$	0.10	\$	(0.09)	\$	(0.02)	\$	0.01
Shares used in computing per share amounts:								
Basic		90,936		91,888		92,533		92,931
Diluted		98,704		91,888		92,533		98,003

⁽¹⁾ Net loss for the quarter ended June 30, 2001 includes \$8.9 million in non-recurring acquisition expenses associated with the acquisition of Kendin (Note 2).

MICREL, INCORPORATED VALUATION AND QUALIFYING ACCOUNTS

For the Years Ended December 31, 2002, 2001, and 2000

(Amounts in thousands)

	Balance at Beginning of	Additions and Charges	Bad Debt	Balance at
Description	<u>Year</u>	to Expenses	Write-offs	End of Year
Year Ended December 31, 2002				
Allowances for returns and doubtful accounts Year Ended December 31, 2001	<u>\$ 3,886</u>	<u>\$ (173)</u>	<u>\$ (408)</u>	<u>\$ 3,305</u>
Allowances for returns and doubtful accounts	\$ 4,517	<u>\$ (570)</u>	<u>\$ (61)</u>	<u>\$ 3,886</u>
Year Ended December 31, 2000				
Allowances for returns and doubtful accounts	\$ 2,747	<u>\$ 1,803</u>	<u>\$ (33)</u>	<u>\$ 4,517</u>

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities and Exchange Act of 1934, the registrant has duly caused this Report to be signed on its behalf by the undersigned, thereunto duly authorized, in San Jose, California on the 27th day of March, 2003.

MICREL, INCORPORATED

By /S/ Raymond D. Zinn
Raymond D. Zinn
President and Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Raymond D. Zinn and Richard D. Crowley, Jr., and each of them, his attorneys-infact, each with the power of substitution, for him 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 his substitute or substitutes, may do or cause to be done by virtue hereof.

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

<u>Signature</u>	<u>Title</u>	<u>Date</u>
/S/ Raymond D. Zinn Raymond D. Zinn	President, Chief Executive Officer and Chairman of the Board of Directors (Principal Executive Officer)	March 27, 2003
/S/ Richard D. Crowley, Jr. Richard D. Crowley, Jr.	Vice President, Finance and Chief Financial Officer (<i>Principal</i> Financial and Accounting Officer)	March 27, 2003
/S/ Warren H. Muller Warren H. Muller	Director	March 27, 2003
/S/ Donald Livingstone Donald Livingstone	Director	March 27, 2003
/S/ George Kelly George Kelly	Director	March 27, 2003
/S/ Larry L. Hansen Larry L. Hansen	Director	March 27, 2003

CERTIFICATIONS

- I, Raymond D. Zinn, certify that:
 - 1. I have reviewed this annual report on Form 10-K of Micrel, Incorporated;
- 2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;
- 4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and we have:
 - a) designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this quarterly report is being prepared;
 - b) evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the "Evaluation Date"); and
 - c) presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;
- 5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent function):
 - a) all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and
- 6. The registrant's other certifying officers and I have indicated in this annual report whether or not there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

Date: March 27, 2003	Ву	/S/ Raymond D. Zinn
		Raymond D. Zinn
		President, Chief Executive Officer and Director
		(Principal Executive Officer)

I, Richard D. Crowley, Jr. certify that:

- 1. I have reviewed this annual report on Form 10-K of Micrel, Incorporated;
- 2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;
- 4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and we have:
 - a) designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this quarterly report is being prepared;
 - b) evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the "Evaluation Date"); and
 - c) presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;
- 5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent function):
 - a) all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and
- 6. The registrant's other certifying officers and I have indicated in this annual report whether or not there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

Date: March 27, 2003

By /S/ Richard D. Crowley, Jr.
Richard D. Crowley, Jr.
Vice President, Finance and
Chief Financial Officer
(Principal Financial and Accounting Officer)

Micrel, Incorporated Exhibits Pursuant to Item 601 of Regulation S-K

Exhibit	
Number 2.1	<u>Description</u>
2.1	Agreement and Plan of Merger and Reorganization among Micrel, Incorporated, Electronic
2.2	Technology Corporation and ETC Acquisition Sub, Inc., dated as of April 4, 2000 (9)
2.2	Agreement and Plan of Merger and Reorganization among Micrel, Incorporated, Kournikova
	Acquisition Sub, Inc., Kendin Communications Inc., and with respect to Articles VIII and IX only, John C.C. Fan, as Stockholders' Agent, dated May 4, 2001. (10)
3.1	Amended and Restated Articles of Incorporation of the Registrant. (1)
3.1	Certificate of Amendment of Articles of Incorporation of the Registrant. (2)
3.3	Amended and Restated Bylaws of the Registrant. (2)
3.4	Certificate of Amendment of Articles of Incorporation of the Registrant. (8)
4.1	Certificate for Shares of Registrant's Common Stock. (3)
10.1	Indemnification Agreement between the Registrant and each of its officers and directors. (3)
10.2	1989 Stock Option Plan and form of Stock Option Agreement. (1) *
10.3	1994 Stock Option Plan and form of Stock Option Agreement. (1) *
10.4	1994 Stock Purchase Plan. (3)
10.6	Lease Agreement dated June 24, 1992 between the Registrant and GOCO Realty Fund I, as
	amended August 6, 1992 and February 5, 1993. (1)
10.8	Form of Domestic Distribution Agreement. (2)
10.9	Form of International Distributor Agreement. (2)
10.10	Second Amendment dated February 20, 1995 between the Registrant and TR Brell Cal
	Corporation to Lease Agreement dated June 24, 1992 between the Registrant and GOCO
	Realty Fund I, as amended August 6, 1992 and February 5, 1993. (3)
10.11	Amended and Restated 1994 Employee Stock Purchase Plan, as amended January 1, 1996. (4)
10.12	Commercial Lease between Harris Corporation and Synergy Semiconductor Corporation dated
	February 29, 1996. (5)
10.13	Standard Industrial/Commercial Single-Tenant Lease Agreement Dated March 3, 2000
10.14	between the Registrant and Rose Ventures II (6)
10.14	Loan and Security Agreement Dated March 8, 2000 between the Registrant and Bank of the
10.15	West (7)
10.15	Loan and Security Agreement Dated June 29, 2001 between the Registrant and Bank of the West (11)
10.16	Amendment No. Two to Loan and Security Agreement Dated June 29, 2001 between the
10.10	Registrant and Bank of the West
10.17	Commercial Mortgage Financing Agreement between Micrel, Incorporated and Bank of the
10.17	West, dated September 27, 2002 (12)
23.1	Independent Auditors' Consent.
23.2	Independent Auditors' Consent.
24.1	Power of Attorney. (See Signature Page.)
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- * Management contract or compensatory plan or agreement.
- (1) Incorporated herein by reference to the Company's Registration Statement on Form S-1 ("Registration Statement"), File No. 33-85694, in which this exhibit bears the same

- number, unless otherwise indicated.
- (2) Incorporated by reference to Amendment No. 1 to the Registration Statement, in which this exhibit bears the same number, unless otherwise indicated.
- (3) Incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 1995, in which this exhibit bears the same number, unless otherwise indicated.
- (4) Incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 1996, in which this exhibit bears the number 10.14.
- (5) Incorporated by reference to the Company's Annual Report on Form 10-K for the year ended December 31, 1998, in which this exhibit bears the number 10.14.
- (6) Incorporated by reference to exhibit 10.1 filed with the Company's quarterly report on Form 10-Q for the period ended March 31, 2000.
- (7) Incorporated by reference to exhibit 10.2 filed with the Company's quarterly report on Form 10-Q for the period ended March 31, 2000.
- (8) Incorporated by reference to exhibit 3.1 filed with the Company's quarterly report on Form 10-Q for the period ended September 30, 2000.
- (9) Incorporated by reference to exhibit 10.1 filed with the Company's registration statement on Form S-3 filed with the S.E.C. on May 25, 2000.
- (10) Incorporated by reference to exhibit 10.1 filed with the Company's registration statement on Form S-3 filed with the S.E.C. on June 22, 2001.
- (11) Incorporated by reference to exhibit 10.1 filed with the Company's quarterly report on Form 10-Q for the period ended June 30, 2001.
- (12) Incorporated by reference to exhibit 10.1 filed with the Company's quarterly report on Form 10-Q for the period ended September 30, 2002.

CONSENT OF INDEPENDENT ACCOUNTANTS

We hereby consent to the incorporation by reference in the Registration Statements on Form S-3 (No. 333-70876, 333-63620 and 333-37808) and S-8 (No. 333-63618, 33-87222, 33-90396, 333-10167, 333-89223 333-52136 and 333-37832) of Micrel, Incorporated, of our report dated January 29, 2003, except for Notes 7 and 11, which are as of February 24, 2003, relating to the financial statements and financial statement schedule, which appears in this Form 10-K

/s/ PricewaterhouseCoopers LLP

San Jose, California March 26, 2003 We consent to the incorporation by reference in Registration Statement Nos. 333-70876, 333-63620 and 333-37808 of Micrel, Incorporated on Form S-3 and in Registration Statement Nos. 333-63618, 33-87222, 33-90396, 333-10167, 333-89223, 333-52136 and 333-37832 of Micrel, Incorporated on Form S-8 of our report dated January 28, 2002 relating to the consolidated financials statements of Micrel, Incorporated as of December 31, 2001 and for the years ended December 31, 2001 and 2000 (which report expresses an unqualified opinion and includes an explanatory paragraph concerning the retroactive effect given in the consolidated financial statements for the pooling of interests between Micrel, Incorporated and Kendin Communications, Inc.), appearing in this Annual Report on Form 10-K of Micrel, Incorporated for the year ended December 31, 2002.

/s/ Deloitte & Touche LLP

San Jose, California

March 26, 2003