SECURITIES AND EXCHANGE COMMISSION

FORM 10-K

Annual report pursuant to section 13 and 15(d)

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

FORM 10-K

[X] ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934 For the fiscal year ended: December 27, 1998

[] TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from: to

Commission File Number 0-19084

PMC-Sierra, Inc.

(Exact name of registrant as specified in its charter)

Delaware

94-2925073

(State or other jurisdiction of incorporation)

(I.R.S. Employer Identification No.)

105-8555 BAXTER PLACE BURNABY, BRITISH COLUMBIA, V5A 4V7 CANADA

(Address of principal executive offices, including zip code)

Registrant's telephone number, including area code: (604) 415-6000 Securities registered pursuant to Section 12(b) of the Act: None Securities registered pursuant to Section 12(g) of the Act:

Common Stock, par value \$0.001

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes _X_ No ____

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

The aggregate market value of the voting stock held by nonaffiliates of the Registrant, based upon the closing sale price of the Common Stock on February 28, 1999, as reported by the Nasdaq National Market, was approximately \$1,592,084,000. Shares of Common Stock held by each executive officer and director and by each person who owns 5% or more of the outstanding voting stock have been excluded in that such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

As of February 28, 1999, the Registrant had 31,669,103 shares of Common Stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Parts of the Proxy Statement for Registrant's 1999 Annual Meeting of Stockholders are incorporated by reference in Items 10, 11, 12 and 13 Part III of this Form 10-K Report.

PART I

ITEM 1. Business.

GENERAL

In this Annual Report, when we refer to "PMC-Sierra", "PMC", "the Company", "us", "our" or "we", we include PMC-Sierra, Inc. and all our subsidiary companies.

We design, develop, market and support high-performance semiconductor networking solutions. Our products are used in the high speed transmission and networking systems which are being used to restructure the global telecommunications and data communications infrastructure.

We provide components for equipment based on Asynchronous Transfer Mode ("ATM"),

Synchronized Optical Network ("SONET"), Synchronized Digital Hierarchy ("SDH"), T1/E1/J1 and T3/E3/J2 access transmission and ethernet protocols. Our networking products adhere to international standards and are sold on the merchant market to over 100 customers either directly or through our worldwide distribution channels.

In May of 1998, we expanded our portfolio of ATM layer and switching products by acquiring Integrated Telecom Technology Inc. ("IGT") in exchange for approximately \$55 million in cash and PMC common stock and options to buy PMC common stock. IGT was a fabless semiconductor company that had its headquarters in Gaithersburg, MD and a development site in San Jose, CA. IGT made segmentation-and-reassembly and ATM switching chipsets for wide area network applications as well as ATM and other telecommunication chips.

In August 1996, we announced our decision to exit the personal computer modem chipset business, to restructure our other non-networking business and focus on networking semiconductors. By the end of 1997, we had changed our name from Sierra Semiconductor to PMC-Sierra, disposed the remainder of our modem products and completed all other material aspects of the restructuring. Our remaining non-networking products are still being sold but we are not planning new development or follow-on products.

PMC-Sierra was incorporated in the State of California in 1983 and reincorporated in the State of Delaware in 1997. Our principal executive office is located at 105-8555 Baxter Place, Burnaby, B.C., Canada V5A 4V7. Our Common Stock trades on the Nasdaq National Market under the symbol "PMCS."

INDUSTRY BACKGROUND

The primary drivers of internetworking demand enabling PMC-Sierra's semiconductor business are the emergence of the Internet, the upgrade of corporate data networks and remote access. The common element to each of these drivers is the high bandwidth demand for data. Whereas legacy telecom networks were optimized for voice (circuit) processing, the newest network deployments are being optimized for data transfer and packet processing.

The Internet and its increased usage by corporate and residential customers is putting a tremendous strain on the public wide area network ("WAN") telecommunications infrastructure. At the beginning of the decade, these Plain Old Telephone Networks ("POTS") handled primarily voice traffic while the small amount of data traffic which existed (from applications such as faxes, etc) was supported by the readily capacity-available voice circuits. However, throughout the decade, data traffic grew more quickly than voice traffic, eventually exceeding voice traffic levels.

Thus, existing POTS circuits are no longer adequate in supporting the volume of data traffic emerging from residential, customer premise and enterprise networks. In fact, new data-optimized packet networks based on the Internet Protocol ("IP") are being deployed specifically for the high volume data traffic while supporting the relatively low volume voice applications (Voice-over-IP).

The Internet is creating the demand for more bandwidth for the network. Statistics indicate that Internet IP data traffic is doubling every 100 days and that overall IP traffic increases by over an order of magnitude every year. This traffic must set-up and tear down Internet sessions several hundred times per hour. Legacy telecom networks designed to set-up and tear down voice sessions lasting 10 minutes or longer are inadequate to handle multiple Internet sessions as short as a `point-and-click'.

The best ways to add bandwidth for the network include increasing the density of the bandwidth pipes and utilizing traffic management and congestion control techniques to make more effective use of the existing bandwidth pipes. Both trends are occurring simultaneously as the global networking infrastructure moves toward an equipment overhaul.

In 1998 there was more than 100 thousand miles of unused fiber bandwidth pipes deployed by carriers such as Williams, Level 3, UUNET and IXC. This deployment provides more capacity in the core of the WAN as well as for new Metropolitan Area Network ("MAN") rings. An emerging trend called Wavelength Division Multiplexing ("WDM") also increases capacity by providing for various 2.4 Gigabit and 10 Gigabit bandwidth color channels within a single optical fiber strand.

Multi-service carriers seek to provide Service Level Agreements ("SLAs") to their customers based on a certain guarantee of bandwidth for data/voice transport or Internet access. These SLAs are very lucrative revenue drivers for the carriers as the most critical traffic requirements can be guaranteed at a high premium. Quality of Service ("QoS") traffic management techniques make SLAs possible for the carriers. Protocols such as ATM have developed the capability for providing QoS standard guarantees and, as such, these protocols are favored by traditional service provider carriers. Protocols such as IP have less developed QoS characteristics. The current lack of world-class QoS standards has been one of the chief inhibitors to ubiquitous implementation of IP across the

emerging global network.

The following specific trends are important to PMC-Sierra's internetworking semiconductor businesses:

- o For LAN corporate data networks, existing unmanaged 10 megabit Ethernet hubs are being upgraded to 10/100 megabit Ethernet workgroup switches with advanced management features. These are, in turn, uplinked into advanced Enterprise switches that can run combinations of 100 megabit and gigabit Ethernet traffic. An emerging trend is the ability to provide Layer 3 switching protocol in firmware and hardware so as to increase performance of Enterprise data switching and routing.
- o Internet Service Providers (ISPs) utilize multi-platform Point-of-Presence equipment to concentrate 64 kilobit DSO, n*64 kilobit fractional T1, 1.5 megabit T1, 2.0 megabit E1 and 45 megabit T3 into larger pipes. Typically these are SONET/SDH pipes of 155 megabit or larger which form the MAN and WAN core backbones of the new public network. The High-speed Data Link Control ("HDLC") protocol is essential in connecting lower speed data/voice Frame Relay streams into the WAN.
- o For Remote Access data and voice networks, legacy Frame Relay networks are being upgraded to aggregate increased densities of dial- and dedicated-line traffic as well as to differentiate between specific traffic protocol types such as ATM, Frame Relay and IP. These new applications are referred to as Any-Service-Any-Port ("ASAP").
- o For data, voice and video traffic which seek to define effective QoS guarantees and traffic control predictability, ATM networks are being created which can scale from low-rate 1.5 megabits to terabit-rates and beyond. ATM networks adhere to standards created by the ATM Forum such as TM4.1 that provide a complete range of network services from direct connections and guaranteed CBR (Constant Bit Rate) bandwidth for a single protocol to lower priority ABR (Available Bit Rate) traffic classes across multiple protocols. ATM networks are being used increasingly in edge and core switching and transmission systems that seek to provide QoS to users on a per-connection basis.
- o The current Internet infrastructure is dominated by router entry into WAN backbone fiber pipes. Certain IP traffic requires maximum transmission bandwidth over a point-to-point connection and is willing to trade-off QoS and other management processing. For these applications, mapping IP traffic directly into SONET/SDH frames is far more effective because it uses valuable transmission bandwidth for extraneous management processing. IP-Over-SONET/SDH ("POS") is used in fast Ethernet and gigabit Ethernet switches as an uplink to MAN/WAN core fiber backbone rings, high-speed terabit routers and remote access concentrators to map IP, Ethernet, Frame Relay or other packet traffic directly into SONET/SDH pipes without segmentation into fixed-length sizes.
- o For residential Internet opportunities, the current 56 kilobit analog modem is viewed by many consumers as inefficient. Emerging Digital Subscriber Line ("DSL") technology enables up to several megabits of bandwidth for Internet access while utilizing traditional copper `local loop' telephone wiring. New DSL access multiplexer ("DSLAM") equipment is becoming available which will take advantage of ATM Layer 2 switching and traffic management to aggregate residential Internet data traffic into the WAN.
- o Wireless voice and data opportunities are being generated by the deployment of Base Transceiver Stations which convert waves of radio frequency air traffic into wirelined backhaul pipes to Base Station Controllers which provide aggregation, switching and processing intelligence. These backhaul pipes operate at primarily 1.5 megabit T1 and 2.0 megabit E1 rates. HDLC and ATM protocols are important for this equipment as they provide the interface and processing for the aggregated T1 and E1 pipes.

NETWORKING PRODUCTS

We provide networking semiconductor devices and related technical service and support to equipment manufacturers for use in their communications and networking equipment. The Company's objective is to develop networking semiconductors that enable network systems vendors to get to market quickly with high performance, cost effective and scalable systems.

We provide networking semiconductor solutions that are used in key networking and communications equipment. Our product offerings can be grouped into four general areas: ATM, SONET/SDH [including Packet-over-SONET/SDH ("POS")], Remote Access and Ethernet switching. These products are generally used in networking equipment as follows:

Networking Equipment

ATM SONET/SDH ACCESS ETHERNET

| Wide Area Network (WAN) | | | | |
|--------------------------------------|---|---|---|---|
| Remote Access Equipment | | | | |
| Frame Relay Access Devices | | | X | |
| Access Multiplexers/DSLAMs* | X | | X | |
| Wireless Basestations | X | | X | |
| Voice Switches | X | X | X | |
| Digital Loop Carriers | X | | X | |
| Frame Relay Switches | X | | X | |
| Internet Access Concentrators | X | | X | |
| Transmission and Switching Equipment | | | | |
| WAN Edge Switches | X | X | X | X |
| Routers | X | X | X | X |
| WAN Core Switches | X | X | X | |
| Digital Cross - Connects | X | X | X | |
| Add-Drop Multiplexers | X | X | X | |
| Terminal Multiplexers | X | X | X | |
| Local Area Network (LAN) | | | | |
| Switches/Routers | X | | X | X |
| Network Interface Cards | Х | | | |

^{*} DSLAM = Digital Subscriber Line Access Multiplexer

The following is a summary of some of our more significant products currently available. The purpose of this table is only to provide a general understanding of where our products fit. Our chips may not perform all the functions related to a specific layer of the networking hierarchy. For example, we have a number of single port OC-3 ATM physical layer products which perform different functions within the first layer of the networking hierarchy and are generally used in different applications. In addition, our ATM switching chipsets (refer to the QRT and QSE below) and our Ethernet EXACT products primarily provide layer 2 functionality, but have some limited layer 3 capabilities.

<TABLE>

| Product | Description | Voltage | | Clock Rates | | | | | Networking Hierarch | | | | |
|-------------------|--|---------|----|-------------|---------|---------|---------|---------|---------------------|---------|---------|---------|---------|
| | | | т1 | E1 | т3 | E3 | J2 | OC3 | | | Layer 1 | | Layer 3 |
| ATM | | | | | | | | | | | | | |
| <s></s> | <c></c> | <c></c> | | | <c></c> | <c></c> | <c></c> | <c></c> | <c></c> | <c></c> | <c></c> | <c></c> | <c></c> |
| S/UNI-MPH | Quad T1/E1 ATM Interface | 5v | Х | | | | | | | | Х | | |
| S/UNI-PDH | T1/E1/T3/E3 + ATM | 5v | X | Х | Х | Х | | | | | Х | | |
| S/UNI-155 | 1-port PHY | 5v | | | | | | X | | | Х | | |
| | 1-port PHY + analog CRU/CSU | 5v | | | | | | X | | | Х | | |
| S/UNI-PLUS | enhanced 1-port PHY + analog CRU/CSU | 5v | | | | | | X | | | X | | |
| | 2-port PHY + analog CRU/CSU | 5v | | | | | | X | | | Х | | |
| S/UNI-QUAD | 4-port PHY + analog CRU/CSU | 3.3v | | | | | | X | | | X | | |
| | 1-port PHY + UTP-5 + analog CRU/CSU | 5v | | | | | | X | | | X | | |
| S/UNI 622 | 1-port PHY | 5v | | | | | | X | X | | X | | |
| | 1-port PHY + analog CRU/CSU | 3.3v | | | | | | | X | | X | | |
| RCMP-800 | Routing Control, Monitoring & Policing | 5v | | | | | | X | X | | | X | |
| RCMP-200 | Routing Control, Monitoring & Policing | | | | | | | X | | | | X | |
| AAL1gatorII | AAL1 SAR | 3.3v | Х | Х | Х | Х | Х | | | | | X | |
| LASAR-155 | ATM PHY & SAR | 5v | | | | | | X | | | X | X | |
| QRT | Quad Routing Table | 3.3v | Х | Х | Х | Х | Х | X | X | | | X | limited |
| QSE | Quad Switching Element | 3.3v | Х | Х | Х | Х | Х | Х | Х | | | Х | limited |
| SONET/SDH and POS | | | | | | | | | | | | | |
| TUPP | VT/TU Payload Alignor/Processor | 5v | Х | Х | | | | | | | x | | |
| TUPP-PLUS | TUPP + Performance Monitor | 5v | X | Х | | | | | | | x | | |
| TUDX | VT/TU X-Connect Switch | 5v | Х | Х | | | | | | | x | | |
| STXC | Transport Overhead Terminator | 5v | | | | | | X | | | x | | |
| STTX | Transport Overhead Terminator | 5v | | | | | | | X | | X | | |
| SPECTRA-155 | Payload Extractor/Aligner | 5v | | | | | | X | | | x | | |
| SPTX | Path Terminating Tranceiver | 5v | | | | | | X | | | x | | |
| S/UNI TETRA | 4-port ATM + POS PHY + analog CRU/CSU | 3.3v | | | | | | X | | | x | | |
| S/UNI-622-POS | 1-port ATM + POS PHY + analog CRU/CSU | 3.3v | | | | | | | Х | | Х | | |
| Access | | | | | | | | | | | | | |
| T1XC | 1-port framer + analog | 5v | Х | | | | | | | | х | | |
| COMET | 1-port framer + long haul analog | 3.3v | Х | х | | | | | | | х | | |
| E1XC | 1-port framer + analog | 5v | | х | | | | | | | х | | |
| QDSX | 4-port short haul analog LIU | 5v | Х | х | | | | | | | х | | |
| TQUAD | 4-port framer | 5v | Х | | | | | | | | x | | |
| EQUAD | 4-port framer | 5v | | х | | | | | | | х | | |
| TOCTL | 8-port framer | 3.3v | Х | | | | | | | | x | | |
| EOCTL | 8-port framer | 3.3v | | х | | | | | | | Х | | |
| | | | | | | | | | | | | | |

| | S/UNI QJET | 4-port framer or ATM UNI | 3.3v | Х | Х | Х | х | Х | | | X | | |
|---|----------------|--------------------------------------|------|---|---|---|---|---|---------|---|---|---|---------|
| | D3MX | M13 Multiplexer/Demultiplexer | 5v | Х | | Х | | | | | X | | |
| | FREEDM-8 | 8 link, 128 channel HDLC Controller | 3.3v | Х | Х | Х | х | | | | | X | |
| | FREEDM-32 | 32 link, 128 channel HDLC Controller | 3.3v | Х | Х | Х | Х | | | | | Х | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| Ε | thernet | | | | | | | | | | | | |
| | EXACT - PM3370 | 8x100 port controller | 3.3v | | | | | | 100mb/s | | | X | limited |
| | EXACT - PM3371 | 8x100 low cost port controller | 3.3v | | | | | | 100mb/s | | | X | |
| | EXACT - PM3380 | 1x1000 port controller | 3.3v | | | | | | | х | | X | limited |
| | EXACT - PM3390 | 8 to 16 port EXACT Switch Matrix | 3.3v | | | | | | | x | | X | limited |
| | EXACT - PM3391 | 6-port EXACT Bus Switch Matrix | 3.3v | | | | | | | x | | Х | |
| | | | | | | | | | | | | | |

The S/UNI product line offers physical layer solutions in a range from 1.5 megabits to 622 megabits. We offer LAN, Edge and WAN core ATM switch chip sets. We have been recognized by industry analysts as the market leader in ATM physical layer solutions.

Our ATM physical layer products come in a variety of packages and provide the interface to copper or fiber cabling along with framing and mapping functions. Our line of RCMP/ATLAS ATM layer processors handle higher layer ATM protocols such as policing, operations and management, fault and performance monitoring, while our ATM Switch chips offer a routing table and switching element solution capable of running at up to 10 gigabytes per second.

In 1998, we added two new ATM physical layer chips: the S/UNI-622-MAX, a single channel 622 megabit per second device and the S/UNI-QUAD, a four channel 155 megabit per second device. Both offer integrated clock recovery and synthesis and exceed the Bellcore GR-253 intrinsic transmit jitter and jitter tolerance specification - a requirement for communications equipment developers. These products may be used in ATM switches, routers, remote access concentrators and up-links.

In 1998, PMC-Sierra worked closely with members of the SATURN development group (a networking industry group we co-founded in 1992) to define and introduce a specification for POS devices known as POS-PHY Level 2 and POS-PHY Level 3. We introduced two POS devices in compliance with the new POS specifications: the S/UNI-TETRA and the S/UNI-622-POS. The S/UNI-TETRA is the industry's first 155 megabit per second physical layer device to meet the POS-PHY Level 2 Interface specification. The device is a four channel, dual-mode ATM cell processor and POS frame processor. It is used in high-density OC-3c port card designs suitable for multi-service ATM switches and Layer 3 routers.

The S/UNI-622-POS is a 622 megabit per second physical layer device that meets the SATURN POS-PHY Level 3 Interface specification. The S/UNI-622-POS was designed to allow enterprise and access equipment to support either Packet-Over-SONET/SDH or ATM over SONET/SDH. POS is aimed at transporting Internet traffic over the public network.

Our Remote Access products include T1/E1 framers, and high density Frame Relay and HDLC controllers. Our devices are used in data communications applications such as multi-service and digital subscriber line access multiplexers, frame relay access devices, Internet Protocol routers, wireless base stations and remote access concentrators. Our access products are also used for telecommunications applications such as private branch exchanges, digital loop carriers, Class 5 switches, digital access cross connect systems, add-drop multiplexers and base transceiver stations.

In 1998, we introduced the COMET chip (COMbined E1,T1, J1 device). COMET represents the fourth generation of our family of high-density framer and line interface unit (LIU) telecom devices. A single COMET chip supports all three global primary rate framing formats, T1, E1 and J1, and integrates a shorthaul/longhaul analog LIU.

In 1998, we also introduced the EOCTL. The EOCTL is an eight-channel E1 framer. E1 is the European/Asian equivalent of the T1 transmission technology. This low power 3.3 volt device meets European standards and is pin-compatible to the TOCTL product we introduced in 1997. The EOCTL can help increase card density and reduce design time for our customers' Internet access equipment.

During 1998, we began sampling our EXACT chipset, which offers a variety of ethernet switching configurations. We offer two 8-port 10/100 fast ethernet single chip port controllers, a single port gigabit ethernet port controller, and 6 and 8 port EXACT Bus Switch Matrices. All of our ethernet switching chipsets offer layer 2 and some offer some layer 3 functionality. Gigabit ethernet is a new product area for us. At the end of 1998, we were still revising our products with the objective of having production worthy parts available in the second quarter of 1999.

NON-NETWORKING PRODUCTS

</TABLE>

In the third quarter of 1996, we announced our decision to exit the modem chipset business and discontinue development of our graphics, multimedia and custom chipsets. We disposed of all modem-related inventories in 1997. Revenues from other non-networking products declined rapidly in 1998. Due to the lack of any follow-on products, these products are expected to experience a further significant decline in 1999.

SALES, MARKETING AND DISTRIBUTION

Our sales and marketing strategy is to achieve design wins by developing superior products. We maintain close working relationships with our customers in order to make products that address their needs. We provide technical support to customers through field application engineers, technical marketing and factory systems engineers. We believe that providing comprehensive product service and support is critical to shortening customers' design cycles and maintaining a competitive position in the networking market.

We sell our products directly, through distribution and through independent manufacturers' representatives. Using these channels, Lucent Technologies (including Ascend Communications) and Cisco Systems each represented greater than 10% of our 1998 revenues. In 1998, the country purchasing the largest percentage of our products outside of the US was Canada at 10%. Historically, international sales accounted for the following percentages of our net revenues: 32% in 1998, 30% in 1997 and 46% in 1996. See "Factors You Should Consider Before Investing In PMC-Sierra - `Our Customer Base is Concentrated' and `Our Global Business Approach Subjects Us to Additional Risks!".

MANUFACTURING

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Independent foundries and chip assemblers manufacture all of our products. We receive most of our wafers in finished form from Chartered Semiconductor Manufacturing Ltd. ("Chartered"), and Taiwan Semiconductor Manufacturing Corporation ("TSMC"). These independent foundries produce our networking products at feature sizes down to 0.35 micron. We believe that by using independent foundries to fabricate our wafers, we are better able to concentrate our resources on designing and testing new products. In addition, we avoid much of the capital cost associated with owning and operating a fabrication facility.

We have supply agreements with two independent foundries that supply substantially all of the wafers for our products. We have made deposits to secure access to wafer fabrication capacity under these agreements. At December 31, 1998 and 1997, we had \$23.1 and \$27.1 million, respectively, in deposits with those foundries and we were in compliance with our foundry agreements. There are no minimum unit volume requirements in these agreements. We are obliged under one of the agreements to purchase a minimum percentage of our total annual wafer requirements provided that the foundry is able to continue to offer competitive technology, pricing, quality and delivery. The agreements may be terminated if either party does not comply with the terms.

Wafers supplied by outside foundries must meet our incoming quality and test standards. We conduct the majority of our test operations on advanced mixed signal and digital test equipment in our Burnaby, British Columbia, Canada facility. The remainder of our testing is performed predominantly by independent Asian companies.

We face risks when we outsource the manufacture and assembly of our products. See "Factors You Should Consider Before Investing in PMC-Sierra - We Must Have Access to Wafer Fabrication and Other Manufacturing Capacity to Succeed."

RESEARCH AND DEVELOPMENT

We undertake research and development to design new products, as we must introduce new products to continue to grow. Our current efforts are targeted at integrating multiple channels or functions on single chips, broadening the number of products we provide to address varying protocols, and increasing the speed at which our chips operate.

We have design centers in or near Vancouver (Canada), Portland (Oregon), Gaithersburg (Maryland), San Jose (California), Montreal (Canada), and Saskatoon (Canada).

As a result of our decision to exit from the modem chipset business and restructure our non-networking operations, we discontinued research and development on non-networking products.

We spent \$34.3 million in 1998, \$22.9 million in 1997, and \$29.4 million in 1996 on research and development. We also expensed \$39.2 million of in process research and development, \$37.8 million of which related to the acquisition of IGT and \$1.4 million of which related to the acquisition of other technology.

Similarly, in 1996 we expensed \$7.8 million of in process research and development related to our acquisition of certain assets of Bit, Inc. See "Management, Discussion and Analysis of Financial Condition and Operating Results - Other Costs and Expenses" and "Consolidated Financial Statements - Note 2".

We may not successfully develop new products and our products may not achieve market acceptance. See "Factors You Should Consider Before Investing In PMC-Sierra - We Need to Successfully Develop and Introduce Our New Products to Succeed".

BACKLOG

We sell primarily pursuant to standard short-term purchase orders. Our customers frequently revise the quantity actually purchased and the shipment schedules to reflect changes in their needs. As of December 31, 1998, our backlog of products scheduled for shipment within six months totaled \$56.3 million. As of December 31, 1997, our backlog of products scheduled for shipment within six months totaled \$36.3 million. Our customers may cancel a significant portion of the backlog at their discretion without penalty. Accordingly, we believe that our backlog at any given time is not a meaningful indicator of future revenues.

COMPETITION

The markets for our products are intensely competitive and subject to rapid technological change and price erosion.

We believe that our ability to compete successfully in these markets depends on:

- o our product performance, quality and pricing;
- o our, our competitors' and our customers' timing and success of new product introductions;
- o our ability to innovate;
- o our ability to deliver working products on schedule;
- o market acceptance of standards for which we have produced products;
- o our ability to obtain adequate manufacturing capacity;
- o our subcontractors' production efficiency;
- o the rate at which our customers incorporate our products into their designs; and
- o our competitors' assertion of intellectual property rights.

We typically face competition at the design stage, where customers evaluate alternative design approaches that require integrated circuits. Our competitors have increasingly frequent opportunities to supplant our products in next generation systems because of shortened product life and design-in cycles in many of our customers' products.

Our competitors are major domestic and international semiconductor companies, many of which have substantially greater financial and other resources than us. Emerging companies also provide significant competition in our segment of the semiconductor market. Our competitors include Advanced Micro Circuits Corporation, Broadcom, Conexant Systems, Cypress Semiconductor, Dallas Semiconductor, Galileo Technology, Intel Corporation, Integrated Device Technology, Level One Communications, Lucent Technologies, Motorola, MMC Networks, Siemens, Texas Instruments, Transwitch and Vitesse Semiconductor. Over the next few years, we expect additional competitors, some of which also may have greater financial and other resources, to enter the market with new products.

LICENSES, PATENTS AND TRADEMARKS

We have granted Chartered Semiconductor a non-exclusive license to manufacture and sell integrated circuits based on our designs and integrated circuits designed by Chartered Semiconductor or its parent company. Chartered Semiconductor also has a worldwide non-exclusive right to manufacture digital integrated circuits for third parties, unless we designed the circuit or previously supplied the circuit to the customer. Chartered Semiconductor has also licensed its manufacturing technology to us for non-exclusive use outside Singapore. The license agreement expires in November 1999. Upon termination of the agreement, the licenses to use the technology continue, but obligations to update licensed technology terminate.

We have several U.S. patents and a number of pending patent applications in the U.S. and Europe. In addition to such factors as innovation, technological expertise and experienced personnel, we believe that a strong patent position is becoming increasingly important to compete effectively in the industry and we

have an active program to acquire additional patent protection.

We apply for mask work protection on our circuit designs. We attempt to protect our software, trade secrets and other proprietary information by, among other security measures, entering into proprietary information agreements with employees. Although we intend to protect our rights vigorously, we cannot assure that these measures will be successful. See "Factors You Should Consider Before Investing In PMC-Sierra - Our Products Employ Proprietary Technology That We May Not Be Able to Protect."

PMC and its logo are our registered trademarks and service marks. We own other trademarks and service marks not appearing in this Form 10-K Annual Report. Other trademarks used in this Form 10-K Annual Report are owned by other entities.

EMPLOYEES

As of December 31, 1998, the Company had 435 employees, including 255 in research and development, 47 in production and quality assurance, 82 in marketing and sales and 51 in administration. Our employees are not represented by a collective bargaining agreement. We have never experienced any work stoppage. We believe our employee relations are good.

ITEM 2. Properties.

Our executive offices and much of our test, sales and marketing, and design and engineering operations are located in an approximately 100,000 square foot leased facility in Burnaby, British Columbia, Canada. This facility is leased through April 2006. The Company also leases offices for its staff in Massachusetts, North Carolina, Illinois, Texas, Maryland, California, Ontario (Canada), Quebec (Canada), Barbados, France, Germany and the United Kingdom.

PMC-Sierra (Maryland), Inc. leases approximately 23,000 square feet of office space in Maryland and San Jose, while PMC-Sierra Inc. (Portland) leases approximately 9,000 square feet of office space in Oregon. These facilities are leased through June 2005, June 1999 and March 1999 respectively.

ITEM 3. Legal Proceedings.

In February 1999, a complaint naming PMC-Sierra, Inc. and a number of other semiconductor companies was filed in United States District Court for the District of Arizona (captioned Lemelson Medical, Education & Research Foundation, Ltd. Partnership v Intel Corp. et al. Civ. 99-0377 PHX RGS) alleging that each defendant manufactures or has had manufactured for it integrated circuits using manufacturing processes that violate patents owned by plaintiff.

The litigation is in its initial stages, and the Company is not able to reasonably estimate the potential losses, if any, that may be incurred in relation to this litigation.

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

Not applicable.

PART II

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

Stock Price Information. The Company's Common Stock trades on the Nasdaq National Market under the symbol PMCS. The following table sets forth, for the periods indicated, the high and low closing sale prices for the Company's Common Stock as reported by the Nasdaq National Market:

| 1997 | High | Low |
|----------------|---------|---------|
| First Quarter | \$18.13 | \$13.88 |
| Second Quarter | 26.38 | 13.88 |
| Third Quarter | 35.13 | 24.50 |
| Fourth Quarter | 31.88 | 22.00 |
| rouren gaareer | 31.00 | 22.00 |

| First Quarter | \$39.06 | \$26.00 |
|----------------|---------|---------|
| Second Quarter | 51.25 | 37.00 |
| Third Quarter | 47.75 | 26.63 |
| Fourth Quarter | 65.63 | 22.88 |

To maintain consistency, the information provided above is based on calendar quarters rather than fiscal quarters.

The Company has never paid cash dividends on its Common Stock. The Company currently intends to retain earnings, if any, for use in its business and does not anticipate paying any cash dividends in the foreseeable future. The Company's current bank credit agreement prohibits the payment of cash dividends.

ITEM 6. Selected Financial Data.
Summary Consolidated Financial Data
(in thousands, except for per share data)
<TABLE>
<CAPTION>

| <caption></caption> | Year Ended December 31,(1) | | | | | | | | |
|---|---|--|------------------------------------|--|---|--|--|--|--|
| STATEMENT OF OPERATIONS DATA: | 1998 (2) | 1997 (3) | 1996 (4) | 1995 (5)(7) | 1994 (6)(7) | | | | |
| <s> Net revenues</s> | | <c> \$ 127,166</c> | \$ 188,371 | | | | | | |
| Gross profit Research and development In process research and development (2), (4), (6) Impairment of intangibles assets (2) Marketing, general and administrative Purchase price adjustment - compensation Restructuring and other charges | 123,592 34,280 39,176 4,311 28,755 | 22,880 - - 23,663 - (1,383) | 93,423 29,350 7,783 | 91,614 23,428 - - 30,051 10,624 | 46,960 15,702 12,748 - 23,683 - (1,559) | | | | |
| Income (loss) from operations | 17,070 | 48,941 ====== | (39,071) | 27,511 | (3,614) | | | | |
| Income (loss) from continuing operations Loss from discontinued operations | (2,878) - | | (48,150) | 23,976 (22,497) | (7,916) (666) | | | | |
| Net income (loss) | \$ (2,878) | \$ 34,258 ====== | \$ (48,150) | \$ 1,479 | \$ (8,582) | | | | |
| Basic net income (loss) per share: (8) from continuing operations from discontinued operations Net income (loss) | \$ (0.09) \$ - \$ (0.09) | \$ 1.10 \$ - | \$ (1.62) \$ - \$ (1.62) | \$ 0.89 \$ (0.83) \$ 0.06 | \$ (0.36) \$ (0.03) \$ (0.39) | | | | |
| Diluted net income (loss) per share: (8) from continuing operations from discontinued operations Net income (loss) | \$ (0.09) \$ - \$ (0.09) | \$ 1.05 \$ - | \$ (1.62) \$ \$ (1.62) | \$ 0.84 \$ (0.79) \$ 0.05 | \$ (0.36) \$ (0.03) | | | | |
| Shares used to calculate: Basic net income (loss) per share Diluted net income (loss) per share | 32,002 | 32,642 | 29,719 | 27,018 28,620 | | | | | |
| BALANCE SHEET DATA: | 1998 | 1997 | 1996 | 1995 | 1994 | | | | |
| Cash, cash equivalents and short-term investments Working capital Total assets Long term debt (including current portion) Stockholders' equity | \$ 84,836 67,615 197,298 10,132 125,932 | 58,595 149,378 | 20,438 129,914 | 32,741 184,860 | 23,813 | | | | |

<FN>

- (1) The Company's fiscal year ends on the last Sunday of the calendar year. December 31 has been used as the fiscal year end for ease of presentation. See Note 1 to Consolidated Financial Statements.
- (2) Results for the year ended December 31, 1998 include an in process research and development charge of \$39.2 million related primarily to the acquisition of Integrated Telecom Technology and a charge for impairment of intangible assets of \$4.3 million.
 See Note 2 to the consolidated financial statements.
- (3) Results for the year ended December 31, 1997 include a recovery of \$1.4 million from the reversal of the excess accrued restructure charge resulting from the conclusion of the restructuring. See Note 9 to Consolidated Financial Statements.
- (4) Results for the year ended December 31, 1996 include a restructuring charge of \$69.4 million related to Company's exit from the modem chipset business and the associated restructuring of its non-networking operations. \$4.7 million of this charge was recorded in cost of sales as an inventory write down, and \$64.7 million was recorded as a restructuring cost in operating expenses. See Note 9 to Consolidated Financial Statements. An in process research and development charge of \$7.8 million was recorded in the third quarter for the acquisition of ethernet switching technology and other assets from Bipolar Integrated Technology. Results of operations include costs of continuing the development of ethernet switching products and related activities from the date of the acquisition on September 3, 1996. See Note 2 to Consolidated Financial Statements.
- (5) Results for the year ended December 31, 1995 include the loss from discontinued operations related to Prometheus Products, Inc. of \$22.5 million, purchase price adjustment relating to the finalization of the acquisition of the Company's Canadian networking product operations of \$10.6 million, and gain on sale of shares of SiTel Sierra B.V. of \$6.7 million, which is not included in income from operations.
- (6) Results for the year ended December 31, 1994 include the operations of the networking business from the date of acquisition, September 2, 1994, and include in process research and development of \$12.7 million, settlement of the class action lawsuit of \$2.4 million, reversal of restructuring and other charges of \$1.6 million and a loss from discontinued operations of Prometheus of \$0.7 million, which is not included in loss from operations.
- (7) For 1995, amounts related to Prometheus previously reported within net revenues were \$19.0 million; gross profit (loss) was (\$0.1) million; and net loss was (\$4.6) million. For 1994, net revenues were \$3.8 million; gross profit was \$0.3 million; and net loss was (\$0.7) million. All previously reported amounts have been included in "Loss from discontinued operations". Net revenues, gross profit, research and development, and marketing, general and administrative expenses have been restated to exclude amounts relating to Prometheus. Inc. Balance sheet data has been restated to exclude amounts relating to Prometheus.
- (8) Share and per share information has been adjusted for the 2 for 1 stock split effective October 5, 1995.

</FN>
</TABLE>

Ouarterly Comparisons

The following tables set forth consolidated statements of operations for each of the Company's last eight quarters and the percentage of the Company's net revenues represented by each line item reflected in each consolidated statement of operations. This quarterly information is unaudited and has been prepared on the same basis as the annual consolidated financial statements. In management's opinion, this quarterly information reflects all adjustments, consisting only of normal recurring adjustments, necessary for a fair presentation of the information for the periods presented. The operating results for any quarter are not necessarily indicative of results for any future period.

Quarterly Data (Unaudited) (in thousands, except per share data)

<TABLE> <CAPTION>

| | Year | Ended Decem | ber 31, 199 | 8 (1) | Year Ended December 31, 1997 (2) | | | | |
|---------------------------------------|-----------|-------------|-------------|-----------|----------------------------------|-----------|-----------|-----------|--|
| | Fourth | Third | Second | First | Fourth | Third | Second | First | |
| STATEMENT OF OPERATIONS DATA: | | | | | | | | | |
| <s></s> | <c></c> | <c></c> | <c></c> | <c></c> | <c></c> | <c></c> | <c></c> | <c></c> | |
| Net revenues | \$ 45,437 | \$ 42,105 | \$ 39,975 | \$ 34,295 | \$ 31,713 | \$ 27,815 | \$ 34,064 | \$ 33,574 | |
| Gross profit | 35,355 | 32,070 | 30,007 | 26,160 | 24,170 | 21,757 | 24,451 | 23,723 | |
| Research and development | 10,705 | 9,739 | 7,820 | 6,016 | 6,395 | 5,136 | 5,309 | 6,040 | |
| In process research and development | _ | _ | 39,176 | _ | _ | _ | _ | _ | |
| Marketing, general and administrative | 7,649 | 7,549 | 7,435 | 6,122 | 5,013 | 5,735 | 6,614 | 6,301 | |
| Impairment of intangible assets | _ | 4,311 | _ | _ | _ | _ | _ | _ | |
| Restructuring and other charges | - | _ | - | - | (1,383) | - | - | _ | |
| | | | | | | | | | |

| Income (loss) from operations | 17,001 | 10,471 | (24,424) 14,022 | 14,145 | 10,886 | 12,528 11,382 |
|---|----------------------|----------|---------------------|----------|----------|-------------------|
| Net income (loss) | \$ 11,381 ======= | \$ 5,405 | \$(29,313) \$ 9,649 | \$ 9,556 | \$ 7,291 | \$ 8,931 \$ 8,480 |
| Basic net income (loss) per share | \$ 0.35 | \$ 0.17 | \$ (0.92) \$ 0.31 | \$ 0.30 | \$ 0.23 | \$ 0.29 \$ 0.28 |
| Common shares outstanding (3) | 32,460 | 32,193 | 31,829 31,524 | 31,334 | 31,146 | 30,918 30,774 |
| Diluted net income (loss) per share | \$ 0.33 | \$ 0.16 | \$ (0.92) \$ 0.29 | \$ 0.29 | \$ 0.22 | \$ 0.28 \$ 0.27 |
| Common shares outstanding assuming dilution | 34,876 | 34,394 | 31,829 33,701 | 33,111 | 33,188 | 32,374 31,895 |

As a Percentage of Net Revenues (Unaudited)

| | Year Ended December 31, 1998 (1) | | | | Year Ended December 31, 1997 (2) | | | | |
|---------------------------------------|----------------------------------|-------|--------|-------|----------------------------------|-------|--------|-------|--|
| | Fourth | Third | Second | First | Fourth | Third | Second | First | |
| Net revenues | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | |
| Gross profit | 78% | 76% | 75% | 76% | 76% | 78% | 72% | 71% | |
| Research and development | 24% | 23% | 20% | 18% | 20% | 18% | 16% | 18% | |
| In process research and development | - | _ | 98% | _ | - | - | _ | _ | |
| Marketing, general and administrative | 17% | 18% | 19% | 18% | 16% | 21% | 19% | 19% | |
| Impairment of intangible assets | - | 10% | - | - | - | - | - | - | |
| Restructuring and other charges | _ | _ | _ | _ | (4%) | _ | _ | _ | |
| Income (loss) from operations | 37% | 25% | (61%) | 41% | 45% | 39% | 37% | 34% | |
| Net income (loss) | 25% | 13% | (73%) | 28% | 30% | 26% | 26% | 25% | |

<FN>

- (1) Results for the year ended December 31, 1998 include an in process research and development charge of \$39.2 million related primarily to the acquisition of Integrated Telecom Technology and a charge for impairment of intangible assets of \$4.3 million. See Note 2 to the consolidated financial statements.
- (2) Results for the year ended December 31, 1997 include a restructuring charge recovery of \$1.4 million from the reversal of the excess accrued restructure charge from the conclusion of the restructuring in the fourth
- (3) PMC-Sierra, Ltd. Special Shares are included in the calculation of basic net income (loss) per share.

</FN>

</TABLE>

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

Description of Forward-looking Statements. This portion of this Annual Report contains forward-looking statements relating to:

revenues, 0

- o capital resources sufficiency; and o market risk.
- 0 gross margins,
- expenditures on research and development, selling and administration;

Actual results may differ from those projected in the forward-looking statements for a number of reasons, including those described in "Factors You Should Consider Before Investing in PMC-Sierra." We present projected project revenue estimates in the "In Process Research and Development" section of Item 7 of this report. These estimates were made solely for the purposes of accounting for the acquisition of Integrated Telecom Technology Inc. (see below) and should not be construed as a projection of expected future performance of products resulting from these projects.

General. We design, develop, market and support high-performance semiconductor solutions for advanced telecommunications and data communications networking markets. Our products are silicon based and are used in the broadband communications infrastructure and high bandwidth networks. We supply ATM, ${\tt SONET/SDH,\ T1/E1,\ D3/E3}$ and ethernet semiconductors.

In the second quarter of 1998, we expanded our portfolio of ATM layer and switching products by acquiring Integrated Telecom Technology Inc. ("IGT"). IGT was a fabless semiconductor company headquartered in Gaithersburg, MD. IGT also had a development site in San Jose, CA. IGT made ATM switching chipsets for wide area network applications as well as ATM Segmentation-and-Reassembly and other telecommunication chips.

The total consideration of \$55.0 million paid to acquire IGT consisted of cash paid to IGT shareholders of \$17.8 million, cash paid to IGT creditors of \$9.0 million, and the issuance of approximately 415,000 shares of common stock and options to purchase approximately 214,000 shares of common stock.

The purchase price also included \$850,000 in professional fees and other direct acquisition costs. As part of the purchase, we acquired \$0.5 million cash and 4.1 million of other tangible assets, and assumed IGT's current liabilities of \$3.1 million and interest-bearing capital lease obligations valued at \$1.6 million (see note 2 of the Consolidated Financial Statements).

Subsequent to issuing our Quarterly Report on Form 10-Q for the period ended June 28, 1998, the Securities and Exchange Commission ("SEC") released new information to the market regarding acceptable methodologies for valuing in process research and development ("IPR&D") in purchase transactions. In light of this new information, we revalued certain identifiable assets acquired through the IGT acquisition.

Our initial valuation of the IGT IPR&D was done using a methodology that focused on the aggregate after-tax cash flows attributable to the purchased technology. Using the SEC's guidelines, we subsequently considered the stage of completion of individual projects and the risk associated with the stage of completion of the technology. As a result of these additional considerations, we restated our financial statements for the six month periods ended June 28, 1998 to reflect the revaluation of assets acquired and to record the revised amounts for intangible assets, goodwill, and IPR&D (See Note 2 to the Consolidated Financial Statements).

We also restated our financial statements for the period ended September 27, 1998, to reflect the impairment of a portion of the restated intangible assets recognized in connection with the IGT acquisition. During the third quarter, we terminated development work on a project. We determined that the developed and core technology related to this project was not technologically feasible and had no alternative future use. As a result, we restated goodwill, core technology, and related amortization from amounts initially reported and recorded an impairment of intangible assets of \$4.3 million.

In August 1996, we announced our decision to exit the personal computer modem chipset business, restructure our other non-networking products and focus on our networking products. In 1996, we recorded a charge of \$69.4 million in connection with this decision. We completed all material aspects of the restructuring by the end of 1997. At that time, we recorded a recovery of \$1.4 million from the reversal of the excess accrued restructure charge (See note 9 to Consolidated Financial Statements).

Also in 1996, we acquired ethernet switching assets, intellectual property and certain other assets from Bipolar Integrated Technology ("BIT"). We acquired these assets in exchange for 804,407 shares of common stock and other consideration. The aggregate value of this transaction was approximately \$8.1 million including the acquisition costs we incurred.

Results of Operations

Net Revenues (\$000,000)

| | 1998 | Change | 1997 | Change | 1996 |
|------------------------|----------|--------|----------|--------|----------|
| | | | | | |
| Networking products | \$ 139.5 | 63% | \$ 85.5 | 36% | \$ 62.8 |
| Non-networking - other | \$ 22.3 | (38%) | \$ 35.8 | (46%) | \$ 66.6 |
| Non-networking - modem | _ | (100%) | \$ 5.9 | (90%) | \$ 59.0 |
| | | | | - | |
| Total net revenues | \$ 161.8 | 27% | \$ 127.2 | (32%) | \$ 188.4 |

Net revenues increased 27% in 1998 as the growth in networking product revenue exceeded the reduction of revenues from non-networking products. Networking product revenue grew 63% in 1998 and 36% in 1997 as a result of a strong market for our customers' broadband equipment due to the growth of the Internet and data communications in general, the move of many equipment manufacturers from custom integrated circuits to application specific standard products and revenue from products acquired in connection with the IGT acquisition.

Non-networking - other revenues, which include custom, graphic, and other semiconductor revenues, declined 38% in 1998 compared to 1997 and declined 46% in 1997 compared to 1996. This reflects our strategic decision to restructure our other non-networking business and to focus on networking semiconductor business. We are supporting non-networking products for existing customers, but have decided not to develop any further products of this type. We expect the non-networking revenues to continue to decline rapidly in 1999.

Consistent with our 1996 restructuring, we exited the modem chipset business and sold all our modem chipset inventories in 1997. No future revenues are expected from that business.

Gross Profit (\$000,000)

| | 1998 | Change | 19 | 997 | Change | 1 | 996 |
|--|----------------|--------|----|-------------|--------|----|-------------|
| | | | | | | - | |
| Networking products Percentage of networking revenues | \$ 113. 81% | | | 69.5 81% | 48% | \$ | 46.4 74% |
| Non-networking products Percentage of non-networking reveunes | \$ 10. 47% | , | | 24.6 59% | (46%) | \$ | 47.0 37% |
| Total gross profit Percentage of net revenues | \$ 123. 76% | | | 94.1 74% | 1% | \$ | 93.4 50% |

Total gross profit increased from 1997 to 1998 and from 1996 to 1997 because increased sales of higher gross margin networking products offset a decline in gross profit due to lower revenues from non-networking products. In addition, lower wafer costs increased gross profit in 1997 relative to 1996.

Networking gross profit in 1998, as a percentage of revenues, was consistent with 1997. The gross margins of these products were high relative to overall gross margins in the semiconductor industry because our chips are highly complex and are sold in relatively low volumes. In fact, in 1998, none of our networking products accounted for more than 10% of networking revenue. We believe that, as the market for our networking products grows and customers purchase in greater volumes, gross profit as a percentage of revenues will decline.

We expect networking gross margins to decline if reductions in production costs do not sufficiently offset decreases in average selling prices of existing networking products, or increases in gross profit contributed by new higher gross margin networking products do not sufficiently offset decreases in average selling prices of existing networking products.

Non-networking gross profit decreased by 57% in 1998 compared to 1997. Non-networking gross profit as a percentage of sales declined from 59% in 1997 to 47% in 1998. In 1999, we expect gross profit from non-networking products to decrease in total dollars and as a percentage of sales. The continuation of non-networking gross profit decline results from our decision to exit the modem chipset business and restructure our other non-networking business.

Non-networking product gross profit was higher in 1997 than 1996 due to the sales related to our modem chipset inventories. In 1996, our reserve for write-down of the modem chipset inventory to market included both completion and disposal costs. The higher amount of gross profit recognized during 1997 represents the reduction in the reserve for write-down to the extent necessary to cover the relatively higher period expenses incurred relating to the disposal effort. There was no overall operating profit from the sale of modem chipset products in 1997.

Other Costs and Expenses (\$000,000)

<TABLE> <CAPTION>

| VOLUTION | 1998 | Change | 1997 | Change | 1996 |
|---|-----------------------------|-----------------|-----------------------------|-------------------|-----------------------------|
| <s> Research and development Percentage of net revenues</s> | <c> \$ 34.3 21%</c> | <c> 50%</c> | <c> \$ 22.9 18%</c> | <c> (22%)</c> | <c> \$ 29.4 16%</c> |
| Marketing, general & administrative Percentage of net revenues | \$ 28.8 18% | 22% | \$ 23.7 19% | (23%) | \$ 30.7 16% |
| In process research & development acquired Percentage of net revenues | \$ 39.2 24% | - | - - | - | \$ 7.8 4% |
| Impairment of intangible assets Percentage of net revenues | \$ 4.3 | - | - - | - | - - |
| Restructure and other costs Percentage of net revenues | - - | - | \$ (1.4) (1%) | - | \$ 64.7 34% |

</TABLE>

Research and Development and Marketing, General and Administrative Expenses.

In 1998, research and development ("R&D") expenses increased by 50% overall, to 21% of total revenue. Substantially all R&D activity carried out in 1998 related to networking products.

Our increased R&D spending is a response to the array of opportunities presented by the growth of the Internet, data networking and the convergence of voice and data communications. We incur R&D expenditures in order to attain technological leadership from a multi-year perspective. This has caused R&D spending to fluctuate from quarter to quarter. We expect such fluctuations, particularly when measured as a percentage of net revenues, to occur in the future, primarily due to the timing of expenditures and changes in the level of net revenues. In the future, we expect R&D expenses to increase and relate entirely to networking products.

R&D expenditures decreased in 1997 compared to 1996 because we discontinued work on non-networking products. This was partially offset by an increase in spending on networking products. For all periods presented, R&D expenditures as a percentage of net revenue were higher for networking products than for non-networking products.

In 1998, we increased total marketing, general and administrative expenses but decreased the expenses as a percentage of total revenue. From a short term perspective, many marketing, general and administrative expenses are fixed. Therefore, during periods of rising revenues, these expenses decline as a percentage of revenues. The opposite holds true in periods of declining revenues. We expect marketing, general and administrative costs to increase during 1999 and beyond.

Marketing, general and administrative expenses declined in 1997 primarily due to the reduction in expenses and personnel resulting from the 1996 restructuring of the non-networking operations. The increase in these expenses as a percentage of net sales reflects increased spending on networking products and a decline in total net revenues.

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

IPR&D expenses of \$39.2 million include \$37.8 million related to the acquisition

of IGT and \$1.4 million related to the acquisition of technology which had not reached technological feasibility and had no alternative future use.

In our allocation of the IGT acquisition $\,$ purchase price to IPR&D, we considered the following for each in process project at the time of the acquisition:

- (1) the present value of forecasted cash flows and income that were expected to result from the projects;
- (2) the status of projects;
- (3) completion costs;
- (4) project risks;
- (5) the value of core technology; and
- (6) the stage of completion of the individual project.

In valuing the core technology, we ensured that the relative allocations to core technology and IPR&D were consistent with the relative contributions of each. In the determination of the value of IPR&D, we ensured that the value of IPR&D only considered efforts completed as of the date IGT was acquired.

The amount allocated to IPR&D of \$37.8 million was expensed upon acquisition, as it was determined that the underlying projects had not reached technological feasibility, had no alternative future use and successful development was uncertain.

As of the acquisition date, IGT had three development projects in process. In order to develop these projects into commercially viable products, we had to complete all planning, designing and testing activities necessary to establish that the products could be produced to meet their design requirements.

The calculations of value assigned to the IPR&D reflect the efforts of IGT prior to the close of the acquisition. The estimated completion percentage, estimated technology life and projected introduction date of the three development projects as of the acquisition date were as follows:

| Project | Percent | Technology | Introduction |
|-----------|-----------|------------|--------------|
| | Completed | Life | Date |
| Project A | 78% | 5 years | 1999 |
| Project B | 83% | 5 years | 1999 |
| Project C | 65% | 6 years | 1998 |

Project A relates to the development of an ATM switching system. Projects B and C relate to the segmentation and reassembly ("SAR") of data in an ATM network.

A brief description of the valuation of each in process project is set forth below:

Revenue

We used discounted cash flow analysis on the anticipated income stream of related product sales to compute the value of each acquired in process technology. We determined the value assigned to purchased in process technology by estimating the costs to develop the purchased in process technology into commercially viable products, estimating the resulting net cash flows from the projects and discounting the net cash flows to their present value. We based the revenue projection on estimates of relevant market sizes and growth factors, expected trends in technology and the nature and expected timing of our and our competitors' new product introductions. These estimates were made solely for the purposes of accounting for the IgT acquisition and should not be construed as a projection of expected future performance of products resulting from these projects.

We estimated that these in process projects would begin generating revenue in 1999. We estimated that revenues would generate revenue for 5 to 6 years and then decline sharply as we expect that other new products and technologies would enter the market.

Cost to Complete

We estimated that total research and development costs to complete the three projects would amount to \$1.4\$ million over a twelve-month period.

Expenses

We included selling, general and administrative expenses and research and development expenses in our operating expense estimates. We based these estimates on historical results and anticipated cost savings. Due to general economies of scale, improved infrastructure, and greater management breadth, we expected operating expense as a percentage of revenues to decrease after the acquisition.

We estimated cost of sales, expressed as a percentage of revenue, for the developed and in process technologies to be 29% increasing to 33% for all three projects.

We estimated selling, general and administrative expenses, expressed as a percentage of revenue for the developed and in process technologies, would be 14% in 1999 and would decrease to 10% by 2003.

Research and development expenses consist of the costs associated with activities undertaken to develop new versions and to correct errors or to keep products updated with current information. We estimated R&D expense would be 15% of revenues in 1999 and would decline to 7% of revenues by 2003.

We used an effective income tax rate of 40% throughout the valuation period. The 40% reflects our estimated combined federal and state statutory income tax rate, exclusive of nonrecurring charges, and our estimated future income tax provision rate.

In valuing the IPR&D, we used the following discount rates:

| Project | A | 28% |
|---------|---|-----|
| Project | В | 28% |
| Project | C | 29% |

We considered the weighted average cost of capital when selecting an appropriate discount rate. To determine this, we used a capital asset pricing model and reviewed venture capital rates of return. The discount rate we used for the in process technology was higher than our weighted average cost of capital due to the risk of realizing cash flows from products that had yet to reach technological feasibility as of the valuation date.

Allocation of Value

We allocated the fair market values of the assets acquired from IGT as follows:

Intellectual Property:

In Process Research and Development

| Project A Project B Project C | \$ 17,032 14,155 6,570 |
|-------------------------------------|---------------------------------|
| | 37 , 757 |
| Developed and Core Technology | \$ 7,830 |
| Assembled Workforce | \$ 1,053 |
| Goodwill | \$ 9,284 |

Comparison to Actual Results

We believed that the assumptions we used in the valuation of the acquired intangible IGT assets were reasonable at the time of the acquisition. However, we had no assurance that the underlying assumptions used to estimate expected project sales, development costs or profitability, or the events associated with such projects, would transpire as estimated.

Project A development was completed, and prototypes were in production, on the date we filed this Annual Report. We completed development of Project B in the fourth quarter of 1998. We were in full production as of the date we filed this Annual Report. This was consistent with our initial estimates used in the valuation of the project. We terminated development on Project C during the third quarter (see `Impairment of Intangible Assets') of 1998.

or B are not accepted by the market, then there will be a loss of the expected return inherent in the fair value allocation and the associated intangible assets would be impaired. This may require us to shorten the time period over which the related assets would be amortized, which may impact our operating results materially and adversely.

IPR&D incurred in 1996 relate to the acquisition of the ethernet switching and other assets from BIT (see Note 2 to the Consolidated Financial Statements).

Impairment of Intangible Assets.

During the third quarter of 1998, we abandoned a development project. We determined that a portion of the restated intangible assets recognized in connection with the IGT acquisition was impaired.

The terminated project related to ongoing development of a SAR chip used to convert data packets to asynchronous transfer mode data cells (refer to Project C in "In Process Research and Development" above). The few customers who were using a predecessor chip were notified of the termination of all future development of this technology. The technology was specialized and has no alternative future use.

Restructure and Other Costs.

In 1996, we recorded a charge of \$69.4 million in connection with our decision to exit from the modem chipset business and restructure other non-networking product operations. All material aspects of the restructuring were completed by the end of 1997. At that time, we recorded a recovery of \$1.4 million from the reversal of the excess accrued restructure charge. (See Note 9 to Consolidated Financial Statements).

Interest Income, Net (\$000,000)

| | 1998 | Change | 1997 | Change | 1996 |
|----------------------------|----------|--------|----------|--------|-------|
| Interest income, net | \$2.9 | 190% | \$1.0 | 54% | \$0.7 |
| Percentage of net revenues | 1.8% | | 0.8% | | 0.4% |

Interest income increased in 1998, 1997 and 1996 due to higher cash balances available to invest and earn interest. Interest expense decreased in 1998 due to the retirement of debt associated with capital leases. This reduction was partially offset by additional interest expense related to the assumption of capital leases in our acquisition of IGT.

Provision for Income Taxes.

Our 1998 and 1997 income tax provision primarily reflects the provision for income taxes for the Canadian subsidiary. Our U.S. taxes for 1998 and 1997 were largely eliminated by tax losses realized from our 1996 restructuring charge. The \$39.2 million charge for IPR&D and the related \$4.3 million impairment of intangible assets taken in 1998 are non-deductible and will not result in any future tax benefits.

The 1996 income tax rate reflects taxes on our foreign operations and the effect of a non-deductible \$7.8 million charge for the purchase of IPR&D relating to the BIT acquisition. We used net operating losses and tax credit carry forwards to reduce the 1996 U.S. tax provision. We did not recognize a tax benefit from the 1996 restructure charge of \$69.4 million because of the uncertainty of future taxable income in the United States.

Recently issued accounting standards.

In June 1998, the FASB issued Statement of Accounting Standards No. 133, Accounting for Derivative Instruments and Hedging Activities. We expect to adopt the new Statement effective January 1, 2000. The Statement will require the recognition of all derivatives on our consolidated balance sheet at fair value. We anticipate that the adoption of this Statement will not have a significant effect on our operating results or financial position.

Liquidity and Capital Resources.

Cash and cash equivalents and short term investments increased from \$69.2 million at the end of 1997 to \$84.8 million at the end of 1998. During 1998, operating activities provided \$59.3 million in cash. The net loss of \$2.9 million in 1998 includes non-cash charges of \$14.2 million in depreciation and amortization, a \$39.2 million charge for in process research and development and a \$4.3 million charge for impairment of intangible assets.

During 1998, our investing activities included \$27.2 million of net cash consumed in the acquisition of IGT and \$21.5 million in purchases of new plant and equipment. We also used cash to increase short-term investments by a net of \$9.6 million and to repay \$5.2 million of our debt and capital lease obligations. Proceeds from the issuance of common stock, principally under our stock option and purchase plans, totaled \$7.6 million.

As at December 31, 1998, our principal sources of liquidity included cash and cash equivalents and short-term investments of \$84.8 million. In the second quarter of 1998, we entered into a new line of credit agreement with a bank. This agreement allows us to borrow up to \$15 million. We cannot pay cash dividends, or make material divestments, without the prior written consent of the bank. There were no amounts outstanding under the line of credit at the end of either 1997 or 1998.

We have supply agreements with two independent foundries that supply substantially all of the wafers for our products. We have made deposits to secure access to wafer fabrication capacity under these agreements. At December 31, 1998 and 1997, we had \$23.1 and \$27.1 million, respectively, in deposits with those foundries and we were in compliance with our foundry agreements. There are no minimum unit volume requirements in these agreements. We are obliged under one of the agreements to purchase a minimum percentage of our total annual wafer requirements provided that the foundry is able to continue to offer competitive technology, pricing, quality and delivery. The agreements may be terminated if either party does not comply with the terms.

We purchased \$18.3 million in wafers from our foundry suppliers during 1998 compared to \$13.2 million in 1997. Those amounts may not be indicative of any future period since wafer prices and our volume requirements may change.

In each year, we are entitled to receive a refund of a portion of these deposits. The amount to be received is based on the annual purchases from those foundries compared to the target levels in the agreements. Based on 1998 purchases, we expect to receive a \$4.0 million refund from one of the foundries in the first quarter of 1999. If we do not receive our deposits back during the course of the agreements, then they will be returned to us at the end of the agreement periods.

We believe that existing sources of liquidity and anticipated funds from operations will satisfy our projected working capital and capital expenditure requirements through the end of 1999. We expect to purchase or arrange capital leases for approximately \$33.0 million of new capital expenditures during 1999. In 1998, actual capital expenditures totaled \$21.5 million. No additional

FACTORS THAT YOU SHOULD CONSIDER BEFORE INVESTING IN PMC-SIERRA

Our company is subject to a number of risks - some are normal to the fabless networking semiconductor industry, some are the same or similar to those disclosed in previous SEC filings, and some may be present in the future. You should carefully consider all of these risks and the other information in this report before investing. The fact that certain risks are endemic to the industry does not lessen the significance of the risk.

As a result of these risks, our business, financial condition or operating results could be materially adversely affected. This could cause the trading price of our common stock to decline, and you may lose part or all of your investment.

OUR OPERATING RESULTS FLUCTUATE

Our operating results have fluctuated in the past and may fluctuate in the future for any of the following reasons:

- our product introduction timing;
- o our average selling prices change;
- o our customers' inventory levels fluctuate;
- o our customers are acquired or divested;

- o demand for our and our customers' products changes;
- o a networking industry downturn;
- o our suppliers' product and capacity o we are unable to acquire wafer or availability changes;
 - other manufacturing capacity;
- o our product manufacturing yields
- change;
- o our competitors produce new products or technologies;
- o market acceptance or rejection of one o our product and process development
 - expenditures change; and
- or more of our products;
- o our competitors change prices.

WE MAY BE LEFT WITH UNSALEABLE INVENTORY

We attempt to forecast and maintain a level of inventory in anticipation of demand for our products. Anticipating demand is difficult because our customers face volatile pricing and demand for their end-user networking equipment. If our customers were to delay, cancel or otherwise change future ordering patterns, we could be left with unwanted inventory.

WE ANTICIPATE LOWER MARGINS ON MATURE AND HIGH VOLUME PRODUCTS

Our gross and operating margins may change in the future as a result of any of the following:

- changes in average selling prices;
- changes in production and wafer and other supply costs; and
- changes in our product mix.

We expect the average selling prices of our products to decline as they mature.

Historically, competition in the semiconductor industry has driven down the average selling prices ("ASPs") of products. If we price our products too high, our customers may use a competitor's product or an in-house solution. Thus, our ASPs will generally fall with the industry norms. To maintain profit margins, we must reduce our costs sufficiently to offset declines in ASPs, or successfully sell proportionately more new products with higher ASPs. Yield or other production problems, or shortages of supply may preclude us from lowering or maintaining current operating costs. Also, competitive, market and other pressures may not allow us to increase our sales of our higher ASP products.

In addition, we are entering into an ethernet market of the networking industry characterized by average volumes that are higher and gross margins that are lower than the market in which we currently participate. To maintain our current operating margins, we will have to sell higher volumes of these chips than in our traditional markets. If we sell these chips in low volumes, our operating margins may be adversely affected.

WE NEED TO SUCCESSFULLY DEVELOP AND INTRODUCE OUR NEW PRODUCTS

The success of our new products depends on a number of factors, including:

- o our definition of new products to meet customer requirements;
- o our completion of product development and introduction of new products to market in a timely manner;
- o our ability to judge product demand;
- o competitive pricing and performance levels; and
- o suitable fabrication yields by our independent foundries.

Many of these factors are outside our control. We may not be able to effectively accomplish those factors that are in our control.

Some of our products adhere to specifications developed by industry groups. For example, in the second half of 1998, we introduced two packet-over-Sonet devices based on specifications developed by an industry group. These specifications may not reach sufficient acceptance by the market to allow our products commercial success.

In September 1996, we entered into a new product area. We acquired in-process research and development and developed technology relating to ethernet switching. It is possible that ethernet products may not be sufficiently accepted by the market to achieve commercial success.

In May 1998, we acquired in-process research and development and developed technology related to ATM segmentation and reassembly as well at ATM switching. It is possible that these products may not achieve volumes sufficient to assure their commercial success.

WE OPERATE IN AN INDUSTRY SUBJECT TO RAPID TECHNOLOGICAL CHANGE

We sell products to a market whose characteristics include rapidly evolving industry standards, product obsolescence, and new manufacturing and design technologies. Our complex semiconductors require extensive design and testing before prototypes can be manufactured. They often need to be redesigned because manufacturing yields on prototypes are unacceptable or customers redefine their products to meet changing industry standards. Many of the standards and protocols for our products are based on high speed networking technologies that have not been widely adopted or ratified by one of the standard setting bodies in our customers' industry. Our customers often delay or alter their design demands during this standard-setting process. In response, we must redesign our products to suit these changing demands. Redesign usually delays the production of our products. Our products may become obsolete due to these rapidly evolving industry standards and customer preferences.

WE DEPEND ON THE ATM TELECOMMUNICATIONS AND NETWORKING MARKET

We focus a significant part of our business and research expenditures in the Asynchronous Transfer Mode ("ATM") telecommunications and networking market. As a result of our 1996 restructuring, revenues from non-networking products have declined significantly over the last several years, making our results depend primarily on ATM and related products. The percentage of net revenues to total company sales derived from sales of ATM, T1/E1, DS3/E3 and SONET/SDH based products amounted to 86% in 1998 compared to 67% in 1997.

The ATM market is in an early stage of deployment. If the industry adopts industry standards that compete with ATM, our ATM products could be made unmarketable or obsolete. The market for ATM equipment has not developed as rapidly as industry observers had originally predicted, while alternative networking technologies such as "packet-over-SONET" and "gigabit ethernet" have developed to meet networking requirements.

WE FACE FIERCE COMPETITION

The markets for our products are intensely competitive and subject to rapid technological change and price erosion. We may not be able to compete successfully against current or future competitors.

We believe that our ability to compete successfully in these markets depends on:

- o our product performance, quality and pricing;
- o our, our competitors' and our customers' timing and success of new product introductions;
- o our ability to innovate;
- o our ability to deliver working products on schedule;
- market acceptance of standards for which we have produced products;
- o our ability to obtain adequate manufacturing capacity;
- o our subcontractors' production efficiency;
- o the rate at which our customers incorporate our products into their designs;
- o our and our competitors' assertion of intellectual property rights.

We typically face competition at the design stage, where customers evaluate

alternative design approaches that require integrated circuits. Our competitors have increasingly frequent opportunities to supplant our products in next generation systems because of shortened product life and design-in cycles in many of our customers' products.

Our competitors are major domestic and international semiconductor companies, many of which have substantially greater financial and other resources than us. Emerging companies also provide significant competition in our segment of the semiconductor market. Our competitors include Advanced Micro Circuits Corporation, Broadcom, Conexant Systems, Cypress Semiconductor, Dallas Semiconductor, Galileo Technology, Integrated Device Technology, Level One Communications, Lucent Technologies, Motorola, MMC Networks, Siemens, Texas Instruments, Transwitch and Vitesse Semiconductor. Over the next few years, we expect additional competitors, some of which also may have greater financial and other resources, to enter the market with new products.

WE MUST HAVE ACCESS TO WAFER FABRICATION AND OTHER MANUFACTURING CAPACITY TO SUCCEED

We do not own or operate a wafer fabrication facility. Two outside foundries supply all our semiconductor device requirements. Our foundry suppliers also produce products for themselves and other companies. We may not have access to adequate capacity or certain process technologies. We have less control over delivery schedules, manufacturing yields and costs than competitors with their own fabrication facilities. If the foundries we use are unable or unwilling to manufacture our products in required volumes, we may have to identify and qualify acceptable additional or alternative foundries. This qualification process could take six months or longer. We might not find enough capacity quickly enough, if ever, to satisfy our production requirements.

Sub-assemblers in Asia assemble all of our semiconductor products. Raw material shortages, political and social instability, assembly house service disruptions, currency fluctuations, or other circumstances in the region could force us to seek additional or alternative sources of supply or assembly. This could lead to supply constraints or product delivery delays which, in turn, may result in the loss of customers. We have less control over delivery schedules, assembly processes, quality assurances and costs than competitors that do not outsource these tasks.

OUR CUSTOMER BASE IS CONCENTRATED

We depend on a limited number of customers for a major portion of our revenues. Through direct, distributor and subcontractor purchases, Lucent Technologies (including Ascend Communications) and Cisco Systems each accounted for more than 10% of our fiscal 1998 revenues. We do not have long-term volume purchase commitments from any of our major customers. Our customers often shift buying patterns as they manage inventory levels, decide to use competing products, or change their orders for other reasons. If one or more customers were to delay, reduce or cancel orders, our overall order levels may fluctuate greatly.

OUR GLOBAL BUSINESS APPROACH SUBJECTS US TO ADDITIONAL RISKS

We are subject to a number of risks of conducting business outside of the United States.

Historically, international sales accounted for the following percentages of our net revenues: 32% in 1998, 30% in 1997 and 46% in 1996. We expect international sales will continue to represent a significant portion of our, and our customers' net revenues for the foreseeable future.

We are subject to these risks to a greater extent than most companies because, in addition to selling our products in a number of countries, a significant portion of our research and development and manufacturing are conducted outside of the United States. The majority of our development, test, marketing and administrative functions occur in Canada and substantially all of our products are manufactured and assembled by independent third parties in Asia.

Our international sales, $% \left(1\right) =\left(1\right) +\left(1\right) +\left$

- o changes to, or impositions of, legislative or regulatory requirements and policy changes affecting the networking market;
- delays resulting from difficulty in obtaining export licenses for certain technology, tariffs, quotas, exchange rates and other trade barriers and restrictions;
- o foreign currency rate fluctuations because our development, test, marketing and administrative costs are denominated in Canadian dollars, and our selling costs are denominated in a variety of currencies;
- o greater difficulty in accounts receivable collection;
- o longer payment cycles;
- o taxes;
- o political, social and economic instability;
- o hostilities and changes in diplomatic and trade relationships; and
- o the burdens of complying with a variety of foreign laws and communications standards.

WE DEPEND ON KEY PERSONNEL

We must retain and hire key technical personnel to be successful. This is particularly true with respect to those employees who are highly skilled at the design and test functions used to develop high speed networking products and related software. The competition for such employees is intense and we do not have employment agreements in place with these key personnel. We issue common stock options that are subject to vesting as employee incentives. These options, however, are effective as retention incentives only if they have economic value.

OUR PRODUCTS EMPLOY PROPRIETARY TECHNOLOGY THAT WE MAY NOT BE ABLE TO PROTECT

To compete effectively, we must protect our proprietary information. We rely on a combination of patents, trademarks, copyrights, trade secret laws, confidentiality procedures and licensing arrangements to protect our intellectual property rights. We hold several patents and have a number of pending patent applications.

We might not succeed in attaining patents from any of our pending applications. Even if we are awarded patents, they may not provide any meaningful protection or commercial advantage to us, as they may not be of sufficient scope or strength, or may not be issued in all countries where our products can be sold. In addition, our competitors may be able to design around our patents.

We develop, manufacture and sell our products in Asian and other countries that may not protect our products or intellectual property rights to the same extent as the laws of the United States. This makes piracy of our technology and products more likely. Steps we take to protect our proprietary information may not be adequate to prevent theft of our technology. We may not be able to prevent our competitors from independently developing technologies that are similar to or better than ours.

OUR PRODUCTS EMPLOY PROPRIETARY TECHNOLOGY THAT MAY INFRINGE ON THE INTELLECTUAL PROPERTY RIGHTS OF THIRD PARTIES

Vigorous protection and pursuit of intellectual property rights or positions characterize the semiconductor industry. This often results in expensive and lengthy litigation. We, as well as our customers or suppliers, may be accused of infringing on patents or other intellectual property rights owned by third parties. This has happened in the past. An adverse result in any litigation could force us to pay substantial damages, stop manufacturing, using and selling the infringing products, spend significant resources to develop non-infringing technology, discontinue using certain processes or obtain licenses to the infringing technology. In addition, we may not be able to develop non-infringing technology, nor might we be able to find appropriate licenses on reasonable terms.

Patent disputes in the semiconductor industry are often settled through cross-licensing arrangements. Because we currently do not have a substantial portfolio of patents, we may not be able to settle an alleged patent infringement claim through a cross-licensing arrangement. We are therefore more exposed to third party claims than some of our competitors and customers. In the past, our customers have been required to obtain licenses from and pay royalties to third parties for the sale of systems incorporating our semiconductor devices. Until December of 1997, we indemnified our customers up to the dollar amount of their purchases of our products found to be infringing on technology owned by third parties. Customers may also make claims against us with respect to infringement.

Furthermore, we may initiate claims or litigation against third parties for infringing our proprietary rights or to establish the validity of our proprietary rights. This could consume significant resources and divert the efforts of our technical and management personnel, regardless of the litigation's outcome.

WE MAY BE INVOLVED IN ACQUISITIONS

We may acquire products, technologies or businesses from third parties. Management may be diverted from our operations while they identify and negotiate these acquisitions and integrate an acquired entity into our operations. Also, we may be forced to develop expertise outside our existing businesses, and replace key personnel who leave due to an acquisition. An acquisition could absorb substantial cash resources, require us to incur or assume debt obligations, or issue additional equity. If we issue more equity, we may dilute our common stock with securities that have a senior interest.

Acquired entities also may have unknown liabilities, and the combined entity may

not achieve the results that were anticipated at the time of the acquisition. An acquisition that is accounted for as a purchase could involve significant one-time write-offs, and could involve the amortization of goodwill over a number of years. This was the accounting method used to record our acquisition of a networking business in 1994, certain assets of Bipolar Integrated Technology in September 1996, and the acquisition of Integrated Technology in May 1998.

WE MAY NEED ADDITIONAL CAPITAL IN THE FUTURE

We must continue to make significant investments in research and development, capital equipment and facilities for our operations. Our future capital requirements will depend on many factors, including product development, working capital investments, and acquisitions of businesses, products or technologies.

We may need to raise additional funds through public or private debt or equity financing to fund our operations. If we raise funds by issuing equity securities, the percentage ownership of current stockholders will be reduced and the new equity securities may have priority rights to your investment. We may not obtain sufficient financing on terms we or you will find favorable. We may delay, limit or eliminate some or all of our proposed operations if adequate funds are not available.

OUR STOCK PRICE HAS BEEN AND MAY CONTINUE TO BE VOLATILE

In the past, our common stock price has fluctuated substantially. The reasons this may continue include the following:

- o our or our competitors' new product announcements;
- o quarterly fluctuations in the financial results of our company and other companies in the semiconductor, networking or computer industries;
- o conditions in the networking or semiconductor industry; and
- o investor sentiment toward technology stocks.

In addition, increases in our stock price and expansion of our price-to-earnings multiple may have made our stock attractive to momentum investors who often shift funds into and out of stocks rapidly, exacerbating price fluctuations in either direction.

YEAR 2000 COMPUTER SYSTEMS ISSUES

The approach of the year 2000 presents significant issues for many financial, information, and operational systems. Many systems in use today may not be able to interpret dates after December 31, 1999 appropriately, because such systems allow only two digits to indicate the year in a date. As a result, such systems are unable to distinguish January 1, 2000, from January 1, 1900, which could have adverse consequences on the operations of the entity.

Our State of Readiness

We have designated specific individuals to identify and resolve year 2000 issues associated with our internal information technology (IT) systems, our internal non-IT systems, and material third party relationships. We have completed the identification of and are implementing our plans to address our year 2000 issues.

We use commercially available standard software for our critical operating and design functions. Our primary software vendors have provided program updates that are intended to rectify the year 2000 issues related to their software. We upgraded all primary software by the second quarter of 1998. In addition, we are currently implementing an enterprise-wide software system for operational reasons. This system is scheduled to be fully implemented in 1999 and is year 2000 compliant.

We have secondary design and operating software that is not year 2000 compliant. We have identified and intend to install or develop patches or workaround solutions for this software during 1999.

We use other technology, such as semiconductor testers, which are not year 2000 compliant. These systems do not interface with our critical operating applications. We have identified these systems and expect to conclude modifying or replacing them in 1999.

The total cost of the software upgrade for our primary operating and financial applications, the cost to purchase and install our other non-critical software, and the cost for the modification and replacement of our other technology is not expected to be material.

Our Year 2000 Risk

Our greatest year 2000 exposure comes from our product manufacturing, packaging and delivery suppliers. Our worst case scenario would be if one or more critical suppliers fail to become year 2000 compliant and fail to develop acceptable workaround solutions. The majority of our product manufacturing, packaging and delivery is outsourced to two wafer fabrication companies, three assembly

companies and one shipping company, respectively. These suppliers are generally much larger than our company and we have little influence on their year 2000 preparedness schedules. While we have received written communication from our critical suppliers that they have developed an action plan to address their year 2000 issues, we cannot be certain that these plans will be implemented or be effective.

If our suppliers are unable to manufacture our products as a result of year 2000 issues, we may be forced to find and qualify other year 2000 compliant suppliers. This qualification process could take six months or longer. We may not find sufficient capacity quickly enough to satisfy our production requirements, as we would expect that the many other companies with manufacturing models similar to ours would be vying for production capacity.

We are also exposed to customers who may not be year 2000 compliant. If one or more of our customers' operations is interrupted due to year 2000 issue non-compliance, our revenues from these customers could be materially impacted.

Our Contingency Plans

While we do not have a formal contingency plan, we are monitoring our critical suppliers to ensure they complete their year 2000 plans as scheduled. We would implement a formal contingency plan should any of our critical suppliers indicate that there would be any delays resulting from their own year 2000 plans. Such a plan could entail contacting and qualifying other potentially year 2000 compliant suppliers and stocking additional inventory to cover short term operating needs. We can not ensure that this contingency plan would be effective or completed in a timely manner.

SPECIAL NOTE ON FORWARD LOOKING STATEMENTS

Some statements in this report constitute "forward looking statements" within the meaning of the federal securities laws. Our results, performance or achievements may be materially different from those expressed or implied by these statements. Our forward looking statements include projections relating to trends in markets, long and short term revenues and gross margins. They also include projections related to future expenditures on research and development, marketing, general and administrative expense, new accounting pronouncements and the year 2000 issue along with the impact of these issues. We may not, nor are we obliged to, release revisions to forward-looking statements to reflect subsequent events.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

The following discussion regarding our risk management activities contains "forward-looking statements" that involve risks and uncertainties. Actual results may differ materially from those projected in the forward-looking statements.

We are exposed to foreign currency fluctuations through our operations in Canada and elsewhere. In our effort to hedge this risk, we typically forecast our operational currency needs, purchase such currency on the open market at the beginning of an operational period, and classify these funds as a hedge against operations. We usually limit the operational period to less than 3 months to avoid undue exposure of our asset position to further foreign currency fluctuation. While we expect to utilize this method of hedging our foreign currency risk in the future, we may change our hedging methodology and utilize foreign exchange contracts which are currently available under our operating line of credit agreement.

Occasionally, we may not be able to correctly forecast our operational needs. If our forecasts are overstated or understated during periods of currency volatility, we could experience unanticipated currency gains or losses. At the end of our fiscal years 1998 and 1997, we did not have significant foreign currency denominated net asset or net liability positions, and we had no outstanding foreign exchange contracts.

We maintain investment portfolio holdings of various issuers, types, and maturity dates with various banks and investment banking institutions. We regularly hold investments beyond 120 days, and the market value of these investments on any day during the investment term may vary as a result of market interest rate fluctuations. We do not hedge this exposure because short-term fluctuations in interest rates would not likely have a material impact on interest earnings. We classify our investments as available-for-sale or held-to-maturity at the time of purchase and re-evaluate this designation as of each balance sheet date. At the end of 1998 and 1997, all outstanding short-term investments were classified as held-to-maturity and recorded at amortized cost. These investments were held until maturity in the first quarter of 1999 and 1998, respectively. In the future, we expect to continue holding our short-term investments to maturity.

ITEM 8. Financial Statements and Supplementary Data.

The chart entitled "Quarterly Data (Unaudited)" contained in Item 6 Part II hereof is hereby incorporated by reference into this Item 8 of Part II of this Form 10-K.

PMC-Sierra, Inc.

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS AND FINANCIAL STATEMENT SCHEDULES

Consolidated Financial Statements Included in Item 8:

| | rage |
|--|-------|
| Report of Deloitte & Touche LLP, Independent Auditors | - |
| Report of Ernst & Young LLP, Independent Auditors | - |
| Consolidated Balance Sheets at December 31, 1998 and 1997 | - |
| Consolidated Statements of Operations for each of the three | |
| years in the period ended December 31, 1998 | - |
| Consolidated Statements of Stockholders' Equity for each | |
| of the three years in the period ended December 31, 1998 | _ |
| Consolidated Statements of Cash Flows for each of the three | |
| years in the period ended December 31, 1998 | _ |
| | |
| Notes to Consolidated Financial Statements | - |
| | |
| | |
| Schedules for each of the three years in the period ended December 31, | 1998 |
| included in Item 14 (d): | |
| | |
| II Valuation and Qualifying Accounts | - |
| | |
| | |
| Schedules not listed above have been omitted because they are not applicab | le or |
| | |

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

Report of Deloitte & Touche LLP, Independent Auditors

The Board of Directors and Stockholders of PMC-Sierra, Inc.

We have audited the accompanying consolidated balance sheet of PMC-Sierra, Inc. as of December 31, 1998 and 1997 and the related consolidated statements of operations, stockholders' equity and cash flows for the years then ended. Our audit also included the financial statement schedule for the years ended December 31, 1998 and 1997 listed in the index at Item 14(a). These consolidated financial statements and schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and schedule based on our audits.

We conducted our audits in accordance with generally accepted auditing standards in the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit 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, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of the Company at December 31, 1998 and 1997, and the results of its operations and its cash flows for the years then ended, in conformity with generally accepted accounting principles in the United States. Also, in our opinion, the related financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly in all material respects the information set forth therein.

Report of Ernst & Young LLP, Independent Auditors

The Board of Directors and Shareholders PMC-Sierra, Inc.(formerly Sierra Semiconductor Corporation)

We have audited the accompanying consolidated statements of operations, shareholders' equity, and cash flows of PMC-Sierra, Inc. (formerly Sierra Semiconductor Corporation) for the year ended December 31, 1996. Our audit also included the financial statement schedule listed in the index at Item 14(a). These financial statements and schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and schedule based on our audits.

We conducted our audit in accordance with generally accepted auditing standards. 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 audit provides a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated results of operations and cash flows of PMC-Sierra, Inc. (formerly Sierra Semiconductor Corporation) for the year ended December 31, 1996, in conformity with generally accepted accounting principles. Also, in our opinion, the related financial statement schedule, when considered in relation to the basic financial statements taken as a whole, presents fairly in all material respects the information set forth therein.

/S/ ERNST & YOUNG LLP San Jose, California January 22, 1997

<TABLE>

PMC-Sierra, Inc.
CONSOLIDATED BALANCE SHEETS
(in thousands)

<CAPTION>

| | December 31, | | |
|--|-----------------|--------------------|--|
| <\$> | 1998 <c></c> | 1997 <c></c> | |
| ASSETS: | | | |
| Current assets: | | | |
| Cash and cash equivalents | | \$ 27 , 906 | |
| Short-term investments | 50,893 | 41,334 | |
| Accounts receivable, net of allowance for doubtful accounts of \$1,128 | | | |
| in 1998 and \$1,070 in 1997 | | 15,103 | |
| Short-term deposits for wafer fabrication capacity | 4,000 | 4,000 | |
| Inventories | 3,617 | 3,199 | |
| Prepaid expenses and other current assets | 3,840 | 1,958 | |
| | | | |
| Total current assets | 122,520 | 93,500 | |
| Property and equipment, net | 31,595 | 19,699 | |
| Goodwill and other intangible assets, net of accumulated | | | |
| amortization of \$6,455 (\$3,668 in 1997) | ., | 8,635 | |
| Investments and other assets | | 4,424 | |
| Deposits for wafer fabrication capacity | 19,120 | 23,120 | |
| | \$ 197,298 | \$ 149,378 | |
| | ======== | ======= | |
| LIABILITIES AND STOCKHOLDERS' EQUITY: | | | |
| Current liabilities: | | | |
| Accounts payable | \$ 8,964 | \$ 7,421 | |

| Accrued liabilities Deferred income Accrued income taxes Current portion of obligations under capital leases and long-term debt Net liabilities of discontinued operations | 13,897 | 11,653 2,098 8,780 4,652 301 |
|--|------------------------------|--|
| Total current liabilities | 54,905 | 34,905 |
| Deferred income taxes Noncurrent obligations under capital leases and long-term debt Commitments and contingencies (Note 5) Special shares of a subsidiary convertible into common stock 1,259 shares in 1998 (1,618 shares in 1997) | 2,851 5,223 - 8,387 | - |
| Stockholders' equity: Preferred stock, par value \$0.001; 5,000 shares authorized, none outstanding Common stock, par value \$0.001; 100,000 shares authorized (50,000 shares in 1997); 31,415 issued and outstanding in 1998 (29,750 in 1997) Additional paid in capital Accumulated deficit | • | 30 143,153 (52,618) |
| Total stockholders' equity | 125,932 | 90,565 |
| | | \$ 149,378 |

See notes to consolidated financial statements. $\ensuremath{\text{</TABLE>}}$

<TABLE>

PMC-Sierra, Inc.
CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands, except for per share amounts)

<CAPTION>

| | Year Ended December 31, | | | |
|--|-------------------------|---|-------------|--|
| | 1998 | 1997 | 1996 | |
| <s></s> | | <c></c> | | |
| Net revenues | \$ 161,812 | \$ 127,166 | \$ 188,371 | |
| Cost of revenues | 38,220 | 33,065 | 94,948 | |
| Gross profit | 123,592 | 94,101 | 93,423 | |
| Other costs and expenses: | | | | |
| Research and development | | 22,880 | | |
| Marketing, general and administrative | | 23,663 | | |
| Acquisition of in process research and development | 39 , 176 | - | 7,783 | |
| Impairment of intangible assets | 4,311 | | | |
| Restructure and other costs | - | (1,383) | 64,670 | |
| Income (loss) from operations | 17,070 | 48,941 | | |
| Interest income, net | 2,923 | 1,044 | 679 | |
| Income (loss) before provision for income taxes | | 49,985 | | |
| Provision for income taxes | 22,871 | 15,727 | 9,758 | |
| Net income (loss) | \$ (2,878) | \$ 34,258 | \$ (48,150) | |
| | | ======================================= | | |
| Basic net income (loss) per share: | | \$ 1.10 | | |
| Diluted net income (loss) per share: | | \$ 1.05 | | |
| | ======== | ======= | ======== | |
| Number of shares used to calculate: | 00.0 | 04 04- | 00 865 | |
| Basic net income (loss) per share: | | 31,043 | | |
| Diluted net income (loss) per share: | 32,002 | 32,642 | 29,719 | |
| | | | | |

See notes to consolidated financial statements. $\ensuremath{\text{</TABLE>}}$

PMC-Sierra, Inc. CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY (in thousands)

<CAPTION>

| | Common Stock | | Additional - Paid in | Accumulated | Stockholders' | Total Stockholders' |
|--|--------------|------------|-------------------------|-------------|---------------|------------------------|
| | Shares | Amount | Capital | Deficit | Receivable | Equity |
| <\$> | <c></c> | <c></c> | <c></c> | <c></c> | <c></c> | <c></c> |
| Balances at December 31, 1995 | 26,603 | \$ 119,758 | \$ - | \$ (38,726) | \$ (32) | \$ 81,000 |
| Issuance of common stock | | | | | | |
| under stock benefit plans | 604 | 3,072 | = | = | _ | 3,072 |
| Issuance of common stock to | | | | | | |
| capitalize PMC-Portland and | | | | | | |
| acquire assets of Bit, Inc. | 804 | 6,788 | _ | - | _ | 6,788 |
| Adjustment to prior year common stock issuance costs | | 2.0 | | | | 20 |
| Conversion of special shares | - | 38 | _ | _ | _ | 38 |
| into common stock | 636 | 3,036 | | | | 3,036 |
| Tax benefit of stock option | 030 | 3,030 | | | | 3,030 |
| transactions | _ | 2,628 | _ | _ | _ | 2,628 |
| Payment of stockholders' notes | | 2,020 | | | | 2,020 |
| receivable | _ | _ | _ | _ | 32 | 32 |
| Net loss | _ | _ | _ | (48,150) | _ | (48, 150) |
| | | | | | | |
| Balances at December 31, 1996 | 28,647 | 135,320 | _ | (86,876) | _ | 48,444 |
| Conversion of special shares | | | | | | |
| into common stock | 784 | 1,701 | = | = | _ | 1,701 |
| Issuance of common stock | | | | | | |
| under stock benefit plans | 319 | 6,162 | _ | _ | - | 6,162 |
| Reclassification on reincorporation | - | (143,153) | 143,153 | _ | _ | - |
| Net income | - | - | _ | 34,258 | - | 34,258 |
| Balances at December 31, 1997 | 29,750 | 30 | 143,153 | (52,618) | _ | 90,565 |
| Conversion of special shares | | | | | | |
| into common stock | 359 | _ | 2,406 | - | - | 2,406 |
| Issuance of common stock | | | | | | |
| under stock benefit plans | 891 | 1 | 7,617 | - | - | 7,618 |
| Issuance of common stock and | | | | | | |
| stock options to acquire Integrated | | | | | | |
| Telecom Technology, Inc. | 415 | = | 28,221 | - 40 050 | - | 28,221 |
| Net loss | _ | _ | _ | (2,878) | _ | (2,878) |
| Balances at December 31, 1998 | 31,415 | \$ 31 | \$ 181,397 | \$ (55,496) | \$ - | \$ 125,932 |

See notes to consolidated financial statements.

</TABLE>

<TABLE>

PMC-Sierra, Inc.
CONSOLIDATED STATEMENTS OF CASH FLOWS
Increase (Decrease) in cash and cash equivalents
(in thousands)

<CAPTION>

| Controlly | Year Ended December 31, | | | | | |
|--|--|---------|---|--------|------------------------------|-----------|
| | | 1998 | | 1997 | | 1996 |
| <\$> | <c< th=""><th>></th><th><c< th=""><th>></th><th><c< th=""><th>></th></c<></th></c<></th></c<> | > | <c< th=""><th>></th><th><c< th=""><th>></th></c<></th></c<> | > | <c< th=""><th>></th></c<> | > |
| Cash flows from operating activities: | | | | | | |
| Net income (loss) | \$ | (2,878) | \$ | 34,258 | \$ | (48, 150) |
| Adjustments to reconcile net income (loss) to net cash | | | | | | |
| provided by operating activities: | | | | | | |
| Depreciation and amortization | | 14,179 | | 9,150 | | 10,922 |
| Acquisition of in process research and development | | 39,176 | | - | | 7,783 |
| Impairment of intangible assets | | 4,311 | | - | | - |
| Loss on disposal of equipment | | - | | 258 | | - |
| Loss (recovery) related to restructure provision (note 9): | | | | | | |
| Accounts receivable | | - | | - | | 5,047 |
| Inventories | | - | | 1,371 | | 23,000 |
| Prepaid expenses | | _ | | - | | 1,061 |
| Impairment of long-lived assets | | _ | | (942) | | 16,425 |
| Impairment of goodwill of Holland operations | | _ | | - | | 2,459 |
| | | | | | | |

| Accruals for restructure related costs: | | | |
|---|-----------------|--------------------|------------------|
| Severance and related costs | _ | 376 | |
| Purchase commitments and other accruals | _ | (2,340) | 9,002 |
| Excess facilities costs | _ | (496) | 3,411 |
| Costs for closure of European subsidiaries | _ | 648 | 1,980 |
| Changes in operating assets and liabilities | | | |
| Accounts receivable | (9,861) | (1,196) | 20,023 |
| Inventories | 137 | 4,662 | (17,389) |
| Prepaid expenses and other | (1,245) | 4,662 1,146 | (711) |
| Accounts payable and accrued liabilities | 236 | 1,552 4,730 | (11,422) |
| Accrued income taxes | 5,117 | 4,730 | (3,687) |
| Deferred income | 10,419 | 2,098 | - |
| Accrued restructuring costs | , | 2,098 (14,942) | (4.624) |
| Net liabilities associated with discontinued operations | (301) | (1,299) | (2,496) |
| | | | |
| Net cash provided by operating activities | 59 , 290 | 39,034 | |
| | | | |
| Cash flows from investing activities: | | | |
| Proceeds from sales and maturities of short-term investments | 43,442 | 24,877 (59,187) | 15,984 |
| Purchases of short-term investments | (53,001) | (59 , 187) | (19,004) |
| Proceeds from refund of wafer fabrication deposits | 4,000 | - | - |
| Investments in other companies | - | (- , , | (3,162) |
| Purchase of Integrated Telecom Technology, Inc., net of cash acquired | (27,165) | _ | _ |
| Purchase of other in process research and development | (1,419) | - - | _ |
| Purchase of Bit, Inc. assets, net of cash acquired | - | _ | 71 |
| Proceeds from sale of equipment and capacity assets | = | 7,631 | _ |
| Purchases of plant and equipment | (21,545) | (8,221) | (4,000) |
| Net cash used in investing activities | (55,688) | (37,900) | (10,111) |
| | | | |
| Cash flows from financing activities: | | | |
| Proceeds from payment of notes receivable | - | - - | 32 |
| Proceeds from issuance of long-term debt | _ | - | 353 |
| Repayment of notes payable and long-term debt | (153) | (2,640) | (17,588) |
| Proceeds from sale/leaseback of capital equipment | _ | 1,107 | _ |
| Principal payments under capital lease obligations | (5,030) | (12,895) | (2,310) |
| Proceeds from issuance of common stock | 7,618 | 6,162 | 3,110 |
| Net cash provided by (used in) financing activities | | (8,266) | |
| | | | |
| Net increase (decrease) in cash and cash equivalents | 6,037 | (7,132) | (6 , 895) |
| Cash and cash equivalents, beginning of the year | 27 , 906 | 35 , 038 | 41,933 |
| Cash and cash equivalents, end of the year | \$ 33,943 | \$ 27,906 | \$ 35,038 |
| | | | |

See notes to consolidated financial statements. $\ensuremath{\text{</Table>}}$

<TABLE>

PMC-Sierra, Inc.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

<CAPTION>

| | Year Ended December 31, | | | |
|---|-------------------------|----------|----------|--|
| | 1998 | 1997 | 1996 | |
| <\$> | <c></c> | <c></c> | <c></c> | |
| Supplemental disclosures of cash flow information: | | | | |
| Cash paid for interest | \$ 958 | \$ 1,954 | \$ 1,278 | |
| Cash paid for income taxes | 12,972 | 7,227 | 11,820 | |
| Supplemental disclosures of non-cash investing and financing activities: | | | | |
| Issuance of common stock and stock options | | | | |
| to acquire Integrated Telecom Technology, Inc. | 28,221 | _ | _ | |
| Issuance of common stock and stock options | | | | |
| to acquire assets of Bit, Inc. | _ | _ | 6,788 | |
| Capital lease obligations incurred for purchase of property and equipment | _ | 3,536 | 16,145 | |
| Conversion of PMC special shares into common stock | 2,406 | 1,701 | 3,036 | |
| Cancellation of short-term debt obligations incurred for | | | | |
| wafer fabrication capacity | - | _ | (15,120) | |

See notes to consolidated financial statements. $\ensuremath{\texttt{</TABLE>}}$

PMC-Sierra, Inc. NOTES TO CONSOLIDATED FINANCIAL STATEMENTS Years Ended December 31, 1998, 1997, and 1996

NOTE 1. Summary of Significant Accounting Policies

Basis of presentation. The accompanying consolidated financial statements include the accounts of PMC-Sierra, Inc. and its wholly owned subsidiaries ("the Company" or "PMC"). All significant inter-company accounts and transactions have been eliminated from the consolidated financial statements. The Company's fiscal year ends on the last Sunday of the calendar year. For ease of presentation, December 31 has been utilized as the fiscal year end for all financial statement captions. Fiscal years 1998, 1997 and 1996 each consisted of 52 weeks. The Company's reporting currency is the United States dollar.

Estimates. The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect reported amounts of assets, liabilities, revenues and expense, and disclosure of contingent assets and liabilities as of the dates and for the periods presented. Estimates are used for, but not limited to, the accounting for doubtful accounts, depreciation and amortization, sales returns, warranty costs, taxes and contingencies. Actual results may differ from those estimates.

Cash, cash equivalents and short-term investments. Cash equivalents are defined as highly liquid debt instruments with original maturities at the date of acquisition of 90 days or less that have insignificant interest rate risk. Short-term investments are defined as money market instruments with original maturities greater than 90 days, but less than one year. The Company maintains its cash, cash equivalents and short-term investments in various financial instruments with various banks and investment banking institutions. The diversification of risk is consistent with Company policy to preserve the principal and maintain liquidity.

Under Financial Accounting Standards No. 115 "Accounting for Certain Investments in Debt and Equity Securities" (SFAS 115), management classifies investments as available-for-sale or held-to-maturity at the time of purchase and re-evaluates such designation as of each balance sheet date. Investments classified as held-to-maturity securities are stated at amortized cost with corresponding premiums or discounts amortized against interest income over the life of the investment.

Marketable equity and debt securities not classified as held-to-maturity are classified as available-for-sale and reported at fair value. Unrealized gains and losses on these investments are included in equity as a separate component of stockholders' equity. The cost of securities sold is based on the specific identification method.

As at December 31, 1998 and 1997, the Company's short-term investment portfolio consisted solely of held-to-maturity investments and their carrying value was substantially the same as their market value. Proceeds from sales and realized gains or losses on sales of available-for-sale securities for all years presented were immaterial.

Inventories. Inventories are stated at the lower of cost (first-in, first out) or market (estimated net realizable value).

The components of inventories are as follows (in thousands)

| | Decemb | December 31, | | |
|------------------------------------|-------------------|-----------------|--|--|
| | 1998 | 1997 | | |
| Work-in-progress Finished goods | \$ 1,761 1,856 | \$ 2,316 883 | | |
| | \$ 3,617 | \$ 3,199 | | |

Property and equipment, net. Depreciation and amortization of property and equipment are provided using the straight-line method over the estimated useful lives of the assets, ranging from two to five years, or the applicable lease term, whichever is shorter. The carrying value of property and equipment is reviewed periodically for any permanent impairment in value.

The components of property and equipment are as follows (in thousands):

| | December | 31, |
|------|----------|------|
| | | |
| 1998 | | 1997 |

| Machinery and equipment | \$ 53,030 | \$ 31,353 |
|--------------------------|-----------|-----------|
| Leasehold improvements | 2,666 | 2,006 |
| Furniture and fixtures | 2,555 | 1,666 |
| Total cost | 58,251 | 35,025 |
| Accumulated depreciation | (26,656) | (15,326) |
| | \$ 31,595 | \$ 19,699 |

Goodwill and other intangible assets. Goodwill associated with acquisitions is being amortized on a straight-line basis. Developed and core technology and other intangible assets are being amortized on a straight-line basis over the economic lives of the respective assets, generally three to seven years. Among other considerations, to assess impairment, the Company periodically estimates undiscounted future cash flows to determine if they exceed the unamortized balance of the related intangible asset.

The components of goodwill and other intangible assets, net are as follows (in thousands):

| | | December 31, | | |
|--|----|---------------------------|----|-------------------|
| | | 1998 | | 1997 |
| PMC-Sierra, Ltd. Bipolar Integrated Technology, In Integrated Telecom Technology, In | | \$ 6,665 216 12,748 | \$ | 8,372 263 - |
| | =: | \$ 19,629 | \$ | 8,635 ====== |

Deposits for wafer fabrication capacity. The Company has wafer supply agreements with two independent foundries that together supply substantially all of the Company's products and include deposits made to secure access to wafer fabrication capacity. At December 31, 1998, the Company had \$23.1 million in deposits with those foundries. Although there are no minimum unit volume requirements under the agreements, the Company is obligated under one of the agreements to purchase in future periods a minimum percentage of its total annual wafer requirements, provided that the foundry is able to continue to offer competitive technology, pricing, quality and delivery. The Company purchased \$18.3 million from its foundry suppliers during 1998 compared to \$13.2 million under agreements in existence in 1997. Those amounts may or may not be indicative of any future period since wafers are purchased based on current market pricing and the Company's volume requirements change in relation to sales of its products.

In each year, the Company is entitled to receive a portion of the deposits provided to the foundries based on the annual purchases from those foundries as compared to the target levels in the agreements. Based on 1998 purchases, the Company is entitled to receive a \$4.0 million refund from one of the foundries in the first quarter of 1999. If the Company does not receive the balance of its deposits back during the course of the agreements, then the deposits will be returned to the Company at the termination of the agreements.

Accrued liabilities. The components of accrued liabilities are as follows (in thousands):

| | | December 31, | | |
|---|------|-----------------------|------|-----------------------|
| | | 1998 | | 1997 |
| Accrued compensation and benefits Accrued royalties Other accrued liabilities | \$ | 5,482 175 8,961 | \$ | 4,590 521 6,542 |
| | \$ | 14,618 | \$ | 11,653 |
| | ==== | | ==== | |

Foreign currency translation. For all foreign operations, the U.S. dollar is the functional currency. Foreign currency assets and liabilities are remeasured into U.S. dollars using the year-end exchange rates. Statements of operations are remeasured using the average exchange rates during the year. Gains and losses from foreign currency remeasurement are included in interest income, net.

Concentration of credit risk. The Company believes that the concentration of credit risk in its trade receivables with respect to the high-technology industry is substantially mitigated by the Company's credit evaluation process, large number of customers, relatively short collection terms, and the geographical dispersion of sales. The Company generally does not require collateral security for outstanding amounts.

Revenue recognition. Net revenues are stated net of provision for sales returns. Revenues from product sales direct to customers and minor distributors are

recognized at the time of shipment. A provision is made for estimated product returns. At December 31, 1998 and 1997, this provision was approximately \$943,000 and \$725,000, respectively. Certain of the Company's product sales are made to major distributors under agreements allowing price protection and/or right of return on products unsold. Accordingly, the Company defers recognition of revenue on such sales until the products are sold by the distributors.

Interest income, net. The components of interest income, net are as follows (in thousands):

| | | Year | Ended | December | 31, | |
|-------------------------------|-----|----------------------------|-------|---------------------------|------|-------------------------|
| | | 1998 | | 1997 | | 1996 |
| Interest Interest Other | (*) | \$ 3,846 (958) 35 | \$ | 3,146 (1,949) (153) | \$ | 1,840 (1,278) 117 |
| | | 2,923 | | 1,044 | \$ | 679 |
| | | ====== | | ====== | ==== | |

^{*} consists primarily of interest on long-term debt and capital leases.

Net income (loss) per common share. The Company has adopted Statement of Financial Accounting Standards No.128, "Earnings per Share" (SFAS 128) in 1998. This statement requires the presentation of both basic and diluted net income per share. Basic net income per share is computed using the weighted average number of shares outstanding during the period. The PMC-Sierra Ltd. Special Shares have been included in the calculation of basic net income per share. Diluted net income per share is computed using the weighted average number of common and dilutive common equivalent shares outstanding during the period. Dilutive common equivalent shares consist of stock options and warrants. The Company has restated all prior period per-share data presented as required by SFAS No. 128.

Income Taxes. Income taxes are reported under Statement of Financial Accounting Standards No. 109 and, accordingly, deferred income taxes are recognized using the asset and liability method, whereby deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax basis, and operating loss and tax credit carryforwards.

Stock Compensation. Statement of Financial Accounting Standards No. 123 "Accounting for Stock-Based Compensation," (SFAS 123) permits, but does not require, companies to recognize compensation expense for stock-based employee compensation plans at fair value. The Company has chosen to continue to account for stock-based compensation using the intrinsic value method prescribed in Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees," and related interpretations. Accordingly, compensation expense for stock options granted to employees is measured as the excess, if any, of the quoted market price of the Company's stock at the date of the grant or modification over the amount an employee must pay to acquire the stock.

As prescribed by SFAS 123, Note 6 to the Consolidated Financial Statements contains a summary of the proforma effects to reported net income and net income per share for 1998, 1997 and 1996, had the Company elected to recognize compensation expense based on the fair value of the options granted at the grant date. The effects of applying SFAS 123 proforma disclosures may not be representative of the effects on reported net income for future years.

Segment reporting. In June 1997, the Financial Accounting Standards Board (the FASB) issued Statement of Financial Accounting Standards No. 131, Disclosures about Segments of an Enterprise and Related Information (SFAS 131). SFAS 131 uses a management approach to report financial and descriptive information about a Company's operating segments. Operating segments are revenue-producing components of the enterprise for which separate financial information is produced internally for the Company's management. Under this definition, the Company operated, for all periods presented, in two segments: networking and non-networking products.

Comprehensive income. In June 1997, the FASB issued Statement of Financial Accounting Standards No. 130, Reporting Comprehensive Income (SFAS 130). SFAS 130 requires that total comprehensive income and comprehensive income per share be disclosed with equal prominence as net income and net income per share. Comprehensive income is defined as changes in stockholders' equity exclusive of transactions with owners such as capital contributions and dividends. The Company adopted this Statement in 1998. The Company has no comprehensive income items, other than the net income in any of the years presented.

Recently issued accounting standards. In June 1998, the FASB issued Statement of Accounting Standards No. 133, Accounting for Derivative Instruments and Hedging Activities. The Company expects to adopt the new Statement effective January 1, 2000. The Statement will require the recognition of all derivatives on the Company's consolidated balance sheet at fair value. The Company anticipates that

the adoption of this Statement will not have a significant effect on its results of operations or financial position.

Reclassifications. Certain prior year amounts have been reclassified in order to conform with the 1998 presentation.

NOTE 2. Acquisitions, Divestitures and Investments in Other Companies and Technology

Acquisition of Integrated Telecom Technology, Inc.

On May 20, 1998, the Company acquired Integrated Telecom Technology, Inc. ("IGT") in exchange for total consideration of \$55.0 million consisting of cash paid to IGT stockholders of \$17.8 million, cash paid to IGT creditors of \$9.0 million and the balance of \$28.2 million by the issuance of approximately 415,000 shares of common stock and options to purchase approximately 214,000 shares of common stock (based on the market value of PMC common stock on the issuance date). The purchase price includes professional fees and other direct costs of the acquisition totaling \$850,000. IGT was a fabless semiconductor company headquartered in Gaithersburg, MD with a development site in San Jose, CA. IGT made Asynchronous Transfer Mode (ATM) switching chipsets for wide area network applications as well as ATM Segmentation—and—Reassembly and other telecommunication chips. Upon consumation of the transaction, IGT was merged with a wholly—owned subsidiary of the Company.

The acquisition was accounted for using the purchase method of accounting and the final allocation among tangible and intangible assets and liabilities is as follows:

| Tangible assets | \$ 4,598 |
|--|-------------------------|
| Intangible assets: Developed and core technology Assembled workforce Goodwill | 7,830 1,050 9,284 |
| In process research and development ("IPR&D") | 37 , 757 |
| Liabilities | (4,669 |
| | \$ 55,850 ===== |

The amount allocated to IPR&D of \$37.8 million was expensed upon acquisition, as it was determined that the underlying projects had not reached technological feasibility, had no alternative future use and successful development was uncertain.

During the third quarter of 1998, the Company determined that a portion of the intangible assets recognized in connection with the IGT acquisition was impaired. The developed and core technology related to one of the three projects in process at the time of acquisition was subsequently determined not to be technologically feasible and had no alternative future use. As a result, the Company recognized an impairment of \$4.3 million in intangible assets and related goodwill.

The operating results of IGT have been included in the consolidated financial statements since the date of acquisition. The following table presents the unaudited pro forma results of operations for informational purposes assuming that the Company had acquired IGT at the beginning of the 1997 fiscal year. This information may not necessarily be indicative of the future combined results of operations of the Company and IGT.

| | Yea | ar Ended De | cembe | er 31, |
|---|-------|------------------|-------|---------|
| (in thousands, except for per share amounts | – una | 1998 audited) | | 1997 |
| Net revenues | \$ | 166,121 | \$ 1 | .39,769 |
| Net income (loss) (see below) | \$ | (6,766) | \$ | 28,918 |
| Basic net income (loss) per share: | \$ | (0.21) | \$ | 0.92 |
| Diluted net income (loss) per share: | \$ | (0.21) | \$ | 0.87 |

The pro forma results of operations give effect to certain adjustments, including the elimination of interest expense and amortization of purchased intangibles and goodwill. Included in the pro forma net loss for the year ended

December 31, 1998 is a \$37.8 million charge for purchased IPR@D and \$4.3 million for impairment of intangible assets.

Other Technology

On May 1, 1998 a subsidiary of the Company acquired certain technology for cash consideration of \$1.4 million. This technology has not reached technological feasibility and has no alternative future use. Accordingly, this amount is included in the in process research and development expensed in the year ended December 31, 1998.

Bipolar Integrated Technology, Inc.

During the third quarter of 1996, the Company acquired the ethernet switching assets, intellectual property, and certain other assets of Bipolar Integrated Technology, Inc. ("Bit") in exchange for shares of common stock of the Company and other consideration. The aggregate value of this transaction was approximately \$8.1 million, which includes acquisition costs incurred by the Company. The assets of Bit were acquired in exchange for 804,407 shares of PMC common stock with a value of approximately \$6.8 million (based on the market value on the issuance date of PMC common stock issued subject to restrictions on transfer), approximately \$0.5 million of net liabilities assumed by the Company's subsidiary, the value of options to purchase common stock of the Company, forgiveness of principal and interest on loans provided by the Company, and cash. The acquisition resulted in a \$7.8 million charge for the purchase of IPR&D. The remaining \$0.3 million of technology assets have been capitalized as long term assets which will be amortized over seven years. Results of operations include the costs of continuing the development of products and related activities acquired from Bit after the closure of the acquisition on September 3, 1996. The proforma effect of combining the Bit transaction with the Company's operations in 1995 and prior to the acquisition in 1996 are not reported separately because they are not considered to be material.

I.C. Works, Inc.

In order to secure additional access to wafer fabrication capacity, in 1996 the Company acquired \$3 million of preferred stock of I.C. Works Inc. ("ICW"), a foundry located in San Jose, California. Under the arrangement with ICW, the Company also provided semiconductor manufacturing equipment to ICW, which it financed through capital leases. In 1996, as a result of the restructuring of non-networking operations, the Company identified that it would not be able to benefit from the arrangement with ICW and included a \$6.9 million provision for impairment of these assets in its restructuring charge.

In 1997, the Company advanced an additional \$3 million to ICW and subsequently, ICW sold substantially all of its assets, including the manufacturing assets contributed by the Company. On settlement of its arrangement with ICW, the Company received proceeds of \$4.8 million, resulting in the requirement for an additional provision for impairment of \$3.5 million. This additional provision was included in the overall recovery from disposal of excess fixed assets and assets related to capacity commitments of \$942,000 (see Note 9) recorded on completion of the restructuring.

Sierra Wireless, Inc.

On July 7, 1993, the Company and MPR Teltech Ltd. ("MPR") of British Columbia, Canada announced an investment in a new company called Sierra Wireless Inc. (Sierra Wireless). MPR contributed technology licenses in exchange for Sierra Wireless's non-voting preferred stock. In 1993, the Company invested approximately \$2.5 million of cash in exchange for shares of Sierra Wireless's non-voting preferred stock. This initial investment was expensed in 1993 as Sierra Wireless was still in its development stage. In 1996, 1995 and 1994, the Company invested an additional approximately \$0.2, \$1.4 and \$2.5 million, respectively, in Sierra Wireless. These investments were capitalized and are being accounted for as an investment in equity shares recorded on the cost basis, since Sierra Wireless is now an operating company.

PMC-Sierra, Ltd.

On September 2, 1994, the Company acquired voting control of PMC-Sierra, Ltd. (formerly PMC-Sierra, Inc.) ("LTD") of Burnaby, British Columbia, Canada. LTD supplies broadband transmission and networking chip set products for ATM, SONET/SDH and T1/E1 applications. LTD was established in July 1992 by the Company, which invested approximately \$4.9 million of cash in exchange for LTD's non-voting preferred stock representing approximately 61% of LTD's securities on

a fully diluted basis; MPR Teltech Ltd., a Canadian corporation, which contributed assets and technology licenses in exchange for non-voting preferred stock; a venture capital investor, which purchased non-voting preferred stock for cash; and LTD's employees, who purchased voting common stock.

The Company acquired voting control of LTD through a recapitalization of LTD. In the recapitalization, the Company exchanged its LTD non-voting preferred stock for LTD's voting Ordinary A Shares and LTD's other stockholders exchanged their preferred stock and common stock for LTD A Special Shares. Each LTD A Special Share is currently convertible at the holder's option for two shares of the Company's common stock. The Company reserved 5,000,000 shares of its common stock for issuance in connection with requests to redeem LTD Special Shares then outstanding. The acquisition of voting control through LTD's recapitalization was accounted for as a purchase of the interests of the other stockholders in LTD.

Under the terms of the recapitalization agreement, in the third quarter of 1995 the Company adjusted the 1994 purchase price paid to the other LTD stockholders. Accordingly, the minority stockholders received additional consideration through the right to acquire an additional 1,294,722 shares of common stock in exchange for LTD B Special Shares. The issuance of these shares was reflected in the Company's financial statements in 1995 as a special charge to income of \$10.6 million relating to compensation expense and an increase in goodwill of \$9.1 million.

The Special Shares of LTD will be classified outside of stockholders' equity until such shares are exchanged for PMC common stock.

Before the recapitalization, the Company held only non-voting preferred stock in LTD, and accordingly LTD's assets, liabilities and operating results were not consolidated with those of the Company. From the date of the recapitalization, LTD's balance sheet and operating results have been consolidated in the Company's financial statements.

NOTE 3. Line of Credit

At December 31, 1998, the Company had available a revolving line of credit with a bank under which the Company may borrow up to \$15 million with interest at the bank's alternate base rate (annual rate of 7.75% at December 31, 1998). The Company cannot pay cash dividends, or make material divestments without the prior written consent of the bank. The agreement expires in May 1999. At December 31, 1998 and December 31, 1997, there were no amounts outstanding under this agreement.

NOTE 4. Obligations Under Capital Leases and Long Term Debt

The Company leases furniture and equipment under long-term capital leases, which have been accounted for as installment purchases. Accordingly, capitalized costs of approximately \$17,686,000 and \$58,251,000 at December 31, 1998 and 1997, respectively, and accumulated amortization of approximately \$12,067,000 and \$26,656,000, respectively, are included in property and equipment.

Long-term debt and obligations under capital leases are as follows (in thousands):

| | December 31, | | |
|--|-------------------|-----------|--|
| | 1998 | 1997 | |
| Obligations under capital leases with interest ranging from 7.41% to 24.48% | \$ 9,479 | \$ 12,938 | |
| Various unsecured notes, payable in various installments with interest rates ranging from 0% to 9% | 653 | 806 | |
| Less current portion | 10,132 (4,909) | • | |
| | \$ 5,223 | \$ 9,092 | |

Future minimum lease payments at December 31, 1998 under capital leases are as follows (in thousands):

| Year Ending December 31: | |
|------------------------------|----------|
| 1999 | \$ 5,633 |
| 2000 | 4,115 |
| 2001 | 1,314 |
| 2002 | - |
| 2003 | - |
| | |
| Total minimum lease payments | 11,062 |

Present value of future net minimum lease payments

Maturities of the unsecured notes at December 31, 1998 are as follows (in thousands):

| Year Ending December | 31: | | |
|----------------------|-----|-------|-----|
| 1999 | | \$ | 93 |
| 2000 | | | 93 |
| 2001 | | | 93 |
| 2002 | | | 93 |
| 2003 | | | 93 |
| thereafter | | | 188 |
| | | \$ | 653 |
| | | ===== | |

Fair value of financial instruments. The estimated fair value amounts have been determined by the Company using available market information and appropriate valuation methodologies. However, considerable judgment is required in interpreting market data to develop the estimates of fair value. Accordingly, the estimates presented herein are not necessarily indicative of the amounts that the Company could realize in a current market exchange.

The Company's carrying value of cash equivalents, short-term investments, accounts receivable, accounts payable and accrued liabilities approximates fair value because the instruments have a short-term maturity.

The fair value of the Company's long-term debt and obligations under capital leases at December 31, 1998 and 1997 also approximates their carrying value.

The fair value of the deposits for wafer fabrication capacity is not determinable.

NOTE 5. Commitments and Contingencies

Operating leases. The Company leases its facilities under operating lease agreements, which expire at various dates through April 30, 2006. Total rent expense for the years ended December 31, 1998, 1997 and 1996 was \$1.8 million, \$1.3 million and \$2.1 million, respectively.

Minimum rental commitments under these leases are as follows (in thousands):

| Year Ending | December | 31: | | |
|-------------|----------|-----|----|-------|
| 1999 | | | \$ | 1,662 |
| 2000 | | | | 1,556 |
| 2001 | | | | 1,528 |
| 2002 | | | | 1,419 |
| 2003 | | | | 1,339 |
| thereafter | | | | 2,420 |
| | | | \$ | 9,924 |
| | | | | |

Supply agreements. The Company's wafer supply agreement with Chartered Semiconductor ("Chartered") expires on November 17, 1999. However, certain provisions have been superceded by a wafer capacity agreement which expires in December 2000 whereby Chartered is obligated to supply the Company with a predetermined number of wafers per quarter. Taiwan Semiconductor Manufacturing Corporation ("TSMC") is obligated to provide certain quantities of wafers per year under an agreement that terminates on December 31, 2000. Neither of the agreements have minimum unit volume requirements but the Company is obligated under one of the agreements to purchase in future periods a minimum percentage of its total annual wafer requirements, provided that the foundry is able to continue to offer competitive technology, pricing, quality and delivery.

Contingencies. In the normal course of business, the Company receives and makes inquiries with regard to possible patent infringements. Where deemed advisable, the Company may seek or extend licenses or negotiate settlements. Outcomes of such negotiations may not be determinable at any point in time; however, management does not believe that such licenses or settlements will, individually or in the aggregate, have a material adverse effect on the Company's financial position, results of operations or liquidity.

Risks and Uncertainties. Technological change - the markets for the Company's products are characterized by evolving industry standards, rapid technological change and product obsolescence. The carrying value of the Company's products in inventory may be materially impaired in the future should these changes occur more quickly than the Company anticipates. Wafer capacity agreements as discussed above, the Company has entered into various agreements to secure future wafer capacity. Should the Company need more capacity or if there is a decline in demand for the Company's products thereby reducing the need for this contracted capacity, estimates related to the carrying value of deposits could materially change.

NOTE 6. Stockholders' Equity

Authorized. On July 10, 1997, the Company was reincorporated in the State of Delaware from the State of California. Prior to the reincorporation, the Company had authorized capital of 55,405,916 shares, 50,000,000 of which were designated "Common Stock", 5,000,000 of which were designated "Preferred Stock", and 405,916 of which were designated "Series D Preferred Stock". All authorized shares had no par value. After the reincorporation, the Company had an authorized capital of 55,000,000 shares, 50,000,000 of which were designated "Common Stock", \$0.001 par value, and 5,000,000 of which were designated "Preferred Stock", \$0.001 par value. The excess of the amount recorded as capital stock over the par value of capital stock on reincorporation has been recorded as additional paid in capital at December 31, 1997. The issued and outstanding shares immediately before and after the reincorporation remained the same. The reincorporation included no other significant changes with respect to shares outstanding, reserved shares and various applicable options, rights and warrants.

During 1998, the Company's stockholders elected to add an additional 50,000,000 authorized shares of common stock to the 50,000,000 shares of common stock authorized at the end of 1997. The Company currently has an authorized capital of 105,000,000 shares, 100,000,000 of which are designated "Common Stock", \$0.001 par value, and 5,000,000 of which are designated "Preferred Stock", \$0.001 par value.

Common Stock. At December 31, 1998 and 1997, the Company maintained a reserve of 1,259,000 and 1,618,000 shares, respectively, of common stock to be issued to holders of LTD Special Shares and options to purchase LTD Special Shares. The holders of the Special Shares have the right to exchange one A Special Share for two shares of the Company's common stock, and one B Special Share for 0.54612 share of the Company's common stock. Upon exchange, amounts will be transferred from the LTD Special Shares account to the Company's common stock and additional paid—in capital on the consolidated balance sheet.

During 1996, the Company issued a warrant to purchase 25,000 shares of common stock at \$9.25 per share to an investment banking firm in settlement for services previously expensed. The warrant expires in August 2000.

The Company has adopted a 1987 Incentive Stock Plan and a 1994 Incentive Stock Plan. Its wholly owned subsidiaries, PMC-Sierra, Inc. (Portland) and PMC-Sierra Maryland Inc. have adopted 1996 and 1998 Stock Option Plans, respectively. These plans cover grants of options to purchase the Company's common stock. Under these Plans, Incentive Stock Options may be granted to employees and Non Statutory Options may be granted to employees, directors and consultants, to purchase shares of the Company's common stock at not less than 100% and 85%, respectively, of the fair value of the stock on the date granted. The options generally expire within five to ten years and vest over four years.

During 1998, the Company's common stockholders elected to add a provision to the 1994 Incentive Stock Plan. Under the new terms, the number of shares authorized to be available for issuance under the plan shall be increased automatically on January 1, 1999, and every year thereafter until the expiration of the plan. The increase will be limited to the lesser of (i) 4% of the outstanding shares on January 1 of each year, (ii) 2,000,000 shares, or (iii) an amount to be determined by the Board of Directors.

Option activity under the option plans was as follows:

<TABLE> <CAPTION>

| | | | | Weighted |
|----------------|--------------------------|-------------------|-------------------|----------------|
| | | | Number of Options | Average |
| | | Options Available | Outstanding | Exercise Price |
| | | For Issuance | | Per Share |
| <s></s> | <c></c> | <c></c> | <c></c> | <c></c> |
| Outstanding at | December 31, 1995 | | | |
| (1,037,181 | options exercisable at a | | | |
| weighted | average price of \$5.43) | 1,252,225 | 2,715,151 | \$ 8.13 |
| Authorized | | 1,250,000 | _ | _ |

| Granted (weighted average fair value of \$6.79 per share) Exercised Expired Cancelled | (1,403,574) - (85,980) 515,878 | 1,403,574 (503,825) - (515,878) | \$14.11 \$ 4.74 - \$12.73 |
|---|---|--|------------------------------------|
| Outstanding at December 31, 1996 | | | |
| (1,252,874 options exercisable at a | | | |
| weighted average price of \$7.44) | 1,528,549 | 3,099,022 | \$10.63 |
| Authorized | 500,000 | - | - |
| Granted (weighted average fair value of | | | |
| \$7.97 per share) | (1,426,450) | 1,426,450 | |
| Exercised | - | (693,450) | |
| Expired | (36,112) | - | _ |
| Cancelled | 484,216 | (484,216) | \$14.96 |
| Outstanding at December 31, 1997 (1,324,173 options exercisable at a | | | |
| weighted average price of \$9.28) | 1,050,203 | 3,347,806 | \$13.62 |
| Authorized | 1,314,414 | = | - |
| Granted (weighted average fair value of | , - , | | |
| \$21.77 per share) | (1,381,114) | 1,381,114 | \$28.82 |
| Exercised | - | (786,212) | \$ 7.61 |
| Cancelled | 149,699* | (163,391)* | \$21.96 |
| | | | |
| Outstanding at December 31, 1998 | 1,133,202 | 3,779,317 | \$20.10 |
| | ======== | ======== | |

<FN>

</TABLE>

The following table summarizes information concerning options outstanding for the combined option plans at December 31, 1998:

<TABLE> <CAPTION>

</TABLE>

| | | Options Outstanding | | Options Exercisable | | | |
|-------------------|-----------------------|--|--|-----------------------|--|--|--|
| Range of Exercise | Number Outstanding | Weighted Average Remaining Contractual Life (years) | Weighted Average Exercise Price per share | Number Exercisable | Weighted Average Exercise Price per share | | |
| Prices | - | , | - | | • | | |
| <s> <c></c></s> | <c></c> | <c></c> | <c></c> | <c></c> | <c></c> | | |
| \$ 0.89 - \$10.94 | 774,252 | 6.30 | \$ 7.38 | 584,429 | \$ 7.25 | | |
| \$11.25 - \$14.63 | 766,222 | 8.01 | \$ 14.19 | 350,413 | \$ 14.16 | | |
| \$15.06 - \$18.13 | 755,048 | 7.56 | \$ 16.37 | 448,009 | \$ 16.41 | | |
| \$18.38 - \$30.56 | 776,933 | 8.73 | \$ 26.72 | 124,332 | \$ 22.45 | | |
| \$31.88 - \$56.19 | 706,862 | 9.23 | \$ 37.36 | 30,583 | \$ 32.75 | | |
| | | | | | | | |
| \$ 0.89 - \$56.19 | 3,779,317 | 7.94 | \$ 20.10 | 1,537,766 | \$ 13.23 | | |
| | ======= | | | ======= | | | |

Employee Stock Purchase Plan. In 1991, the Company adopted an Employee Stock Purchase Plan (ESPP) under Section 423 of the Internal Revenue Code and reserved 1,060,000 shares of common stock for issuance under the Plan. Under this Plan, qualified employees may authorize payroll deductions of up to 10% of their compensation (as defined) to purchase common stock at 85% of the lower of fair market value at the beginning or end of the related subscription period. During 1998, 1997 and 1996, respectively, there were 96,429, 105,149 and 79,863 shares issued under the Plan at weighted-average prices of \$12.26, \$10.40 and \$8.38 per share. The weighted-average fair value of the 1998, 1997 and 1996 awards was \$11.41, \$6.96 and \$3.78 per share, respectively. During 1998, the Company's stockholders authorized an additional 250,000 shares to be available under the plan. As of December 31, 1998, there were 298,625 shares of common stock available for issuance under the purchase plan.

During 1998, the Company's stockholders elected to add a provision to the ESPP. Under the new terms, the number of shares authorized to be available for issuance under the plan shall be increased automatically on January 1, 1999, and every year thereafter until the expiration of the plan. The increase will be

 $^{^{\}star}$ During 1998, 13,692 options granted under the 1998 Option Plan were cancelled. Under this plan, stock allocated to options subsequently cancelled may not be re-allocated to new grants. $<\!/{\rm FN}\!>$

limited to the lesser of (i) 1% of the outstanding shares on January 1 of each year, (ii) 500,000 shares, or (iii) an amount to be determined by the Board of Directors.

Stock-based compensation. In accordance with the provisions of SFAS No. 123, "Accounting for Stock-Based Compensation" ("SFAS 123"), the Company applies APB Opinion 25 and related interpretations in accounting for its stock-based awards. The Company's ESPP is non-compensatory under APB Opinion 25. The Company does not recognize compensation expense for employee stock options, which are granted with exercise prices equal to the fair market value at the date of grant.

Pro forma information regarding net income (loss) and net income (loss) per share is required by SFAS 123 for awards granted or modified after December 31, 1994 as if the Company had accounted for its stock-based awards to employees under the fair value method of SFAS 123. The fair value of the Company's stock-based awards to employees was estimated using a Black-Scholes option pricing model. The Black-Scholes option valuation model was developed for use in estimating the fair value of traded options that have no vesting restrictions and are fully transferable. In addition, the Black-Scholes model requires the input of highly subjective assumptions including the expected stock price volatility. Because the Company's stock-based awards to employees have characteristics significantly different from those of traded options, and because changes in the subjective input assumptions can materially affect the fair value estimate, in management's opinion, the existing models do not necessarily provide a reliable single measure of the fair value of its stock-based awards to employees. The fair value of the Company's stock-based awards to employees was estimated using the multiple option approach, recognizing forfeitures as they occur, assuming no expected dividends and using the following weighted average assumptions:

| | Options | | | | | |
|-------------------------|---------|------|------|------|------|------|
| | 1998 | 1997 | 1996 | 1998 | 1997 | 1996 |
| | | | | | | |
| Expected life (years) | 3.4 | 2.6 | 2.2 | 1.5 | 1.4 | 0.5 |
| Expected volatility | 0.7 | 0.7 | 0.8 | 0.7 | 0.8 | 0.8 |
| Risk-free interest rate | 5.2% | 6.0% | 5.7% | 5.2% | 5.9% | 5.3% |

If the computed fair values of 1998, 1997 and 1996 awards had been amortized to expense over the vesting period of the awards as prescribed by SFAS 123, net income (loss) and net income (loss) per share would have been:

(in thousands except per share amounts):

| | 1998 1997 | | 1996 |
|-------------------------------------|-------------|-----------|-------------|
| | | | |
| Net income (loss) | \$ (15,369) | \$ 29,639 | \$ (54,006) |
| Basic net income (loss) per share | \$ (0.48) | \$ 0.95 | \$ (1.82) |
| Diluted net income (loss) per share | \$ (0.48) | \$ 0.92 | \$ (1.82) |

The pro forma disclosures above include the effect of SFAS 128 relating to the calculation of net income per share and FASB Technical Bulletin 97-1, which clarified the application of SFAS 123 to the estimation of fair value of awards under ESPP plans with a multiple year look-back feature.

Because SFAS 123 is applicable only to awards granted or modified subsequent to December 31, 1994, the pro forma effect is not indicative of future pro forma adjustments, when the calculation will apply to all applicable stock awards.

NOTE 7. Income Taxes

The income tax provisions, calculated under Statement of Financial Accounting Standard No. 109 ("SFAS 109"), consist of the following (in thousands):

| | | Year | Ended | December | 31 | , |
|---------------------|------------------|------------------|-------|--|----|----------------|
| | | 1998 | | 1997 | | 1996 |
| Current: Federal | | \$ 190 | \$ (| 1,289) | \$ | • |
| State Foreign | | 23,854 | 1 | 3,934 | | 42 8,844 |
| | | 24,044 | 1 | 2,645 | | 10,995 |
| Deferred: | | | | | | |
| Federal Foreign | | (132) (1,041) | | 1,671 1,411 | | (1,799) 562 |
| | | (1,173) | | 3,082 | | (1,237) |
| Provision : | for income taxes | \$ 22,871 | \$ 1 | 5,727 =================================== | \$ | 9,758 |

A reconciliation between the Company's effective tax rate and the U.S. Federal statutory rate (35% in 1998, 1997 and 1996) is as follows (in thousands):

<TABLE> <CAPTION>

| CAFILONZ | Year Ended December 31, | | | | 1, | |
|--|-------------------------|--------|---|-----------------|------------------------------|----------|
| | | 1998 | | 1997 | | 1996 |
| <\$> | <c></c> | | <c< td=""><td>></td><td><c< td=""><td>></td></c<></td></c<> | > | <c< td=""><td>></td></c<> | > |
| Income taxes (recovery) at U.S. Federal statutory rate | \$ | 6,998 | \$ | 17,495 | \$ | (14,522) |
| Net operating losses (utilized) not utilized | | (71) | | (4,508) | | 11,257 |
| In-process research and development costs | | | | | | |
| relating to Bit acquisition | | - | | - | | 2,724 |
| In-process research and development costs | | | | | | |
| relating to IGT acquisition | | 13,214 | | - | | _ |
| In-process research and development costs | | | | | | |
| relating to other acquisitions | | 497 | | - | | _ |
| Impairment of intangible asset | | 1,509 | | - | | _ |
| Incremental taxes on foreign earnings | | 234 | | 2,258 | | 9,406 |
| Other | | 490 | | 482 | | 893 |
| | | | | | | |
| Provision for income taxes | \$ | 22,871 | \$ | 15 , 727 | \$ | 9,758 |
| | ==== | | === | ====== | === | ====== |

</TABLE>

Significant components of the Company's deferred tax assets and liabilities are as follows (in thousands):

| | December 31, | | | | |
|----------------------------------|--------------|----------|----|----------|--|
| | | 1998 | | 1997 | |
| Deferred tax assets: | | | | | |
| Net operating loss carryforwards | \$ | 23,351 | \$ | 22,053 | |
| State tax loss carryforwards | | 1,500 | | 1,250 | |
| Credit carryforwards | | 3,497 | | 2,436 | |
| Inventory valuation | | 430 | | 229 | |
| Restructuring and other charges | | 3,245 | | 5,984 | |
| Deferred income | | 1,506 | | 734 | |
| Total deferred tax assets | | 33,529 | | 32,686 | |
| Valuation allowance | | (32,023) | | (31,952) | |
| Total net deferred tax assets | | 1,506 | | 734 | |
| Deferred tax liabilities: | | | | | |
| Depreciation | | (4,015) | | (4,288) | |
| Capitalized technology | | (342) | | (469) | |
| Total deferred tax liabilities | | (4,357) | | (4,757) | |
| Total net deferred taxes | \$ | (2,851) | \$ | (4,023) | |

During 1998, the valuation allowance decreased by approximately \$71,000 as a result of utilization of net operating losses. During 1997, the valuation allowance decreased by approximately \$3,401,000.

The pretax income from foreign operations was \$62,355,000 in 1998, \$37,391,000 in 1997 and \$23,044,000 in 1996.

At December 31, 1998, the Company has approximately \$66,716,000 (including \$7,317,000 from IGT and \$6,409,000 from Bit) of federal net operating losses, which will expire from 1999 to 2013. Utilization of the IGT and Bit net operating losses are subject to a limitation due to ownership change limitations provided by the Internal Revenue Code of 1986.

The Company also has approximately \$25,428,000 of state tax loss carryforwards, which expire from 1999 to 2003. Included in the credit carryforwards are state research and development credits of \$1,324,000 which carryforward indefinitely and \$2,173,000 of federal research and development credits, which will expire from 1999 to 2013.

Not included in the deferred assets are approximately \$9,598,000 of cumulative tax deductions related to equity transactions, the benefit of which will be credited to stockholders' equity, if and when realized after the other tax deductions in the carryforwards have been realized.

The Company has two operating segments: networking and non-networking products. The networking segment consists of internetworking semiconductor devices and related technical service and support to equipment manufacturers for use in their communications and networking equipment. The non-networking segment includes user interface products such as custom, graphic, modem and other semiconductors. The Company is supporting these products for existing customers, but has decided not to develop any further products of this type. (See note 9)

The accounting policies of the segments are the same as those described in the summary of significant accounting policies. The Company evaluates performance based on gross margins from operations of the two segments.

| | Year Ended December 31, | | | | | |
|-------------------------------|-------------------------|---------------------|------------|--|--|--|
| | 1998 | 1997 | 1996 | | | |
| Networking | | | | | | |
| Net revenues Cost of revenues | \$ 139,539 26,476 | \$ 85,512 15,983 | | | | |
| | | | | | | |
| Gross profit | \$ 113,063 | \$ 69,529 | | | | |
| | | | | | | |
| Non- Networking | | | | | | |
| Net revenues | \$ 22,273 | \$ 41,654 | \$ 125,493 | | | |
| Cost of revenues | | 17,082 | | | | |
| Gross profit | \$ 10,529 | \$ 24,572 | \$ 47,054 | | | |
| | ========= | ======== | | | | |
| Total | | | | | | |
| Net revenues | \$ 161,812 | \$ 127 , 166 | \$ 188,371 | | | |
| Cost of revenues | 38,220 | 33,065 | 94,948 | | | |
| Gross profit | \$ 123,592 | \$ 94,101 | \$ 93,423 | | | |
| | ======== | ======== | ========= | | | |

Information related to geographical areas is as follows:

Net revenues:

| | Year Ended December 31, | | | | | |
|--|-------------------------|--|------|---|------|--------------------------------------|
| | 1998 | | 1997 | | 1996 | |
| United States Canada Europe and Middle East Asia Other foreign | 1 | 10,256 15,780 12,431 23,246 99 | \$ | 89,371 12,373 11,430 13,693 299 | \$ | 102,632 2,678 23,684 59,377 |
| | \$ 16 | 51,812 | \$ | 127 , 166 | \$ | 188,371 |

The Company attributes revenue among the geographical areas based on the location of the customer invoiced.

Long-lived assets:

| | Year | Ended | December | 31, | |
|----------------------------------|------------------------------|-------|-----------------------|-----|------------------|
| | 1998 | | 1997 | | 1996 |
| United States Canada Other | \$ 35,873 38,865 40 | \$ | 26,581 29,297 - | \$ | 37,919 23,690 |
| | \$ 74,778 | \$ | 55,878 | \$ | 61,609 |

Long-lived assets include property and equipment, goodwill and other intangible assets, investments and other assets and deposits for wafer fabrication capacity.

The Company has revenues from external customers (1998 - 2, 1997 and 1996 - 1) that exceed total net revenues by 10% as follows:

| | Year Ended December 31, | | | | | |
|------------------------------|-------------------------|------------------|----|-----------------|----|-------------|
| | | 1998 | | 1997 | | 1996 |
| Networking Non-Networking | \$ | 31,549 18,579 | \$ | 1,757 21,403 | \$ | - 18,850 |

NOTE 9. Restructuring

On September 29, 1996, the Company recorded charges of \$69,370,000 in connection with the Company's decision to exit from the modem chipset business and the associated restructuring of the Company's non-networking product operations. The charges were recorded in cost of sales as an inventory write down (\$4,700,000) and as restructure costs in operating expenses (\$64,670,000). In 1997, the company recorded a recovery of \$1,383,000 from the reversal of the excess accrued restructuring charge related to the completion of the restructuring. There were no additional amounts incurred related to this restructuring in 1998.

The elements of the restructuring charge are as follows (in thousands):

<TABLE> <CAPTION>

| NORE TION? | chai | ructuring rge Sept. 1996 | Write-down of Assets | | Actual enditures | rest | crued ructuring rve Dec. 1, 1996 | (Ad wri | covery ditional te down) | Act Expend | ual itures | (exc ac rest | ertfall cess) in ccrued cucturing eserve |
|------------------------------------|--|--------------------------------|----------------------|---|---------------------|--|---|---|--------------------------------|---------------|---------------|--------------------|--|
| <\$> | <c:< td=""><td>></td><td><c></c></td><td><c< td=""><td>></td><td><c:< td=""><td>></td><td><c< td=""><td>!></td><td><c></c></td><td></td><td><c></c></td><td></td></c<></td></c:<></td></c<></td></c:<> | > | <c></c> | <c< td=""><td>></td><td><c:< td=""><td>></td><td><c< td=""><td>!></td><td><c></c></td><td></td><td><c></c></td><td></td></c<></td></c:<></td></c<> | > | <c:< td=""><td>></td><td><c< td=""><td>!></td><td><c></c></td><td></td><td><c></c></td><td></td></c<></td></c:<> | > | <c< td=""><td>!></td><td><c></c></td><td></td><td><c></c></td><td></td></c<> | !> | <c></c> | | <c></c> | |
| Write down of inventories to net | | | | | | | | | | | | | |
| realizable value | \$ | 23,000 | \$ (23,000) | \$ | _ | \$ | _ | \$ | (1,371) | \$ | - | \$ | 1,371 |
| Employee termination benefits | | 6,985 | _ | | (2,411) | | 4,574 | | _ | (| 4,950) | | 376 |
| Loss on supplier commitments | | | | | | | | | | | | | |
| and write off of prepaid expenses | | 9,908 | (905) | | (409) | | 8,594 | | - | (| 6,254) | | (2,340) |
| Write down of excess fixed | | | | | | | | | | | | | |
| assets and assets related | | | | | | | | | | | | | |
| to capacity commitments | | 16,580 | (16,580) | | _ | | _ | | 942 | | - | | (942) |
| Provision for price protection and | | | | | | | | | | | | | |
| product returns | | 5,047 | (5,047) | | _ | | _ | | _ | | - | | - |
| Excess facility costs | | 3,411 | _ | | (408) | | 3,003 | | _ | (| 2,507) | | (496) |
| Write down of goodwill related to | | | | | | | | | | | | | |
| Company's B.V. subsidiary in | | | | | | | | | | | | | |
| Holland | | 2,459 | (2,459) | | _ | | _ | | _ | | _ | | _ |
| Severance and closure costs | | | | | | | | | | | | | |
| related to Europe | | 1,980 | - | | (1,397) | | 583 | | _ | (| 1,231) | | 648 |
| | \$ | 69,370 | \$ (47,991) | \$ | (4,625) | \$ | 16,754 | \$ | (429) | \$ (1 | 4,942) | \$ | (1,383) |

</TABLE>

As part of this restructuring, the Company ceased manufacturing its modem chipset products in September 1996 and completed the shutdown of the non-networking operations in San Jose by the middle of 1997. As a result of its decision to exit the modem chipset business, the Company identified incremental impairments in the carrying value of its non-networking inventory resulting in a \$23,000,000 write down of inventories to net realizable value. In 1997, an additional write down of \$1,371,000 was required on disposal of the remaining inventory. The write down was included in the recovery recorded in 1997.

Termination benefits for approximately 245 employees associated with the Company's non-networking operations were paid to employees as they reached their termination dates, between November 1996 and July 1997. As at December 31, 1996, 118 had reached their termination dates and had left the Company. In 1996, the Company accrued \$6,985,000 in costs relating to employee termination benefits and incurred expenditures of \$2,411,000. In 1997, the Company incurred expenditures of \$4,950,000 completing the payment of employee termination benefits and the shortfall in the accrual of \$376,000 was included in the recovery recorded in 1997.

In 1996, the Company recorded charges of \$9,908,000 including a write down of \$905,000 and expenditures of \$409,000 arising from losses on supplier commitments and write off of prepaid expenses. In 1997, the Company settled the

remaining supplier commitments and other charges related to the restructuring through expenditures of \$6,254,000 and an excess accrual of \$2,340,000 was included in the recovery recorded in 1997.

In connection with its decision in 1996 to discontinue non-networking operations, the Company evaluated the ongoing value of the fixed assets and assets related to capacity commitments associated with these operations. Based on this evaluation, the Company identified approximately \$2.1 million of non-networking property and equipment that will continue to be utilized in the Company's networking operations. The remaining non-networking assets with a carrying amount of approximately \$11.6 million were determined to be impaired and were written down by approximately \$9.7 million to their estimated fair market value. In addition, the Company recorded an impairment provision of approximately \$6.9 million in the value of certain leased assets related to IC Works Inc. In 1997, on disposal of these assets, the Company realized overall proceeds of \$942,000 in excess of the written down value. The excess was included in the recovery recorded in 1997.

In conjunction with the decision to exit the modem chipset business, the Company was subject to incremental pricing pressure and potential returns of modem chipset products. In 1996, a non cash charge of \$5,047,000 was recorded as a write down of related assets to provide for the potential impact of price protection and product returns.

In 1996, the Company accrued charges of \$3,411,000 relating to excess facility costs primarily consisting of amounts to be incurred by the Company under a seven year non-cancelable operating lease expiring in 2003. In 1996, the Company incurred expenditures of \$408,000 related to the charge. In 1997, the Company successfully cancelled the lease resulting in expenditures of \$2,507,000 and an adjustment of \$496,000 was included in the recovery recorded.

The Company's operations in Europe were closed as a result of the 1996 decision to exit the modem chipset business. The charges related to the shutdown of the European subsidiaries, including severance payments and excess facilities costs, totaled \$1,980,000, with expenditures in 1996 totaling \$1,397,000. Additionally, the restructuring charge included a write down of the remaining goodwill of \$2,459,000 for the Company's Holland operation. In 1997, the Company competed its closure of the European operations and incurred expenditures of \$1,231,000 resulting in an under accrual of \$648,000 which was included in the recovery recorded.

In 1997, expenditures associated with the restructuring charge were approximately \$14.9\$ million (1996 - \$4.6\$ million), which were funded by the Company's cash flow from operations.

NOTE 10. Net Income (Loss) Per Share.

The following table sets forth the computation of basic and diluted net income (loss) per share:

<TABLE> <CAPTION>

| | | December 31, | |
|--|------------------|-------------------|---------------------|
| <s> Numerator:</s> | 1998 <c></c> | 1997 <c></c> | 1996 <c></c> |
| Net income (loss) | \$ (2,878) | \$ 34,258 | \$ (48,150) |
| Denominator: Basic weighted average common shares outstanding (1) Effect of dilutive securities: | 32,002 | 31,043 | 29,719 |
| Stock options Stock warrants | - - | 1,585 14 | - - |
| Diluted weighted average common shares outstanding | 32,002 ====== | 32,642 ======= | 29 , 719 |
| Basic net income (loss) per share | \$ (0.09) | \$ 1.10 ====== | \$ (1.62) ====== |
| Diluted net income (loss) per share | \$ (0.09) | \$ 1.05 | \$ (1.62) |

⁽¹⁾ PMC-Sierra, Ltd. Special Shares are included in the calculation of basic net income per share.

PART TIT

ITEM 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure.

Not applicable.

ITEM 10. Directors and Executive Officers of the Registrant

The information concerning the Company's directors required by this Item is incorporated by reference to the Company's Proxy Statement for its 1999 Annual Meeting of Stockholders ("Proxy Statement"). The following sets forth information regarding executive officers of the Company as of February 28, 1999.

| Name | Age | Position |
|------------------|-----|---|
| Robert L. Bailey | 41 | President and Chief Executive Officer |
| Greg Aasen | 43 | Chief Operating Officer |
| John W. Sullivan | 52 | Vice President, Finance and Chief Financial Officer |

Officers serve at the discretion of the Board of Directors. There are no family relationships between any of the directors or officers of the Company.

Mr. Bailey has served as Director of the Company since October 1996 and as President and Chief Executive Officer since July 1997. In prior years, Mr. Bailey acted as President and Chief Executive Officer of PMC-Sierra, Ltd. Prior to joining the Company, Mr. Bailey was employed by AT&T-Microelectronics from August 1989 to November 1993, where he served as Vice President of Integrated Microperipheral Products. Mr. Bailey was formerly employed by Texas Instruments in various management assignments from June 1979 to August 1989.

Mr. Aasen has served as Chief Operating Officer of the Company since February 1997. Mr. Aasen is a founder of PMC-Sierra, Ltd. and served as its Chief Operating Officer and Secretary since its formation in June 1992. He has served as a director of PMC-Sierra, Ltd. since August 1994. Prior to joining PMC-Sierra Ltd., Mr. Aasen was a General Manager of PMC, a division of MPR Teltech, Ltd.

Mr. Sullivan joined the Company in April 1997 as Vice President, Finance and Chief Financial Officer. Prior to joining the Company, he was employed by Semitool Inc., a semiconductor equipment manufacturer, as VP Finance from 1993 to 1997. Prior to his employment with Semitool Inc., Mr. Sullivan was employed by United Dominion Industries and Arthur Young & Company.

ITEM 11. Executive Compensation.

The information required by this Item is incorporated by reference to the Company's Proxy Statement.

ITEM 12. Security Ownership of Certain Beneficial Owners and Management.

The information required by this Item is incorporated by reference to the Company's Proxy Statement.

ITEM 13. Certain Relationships and Related Transactions.

The information required by this Item is incorporated by reference to the Company's Proxy Statement.

PART IV

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

- (a)
 1. Consolidated Financial Statements
 The financial statements (including the notes thereto) listed in the accompanying index to financial statements and financial statement schedules are filed within this Annual Report on Form 10-K.
 - Financial Statement Schedules
 The financial statement schedule listed on page 37 in the accompanying index to financial statements and financial statement

schedule is filed within this Annual Report on Form 10-K.

3. Exhibits

The exhibits listed under Item $14\,(\mathrm{c})$ are filed as part of this Form $10\mathrm{-K}$ Annual Report.

(b) Reports on Form 8-K

No reports on Form 8-K were filed by the Company in the quarter ended December 31, 1998.

(c) Exhibits pursuant to Item 601 of Regulation S-K.

<TABLE> <CAPTION>

| <s> 2.1 2.2</s> | | <c></c> |
|-----------------|--|---------|
| 2.1 | Exchange Agreement dated September 2, 1994 between the Company and | |
| 2.2 | | (C) |
| | Amended and Restated Shareholders' Agreement dated September 2, 1994 among the Shareholders of PMC-Sierra, Inc. | (C) |
| 2.3 | Amendment to Exchange Agreement effective August 9, 1995 | (F) |
| 3.1 | Certificate of Incorporation | (I) |
| 3.1A | Certificate of Amendment to the Certificate of Incorporation filed June 13, 1997 | (N) |
| 3.1B | Certificate of Amendment to the Certificate of Incorporation filed July 11, 1997 | (N) |
| 3.1C | Certificate of Amendment to Certificate of Incorporation of PMC-Sierra, Inc. filed on June 4, 1998. | (0) |
| 3.2 | Bylaws, as amended | |
| 4.1 | Specimen of Common Stock Certificate | (K) |
| 4.3 | Terms of PMC-Sierra, Inc. Special Shares | (D) |
| 10.1B | 1987 Incentive Stock Plan, as amended | (B) |
| 10.2 | 1991 Employee Stock Purchase plan, as amended | |
| 10.4 | Form of Indemnification Agreement between the Company and its directors and officers | (H) |
| 10.8 | Warrants to Purchase Common Stock | (A) |
| 10.8B | Warrant Purchase Agreement and Warrants to Purchase Shares of Common Stock dated August 28, 1996 | (J) |
| 10.9D | Technology License Agreement dated November 18, 1987, as amended July 17, 1990 | (A) |
| 10.17 | PMC-Sierra, Inc. 1994 Incentive Stock Plan | (E) |
| 10.18 | Deposit Agreement with Chartered Semiconductor Pte. Ltd.* | (G) |
| 10.18B | Amendment Agreement (No. 1) to Deposit Agreement with Chartered Semiconductor Pte. Ltd.* | (J) |
| 10.19 | Option Agreement among Sierra Semiconductor Corporation, PMC-Sierra, Inc., and Taiwan Semiconductor Manufacturing Corporation* | (J) |
| 10.21 | PMC-Sierra Inc. (Portland) 1996 Stock Option Plan | (0) |
| 10.22 | Net Building Lease (PMC-Sierra, Ltd.), dated May 15, 1996 | (J) |
| 10.23 | Revolving Operating Line of Credit Agreement between PMC-Sierra, Inc. and CIBC Inc. dated 21st day of May 1998. | (0) |
| 10.24 | Revolving Operating Line of Credit Agreement between PMC-Sierra, Ltd. And CIBC dated 21st day of May 1998. | (0) |
| 10.25 | Pledge Agreement between PMC-Sierra, Inc and CIBC Inc. with respect to shares of PMC-Sierra Ltd. dated 11th day of March, 1998. | (0) |
| 10.26 | Pledge Agreement between PMC-Sierra, Inc and CIBC Inc. with respect to shares of PMC-Sierra International Inc. dated 27th day of April 1998. | (0) |
| 10.27 | Guarantee Agreement between PMC-Sierra, Inc. and CIBC dated 27th day of April, 1998. | (0) |
| 10.28 | 1998 PMC-Sierra (Maryland), Inc. Stock Option Plan | (0) |
| 11.1 | Calculation of earnings per share | (M) |
| 16.1 | Letter regarding change in certifying accountant | (L) |
| 21.1 | Subsidiaries | |
| 23.1 | Consent of Ernst & Young LLP, Independent Auditors | |
| 23.2 | Consent of Deloitte & Touche, Independent Auditors | |
| 24.1 | Power of Attorney | (P) |
| <fn></fn> | | |

- * Confidential treatment has been granted as to a portion of this exhibit.
- (A) Incorporated by reference from the same-numbered exhibit filed with the Registrant's Registration Statement on Form S-1 (No. 33-39406).
- (B) Incorporated by reference from the same-numbered exhibit filed with the Registrant's Form 10-K Annual Report for the fiscal year ended January 3, 1993.
- (C) Incorporated by reference from the same-numbered exhibit filed with the Registrant's Current Report on Form 8-K, filed on September 16, 1994, as amended.

- (D) Incorporated by reference from exhibit 4 of the Schedule 13-D filed on November 2, 1994 by GTE Corporation.
- (E) Incorporated by reference from the same numbered exhibit filed with the Registrant's Form 10-K Annual Report for the fiscal year ended January 2, 1994.
- (F) Incorporated by reference from exhibit 2.1 filed with Registrant's Current Report on Form 8-K, filed on September 6, 1995, as amended on October 6, 1995.
- (G) Incorporated by reference from the same numbered exhibit filed with the Registrant's Form 10-K Annual Report for the fiscal year ended December 31, 1995.
- (H) Incorporated by reference from exhibit 10.21 filed with Registrant's Form 10-Q for the quarter ended June 30, 1997.
- (I) Incorporated by reference from exhibit 3.1 filed with Registrant's Form 10-Q for the quarter ended June 30, 1997.
- (J) Incorporated by reference from the same numbered exhibit filed with the Registrant's Form 10-K Annual Report for the fiscal year ended December 31, 1996.
- (K) Incorporated by reference from exhibit 4.4 filed with the Registrant's Current Report on Form 8-K, filed on August 29, 1997.
- (L) Incorporated by reference from exhibit 16.1 filed with the Registrant's Current Report on Form 8-K, filed on April 18, 1997.
- (M) Refer to Note 12 of the $\,$ financial $\,$ statements $\,$ included in Item 8 of Part II of this Annual Report.
- (N) Incorporated by reference from the same numbered exhibit filed with the Registrant's Form 10-K Annual Report for the fiscal year ended December 31, 1997.
- (0) Incorporated by reference from same numbered exhibit filed with the Registrant's Form 10-Q Quarterly Report for the quarterly period ended June 28, 1998.
- (P) Incorporated by reference from Signatures page of this Annual Report. $\mbox{\ensuremath{\mbox{\scriptsize FN>}}}$ $\mbox{\ensuremath{\mbox{\scriptsize CTABLE>}}}$
- (d) Financial Statement Schedules required by this item are listed on page 22 in the accompanying index to the financial statements.

SIGNATURES

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

PMC-SIERRA, INC. (Registrant)

Date: March 25, 1999 /s/ Robert L. Bailey

Robert L. Bailey, Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Robert L. Bailey and John W. Sullivan, jointly and severally, his attorneys-in-fact, 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 or cause to be done by virtue hereof.

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

<TABLE> <CAPTION>

Name Title Date

| <s> /s/ James V. Diller</s> | <c> Chairman of the Board and Director</c> | <c> March 25, 1999</c> |
|---------------------------------------|--|----------------------------|
| James V. Diller | | |
| /s/ Robert L. Bailey | Director and Chief Executive Officer | March 25, 1999 |
| Robert L. Bailey | | |
| /s/ John W. Sullivan John W. Sullivan | Vice President Finance, Chief Financial Officer (and Principal Accounting Officer) | March 25, 1999 |
| /s/ Colin Beaumont | Director | March 25, 1999 |
| | Director | March 25, 1999 |
| /s/ Alexandre Balkanski | Director | March 25, 1999 |
| Alexandre Balkanski | | |

</TABLE>

SCHEDULE II - VALUATION AND QUALIFYING ACCOUNTS

Years ended December 31, 1998, 1997 and 1996 (in thousands)

Allowance for Doubtful Accounts

| Year | Balance at beginning of year | Additions charged to costs and expenses | Additions charged to other accounts | Write-offs | Balance at end of year |
|------|------------------------------------|--|--|------------|---------------------------|
| 1998 | \$ 1,070 | 241 | - | 183 | \$ 1,128 |
| 1997 | \$ 842 | 500 | _ | 272 | \$ 1,070 |
| 1996 | \$ 1,081 | 666 | _ | 905 | \$ 842 |

INDEX TO EXHIBITS

| Exhibit Number | Description | Page Number |
|-------------------|--|----------------|
| 3.2 | Bylaws, as amended | - |
| 10.2 | 1991 Employee Stock Purchase plan, as amended | _ |
| 21.1 | Subsidiaries | _ |
| 23.1 | Consent of Ernst & Young LLP, Independent Auditors | _ |
| 23.2 | Consent of Deloitte & Touche LLP, Independent Auditors | _ |

BYLAWS

OF

PMC-SIERRA, INC.

(a Delaware Corporation)

BYLAWS OF

PMC-SIERRA, INC. (a Delaware Corporation)

TABLE OF CONTENTS

| | | | Page |
|---------|-------------------|--|------|
| ARTICLE | I | | |
| | CORPORATE 1.1 1.2 | OFFICES | |
| ARTICLE | II | | |
| | MEETINGS (| OF STOCKHOLDERS | |
| | 2.1 | PLACE OF MEETINGS | |
| | 2.2 | ANNUAL MEETING | |
| | 2.3 | SPECIAL MEETING | |
| | 2.4 | NOTICE OF STOCKHOLDERS' MEETINGS | |
| | 2.5 | NOTIFICATIONS OF NOMINATIONS AND PROPOSED BUSINESS | |
| | 2.6 | MANNER OF GIVING NOTICE; AFFIDAVIT OF NOTICE | |
| | 2.7 | QUORUM | |
| | 2.8 | ADJOURNED MEETING; NOTICE | |
| | 2.9 | VOTING | |
| | 2.10 | WAIVER OF NOTICE | |
| | 2.11 | RECORD DATE FOR STOCKHOLDER NOTICE; VOTING | |
| | 2.12 | PROXIES | |
| | 2.13 | ORGANIZATION | |
| | 2.14 | LIST OF STOCKHOLDERS ENTITLED TO VOTE | |
| | | | |

ARTICLE III

| | DIRECTORS 3.1 3.2 3.3 3.4 3.5 3.6 3.7 3.8 | POWERS NUMBER OF DIRECTORS ELECTION AND TERM OF OFFICE OF DIRECTORS RESIGNATION AND VACANCIES PLACE OF MEETINGS; MEETINGS BY TELEPHONE REGULAR MEETINGS SPECIAL MEETINGS; NOTICE QUORUM |
|---------|---|--|
| | 3.9 3.10 3.11 3.12 3.13 3.14 | WAIVER OF NOTICE |
| ARTICLE | IV | |
| | 4.1 4.2 | COMMITTEES OF DIRECTORS MEETINGS AND ACTION OF COMMITTEES COMMITTEE MINUTES |
| ARTICLE | V | |
| | 5.1 5.2 5.3 5.4 5.5 5.6 5.7 5.8 5.9 | OFFICERS ELECTION OF OFFICERS SUBORDINATE OFFICERS REMOVAL AND RESIGNATION OF OFFICERS VACANCIES IN OFFICES CHAIRMAN OF THE BOARD PRESIDENT VICE PRESIDENTS SECRETARY EF FINANCIAL OFFICER |
| ARTICLE | VI | |
| ARTICLE | AND OTHER 6.1 6.2 6.3 | CATION OF DIRECTORS, OFFICERS, EMPLOYEES, AGENTS |
| | | ND REPORTS |

| | 7.1 7.2 7.3 7.4 7.5 | MAINTENANCE AND INSPECTION OF RECORDS |
|---------|--|---|
| ARTICLE | VIII | |
| | GENERAL MA 8.1 8.2 8.3 8.4 8.5 8.6 8.7 8.8 | RECORD DATE FOR PURPOSES OTHER THAN NOTICE AND VOTING CHECKS; DRAFTS; EVIDENCES OF INDEBTEDNESS CORPORATE CONTRACTS AND INSTRUMENTS: HOW EXECUTED STOCK CERTIFICATES; TRANSFER; PARTLY PAID SHARES SPECIAL DESIGNATION ON CERTIFICATES LOST CERTIFICATES TRANSFER AGENTS AND REGISTRARS CONSTRUCTION; DEFINITIONS |
| ARTICLE | IX | |
| | AMENDMENTS | 5 |

BYLAWS

OF

PMC-SIERRA, INC.

(a Delaware Corporation)

ARTICLE I

CORPORATE OFFICES

1.1 REGISTERED OFFICE

The registered office of the Corporation shall be fixed in the Certificate of Incorporation of the Corporation.

1.2 OTHER OFFICES

The Board of Directors may at any time establish branch or subordinate offices at any place or places where the Corporation is qualified to do business.

MEETINGS OF STOCKHOLDERS

2.1 PLACE OF MEETINGS

Meetings of stockholders shall be held at any place within or outside the State of Delaware designated by the Board of Directors. In the absence of any such designation, stockholders' meetings shall be held at the principal executive office of the Corporation.

2.2 ANNUAL MEETING

The annual meeting of stockholders shall be held each year on a date and at a time designated by the Board of Directors. In the absence of such designation, the annual meeting of stockholders shall be held on the third Tuesday of May in each year at 10:00 a.m. However, if such day falls on a legal holiday, then the meeting shall be held at the same time and place on the next succeeding full business day. At the meeting, directors shall be elected, and any other proper business may be transacted.

2.3 SPECIAL MEETING

A special meeting of the stockholders may be called at any time by the Board of Directors, or by the Chairman of the Board, or by the President.

2.4 NOTICE OF STOCKHOLDERS' MEETINGS

All notices of meetings of stockholders shall be sent or otherwise given in accordance with Section 2.6 of these bylaws not less than ten (10) nor more than sixty (60) days before the date of the meeting. The notice shall specify the place, date, and hour of the meeting and (i) in the case of a special meeting, the general nature of the business to be transacted (no business other than that specified in the notice may be transacted) or (ii) in the case of the annual meeting, those matters which the Board of Directors, at the time of giving the notice, intends to present for action by the stockholders (but any proper matter may be presented at the meeting for such action). The notice of any meeting at which directors are to be elected shall include the name of any nominee or nominees who, at the time of the notice, the Board intends to present for election.

2.5 NOTIFICATIONS OF NOMINATIONS AND PROPOSED BUSINESS.

Subject to the rights of holders of any class or series of stock having a preference over the Common Stock as to dividends or upon liquidation,

- (a) nominations for the election of directors, and
- (b) business proposed to be brought before any stockholder

may be made by the Board of Directors or proxy committee appointed by the Board of Directors or by any stockholder entitled to vote in the election of directors generally if such nomination or business proposed is otherwise proper business before such meeting. However, any such stockholder may nominate one or more persons for election as directors at a meeting or propose business to be brought before a meeting, or both, only if such stockholder has given timely notice in proper written form of his intent to make such nomination or nominations or to propose such business. To be timely, such stockholder's notice must be delivered to or mailed and received by the Secretary of the Corporation not less than (35) days nor more than sixty (60) days prior to the meeting; thirty-five provided, however, that in the event that less than forty-five (45) days notice or prior public disclosure of the date of the meeting is given or made to stockholders, notice by the stockholder to be timely must be so received not later than the close of business on the tenth day following the day on which such notice of the date of the meeting was mailed or such public disclosure was made. To be in proper form, a stockholder's notice to the Secretary shall set forth:

- (i) the name and address of the stockholder who intends to make the nominations or propose the business and, as the case may be, of the person or persons to be nominated or of the business to be proposed;
- (ii) a representation that the stockholder is a holder of record of stock of the Corporation entitled to vote at such meeting and, if applicable, intends to appear in person or by proxy at the meeting to nominate the person or persons specified in the notice;
- (iii) if applicable, a description of all arrangements or understandings between the stockholder and each nominee and any other person or persons (naming such person or persons) pursuant to which the nomination or nominations are to be made by the stockholder;
- (iv) such other information regarding each nominee or each matter of business to be proposed by such stockholder as would be required to be included in a proxy statement filed pursuant to the proxy rules of the Securities and Exchange Commission had the nominee been nominated, or intended to be nominated, or the matter been proposed, or intended to be proposed by the Board of Directors; and
- (v) if applicable, the consent of each nominee to serve as director of the Corporation if so elected.

The Chairman of the meeting shall refuse to acknowledge the nomination

of any person or the proposal of any business not made in compliance with the foregoing procedure.

2.6 MANNER OF GIVING NOTICE; AFFIDAVIT OF NOTICE

Written notice of any meeting of stockholders shall be given either personally or by first-class mail or by telegraphic or other written communication. Notices not personally delivered shall be sent charges prepaid and shall be addressed to the stockholder at the address of that stockholder appearing on the books of the Corporation or given by the stockholder to the Corporation for the purpose of notice. Notice shall be deemed to have been given at the time when delivered personally or deposited in the mail or sent by telegram or other means of written communication.

An affidavit of the mailing or other means of giving any notice of any stockholders' meeting, executed by the Secretary, assistant secretary or any transfer agent of the Corporation giving the notice, shall be prima facie evidence of the giving of such notice.

2.7 OUORUM

The holders of a majority in voting power of the stock issued and outstanding and entitled to vote thereat, present in person or represented by proxy, shall constitute a quorum at all meetings of the stock holders for the transaction of business except as otherwise provided by statute or by the Certificate of Incorporation. If, however, such quorum is not present or represented at any meeting of the stockholders, then either (i) the chairman of the meeting or (ii) the stockholders entitled to vote thereat, present in

person or represented by proxy, shall have power to adjourn the meeting in accordance with Section 2.8 of these bylaws.

When a quorum is present at any meeting, the vote of the holders of a majority of the stock having voting power present in person or represented by proxy shall decide any question brought before such meeting, unless the question is one upon which, by express provision of the laws of the State of Delaware or of the Certificate of Incorporation or these bylaws, a different vote is required, in which case such express provision shall govern and control the decision of the question.

If a quorum be initially present, the stockholders may continue to transact business until adjournment, notwithstanding the withdrawal of enough stockholders to leave less than a quorum, if any action taken is approved by a majority of the stockholders initially constituting the quorum.

2.8 ADJOURNED MEETING; NOTICE

When a meeting is adjourned to another time and place, unless these bylaws otherwise require, notice need not be given of the adjourned meeting if the time and place thereof are announced at the meeting at which the adjournment is taken. At the adjourned meeting the Corporation may transact any business that might have been transacted at the original meeting. If the adjournment is for more than thirty (30) days, or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting.

2.9 VOTING

The stockholders entitled to vote at any meeting of stockholders shall be determined in accordance with the provisions of Section 2.11 of these bylaws, subject to the provisions of Sections 217 and 218 of the General Corporation Law of Delaware (relating to voting rights of fiduciaries, pledgors and joint owners, and to voting trusts and other voting agreements).

Except as may be otherwise provided in the Certificate of incorporation, each stockholder shall be entitled to one vote for each share of capital stock held by such stockholder.

2.10 WAIVER OF NOTICE

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

2.11 RECORD DATE FOR STOCKHOLDER NOTICE; VOTING

For purposes of determining the stockholders entitled to notice of any meeting or to vote thereat, the Board of Directors may fix, in advance, a record date, which shall not precede the date upon which the resolution fixing the record date is adopted by the Board of Directors and which shall not be more than sixty (60) days nor less than ten (10) days before the date of any such meeting, and in such event only stockholders of record on the date so fixed are entitled to notice and to vote, notwithstanding any transfer of any shares on the books of the Corporation after the record date.

If the Board of Directors does not so fix a record date, the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the business day next

preceding the day on which notice is given, or, if notice is waived, at the close of business on the business day next preceding the day on which the meeting is held.

A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting unless the Board of Directors fixes a new record date for the adjourned meeting, but the Board of Directors shall fix a new record date if the meeting is adjourned for more than thirty (30) days from the date set for the original meeting.

The record date for any other purpose shall be as provided in Section 8.1 of these bylaws.

2.12 PROXIES

Every person entitled to vote for directors, or on any other matter, shall have the right to do so either in person or by one or more agents authorized by a written proxy signed by the person and filed with the Secretary of the Corporation, but no such proxy shall be voted or acted upon after three (3) years from its date unless the proxy provides for a longer period. A proxy shall be deemed signed if the stockholder's name is placed on the proxy (whether by manual signature, typewriting, telegraphic transmission, telefacsimile or otherwise) by the stockholder or the stockholder's attorney-in-fact. The revocability of a proxy that states on its face that it is irrevocable shall be governed by the provisions of Section 212(e) of the General Corporation Law of Delaware.

2.13 ORGANIZATION

The President, or in the absence of the President, the Chairman of the Board, or, in the absence of the President and the Chairman of the Board, one of the Corporation's vice presidents, shall call the meeting of the stockholders to order, and shall act as chairman of the meeting. In the absence of the President, the Chairman of the Board, and all of the vice presidents, the stockholders shall appoint a chairman for such meeting. The chairman of any meeting of stockholders shall determine the order of business and the procedures at the meeting, including such matters as the regulation of the manner of voting and the conduct of business. The Secretary of the Corporation shall act as secretary of all meetings of the stockholders, but in the absence of the Secretary at any meeting of the stockholders, the chairman of the meeting may appoint any person to act as secretary of the meeting.

2.14 LIST OF STOCKHOLDERS ENTITLED TO VOTE

The officer who has charge of the stock ledger of the Corporation

shall prepare and make, at least ten (10) days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting, arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, during ordinary business hours, for a period of at least ten (10) days prior to the meeting, either at a place within the city where the meeting is to be held, which place shall be specified in the notice of the meeting, or, if not so specified, at the place where the meeting is to be held. The list shall also be produced and kept at the time and place of the meeting during the whole time thereof, and may be inspected by any stockholder who is present.

ARTICLE III

DIRECTORS

3.1 POWERS

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

3.2 NUMBER OF DIRECTORS

The Board of Directors shall be six until changed by an amendment to this bylaw, duly adopted by the Board of Directors or by the stockholders, or by a duly adopted amendment to the Certificate of Incorporation.

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

3.3 ELECTION AND TERM OF OFFICE OF DIRECTORS

Except as provided in Section 3.4 of these bylaws, directors shall be elected at each annual meeting of stockholders to hold office until the next annual meeting. Each director, including a director elected or appointed to fill a vacancy, shall hold office until the expiration of the term for which elected and until a successor has been elected and qualified.

3.4 RESIGNATION AND VACANCIES

Any director may resign effective on giving written notice to the Chairman of the Board, the President, the Secretary or the Board of Directors, unless the notice specifies a later time for that

resignation to become effective. If the resignation of a director is effective at a future time, the Board of Directors may elect a successor to take office when the resignation becomes effective.

Vacancies in the Board of Directors may be filled by a majority of the remaining directors, even if less than a quorum, or by a sole remaining director; however, a vacancy created by the removal of a director by the vote of the stockholders or by court order may be filled only by the affirmative vote of a majority of the shares represented and voting at a duly held meeting at which a quorum is present (which shares voting affirmatively also constitute a majority of the required quorum). Each director so elected shall hold office until the next annual meeting of the stockholders and until a successor has been elected and qualified.

Unless otherwise provided in the Certificate of Incorporation or these bylaws:

(i) Vacancies and newly created directorships resulting from any increase in the authorized number of directors elected by all of the stockholders having the right to vote as a single class may be filled by a majority of the directors then in office, although less than a quorum, or by a sole remaining director.

(ii) Whenever the holders of any class or classes of stock or series thereof are entitled to elect one or more directors by the provisions of the Certificate of Incorporation, vacancies and newly created directorships of such class or classes or series may be filled by a majority of the directors elected by such class or classes or series thereof then in office, or by a sole remaining director so elected.

If at any time, by reason of death or resignation or other cause, the Corporation should have no directors in office, then any officer or any stockholder or an executor, administrator, trustee or guardian of a stockholder, or other fiduciary entrusted with like responsibility for the person or estate of a stockholder, may call a special meeting of stockholders in accordance with the provisions of the Certificate of Incorporation or these bylaws, or may apply to the Court of Chancery for a decree summarily ordering an election as provided in Section 211 of the General Corporation Law of Delaware.

If, at the time of filling any vacancy or any newly created directorship, the directors then in office constitute less than a majority of the whole board (as constituted immediately prior to any such increase), then the Court of Chancery may, upon application of any stockholder or stockholders holding at least ten (10) percent of the total number of the shares at the time outstanding having the right to vote for such directors, summarily order an election to be held to fill any such vacancies or newly created directorships, or to replace the directors chosen by the directors then in office as aforesaid, which election shall be governed by the provisions of Section 211 of the General Corporation Law of Delaware as far as applicable.

3.5 PLACE OF MEETINGS; MEETINGS BY TELEPHONE

Regular meetings of the Board of Directors may be held at any place within or outside the State of Delaware that has been designated from time to time by resolution of the Board. In the absence of

such a designation, regular meetings shall be held at the principal executive office of the Corporation. Special meetings of the Board may be held at any place within or outside the State of Delaware that has been designated in the notice of the meeting or, if not stated in the notice or if there is no notice, at the principal executive office of the Corporation.

Any meeting, regular or special, may be held by conference telephone or similar communication equipment, so long as all directors participating in the meeting can hear one another; and all such directors shall be deemed to be present in person at the meeting.

3.6 REGULAR MEETINGS

Regular meetings of the Board of Directors may be held without notice if the times of such meetings are fixed by the Board of Directors. If any regular meeting day shall fall on a legal holiday, then the meeting shall be held next succeeding full business day.

3.7 SPECIAL MEETINGS; NOTICE

Special meetings of the Board of Directors for any purpose or purposes may be called at any time by the Chairman of the Board, the President, any vice president, the Secretary or any two directors.

Notice of the time and place of special meetings shall be delivered personally or by telephone to each director or sent by first-class mail or telegram, charges prepaid, addressed to each director at that director's address as it is shown on the records of the Corporation. If the notice is mailed, it shall be deposited in the United States mail at least four (4) days before the time of the holding of the meeting. If the notice is delivered personally or by telephone or telegram, it shall be delivered personally or by telephone or to the telegraph company at least forty-eight (48) hours before the time of the holding of the meeting. Any oral notice given personally or by telephone may be communicated either to the director or to a person at the office of the director who the person giving the notice has reason to believe will promptly communicate it to the director. The notice need not specify the purpose or the place of the meeting, if the meeting is to be held at the principal executive office of the Corporation.

3.8 QUORUM

A majority of the authorized number of directors shall constitute a quorum for the transaction of business, except to adjourn as provided in Section

3.10 of these bylaws. Every act or decision done or made by a majority of the directors present at a duly held meeting at which a quorum is present shall be regarded as the act of the Board of Directors, subject to the provisions of the Certificate of Incorporation and other applicable law.

A meeting at which a quorum is initially present may continue to transact business notwithstanding the withdrawal of directors, if any action taken is approved by at least a majority of the required quorum for that meeting.

3.9 WAIVER OF NOTICE

Notice of a meeting need not be given to any director (i) who signs a waiver of notice or a consent to holding the meeting or an approval of the minutes thereof, whether before or after the meet ing, or (ii) who attends the meeting without protesting, prior thereto or at its commencement, the lack of notice to such directors. All such waivers, consents, and approvals shall be filed with the corporate records or made part of the minutes of the meeting. A waiver of notice need not specify the purpose of any regular or special meeting of the Board of Directors.

3.10 ADJOURNMENT

A majority of the directors present, whether or not constituting a quorum, may adjourn any meeting to another time and place.

3.11 NOTICE OF ADJOURNMENT

Notice of the time and place of holding an adjourned meeting need not be given unless the meeting is adjourned for more than twenty-four (24) hours. If the meeting is adjourned for more than twenty-four (24) hours, then notice of the time and place of the adjourned meeting shall be given before the adjourned meeting takes place, in the manner specified in Section 3.7 of these bylaws, to the directors who were not present at the time of the adjournment.

3.12 BOARD ACTION BY WRITTEN CONSENT WITHOUT A MEETING

Any action required or permitted to be taken by the Board of Directors may be taken without a meeting, provided that all members of the Board individually or collectively consent in writing to that action. Such action by written consent shall have the same force and effect as a unanimous vote of the Board of Directors. Such written consent and any counterparts thereof shall be filed with the minutes of the proceedings of the Board.

3.13 FEES AND COMPENSATION OF DIRECTORS

Directors and members of committees may receive such compensation, if any, for their services and such reimbursement of expenses as may be fixed or determined by resolution of the Board of Directors. This Section 3.13 shall not

be construed to preclude any director from serving the Corporation in any other capacity as an officer, agent, employee or otherwise and receiving compensa tion for those services.

3.14 APPROVAL OF LOANS TO OFFICERS

The Corporation may lend money to, or guarantee any obligation of, or otherwise assist any officer or other employee of the Corporation or any of its subsidiaries, including any officer or employee who is a director of the Corporation or any of its subsidiaries, whenever, in the judgment of the directors,

such loan, guaranty or assistance may reasonably be expected to benefit the Corporation. The loan, guaranty or other assistance may be with or without interest and may be unsecured, or secured in such manner as the Board of Directors shall approve, including, without limitation, a pledge of shares of stock of the Corporation. Nothing contained in this section shall be deemed to deny, limit or restrict the powers of guaranty or warranty of the Corporation at common law or under any statute.

ARTICLE IV

COMMITTEES

4.1 COMMITTEES OF DIRECTORS

The Board of Directors may, by resolution adopted by a majority of the authorized number of directors, designate one (1) or more committees, each consisting of two or more directors, to serve at the pleasure of the Board. The Board may designate one (1) or more directors as alternate members of any committee, who may replace any absent member at any meeting of the committee. The appointment of members or alternate members of a committee requires the vote of a majority of the authorized number of directors. Any committee, to the extent provided in the resolution of the Board, shall have and may exercise all the powers and authority of the Board, but no such committee shall have the power of authority to:

(a) amend the Certificate of Incorporation (except that a committee may, to the extent authorized in the resolution or resolutions providing for the issuance of shares of stock adopted by the Board of Directors as provided in Section 151(a) of the General Corporation Law of Delaware, fix the designations and any of the preferences or rights of such shares relating to dividends, redemption, dissolution, any distribution of assets of the Corporation or the conversion into, or the exchange of such shares for, shares of any other class or classes or any other series of the same or any other class or classes of stock of the Corporation);

(b) adopt an agreement of merger or consolidation under Sections 251 or 252 of the General Corporation Law of Delaware;

- (c) recommend to the stockholders the sale, lease or exchange of all or substantially all of the Corporation's property and assets;
- (d) recommend to the stockholders a dissolution of the Corporation or a revocation of a dissolution; or
- (e) amend the bylaws of the Corporation; and, unless the Board resolution establishing the committee, the bylaws or the Certificate of Incorporation expressly so provide, no such committee shall have the power or authority to declare a dividend, to authorize the issuance of stock, or to adopt a certificate of ownership and merger pursuant to Section 253 of the General Corporation Law of Delaware.

4.2 MEETINGS AND ACTION OF COMMITTEES

Meetings and actions of committees shall be governed by, and held and taken in accordance with, the provisions of Article III of these bylaws, Section 3.5 (place of meetings), Section 3.6 (regular meetings), Section 3.7 (special meetings and notice), Section 3.8 (quorum), Section 3.9 (waiver of notice), Section 3.10 (adjournment), Section 3.11 (notice of adjournment), and Section 3.12 (action without meeting), with such changes in the context of those bylaws as are necessary to substitute the committee and its members for the Board of Directors and its members; provided, however, that the time of regular meetings of committees may be determined either by resolution of the Board of Directors or by resolution of the committee, that special meetings of committees may also be called by resolution of the Board of Directors, and that notice of special meetings of committees shall also be given to all alternate members, who shall have the right to attend all meetings of the committee. The Board of Directors may adopt rules for the government of any committee not inconsistent with the provisions of these bylaws.

4.3 COMMITTEE MINUTES.

Each committee shall keep regular minutes of its meetings and report the same to the Board of Directors when required.

ARTICLE V

OFFICERS

5.1 OFFICERS

The officers of the Corporation shall be a president, a secretary, and a chief financial officer. The Corporation may also have, at the discretion of the Board of Directors, a chairman of the Board, one or more vice presidents, one or more assistant secretaries, one or more assistant treasurers, and such other officers as may be appointed in accordance with the provisions of Section

5.3 of these bylaws. Any number of offices may be held by the same person.

5.2 ELECTION OF OFFICERS

The officers of the Corporation, except such officers as may be appointed in accordance with the provisions of Section 5.3 or Section 5.5 of these bylaws, shall be chosen by the Board, subject to the rights, if any, of an officer under any contract of employment.

5.3 SUBORDINATE OFFICERS

The Board of Directors may appoint, or may empower the President to appoint, such other officers as the business of the Corporation may require, each of whom shall hold office for such period, have such authority, and perform such duties as are provided in these bylaws or as the Board of Directors may from time to time determine.

5.4 REMOVAL AND RESIGNATION OF OFFICERS

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

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

5.5 VACANCIES IN OFFICES

A vacancy in any office because of death, resignation, removal, disqualification or any other cause shall be filled in the manner prescribed in these bylaws for regular appointments to that office.

5.6 CHAIRMAN OF THE BOARD

The Chairman of the Board, if such an officer be elected, shall, if present, preside at meetings of the Board of Directors and exercise and perform such other powers and duties as may from time to time be assigned to him by the Board of Directors or as may be prescribed by these bylaws. If there is no President, then the Chairman of the Board shall also be the chief executive

officer of the Corporation and shall have the powers and duties prescribed in Section 5.7 of these bylaws.

5.7 PRESIDENT

Subject to such supervisory powers, if any, as may be given by the Board of Directors to the Chairman of the Board, if there be such an officer, the President shall be the chief executive officer of the Corporation and shall, subject to the control of the Board of Directors, have general supervision, direction, and control of the business and the officers of the Corporation. The President shall preside at all meetings of the stockholders and, in the absence or nonexistence of a chairman of the Board, at all meetings of the Board of Directors. The President shall have the general powers and duties of manage ment usually vested in the office of president of a corporation, and shall have such other powers and duties as may be prescribed by the Board of Directors or these bylaws.

5.8 VICE PRESIDENTS

In the absence or disability of the President, the vice presidents, if any, in order of their rank as fixed by the Board of Directors or, if not ranked, a vice president designated by the Board of Directors, shall perform all the duties of the President and when so acting shall have all the powers of, and be subject to all the restrictions upon, the President. The vice presidents shall have such other powers and

perform such other duties as from time to time may be prescribed for them respectively by the Board of Directors, these bylaws, the President or the Chairman of the Board.

5.9 SECRETARY

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

The Secretary shall keep, or cause to be kept, at the principal executive office of the Corporation or at the office of the Corporation's transfer agent or registrar, as determined by resolution of the Board of Directors, a share register, or a duplicate share register, showing the names of all stockholders and their addresses, the number and classes of shares held by each, the number and date of certificates evidencing such shares, and the number

and date of cancellation of every certificate surrendered for cancellation.

The Secretary shall give, or cause to be given, notice of all meetings of the stockholders and of the Board of Directors required to be given by law or by these bylaws. The Secretary shall keep the seal of the Corporation, if one be adopted, in safe custody and shall have such other powers and perform such other duties as may be prescribed by the Board of Directors or by these bylaws.

5.10 CHIEF FINANCIAL OFFICER

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

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

ARTICLE VI

INDEMNIFICATION OF DIRECTORS, OFFICERS, EMPLOYEES, AND OTHER AGENTS

6.1 INDEMNIFICATION OF DIRECTORS AND OFFICERS

The Corporation shall, to the maximum extent and in the manner permitted by the General Corporation Law of Delaware as the same now exists or may hereafter be amended, indemnify any person against expenses (including attorneys' fees), judgments, fines, and amounts paid in settlement actually and reasonably incurred in connection with any threatened, pending or completed action, suit, or proceeding in which such person was or is a party or is threatened to be made a party by reason of the fact that such person is or was a director or officer of the Corporation. For purposes of this Section 6.1, a "director" or "officer" of the Corporation shall mean any person (i) who is or was a director or officer of the Corporation, (ii) who is or was serving at the request of the Corporation as a director or officer of another corporation, partnership, joint venture, trust or other enterprise, or (iii) who was a director or officer of a corporation which was a predecessor corporation of the Corporation or of another enterprise at the request of such predecessor

corporation.

The Corporation shall be required to indemnify a director or officer in connection with an action, suit, or proceeding (or part thereof) initiated by such director or officer only if the initiation of such action, suit, or proceeding (or part thereof) by the director or officer was authorized by the Board of Directors of the Corporation.

The Corporation shall pay the expenses (including attorney's fees) incurred by a director or officer of the Corporation entitled to indemnification hereunder in defending any action, suit or proceeding referred to in this Section 6.1 in advance of its final disposition; provided, however, that payment of expenses incurred by a director or officer of the Corporation in advance of the final disposition of such action, suit or proceeding shall be made only upon receipt of an undertaking by the director or officer to repay all amounts advanced if it should ultimately be determined that the director of officer is not entitled to be indemnified under this Section 6.1 or otherwise.

The rights conferred on any person by this Article shall not be exclusive of any other rights which such person may have or hereafter acquire under any statute, provision of the Corporation's Certificate of Incorporation, these bylaws, agreement, vote of the stockholders or disinterested directors or otherwise.

Any repeal or modification of the foregoing provisions of this Article shall not adversely affect any right or protection hereunder of any person in respect of any act or omission occurring prior to the time of such repeal or modification.

6.2 INDEMNIFICATION OF OTHERS

The Corporation shall have the power, to the maximum extent and in the manner permitted by the General Corporation Law of Delaware as the same now exists or may hereafter be amended, to indemnify any person (other than directors and officers) against expenses (including attorneys' fees), judgments, fines, and amounts paid in settlement actually and reasonably incurred in connection with any threatened, pending or completed action, proceeding, in which such person was or is a party or is threatened to be made a party by reason of the fact that such person is or was an employee or agent of the Corporation. For purposes of this Section 6.2, an "employee" or "agent" of the Corporation (other than a director or officer) shall mean any person (i) who is or was an employee or agent of the Corporation, (ii) who is or was serving at the request of the Corporation as an employee or agent of another corporation, partnership, joint venture, trust or other enterprise, or (iii) employee or agent of a corporation which was a predecessor corporation of the Corporation or of another enterprise at the request of such predecessor corporation.

6.3 INSURANCE

The Corporation may purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the Corporation, or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against him or her and incurred by him or her in any such capacity, or arising out of his or her status as such, whether or not the Corporation would have the power to indemnify him or her against such liability under the provisions of the General Corporation Law of Delaware.

ARTICLE VII

RECORDS AND REPORTS

7.1 MAINTENANCE AND INSPECTION OF RECORDS

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

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

of attorney or such other writing that authorizes the attorney or other agent to so act on behalf of the stockholder. The demand under oath shall be directed to the Corporation at its registered office in Delaware or at its principal place of business.

7.2 INSPECTION BY DIRECTORS

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

7.3 ANNUAL STATEMENT TO STOCKHOLDERS

The Board of Directors shall present at each annual meeting, and at any special meeting of the stockholders when called for by vote of the stockholders, a full and clear statement of the business and condition of the Corporation.

7.4 REPRESENTATION OF SHARES OF OTHER CORPORATIONS

The Chairman of the Board, if any, the President, any vice president, the Chief Financial Officer, the Secretary or any assistant secretary of this Corporation, or any other person authorized by the Board of Directors or the President or a vice president, is authorized to vote, represent and exercise on behalf of this Corporation all rights incident to any and all shares of the stock of any other corporation or corporations standing in the name of this Corporation. The authority herein granted may be exercised either by such person directly or by any other person authorized to do so by proxy or power of attorney duly executed by such person having the authority.

7.5 CERTIFICATION AND INSPECTION OF BYLAWS

The original or a copy of these bylaws, as amended or otherwise altered to date, certified by the Secretary, shall be kept at the Corporation's principal executive office and shall be open to inspection by the stockholders of the Corporation, at all reasonable times during office hours.

ARTICLE VIII

GENERAL MATTERS

8.1 RECORD DATE FOR PURPOSES OTHER THAN NOTICE AND VOTING

For purposes of determining the stockholders entitled to receive payment of any dividend or other distribution or allotment of any rights or the stockholders entitled to exercise any rights in respect of any other lawful action, the Board of Directors may fix, in advance, a record date, which shall not be more than sixty (60) days before any such action. In that case, only stockholders of record at the close

of business on the date so fixed are entitled to receive the dividend, distribution or allotment of rights, or to exercise such rights, as the case may be, notwithstanding any transfer of any shares on the books of the Corporation after the record date so fixed, except as otherwise provided in the General Corporation Law of Delaware.

If the Board of Directors does not so fix a record date, then the record date for determining stockholders for any such purpose shall be at the

close of business on the day on which the Board adopts the applicable resolution.

8.2 CHECKS; DRAFTS; EVIDENCES OF INDEBTEDNESS

From time to time, the Board of Directors shall determine by resolution which person or persons may sign or endorse all checks, drafts, other orders for payment of money, notes or other evidences of indebtedness that are issued in the name of or payable to the Corporation, and only the persons so authorized shall sign or endorse those instruments.

8.3 CORPORATE CONTRACTS AND INSTRUMENTS: HOW EXECUTED

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

8.4 STOCK CERTIFICATES; TRANSFER; PARTLY PAID SHARES

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

Certificates for shares shall be of such form and device as the Board of Directors may designate and shall state the name of the record holder of the shares represented thereby; its number; date of

issuance; the number of shares for which it is issued; a summary statement or

reference to the powers, designations, preferences or other special rights of such stock and the qualifications, limitations or restrictions of such preferences and/or rights, if any; a statement or summary of liens, if any; a conspicuous notice of restrictions upon transfer or registration of transfer, if any; a statement as to any applicable voting trust agreement; if the shares be assessable, or, if assessments are collectible by personal action, a plain statement of such facts.

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

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

8.5 SPECIAL DESIGNATION ON CERTIFICATES

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

8.6 LOST CERTIFICATES

Except as provided in this Section 8.6, no new certificates for shares shall be issued to replace a previously issued certificate unless the latter is surrendered to the Corporation and canceled at the same time. The Board of Directors may, in case any share certificate or certificate for any other security is lost, stolen or destroyed, authorize the issuance of replacement certificates on such terms and conditions as the Board may require; the Board may require indemnification of the Corporation secured by a bond or other

adequate security sufficient to protect the Corporation against any claim that may be made

against it, including any expense or liability, on account of the alleged loss, theft or destruction of the certificate or the issuance of the replacement certificate.

8.7 TRANSFER AGENTS AND REGISTRARS

The Board of Directors may appoint one or more transfer agents or transfer clerks, and one or more registrars, each of which shall be an incorporated bank or trust company -- either domestic or foreign, who shall be appointed at such times and places as the requirements of the Corporation may necessitate and the Board of Directors may designate.

8.8 CONSTRUCTION; DEFINITIONS

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

ARTICLE IX

AMENDMENTS

The original or other bylaws of the Corporation may be adopted, amended or repealed by the stockholders entitled to vote or by the Board of Directors of the Corporation. The fact that such power has been so conferred upon the directors shall not divest the stockholders of the power, nor limit their power to adopt, amend or repeal bylaws.

Whenever an amendment or new bylaw is adopted, it shall be copied in the book of bylaws with the original bylaws, in the appropriate place. If any bylaw is repealed, the fact of repeal with the date of the meeting at which the repeal was enacted or the filing of the operative written consent(s) shall be stated in said book.

CERTIFICATE OF AMENDMENT NO. 1

OF BYLAWS OF

PMC-SIERRA, INC.

The first sentence of Section 3.2 of the Bylaws of this corporation was amended, effective as of June 11, 1997 by the sole stockholder to read as follows:

"The Board of Directors shall be one until changed by an amendment to this bylaw, duly adopted by the Board of Directors or by the stockholders, or by a duly adopted amendment to the Certificate of Incorporation."

CERTIFICATE OF AMENDMENT NO. 2

OF BYLAWS OF

PMC-SIERRA, INC.

The first sentence of Section 3.2 of the Bylaws of this corporation was amended, effective as of July 6, 1997 by the sole stockholder to read as follows:

"The Board of Directors shall be six until changed, within the limits specified above by an amendment to this bylaw, duly adopted by the Board of Directors or by the stockholders, or by a duly adopted amendment to the Certificate of Incorporation."

CERTIFICATE OF AMENDMENT NO. 3

OF BYLAWS OF

PMC-SIERRA, INC.

The Section 2.3 of the Bylaws of this corporation was amended by the board of directors effective as of February 11, 1998 to eliminate the ability of certain stockholders to call stockholder meetings.

CERTIFICATE OF AMENDMENT NO. 4

OF BYLAWS OF

PMC-SIERRA, INC.

The first sentence of Section 3.2 of the Bylaws of this corporation was amended, effective immediately before re-election of directors at the 1998 Annual Stockholder Meeting (May 27, 1998), by the Board of directors to read as follows:

"The Board of Directors shall be five until changed, within the limits specified above by an amendment to this bylaw, duly adopted by the Board of Directors or by the stockholders, or by a duly adopted amendment to the Certificate of Incorporation."

PMC-SIERRA, INC.

1991 EMPLOYEE STOCK PURCHASE PLAN

(as amended January 31, 1999)

The following constitute the provisions of the 1991 Employee Stock Purchase Plan of PMC-Sierra, Inc.

1. Purpose. The purpose of the Plan is to provide employees of the Company and its Designated Subsidiaries with an opportunity to purchase Common Stock of the Company through accumulated payroll deductions. It is the intention of the Company to have the Plan qualify as an "Employee Stock Purchase Plan" under Section 423 of the Internal Revenue Code of 1986, as amended. The provisions of the Plan, accordingly, shall be construed so as to extend and limit participation in a manner consistent with the requirements of that section of the Code.

2. Definitions.

- (a) "Board" shall mean the Board of Directors of the Company.
- (b) "Code" shall mean the Internal Revenue Code of 1986, as amended.
 - (c) "Common Stock" shall mean the Common Stock of the Company.
- (d) "Company" shall mean PMC-Sierra, Inc., a Delaware corporation.
- (e) "Compensation" shall mean all base straight time gross earnings plus payments for overtime, shift premiums and commissions, but excluding incentive compensation, incentive payments, bonuses, awards, and other compensation.
- (f) "Designated Subsidiaries" shall mean the Subsidiaries which have been designated by the Board from time to time in its sole discretion as eligible to participate in the Plan.
- (g) "Employee" shall mean any individual who is a regular employee of the Company for purposes of tax withholding under the Code. For purposes of the Plan, the employment relationship shall be treated as continuing intact while the individual is on sick leave or other leave of absence approved by the Company. Where the period of leave exceeds 90 days and the individual's

right to reemployment is not guaranteed either by statute or by contract, the employment relationship will be deemed to have terminated on the 91st day of such leave.

- (h) "Enrollment Date" shall mean the first day of each Offering Period.
- (i) "Exercise Date" shall mean the last day of each Purchase Period and is either January 1 or June 30 of each year.
- (j) "Fair Market Value" shall mean, as of any date, the value of Common Stock determined as follows:
- (1) If the Common Stock is listed on any established stock exchange or a national market system, including without limitation the National Market System of the National Association of Securities Dealers, Inc. Automated Quotation ("NASDAQ") System, its Fair Market Value shall be the closing sales price for such stock (or the closing bid, if no sales were reported), as quoted on such exchange (or the exchange with the greatest volume of trading in Common Stock) or system on the last market trading day prior to the day of such determination, as reported in the Wall Street Journal or such other source as the Board deems reliable, or;
- (2) If the Common Stock is quoted on the NASDAQ system (but not on the National Market System thereof) or is regularly quoted by a recognized securities dealer but selling prices are not reported, its Fair Market Value shall be the mean between the high and low asked prices for the Common Stock on the last market trading day prior to the day of such determination, as reported in the Wall Street Journal or such other source as the Board deems reliable, or;
- (3) In the absence of an established market for the Common Stock, the Fair Market Value thereof shall be determined in good faith by the Board.
- (k) "Offering Period" shall mean the period of approximately twenty-four (24) months during which an option granted pursuant to the Plan may be exercised, except that the first Offering Period shall be an extended Offering Period of approximately twenty-six months and one week, commencing on about April 24, 1991 and terminating on the last Trading Day of June, 1993.
 - (1) "Plan" shall mean this Employee Stock Purchase Plan.
- (m) "Purchase Price" shall mean an amount equal to 85% of the Fair Market Value of a share of Common Stock on the Enrollment Date or on the Exercise Date, whichever is lower, except that if the Employee completes an

election form in the form of Exhibit A to this Plan and files it with the Company's payroll office at least ten (10) business days before the applicable Exercise Date, the Purchase Price shall mean an amount equal to 100% of the Fair Market Value of a share of Common Stock on the Enrollment Date or 85% of the Fair Market Value of a share of Common Stock on the Exercise Date, whichever is lower. Such an election is only applicable for the Purchase Period as stated on the election form.

(n) "Purchase Period" shall mean the approximately six month period commencing after one Exercise Date and ending with the next Exercise Date, except that the first Purchase Period of any Offering Period shall commence on the Enrollment Date and end with the next Exercise Date; provided, however, that the first Purchase Period of the first Offering Period under the Plan shall be approximately eight months and one week in duration.

- (o) "Reserves" shall mean the number of shares of Common Stock covered by each option under the Plan which have not yet been exercised and the number of shares of Common Stock which have been authorized for issuance under the Plan but not yet placed under option.
- (p) "Subsidiary" shall mean a corporation, domestic or foreign, of which not less than 50% of the voting shares are held by the Company or a Subsidiary, whether or not such corporation now exists or is hereafter organized or acquired by the Company or a Subsidiary.
- (q) "Trading Day" shall mean a day on which national stock exchanges and the National Association of Securities Dealers Automated Quotation (NASDAQ) System are open for trading.

3. Eligibility.

- (a) Any Employee, as defined in paragraph 2, who has been continuously employed by the Company for at least three (3) consecutive months and who shall be employed by the Company on a given Enrollment Date shall be eligible to participate in the Plan; provided, however, that with respect to the first Offering Period under the Plan, any Employee employed by the Company on the Enrollment Date thereof shall be eligible to participate in the Plan.
- (b) Any provisions of the Plan to the contrary notwithstanding, no Employee shall be granted an option under the Plan (i) if, immediately after the grant, such Employee (or any other person whose stock would be attributed to such Employee pursuant to Section 424(d) of the Code) would own stock and/or hold outstanding options to purchase stock possessing five percent (5%) or more of the total combined voting power or value of all classes of stock of the Company or of any subsidiary of the Company, or (ii) which permits his or her rights to purchase stock under all employee stock

purchase plans of the Company and its subsidiaries to accrue at a rate which exceeds Twenty-Five Thousand Dollars (\$25,000) worth of stock (determined at the fair market value of the shares at the time such option is granted) for each calendar year in which such option is outstanding at any time.

4. Offering Periods. The Plan shall be implemented by consecutive Offering Periods, with the first Offering Period beginning April 24, 1991 and continuing unless terminated in accordance with the Plan. The Board shall have the power to change the duration of Offering Periods with respect to future offerings without stockholder approval if such change is announced at least fifteen (15) days prior to the scheduled beginning of the first Offering Period to be affected. Absent action by the Board, each Offering Period shall be for a period of approximately twenty-four months (24) and new Offering Periods shall commence on the first Trading Day of January and July of each year; except that the first Offering Period under the Plan shall be approximately twenty-six (26) months and one (1) week in duration and shall commence on April 24, 1991.

5. Participation.

- (a) An eligible Employee may become a participant in the Plan by completing a subscription agreement authorizing payroll deductions in the form of Exhibit B to this Plan and filing it with the Company's payroll office at least ten (10) business days prior to the applicable Enrollment Date, unless a later time for filing the subscription agreement is set by the Board for all eligible Employees with respect to a given Offering Period.
- (b) Payroll deductions for a participant shall commence on the first payroll period following the Enrollment Date and shall end on the last payroll period in the Offering Period, unless sooner terminated by the participant as provided in paragraph 10.

6. Payroll Deductions.

- (a) At the time a participant files his or her subscription agreement, he or she shall elect to have payroll deductions made on each pay day during the Offering Period in an amount not exceeding ten percent (10%) of the Compensation which he or she receives on each pay day during the Offering Period, and the aggregate of such payroll deductions during the Offering Period shall not exceed ten percent (10%) of the participant's Compensation during said Offering Period.
- (b) All payroll deductions made for a participant shall be credited to his or her account under the Plan and will be withheld in whole percentages only. A participant may not make any additional payments into such account.
 - (c) A participant may discontinue his or her participation in

the Plan as provided in paragraph 10, or may decrease the rate of his or her payroll deductions during the current Purchase Period by filing with the Company a new subscription agreement authorizing a decrease in payroll deduction rate. The decrease in rate shall be effective with the first full payroll period following ten (10) business days after the Company's receipt of the new subscription agreement unless the Company elects to process a given change in participation more quickly. A participant may increase the rate of his or her payroll deductions for an upcoming Purchase Period by filing with the Company a new subscription agreement authorizing an increase in payroll deduction rate within ten (10) business days of the commencement of the upcoming Purchase Period. A participant's subscription agreement shall remain in effect for successive Purchase Periods and Offering Periods unless terminated as provided in paragraph 10. The Board shall be authorized to limit the number of participation rate changes during any Offering Period.

(d) Notwithstanding the foregoing, to the extent necessary to comply with Section 423(b)(8) of the Code and paragraph 3(b) herein, a participant's payroll deductions may be decreased to 0% at such time during any Purchase Period which is scheduled to end during the current calendar year (the "Current Purchase Period") that the aggregate of all payroll deductions which were previously used to purchase stock under the Plan in a prior Purchase Period which ended during that calendar year plus all payroll deductions accumulated with respect to the Current Purchase Period equal \$21,250. Payroll deductions shall recommence at the rate provided in such participant's subscription agreement at the beginning of the first Purchase Period which is scheduled to end in the following calendar year, unless terminated by the participant as provided in paragraph 10.

- (e) At the time the option is exercised, in whole or in part, or at the time some or all of the Company's Common Stock issued under the Plan is disposed of, the participant must make adequate provision for the Company's federal, state, or other tax withholding obligations, if any, which arise upon the exercise of the option or the disposition of the Common Stock. At any time, the Company may, but will not be obligated to, withhold from the participant's compensation the amount necessary for the Company to meet applicable withholding obligations, including any withholding required to make available to the Company any tax deductions or benefit attributable to sale or early disposition of Common Stock by the Employee.
- 7. Grant of Option. On the Enrollment Date of each Offering Period, each eligible Employee participating in such Offering Period shall be granted an option to purchase on each Exercise Date during such Offering Period (at the applicable Purchase Price) up to a number of shares of the Company's Common Stock determined by dividing such Employee's payroll deductions accumulated prior to such Exercise Date and retained in the Participant's account as of the Exercise Date by the applicable Purchase Price; provided that in no event shall

an Employee be permitted to purchase during each Purchase Period more than a number of shares determined by dividing \$12,500 by the fair market value of a share of the Company's Common Stock on the Enrollment Date, and provided further that such purchase shall be subject to the limitations set forth in Section 3(b) and 12 hereof. Exercise of the option shall occur as provided in Section 8, unless the participant has withdrawn pursuant to Section 10, and the option shall expire on the last day of the Offering Period.

- 8. Exercise of Option. Unless a participant withdraws from the Plan as provided in paragraph 10 below, his or her option for the purchase of shares will be exercised automatically on each Exercise Date, and the maximum number of full shares subject to option shall be purchased for such participant at the applicable Purchase Price with the accumulated payroll deductions in his or her account. No fractional shares will be purchased; any payroll deductions accumulated in a participant's account which are not sufficient to purchase a full share shall be retained in the participant's account for the subsequent Purchase Period, subject to earlier withdrawal by the participant as provided in paragraph 10. Any other monies left over in a participant's account after the Exercise Date shall be returned to the participant. During a participant's lifetime, a participant's option to purchase shares hereunder is exercisable only by him or her.
- 9. Delivery. As promptly as practicable after each Exercise Date on which a purchase of shares occurs, the Company shall arrange the delivery to each participant, as appropriate, a certificate representing the shares purchased upon exercise of his or her option.

10. Withdrawal; Termination of Employment.

(a) A participant may withdraw all but not less than all the payroll deductions credited to his or her account and not yet used to exercise his or her option under the Plan at any time by giving written notice to the Company in the form of Exhibit C to this Plan. All of the participant's payroll deductions credited to his or her account will be paid to such participant promptly after receipt of notice of withdrawal and such participant's option for the Offering Period will be automatically terminated, and no further payroll deductions for the purchase of shares will be made during the Offering Period. If a participant withdraws from an Offering Period, payroll deductions will not resume at the beginning of the succeeding Offering Period unless the participant delivers to the Company a new subscription agreement.

(b) Upon a participant's ceasing to be an Employee for any reason or upon termination of a participant's employment relationship (as described in Section 2(g)), the payroll deductions credited to such participant's account during the Offering Period but not yet used to exercise the option will be returned to such participant or, in the case of his or her death, to the person or persons entitled thereto under paragraph 14, and such participant's option will be automatically terminated.

11. Interest. No interest shall accrue on the payroll deductions of a participant in the Plan.

12. Stock.

- (a) The maximum number of shares of the Company's Common Stock which shall be made available for sale under the Plan shall be 1,310,000 shares, plus an annual increase to be added on January 1 of each year, beginning on January 1, 1999, equal to the lesser of (i) 1% of the outstanding shares on such date, (ii) 500,000 shares, or (iii) an amount determined by the Board, adjustment upon changes in capitalization of the Company as provided in paragraph 18. During any Purchase Period under the Plan, the maximum number of shares of the Company's Common Stock which shall be made available under the Plan during such Purchase Period shall be 120,000 shares, which number of shares shall apply as a cumulative limit to the number of shares which shall be made available for sale under all Purchase Periods occurring simultaneously under separate Offering Periods under the Plan, subject to adjustment upon capitalization as provided in paragraph 18. If on a given Exercise Date the number of shares with respect to which options are to be exercised exceeds the number of shares then available under the Plan, the Company shall make a pro rata allocation of the shares remaining available for purchase in as uniform a manner as shall be practicable and as it shall determine to be equitable.
- (b) The participant will have no interest or voting right in shares covered by his option until such option has been exercised.
- (c) Shares to be delivered to a participant under the Plan will be registered in the name of the participant or in the name of the participant and his or her spouse.

13. Administration.

- (a) Administrative Body. The Plan shall be administered by the Board of the Company or a committee of members of the Board appointed by the Board. The Board or its committee shall have full and exclusive discretionary authority to construe, interpret and apply the terms of the Plan, to determine eligibility and to adjudicate all disputed claims filed under the Plan. Every finding, decision and determination made by the Board or its committee shall, to the full extent permitted by law, be final and binding upon all parties. Members of the Board who are eligible Employees are permitted to participate in the Plan, provided that:
- (1) Members of the Board who are eligible to participate in the Plan may not vote on any matter affecting the administration of the Plan or the grant of any option pursuant to the Plan.

- (2) If a Committee is established to administer the Plan, no member of the Board who is eligible to participate in the Plan may be a member of the Committee.
- (b) Rule 16b-3 Limitations. Notwithstanding the provisions of Subsection (a) of this Section 13, in the event that Rule 16b-3 promulgated under The Securities Exchange Act of 1934, as amended, or any successor provision ("Rule 16b-3") provides specific requirements for the administrators of plans of this type, the Plan shall be only administered by such a body and in such a manner as shall comply with the applicable requirements of Rule 16b-3. Unless permitted by Rule 16b-3, no discretion concerning decisions regarding the Plan shall be afforded to any committee or person that is not "disinterested" as that term is used in Rule 16b-3.

14. Designation of Beneficiary.

- (a) A participant may file a written designation of a beneficiary who is to receive any shares and cash, if any, from the participant's account under the Plan in the event of such participant's death subsequent to an Exercise Date on which the option is exercised but prior to delivery to such participant of such shares and cash. In addition, a participant may file a written designation of a beneficiary who is to receive any cash from the participant's account under the Plan in the event of such participant's death prior to exercise of the option. If a participant is married and the designated beneficiary is not the spouse, spousal consent shall be required for such designation to be effective.
- (b) Such designation of beneficiary may be changed by the participant (and his or her spouse, if any) at any time by written notice. In the event of the death of a participant and in the absence of a beneficiary validly designated under the Plan who is living at the time of such participant's death, the Company shall deliver such shares and/or cash to the executor or administrator of the estate of the participant, or if no such executor or administrator has been appointed (to the knowledge of the Company), the Company, in its discretion, may deliver such shares and/or cash to the spouse or to any one or more dependents or relatives of the participant, or if no spouse, dependent or relative is known to the Company, then to such other person as the Company may designate.

15. Transferability. Neither payroll deductions credited to a participant's account nor any rights with regard to the exercise of an option or to receive shares under the Plan may be assigned, transferred, pledged or otherwise disposed of in any way (other than by will, the laws of descent and distribution or as provided in paragraph 14 hereof) by the participant. Any such attempt at assignment, transfer, pledge or other disposition shall be without effect, except that the Company may treat such act as an election to withdraw

funds from an Offering Period in accordance with paragraph 10.

- 16. Use of Funds. All payroll deductions received or held by the Company under the Plan may be used by the Company for any corporate purpose, and the Company shall not be obligated to segregate such payroll deductions.
- 17. Reports. Individual accounts will be maintained for each participant in the Plan. Statements of account will be given to participating Employees at least annually, which statements will set forth the amounts of payroll deductions, the Purchase Price, the number of shares purchased and the remaining cash balance, if any.
- 18. Adjustments Upon Changes in Capitalization, Dissolution, Merger or Asset Sale.
- (a) Changes in Capitalization. Subject to any required action by the stockholders of the Company, the Reserves as well as the price per share of Common Stock covered by each option under the Plan which has not yet been exercised, shall be proportionately adjusted for any increase or decrease in the number of issued shares of Common Stock resulting from a stock split, reverse stock split, stock dividend, combination or reclassification of the Common Stock, or any other increase or decrease in the number of shares of Common Stock effected without receipt of consideration by the Company; provided, however, that conversion of any convertible securities of the Company shall not be deemed to have been "effected without receipt of consideration". Such adjustment shall be made by the Board, whose determination in that respect shall be final, binding and conclusive. Except as expressly provided herein, no issue by the Company of shares of stock of any class, or securities convertible into shares of stock of any class, shall affect, and no adjustment by reason thereof shall be made with respect to, the number or price of shares of Common Stock subject to an option. The Board may, if it so determines in the exercise of its sole discretion, make provision for adjusting the Reserves, as well as the price per share of Common Stock covered by each outstanding option, in the event the Company effects one or more reorganizations, recapitalizations, rights offerings or other increases or reductions of shares of its outstanding Common Stock.
- (b) Dissolution or Liquidation. In the event of the proposed dissolution or liquidation of the Company, the Offering Periods will terminate immediately prior to the consummation of such proposed action, unless otherwise provided by the Board.

(c) Merger or Asset Sale. In the event of a proposed sale of all or substantially all of the assets of the Company, or the merger of the Company with or into another corporation, each option under the Plan shall be assumed or an equivalent option shall be substituted by such successor corporation or a parent or subsidiary of such successor corporation, unless the

Board determines, in the exercise of its sole discretion and in lieu of such assumption or substitution, to shorten the Offering Periods then in progress by setting a new Exercise Date (the "New Exercise Date"). If the Board shortens the Offering Periods then in progress in lieu of assumption or substitution in the event of a merger or sale of assets, the Board shall notify each participant in at least ten (10) days prior to the New Exercise Date, that the Exercise Date for his option has been changed to the New Exercise Date and that his option will be exercised automatically on the New Exercise Date, prior to such date he has withdrawn from the Offering Period as provided in paragraph 10. For purposes of this paragraph, an option granted under the Plan shall be deemed to be assumed if, following the sale of assets or merger, the option confers the right to purchase, for each share of option stock subject to the option immediately prior to the sale of assets or merger, the consideration (whether stock, cash or other securities or property) received in the sale of assets or merger by holders of Common Stock for each share of Common Stock held on the effective date of the transaction (and if such holders were offered a choice of consideration, the type of consideration chosen by the holders of a majority of the outstanding shares of Common Stock); provided, however, that if such consideration received in the sale of assets or merger was not common stock of the successor corporation or its parent (as defined in Section 424(e) of the Code), the Board may, with the consent of the successor corporation and the participant, provide for the consideration to be received stock of the successor upon exercise of the option to be solely common corporation or its parent equal in fair market value to the per consideration received by holders of Common Stock in the sale of assets or merger.

19. Amendment or Termination.

(a) The Board of Directors of the Company may at any time and for any reason terminate or amend the Plan. Except as provided in paragraph 18, no such termination can affect options previously granted, provided that an Offering Period may be terminated by the Board of Directors on any Exercise Date if the Board determines that the termination of the Plan is in the best interests of the Company and its stockholders. Except as provided in paragraph 18, no amendment may make any change in any option theretofore granted which adversely affects the rights of any participant. To the extent necessary to comply with Rule 16b-3 or under Section 423 of the Code (or any successor rule or provision or any other applicable law or regulation), the Company shall obtain stockholder approval in such a manner and to such a degree as required.

(b) Without stockholder consent and without regard to whether any participant rights may be considered to have been "adversely affected," the Board (or its committee) shall be entitled to change the Purchase Periods and/or Offering Periods, limit the frequency and/or number of changes in the amount withheld during Purchase Periods and/or Offering Periods, establish the exchange ratio applicable to amounts withheld in a currency other than U.S. dollars, permit payroll withholding in excess of the amount designated by a participant in order to adjust for delays or mistakes in the Company's processing of properly completed withholding elections, establish reasonable waiting and adjustment periods and/or accounting and crediting procedures to ensure that

amounts applied toward the purchase of Common Stock for each participant properly correspond with amounts withheld from the participant's Compensation, and establish such other limitations or procedures as the Board (or its committee) determines in its sole discretion advisable which are consistent with the Plan.

- 20. Notices. All notices or other communications by a participant to the Company under or in connection with the Plan shall be deemed to have been duly given when received in the form specified by the Company at the location, or by the person, designated by the Company for the receipt thereof.
- 21. Conditions Upon Issuance of Shares. Shares shall not be issued with respect to an option unless the exercise of such option and the issuance and delivery of such shares pursuant thereto shall comply with all applicable provisions of law, domestic or foreign, including, without limitation, the Securities Act of 1933, as amended, the Securities Exchange Act of 1934, as amended, the rules and regulations promulgated thereunder, and the requirements of any stock exchange upon which the shares may then be listed, and shall be further subject to the approval of counsel for the Company with respect to such compliance.

As a condition to the exercise of an option, the Company may require the person exercising such option to represent and warrant at the time of any such exercise that the shares are being purchased only for investment and without any present intention to sell or distribute such shares if, in the opinion of counsel for the Company, such a representation is required by any of the aforementioned applicable provisions of law.

- 22. Term of Plan. The Plan shall become effective upon the earlier to occur of its adoption by the Board of Directors or its approval by the stockholders of the Company. It shall continue in effect for a term of twenty (20) years unless sooner terminated under paragraph 19.
- 23. Additional Restrictions of Rule 16b-3. The terms and conditions of options granted hereunder to, and the purchase of shares by, persons subject to Section 16 of the Exchange Act shall comply with the applicable provisions of Rule 16b-3. This Plan shall be deemed to contain, and such options shall contain, and the shares issued upon exercise thereof shall be subject to, such additional conditions and restrictions as may be required by Rule 16b-3 to qualify for the maximum exemption from Section 16 of the Exchange Act with respect to Plan transactions.
- 24. Automatic Transfer to Low Price Offering Period. To the extent permitted by Rule 16b-3 of the Exchange Act, if the Fair Market Value of the Common Stock on any Exercise Date in an Offering Period is lower than the Fair Market Value of the Common Stock on the Enrollment Date of such Offering Period,

then all participants in such Offering Period shall be automatically withdrawn from such Offering Period immediately after the exercise of their options on such Exercise Date and automatically re-enrolled in the immediately following Offering Period as of the first day thereof

EXHIBIT A

ELECTION FORM

| Inc. 1991 Employee Stock Purchase Delects a Purchase Price equal to 100 a share of Common Stock on the Enrol | nt in the Offering Period of the PMC-Sierra, Plan which began on,, D%, and not 85%, of the Fair Market Value of Ilment Date or 85% of the Fair Market Value lower, for the Purchase Period ending on |
|--|---|
| | e the meaning they have in the PMC-Sierra, |
| shares or from any other event undersigned) shall be borne sole? | ng from this election, from the purchase of or act hereunder (of the Company or the ly by the undersigned. The undersigned d not rely on the Company for tax advice and making this election. |
| | Name of Participant |
| | |
| | Address of Participant |
| | Signature |
| | |

Please fill-in and file with the Company's payroll office at least 10 business days before the Exercise Date.

Date

EXHIBIT B

PMC-SIERRA, INC.

1991 EMPLOYEE STOCK PURCHASE PLAN

SUBSCRIPTION AGREEMENT

Enrollment Date: _____

____ Original Application

Change in Payroll Deduction Rate

| | Change of Beneficiary(ies) |
|----|---|
| 1. | I,, hereby elect to participate in the PMC-Sierra, Inc. 1991 Employee Stock Purchase Plan (the "Employee Stock Purchase Plan") and subscribe to purchase shares of PMC-Sierra, Inc.'s (the "Company") Common Stock in accordance with this Subscription Agreement and the Employee Stock Purchase Plan. |
| 2. | I hereby authorize payroll deductions from each paycheck in the amount of% of my Compensation on each payday (not to exceed 10%) during the Offering Period in accordance with the Employee Stock Purchase Plan. (Please note that no fractional percentages are permitted.) |
| 3. | I understand that said payroll deductions shall be accumulated for the purchase of shares of Common Stock at the applicable Purchase Price determined in accordance with the Employee Stock Purchase Plan. I understand that if I do not withdraw from an Offering Period, any accumulated payroll deductions will be used to automatically exercise my option. |
| 4. | I have received a copy of the complete "PMC-Sierra, Inc. 1991 Employee Stock Purchase Plan." I understand that my participation in the Employee Stock Purchase Plan is in all respects subject to the terms of the Plan. I understand that the grant of the option by the Company under this Subscription Agreement is subject to obtaining stockholder approval of the Employee Stock Purchase Plan. |
| 5. | Shares purchased for me under the Employee Stock Purchase Plan should be issued in the name(s) of (employee and/or spouse only): |
| | |

- 6. (For US taxpayers only) I understand that if I dispose of any shares received by me pursuant to the Plan within 2 years after the Enrollment Date (the first day of the Offering Period during which I purchased such shares) or within 1 year after the Exercise Date (the date I purchased such shares), I will be treated for federal income tax purposes as having received ordinary income at the time of such disposition in an amount equal to the excess of the fair market value of the shares at the time such shares were delivered to me over the price which I paid for the shares. I hereby agree to notify the Company writing within 30 days after the date of any disposition of my shares and I will make adequate provision for Federal, State or other tax withholding obligations, if any, which arise upon the disposition of the Common Stock. The Company may, but will not be obligated withhold from my compensation the amount necessary to meet applicable withholding obligation including any withholding necessary to make available to the Company any tax deductions or benefits attributable to sale or early disposition of Common Stock by me. If I dispose of such shares at any time after the expiration of the 1-year and 2-year holding periods described above, I understand that I will be treated for federal income tax purposes as having received income only at the time of such disposition, and that such income will be taxed as ordinary income only to the extent of an amount equal to the lesser of (1) the excess of the fair market value of the shares at the time of such disposition over the purchase price which I paid for the shares, or (2) 15% of the fair market value of the shares on the first day of the Offering Period. The remainder of the gain, if any, recognized on such disposition will be taxed as capital gain. I hereby agree to be bound by the terms of the Employee Stock Purchase
- 7. I hereby agree to be bound by the terms of the Employee Stock Purchase Plan. The effectiveness of this Subscription Agreement is dependent upon my eligibility to participate in the Employee Stock Purchase Plan.
- 8. In the event of my death, I hereby designate the following as my beneficiary(ies) to receive all payments and shares due me under the Employee Stock Purchase Plan:

| NAME: | (Please print) | | | |
|------------|----------------|---------|----------|--------|
| | | (First) | (Middle) | (Last) |
| | | | | |
| | | | | |
| Relati | onship | | | |

| | | (Address) | (Address) | | |
|--|-------------|---------------------------------------|---------------------|--|--|
| NAME: (Please print) | | | | | |
| NAME: (Please print) | (First) | (Middle) | (Last) | | |
| | | | | | |
| | | | | | |
| Relationship | | | | | |
| | | (Address) | | | |
| Employee's Social | | | | | |
| Security Number: | | | | | |
| | | | | | |
| Employee's Address: | | | | | |
| | | | | | |
| | | | | | |
| I UNDERSTAND THAT THIS S SUCCESSIVE OFFERING PERI | | | N EFFECT THROUGHOUT | | |
| | | | | | |
| Dated: | | Signature of Emplo | yee | | |
| | | | | | |
| | | Spouse's Signature other than spouse) | | | |

EXHIBIT C

PMC-SIERRA, INC.

1991 EMPLOYEE STOCK PURCHASE PLAN

NOTICE OF WITHDRAWAL

| The undersigned participant in | the Offering Period of the PMC-Sierra, |
|--|---|
| Inc. 1991 Employee Stock Purchase Plan wh: | ich began on, 19 (the |
| 'Enrollment Date") hereby notifies the Co | ompany that he or she hereby withdraws |
| from the Offering Period. He or she he | reby directs the Company to pay to the |
| undersigned as promptly as practicable a | |
| nis or her account with respect to such | |
| understands and agrees that his or her op | |
| automatically terminated. The undersigned | |
| payroll deductions will be made for the | - |
| Offering Period and the undersigned sl | |
| succeeding Offering Periods only by delive Agreement. | aring to the company a new subscription |
| igreement. | |
| | Name and Address of Participant |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | Signature |
| | Signature |
| | |
| | |
| | |
| | |
| | Date: |
| | |

PMC-SIERRA, INC. LIST OF SUBSIDIARIES

- 1. PMC-Sierra Ltd., organized under the laws of British Columbia, doing business only under its official name.
- 2. PMC-Sierra, Inc. (Portland), organized under the laws of Delaware, doing business only under its official name.
- 3. PMC-Sierra (Maryland), Inc., organized under the laws of Delaware, doing business only under its official name.
- 4. PMC-Sierra International Inc., organized under the laws of Barbados, doing business only under its official name.
- 5. PMC-Sierra, Inc. (U.S.), organized under the laws of Washington, doing business only under its official name.
- 6. PMC-Sierra Europe Ltd., organized under the laws of the United Kingdom, doing business only under its official name.
- 7. Sierra Semiconductor B.V., organized under the laws of The Netherlands, doing business only under its official name.

CONSENT OF ERNST & YOUNG LLP, INDEPENDENT AUDITORS

We consent to the incorporation by reference in the Registration Statements (Form S-3 Nos. 33-86930, 33-90392, 33-96620, 33-97490, 333-15519 and 333-55989), and in the Registration Statements (Form S-8 Nos. 33-41027, 33-80988, 333-13387, 33-80992, 33-94790, 333-13359, 333-34671, 333-13357, 333-55983 and 333-55991) pertaining to the 1991 Employee Stock Purchase Plan, the 1994 Incentive Stock Plan, the PMC-Sierra, Inc. (Portland) 1996 Stock Option Plan of PMC-Sierra, Inc. (formerly Sierra Semiconductor Corporation), and 1998 PMC-Sierra (Maryland), Inc. Stock Option Plan and in the related Prospectuses, of our report dated January 22, 1997, with respect to the consolidated financial statements and schedule of PMC-Sierra, Inc. (formerly Sierra Semiconductor Corporation) included in this Annual Report (Form 10-K) for the year ended December 31, 1998.

/s/ ERNST & YOUNG LLP

San Jose, California March 25, 1999

CONSENT OF DELOITTE & TOUCHE LLP, INDEPENDENT AUDITORS

We consent to the incorporation by reference in the Registration Statements (Form S-3 Nos. 33-86930, 33-90392, 33-96620, 33-97490, 333-15519 and 333-55989), and in the Registration Statements (Form S-8 Nos. 33-41027, 33-80988, 333-13387, 33-80992, 33-94790, 333-13359, 333-34671, 333-13357, 333-55983 and 333-55991) pertaining to the 1991 Employee Stock Purchase Plan, the 1994 Incentive Stock Plan, the PMC-Sierra, Inc. (Portland) 1996 Stock Option Plan of PMC-Sierra, Inc. (formerly Sierra Semiconductor Corporation), and 1998 PMC-Sierra (Maryland), Inc. Stock Option Plan and in the related Prospectuses, of our report dated January 22, 1997, with respect to the consolidated financial statements and schedule of PMC-Sierra, Inc. (formerly Sierra Semiconductor Corporation) included in this Annual Report (Form 10-K) for the year ended December 31, 1998.

/s/ Deloitte & Touche LLP

Vancouver, B.C. March 24, 1998

<ARTICLE> 5

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THIS SCHEDULE CONTAINS SUMMARY FINANCIAL INFORMATION EXTRACTED FROM THE FORM 10-K FILED FOR THE YEAR ENDED DECEMBER 27, 1998 AND IS QUALIFIED IN ITS ENTIRETY BY REFERENCE TO SUCH FINANCIAL STATEMENTS.

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