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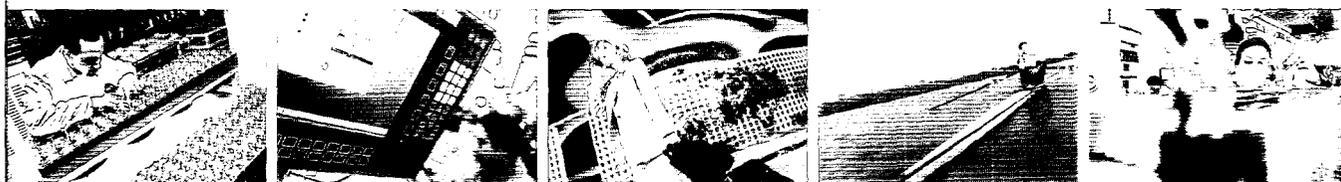
Also during 2002, we continued to build the foundation for the future success of Powerwave. We announced in the fourth quarter of 2002 that we had commenced utilization of one of Celestica Corporation's mainland China facilities for outsourced production of complete single carrier RF power amplifier products for delivery to the Chinese marketplace. This marked the first time that Powerwave has utilized a contract manufacturer for a complete product build of one of our RF power amplifier products. As we move into 2003, we expect that we will move additional production capacity offshore to further improve our cost structure and maintain what we believe is one of the most cost-effective manufacturing structures in our industry. At the same time, we plan to maintain selected new product introduction and production capability at our manufacturing and headquarters facility in Santa Ana, California, utilizing what we believe is one of the most advanced RF power amplifier research and development and production facilities in the world.

As we enter 2003, we believe that Powerwave continues to be the only major independent RF power amplifier supplier that has multiple product relationships with the top five wireless base station OEMs. As our mission states, we remain committed to being the leading supplier of advanced RF power amplifier solutions for the wireless communications industry. We are concerned with the difficult economic environment throughout the world and the increasing concerns of global terrorism. However, in spite of these factors, we believe that we are well positioned to benefit from the long-term growth opportunities in the RF power amplifier market.

We greatly appreciate your continued strong support as well as the support of our customers, suppliers and employees and we will continue to do everything within our power to meet and exceed your expectations.



Bruce C. Edwards  
*President and Chief Executive Officer*



MARCH 28, 2003

## T O U R S H A R E H O L D E R S

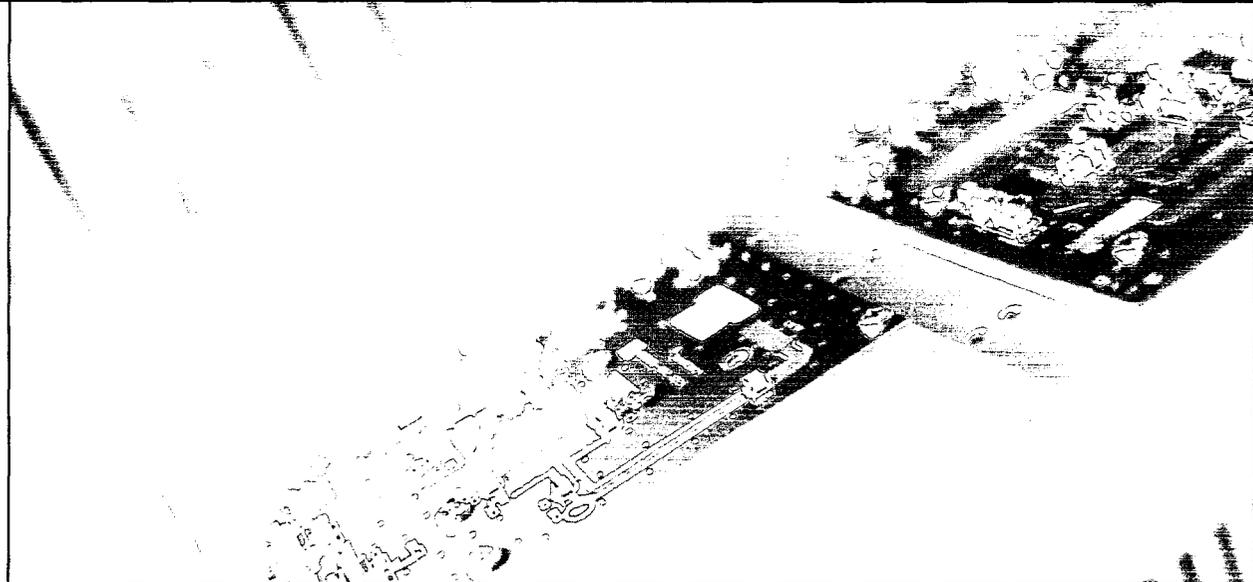
Fiscal 2002 was both an exciting and challenging year for Powerwave. The first half of the year we experienced strong growth throughout our customer base, and we generated strong profitability, especially compared to the previous year. During the second half of the year, the continued global slowdown in telecommunications capital spending on wireless infrastructure significantly reduced demand for our products.

In spite of this environment and the challenges it creates, during 2002, we focused on making sure Powerwave is positioned to benefit from future growth and demand in our industry.

Powerwave's goal remains unchanged and that is to be the leading supplier of advanced RF power amplifier solutions for the wireless communications industry. In executing this mission, we announced in July 2002 a strategic alliance with Filtronic plc to jointly develop and supply integrated RF power amplifier and RF conditioning unit solutions for the 3G wireless infrastructure base station market. The goal of this alliance is to combine the RF amplifier design resources of Powerwave with the RF conditioning expertise of Filtronic in order to offer OEM customers a single source for high-performance integrated RF products for 3G networks.

On the RF power amplifier front, we believe that we continue to lead our industry in both the design and manufacture of high-performance multi-carrier RF power amplifier products for both 2G and 2.5G as well as 3G networks. During 2002, we announced new standard setting high powered RF multi-carrier power amplifiers with power ranges of over 180 watts per module for Cellular frequencies and 125 watts per module for PCS frequencies. We also have recently introduced new high powered booster solutions for both the 3G and GSM markets along with an industry leading, high-performance multi-carrier 3G power amplifier which delivers an impressive 22 percent efficiency.

FINANCIAL HIGHLIGHTS



<i>In thousands, except per share amounts</i>	2002	2001	2000	1999	1998
<b>SUMMARY OF OPERATIONS</b>					
Net Sales	\$ 384,889	\$ 300,293	\$ 447,422	\$ 292,547	\$ 100,231
Gross Profit	62,782	29,786	142,327	82,242	34,175
Operating Expenses:					
Sales and Marketing	11,384	13,733	21,217	15,179	9,533
Research and Development	33,087	34,750	41,054	26,250	13,472
General and Administrative	14,401	18,918	15,339	12,088	5,771
In-Process Research and Development	—	—	—	—	12,400
Total Operating Expenses	58,872	67,401	77,610	53,517	41,176
Operating Income (Loss)	3,910	(37,615)	64,717	28,725	(7,001)
Other Income, net	1,963	5,565	6,063	2,846	2,330
Income (Loss) before Income Taxes	5,873	(32,050)	70,780	31,571	(4,671)
Net Income (Loss)	\$ 4,111	\$ (20,512)	\$ 45,653	\$ 20,265	\$ (2,966)
Basic Earnings (Loss) per Share	\$ 0.06	\$ (0.33)	\$ 0.75	\$ 0.34	\$ (0.06)
Diluted Earnings (Loss) per Share	\$ 0.06	\$ (0.33)	\$ 0.71	\$ 0.33	\$ (0.06)
Basic Weighted Average Common Shares	65,485	64,197	61,953	58,480	51,534
Diluted Weighted Average Common Shares	66,230	64,197	65,313	60,671	51,534
<b>FINANCIAL POSITION:</b>					
Cash and Cash Equivalents	\$ 162,529	\$ 123,171	\$ 128,733	\$ 76,671	\$ 13,307
Working Capital	218,504	186,255	196,733	118,566	35,210
Total Assets	369,173	363,017	393,797	223,038	131,985
Long-Term Debt	—	239	42	—	17,621
Total Shareholders' Equity	\$ 325,661	\$ 316,235	\$ 316,272	\$ 169,779	\$ 71,070

Note: All share and per share amounts have been restated to reflect a three-for-one Common Stock split on May 15, 2000.

**UNITED STATES SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

**FORM 10-K**

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

For the fiscal year ended December 29, 2002

OR

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

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission File Number 000-21507

**POWERWAVE TECHNOLOGIES, INC.**

*(Exact name of registrant as specified in its charter)*

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

11-2723423  
*(I.R.S. Employer  
Identification No.)*

1801 E. St. Andrew Place, Santa Ana, CA 92705  
*(Address of principal executive offices, zip code)*

Registrant's telephone number, including area code: (714) 466-1000

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 \$.0001

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

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

Indicate by check mark whether the Registrant is an accelerated filer as defined in Rule 12b-2 of the Securities Exchange Act of 1934. Yes  No

As of June 30, 2002, the aggregate market value of the voting stock of the Registrant held by non-affiliates of the Registrant was \$591,567,300 computed using the closing price of \$9.16 per share of Common Stock on June 28, 2002, the last trading day of the second quarter, as reported by Nasdaq, based on the assumption that directors and officers and more than 10% stockholders are affiliates. As of February 13, 2003 the number of outstanding shares of Common Stock, par value \$.0001 per share, of the Registrant was 65,968,329.

**DOCUMENTS INCORPORATED BY REFERENCE**

Information required by Part III is incorporated by reference to portions of the Registrant's Proxy Statement for the fiscal 2002 Annual Meeting of Stockholders which will be filed with the Securities and Exchange Commission within 120 days after the close of the 2002 fiscal year.

POWERWAVE TECHNOLOGIES, INC.

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## CAUTIONARY STATEMENT RELATED TO FORWARD LOOKING STATEMENTS

*This Annual Report on Form 10-K includes certain forward-looking statements as defined within Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, relating to revenue, revenue composition, demand and pricing trends, future expense levels, trends in average selling prices and gross margins, the transfer of certain manufacturing operations to contract manufacturers, the timing of and demand for 3G products and the level of expected capital and research and development expenditures. Such forward-looking statements are based on the beliefs of, estimates made by, and information currently available to Powerwave's management and are subject to certain risks, uncertainties and assumptions. Any statements contained herein (including without limitation statements to the effect that the Company or management "estimates," "expects," "anticipates," "plans," "believes," "projects," "continues," "may," "will," "could," or "would" or statements concerning "potential" or "opportunity" or variations thereof or comparable terminology or the negative thereof) that are not statements of historical fact should be construed as forward-looking statements. The actual results of Powerwave Technologies, Inc. may vary materially from those expected or anticipated in these forward-looking statements. The realization of such forward-looking statements may be impacted by certain important unanticipated factors including those discussed in "Additional Factors That May Affect Our Future Results" under Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations," at pages 12-38. Because of these and other factors that may affect Powerwave's operating results, past performance should not be considered as an indicator of future performance and investors should not use historical results to anticipate results or trends in future periods. The Company undertakes no obligation to publicly release the results of any revisions to these forward-looking statements that may be made to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events. Readers should carefully review the risk factors described in this and other documents that Powerwave files from time to time with the Securities and Exchange Commission ("SEC"), including subsequent Current Reports on Form 8-K, Quarterly Reports on Form 10-Q and Annual Reports on Form 10-K.*

## HOW TO OBTAIN POWERWAVE SEC FILINGS

*All reports filed by the Company with the SEC are available free of charge via EDGAR through the SEC website at [www.sec.gov](http://www.sec.gov). In addition, the public may read and copy materials filed by the Company with the SEC at the SEC's public reference room located at 450 Fifth St., N.W., Washington, D.C., 20549. The Company also provides copies of its Forms 8-K, 10-K, 10-Q, Proxy and Annual Report at no charge to investors upon request and makes electronic copies of such reports available through its website at [www.powerwave.com/investor.html](http://www.powerwave.com/investor.html) as soon as reasonably practicable after filing such material with the SEC.*

## PART I

### ITEM 1. BUSINESS

#### General

Powerwave Technologies, Inc. ("Powerwave" or the "Company" or "our" or "we") was incorporated in Delaware in January 1985 under the name Milcom International, Inc. We changed our name to Powerwave Technologies, Inc. in June 1996. Powerwave designs, manufactures and markets ultra-linear radio frequency ("RF") power amplifiers for use in the wireless communications market. RF power amplifiers, which are key components of wireless communications networks, increase the signal strength of wireless transmissions from the base station to the handset while reducing interference, or "noise." Less noise enables wireless service providers to deliver clearer call connections and reduces the number of interrupted or dropped calls.

Powerwave manufactures both single and multi-carrier RF power amplifiers for a variety of frequency ranges and transmission protocols. Single carrier RF power amplifiers ("SCPA") typically amplify a specific radio channel. Multi-carrier RF power amplifiers ("MCPA") are capable of amplifying several radio channels at one time by integrating the functions of several SCPA units and cavity filters within a single MCPA unit. Powerwave's products are currently being utilized in wireless networks operating in the 800-1000 megahertz (MHz), 1800-2000 MHz and over 2000 MHz frequency ranges. Our products support a wide range of transmission protocols including analog protocols such as AMPS and TACS and digital protocols such as CDMA, TDMA, and GSM. We also have

developed and introduced RF power amplifiers for third generation ("3G") transmission protocols such as UMTS, W-CDMA and cdma2000.

We believe that our future success depends upon continued growth in demand for wireless services as well as our ability to broaden our customer base. For the fiscal year ended December 29, 2002 ("fiscal 2002"), our largest customer was Nortel Networks Corporation and related entities ("Nortel"), which accounted for approximately 49% of our net sales. Our next two largest customers (in alphabetical order) for fiscal 2002, Cingular Wireless, and Nokia Telecommunications Inc. ("Nokia"), each accounted for 10% or more of our net sales. The loss of any one of these customers, or a significant loss, reduction or rescheduling of orders from any of our customers would have a material adverse effect on our business, results of operations and financial condition. See "Additional Factors That May Affect Future Results—We rely upon a few customers for a significant amount of our revenues...; — Our success is tied to the growth of the wireless services market...; and —There are many risks associated with international operations..." under Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations."

A limited number of large original equipment manufacturers ("OEMs") account for a majority of RF power amplifier purchasers in the wireless equipment market, and our future success is dependent upon our ability to establish and maintain relationships with these types of customers. While we regularly attempt to expand our customer base, we cannot give any assurance that a major customer will not reduce, delay or eliminate its purchases from us. We have previously experienced significant reductions in demand from customers, such as the significant reductions in demand from Nortel during fiscal 2001 as compared to fiscal 2000. That reduction in demand, coupled with the industry-wide reduction in demand during fiscal 2001, had an adverse effect on our business and results of operations. During the second half of fiscal 2002, we experienced significant reductions in demand in connection with what we believe to be a renewed industry-wide reduction in demand that had an adverse impact on our business and results of operations in the third and fourth quarters of fiscal 2002. Any future reductions in demand by any of our major customers would have a material adverse effect on our business, results of operations and financial condition. See "Additional Factors That May Affect Future Results— "We rely upon a few customers for a significant amount of our revenues..." under Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations."

We have experienced, and expect to continue to experience, declining average sales prices for both our multi-carrier and single carrier amplifier products. Consolidation among wireless service providers has enabled such companies to place increased pricing pressure on wireless infrastructure manufacturers, which in turn has resulted in downward pricing pressure on our products. In addition, ongoing competitive pressures in the RF power amplifier market have put pressure on us to continually reduce the sales price of our products. Consequently, we believe that our gross margins will decline over time and that in order to maintain or improve our gross margins, we must achieve manufacturing cost reductions and develop new products that incorporate advanced features that may generate higher gross margins. See "Additional Factors That May Affect Future Results—We rely upon a few customers for a significant amount of our revenues...; —Our success is tied to the growth of the wireless services market...; —Our average sales prices have declined...; and —There are many risks associated with international operations..." under Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations."

#### **Significant Business Developments in Fiscal 2002**

On July 26, 2002, Powerwave announced a strategic alliance with Filtronic plc to jointly develop and supply integrated RF power amplifier and RF conditioning unit solutions for the 3G wireless infrastructure base station market. The goal of this alliance is to combine the RF amplifier design resources of Powerwave with the RF conditioning expertise of Filtronic plc in order to offer OEM customers a single source for high performance integrated RF products for 3G wireless networks.

During the fourth quarter of fiscal 2002, we announced that we had started to utilize one of Celestica Corporation's ("Celestica") mainland China facilities for outsourced production of complete single carrier RF amplifier products for delivery to the Chinese market. This marked the first time that Powerwave has utilized a contract manufacturer for a complete product build of one of its RF amplifier products.

#### **Industry Segments and Geographic Information**

Powerwave currently operates in one industry segment: the design, manufacture and marketing of RF power amplifiers for use in wireless communication networks. We currently market our products through our own internal sales force as well as independent sales representatives and resellers. For the purposes of Statement of Financial Accounting Standards No. 131, *Disclosures About Segments of an Enterprise and Related Information*, we have

provided a breakdown of our sales in Note 18 of the "Notes to Consolidated Financial Statements" under Item 8, "Financial Statements and Supplementary Data." Utilizing the management approach, we have broken down our sales based upon the RF frequency in which the product is utilized, i.e. 800-1000 MHz commonly referred to as "Cellular", 1800-2000 MHz, commonly referred to as "PCS" and over 2000 MHz, which includes third generation ("3G") frequency bands. A summary of our sales by geographic region is incorporated herein by reference to Note 18 of the "Notes to Consolidated Financial Statements" under Item 8, "Financial Statements and Supplementary Data."

### Business Strategy

Powerwave's strategy is to become the leading supplier of advanced RF power amplifier solutions to the wireless communications industry and includes the following key elements:

- provide leading technology to the RF power amplifier industry through research and development that continues to improve our product's technical performance and establishes new levels of technical performance for the industry;
- utilize our research and development efforts to raise our productivity and to lower our product costs;
- leverage our position as a leading supplier of both single carrier and multi-carrier RF power amplifiers to increase our market share and expand our relationships with our existing customers;
- continue to expand our customer base of wireless network OEMs and leading wireless network operators; and
- maintain our focus on the quality, reliability and manufacturability of our RF power amplifier products.

Our focus on RF power amplifier technology and the experience we have gained through the implementation of our products in both analog and digital wireless networks throughout the world has enabled us to develop substantial expertise in both multi-carrier and single carrier RF power amplifier technology. We intend to continue to research and develop new methods to improve RF power amplifier performance, including efforts to support future generation transmission standards. We believe that both our existing products and new products under development will enable us to continue to expand our customer base by offering a broad range of products at attractive price points to meet the diverse requirements of wireless OEMs and network operators. We also intend to leverage our product lines in an attempt to expand our relationships with our existing customers and to add new customers. Powerwave has developed the ability to manufacture both multi-carrier and single carrier RF power amplifiers in a standard, repeatable manner, which allows for increased production levels. We believe that we are able to respond quickly and cost-effectively to new transmission protocols and design specifications by obtaining components from numerous leading technology companies. We also believe that our focus on the manufacturability of our RF power amplifier designs should help us to increase our manufacturing productivity while reducing our product costs. We believe that this ability to offer a broad range of products represents a competitive advantage over other third-party manufacturers of RF power amplifiers.

If we are unsuccessful in designing new products, improving existing products or reducing the costs of our products, our inability to meet these objectives would have a negative effect on our gross profit margins, business, results of operations and financial condition. In addition, if our outstanding customer orders were to be significantly reduced, the resulting loss of purchasing volume would also adversely affect our cost competitive advantage, which would negatively affect our gross profit margins, business, results of operations and financial condition. See "Additional Factors That May Affect Future Results— Our average sales prices have declined...; and —We may fail to develop products that are sufficiently manufacturable..." under Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations."

### Markets

Powerwave provides RF power amplifiers that are generally located in wireless base stations and work to increase the signal strength of outgoing transmissions. Our single carrier and multi-carrier RF power amplifiers work in base stations with a variety of other sophisticated electronic equipment, including receivers, radios and oscillators.

Wireless networks typically utilize a number of base stations with high power antennas to serve a geographical region. Each region is broken down into a number of smaller geographical areas, or "cells." Each cell has its own base station that uses wireless technology to receive and transmit calls via base stations and the wireline public switched telephone network. Cellular networks typically operate within the 800 and 900 MHz bandwidths of the radio spectrum and utilize either analog or digital protocols. PCS networks operate in a substantially similar manner as cellular networks, except that PCS networks typically operate at 1800 and 1900 MHz bandwidths and utilize only digital transmission protocols. Third generation networks typically operate in the over 2000 MHz range

utilizing only digital transmissions. Transmissions at the higher frequencies utilized by PCS and 3G networks have shorter transmission waves as compared to cellular frequency transmissions, which tends to limit the distances transmissions can travel without significant degradation. Lower frequency signals penetrate into buildings and other obstacles better than higher frequency signals. Therefore, wireless networks operating at high frequency ranges may require smaller operating cells and more base stations than existing cellular networks to cover the same total geographic area.

In analog cellular networks, each base station is allocated a certain number of frequency channels, each of which can carry only one call at a time. Originally, cellular base stations in analog networks used single carrier RF power amplifiers for each frequency channel allocated to the cell. With the use of MCPA technology, transmission signals can be amplified simultaneously through a single multi-carrier RF power amplifier that allows for the simultaneous amplification of all channels within a base station. Multi-carrier RF power amplifiers require significantly higher linearity than do single carrier designs, but do not require separate, high-maintenance, tunable cavity filters. By eliminating the need for cavity filters for each channel, multi-carrier RF power amplifiers reduce overall deployment and maintenance costs associated with base stations. Many service providers still require additional capacity to serve the increased flow of transmissions through their networks. This has led many service providers to move from analog networks to digital networks.

In digital networks, calls are segmented into time slots or codes and transmitted across the entire bandwidth of allocated spectrum, rather than in single channels of that spectrum. The calls are then reassembled when received at the base station or cellular phone. While using the entire bandwidth of allocated spectrum results in greater system capacity, there is a greater likelihood that even minimal background noise will result in interrupted or dropped calls. Accordingly, ultra-linear amplification is even more critical in digital networks than in their analog counterparts.

## Products

Powerwave offers both single and multi-carrier RF power amplifiers for use in cellular networks, including ultra-linear multi-carrier RF power amplifiers for CDMA, cdma2000, TDMA and GSM digital cellular systems as well as analog systems utilizing AMPS and TACS protocols. We also offer both single and multi-carrier RF power amplifiers for use in PCS networks that operate in the international DCS-1800 frequency (1800 MHz) and the United States PCS band at 1900 MHz and multi-carrier RF power amplifiers for UMTS networks (3G) operating at 2100 MHz. Typical system applications include CDMA, cdma 2000, W-CDMA, TDMA, and GSM protocols with output power ranging from 5 to 180 Watts (W).

Our ultra-linear multi-carrier RF power amplifiers generally utilize feedforward technology, and typically employ pre-distortion techniques. Our multi-carrier designs also utilize an actively switched output combiner (3 or 4 way), which allows any number of RF power amplifiers to be "hot-swapped", or interchanged, without a significant loss of power. This design also allows for true cold standby switching of a standby RF power amplifier, thereby providing network operators with a backup redundancy solution for even greater reliability. These RF power amplifiers are designed to typically be installed in racks of three or four RF power amplifiers. Smart combiner paralleling units allow for both higher power as well as system redundancy, which is the ability of the system to remain operational in the event of the failure of one or more of the paralleled RF power amplifiers.

We offer various versions of our multi-carrier RF power amplifiers providing from 25W to 180W of average power with maximum distortion of up to -65dBc or better. Up to four units can be combined in parallel utilizing our fully redundant smart combiner racks for various effective average power ratings.

We also offer single carrier RF power amplifiers for GSM, CDMA and TDMA operating systems. Products are available in a wide range of RF output levels. These products are available in versions ranging from complete stand-alone units to highly integrated RF power amplifiers for tower-top applications.

Our multi-carrier RF power amplifiers range in price from approximately \$2,000 to over \$11,000 per RF power amplifier, based upon the specification requirements. Our single carrier RF power amplifiers range in price from approximately \$500 to \$3,000 per RF power amplifier, depending upon product type and specifications. We also sell rack systems, cabinets and combiners for multiple RF power amplifiers, ranging in price from approximately \$400 to over \$100,000, depending upon specifications.

## Customers

We sell our products to customers worldwide, including a variety of wireless OEMs, such as LM Ericsson Telephone Company ("Ericsson"), LG Information & Communications, Ltd. ("LGIC"), Lucent Technologies, Inc. ("Lucent"), Motorola Corporation ("Motorola"), Nokia, Nortel and Samsung Electronics Co. Ltd. ("Samsung"). We

also sell our products to operators of wireless networks, such as ALLTEL Corporation, AT&T Wireless Services ("AT&T Wireless"), Cingular Wireless and Verizon Wireless.

For the fiscal year ended December 29, 2002, our largest customer, Nortel, accounted for approximately 49% of our net sales. Our next two largest customers (in alphabetical order) for fiscal 2002, Cingular Wireless and Nokia, each accounted for 10% or more of our net sales. The loss of any one of these customers, or a significant loss, reduction or rescheduling of orders from any of our customers, would have a material adverse effect on our business, results of operations and financial condition. See "Additional Factors That May Affect Future Results—We rely upon a few customers for a significant amount of our revenues...; —Our success is tied to the growth of the wireless services market...; and —There are many risks associated with international operations..." under Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations."

#### Marketing and Distribution, International Sales

We sell our products through a highly technical direct sales force and through independent sales representatives. Direct sales personnel are assigned to geographic territories and, in addition to sales responsibilities, manage networks of independent sales representatives. We utilize a network of independent sales representatives selected for their familiarity with our potential customers and their knowledge of the wireless infrastructure equipment market. Both our direct sales personnel and independent sales representatives generate product sales, provide product and customer service, and provide customer feedback for product development. In addition, our sales personnel and independent sales representatives receive support from our marketing, product support and customer service departments.

Our marketing efforts are focused on establishing and developing long-term relationships with potential customers. Sales cycles for certain of our products, particularly our base station RF power amplifiers, are lengthy, typically ranging from six to eighteen months. Our customers typically conduct significant technical evaluations of our products before making purchase commitments. In addition, as is customary in the industry, sales are made through standard purchase orders that can be subject to cancellation, postponement or other types of delays. While certain customers provide us with estimated forecasts of their future requirements, they are not typically bound by such forecasts.

International sales (excluding North American sales) of our products amounted to approximately 33%, 41%, and 21% of net sales for the years ended December 29, 2002, December 30, 2001, December 31, 2000, respectively. Foreign sales of some of our products may be subject to national security and export regulations and may require us to obtain a permit or license. In recent years, we have not experienced any significant difficulties in obtaining required permits or licenses. International sales also subject us to risks related to political upheaval and economic downturns in foreign countries and regions, such as the economic downturn in the South Korean and Asian markets in fiscal 1998 and the Brazilian market during 1999. Since our foreign customers typically pay for our products with U.S. Dollars, a strengthening of the U.S. Dollar as compared to a foreign customer's local currency effectively increases the cost of our products for that customer, thereby making our products less attractive to such customers. See "Additional Factors That May Affect Future Results—There are many risks associated with international operations..." under Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations."

#### Service and Warranty

We offer warranties of various lengths which differ by customer and product type and typically cover defects in materials and workmanship. We perform warranty obligations and other maintenance services for our products at our facilities in Southern California and we currently utilize our South Korean sales representative to provide service and support for the Asian region.

#### Product Development

We invest significant resources in the research and development of new methods to improve amplifier performance, including reduced noise and increased power in the RF amplification process. We also invest significant resources in the development of new amplifier products to support new transmission protocols, including EDGE and third generation protocols such as W-CDMA and cdma2000. Our development efforts also seek to reduce the cost and increase the manufacturing efficiency of both new and existing products. In an effort to strengthen our research and development skills, we acquired Toracomm Limited in December 2001. This acquisition added a total of 23 employees, 19 of which were engineers. Our total research and development staff consisted of 228 people as of December 29, 2002. Expenditures for research and development amounted to approximately \$33.1 million in 2002, \$34.8 million in 2001, and \$41.1 million in 2000. See "Additional Factors

That May Affect Future Results—The wireless communications infrastructure equipment industry is extremely competitive...; and —If we are unable to hire and retain highly qualified technical and management personnel...” under Item 7, “Management’s Discussion and Analysis of Financial Condition and Results of Operations.”

### **Competition**

The wireless communications infrastructure equipment industry is extremely competitive and is characterized by rapid technological change, new product development, rapid product obsolescence, evolving industry standards and significant price erosion over the life of a product. Our products compete on the basis of the following key characteristics: performance, functionality, reliability, pricing, quality, designs that can be efficiently manufactured in large volumes, time-to-market delivery capabilities and compliance with industry standards. While we believe that we compete favorably with respect to the foregoing characteristics, there can be no assurance that we will be able to continue to do so.

Our current competitors include Allen Telecom, Inc., Andrew Corporation, Fujitsu Limited, Hitachi Kokusai Electric Inc., Japan Radio Co., Ltd., Mitsubishi Electric Corporation and Remec, Inc. We also compete with a number of other foreign and privately held companies throughout the world, the subsidiaries of certain multinational corporations and, more importantly, the captive amplifier design and manufacturing operations within certain leading wireless infrastructure OEMs such as Ericsson, Motorola, Nokia, Nortel and Samsung. Some competitors have significantly greater financial, technical, manufacturing, sales, marketing and other resources than Powerwave and have achieved greater name recognition for their existing products and technologies than we have. We cannot guarantee that we will be able to successfully increase our market penetration or our overall share of the RF amplifier marketplace. Our results of operations could be adversely impacted if we are unable to effectively increase our share of the RF amplifier marketplace.

Powerwave’s success depends in large part upon the rate at which wireless infrastructure OEMs incorporate our products into their systems. We believe that a substantial portion of the present worldwide production of RF power amplifiers is captive within the internal manufacturing operations of a small number of leading wireless infrastructure manufacturers such as Ericsson, Motorola, Nokia and Samsung. In addition, most large wireless infrastructure OEMs maintain internal amplifier design capabilities that may compete with our products and our own designs. Some of these OEMs regularly evaluate whether to design and/or manufacture their own RF power amplifiers rather than purchase them from third-party vendors such as Powerwave. During 2000, Ericsson purchased Microwave Power Devices, Inc., one of our competitors. Any potential reduction in business from our OEM customers could have a negative impact on our business, financial condition and results of operations. In addition, various companies could also directly compete with Powerwave by selling their RF power amplifiers and /or their designs to other manufacturers and operators, including our customers. In the third quarter of 2001, Lucent announced that they had sold their internal power amplifier group to a new private entity called Celiant Corporation. During the second quarter of 2002, Andrew Corporation, a competitor, acquired Celiant Corporation. We cannot predict the ultimate impact that these or similar transactions will have on our business. If we are not successful in increasing the use of our products by the leading wireless infrastructure OEMs, there will be a material adverse effect on our business, financial condition and results of operations. See “Additional Factors That May Affect Future Results—Many wireless infrastructure manufacturers have internal RF production capabilities...; and —The wireless communications infrastructure equipment industry is extremely competitive...” under Item 7, “Management’s Discussion and Analysis of Financial Condition and Results of Operations.”

We have experienced significant price competition and we expect price competition in the sale of RF power amplifiers to increase. No assurance can be given that our competitors will not develop new technologies or enhancements to existing products or introduce new products that will offer superior price or performance features. We expect our competitors to offer new and existing products at prices necessary to gain or retain market share. Certain of our competitors have substantial financial resources which may enable them to withstand sustained price competition or a market downturn better than us. There can be no assurance that we will be able to compete successfully in the pricing of our products, or otherwise, in the future. See “Additional Factors That May Affect Future Results—Our average sales prices have declined...” under Item 7, “Management’s Discussion and Analysis of Financial Condition and Results of Operations.”

### **Backlog**

Our six-month backlog of orders was approximately \$46.4 million on December 29, 2002 compared to approximately \$134.1 million on December 30, 2001. We include in our reported backlog only the accepted product purchase orders with respect to which a delivery schedule has been specified for product shipment within six months. The significant reduction in our reported six-month backlog at December 29, 2002 reflects reductions in demand forecasts by several large OEMs as well as delays in receiving new purchase orders from our largest

customer. Previously, we had received annual blanket purchase orders from such customer covering an entire year. Effective for 2003, the majority of this customer's operating units have begun to place separate purchase orders for monthly demand expectations, thereby reducing our reported six-month backlog number at any specific point in time.

Product orders in our backlog are frequently subject to changes in delivery schedules or to cancellation at the option of the purchaser without significant penalty. While we regularly review our backlog of orders to ensure that it adequately reflects product orders expected to be shipped within a six-month period, we cannot make any guarantee that such orders will actually be shipped or that such orders will not be cancelled in the future. We make regular adjustments to our backlog as customer delivery schedules change and in response to changes in our production schedule. Accordingly, we stress that backlog as of any particular date should not be considered a reliable indicator of sales for any future period and our revenues in any given period may depend substantially on orders booked in that period.

#### Manufacturing and Suppliers

Our manufacturing process involves the assembly of numerous individual components and precise fine-tuning by production technicians. The parts and materials used by us consist primarily of printed circuit boards, specialized subassemblies, fabricated housings, relays, and small electric circuit components, such as integrated circuits, semiconductors, resistors and capacitors. The majority of our subassemblies and all printed circuit boards are made by third party contractors to our specifications and are generally delivered to us for final assembly, testing, and tuning in the completed product.

Our manufacturing, production and design operations are ISO 9001 and TL-9000 certified. Numerous customers and potential customers throughout the world, particularly in Europe, require that their suppliers be ISO certified. In addition, many such customers require that their suppliers purchase components only from subcontractors that are ISO certified.

We currently procure, and expect to continue to procure, certain components from single source manufacturers due to unique component designs, as well as certain quality and performance requirements. In addition, in order to take advantage of volume pricing discounts, we purchase certain customized components from single sources. We have experienced, and may in the future experience, shortages of single-source components. In such event, we may have to make adjustments to both product designs and production schedules which could result in delays in production and delivery of products. Such delays could have an adverse effect on our operating results and financial condition. See "Additional Factors That May Affect Future Results—We depend on single sources for key components..." under Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations."

In the third quarter of fiscal 2002, we began utilizing Celestica as a contract manufacturer and supplier for our manufacturing operations, sourcing materials from one of Celestica's facilities in mainland China. This facility is ISO 9001 and TL-9000 certified. During the fourth quarter of fiscal 2002, we began to transfer certain power amplifier manufacturing lines to the Celestica facility in mainland China with the intention of transferring complete production build responsibilities to Celestica for certain product lines. We currently anticipate that we will continue this process during fiscal year 2003. While we utilize several contract manufacturers for various aspects of our production process, Celestica is currently the only contract manufacturer we use for complete product builds. We anticipate that we may bring up an additional external contract manufacturer for complete product builds during fiscal 2003. We utilize contract manufacturing to decrease our manufacturing overhead and material costs, to increase flexibility to respond to fluctuations in product demand and to leverage the strengths of the contract manufacturer's focus on high volume, high quality manufacturing. Our products receive extensive quality inspections and testing at our contract manufacturer locations. However, we maintain ultimate responsibility for qualification of components, assembly processes and test procedures. See "Additional Factors That May Affect Future Results—Our reliance on offshore contract manufacturers to produce some of our products could adversely impact our business..." under Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations."

#### Intellectual Property

We rely upon trade secrets and patents to protect our intellectual property. We execute confidentiality and non-disclosure agreements with our employees and suppliers and limit access to and distribution of our proprietary information. We have an on-going program to identify and file applications for both U.S. and international patents for various aspects of our technology. We have been granted a total of 24 U.S. patents and 2 foreign patents, and we have filed applications for over 25 additional U.S. patents and over 50 additional foreign patents. All of these

efforts, along with the knowledge and experience of our management and technical personnel, strengthen our ability to market our existing products and to develop new products. The departure of any of our management and technical personnel, the breach of their confidentiality and non-disclosure obligations to us, or the failure to achieve our intellectual property objectives may have a material adverse effect on our business, financial condition and results of operations.

We believe that our success depends upon the knowledge and experience of our management and technical personnel, our ability to market our existing products and our ability to develop new products. We do not have non-compete agreements with our employees who are employed on an "at-will" basis. Therefore, employees have left and may continue to leave us and go to work for competitors. While we believe that we have adequately protected our proprietary technology and that we have taken all legal measures to protect it, we will continue to pursue all legal measures available to protect it and to prohibit the unauthorized use of our proprietary technology. In spite of our efforts, the use of our processes by a competitor could have a material adverse effect on our business, financial condition and results of operations.

Our ability to compete successfully and achieve future revenue growth will depend, in part, on our ability to protect our proprietary technology and operate without infringing upon the rights of others. We may not be able to successfully protect our intellectual property, or our intellectual property or proprietary technology may otherwise become known or be independently developed by competitors. In addition, the laws of certain countries in which our products are or may be sold may not protect our products and intellectual property rights to the same extent as the laws of the United States.

The inability to protect our intellectual property and proprietary technology could have a material adverse effect on our business, financial condition and results of operations. As the number of patents, copyrights and other intellectual property rights in our industry increases, and as the coverage of these rights and the functionality of the products in the market further overlap, we believe that we, along with other companies in our industry, may face more frequent infringement claims. Such litigation or claims of infringement could result in substantial costs and diversion of resources and could have a material adverse effect on our business, results of operations and financial condition. A third party claiming infringement may also be able to obtain an injunction or other equitable relief, which could effectively block our ability or our customers' ability to distribute, sell or import allegedly infringing products. If it appears necessary or desirable, we may seek licenses from third parties covering intellectual property that we are allegedly infringing. No assurance can be given, however, that any such licenses could be obtained on terms acceptable to us, if at all. The failure to obtain the necessary licenses or other rights could have a material adverse effect on our business, financial condition and results of operations.

#### **Employees**

As of December 29, 2002, Powerwave had 1,008 full and part-time employees, including 610 in manufacturing, 63 in quality, 228 in research and development, 31 in sales and marketing and 76 in general and administration. None of our employees are represented by a union. We believe that employee relations are good.

#### **Contract Personnel**

Powerwave also utilizes contract personnel hired from third party agencies. As of December 29, 2002, Powerwave was utilizing approximately 210 contract personnel, primarily in our manufacturing operations.

## **ITEM 2. PROPERTIES**

We own our Southern California headquarters and manufacturing facility which is located in Santa Ana, California. This facility has approximately 360,000 square feet, of which 275,000 are available to us. The remaining 85,000 square feet is being sublet to an unrelated third party. We also lease an additional 115,000 square foot warehouse facility in Santa Ana, California. The lease on this warehouse facility has an expiration date of March 2007.

We lease approximately 31,500 square feet in El Dorado Hills, California under two leases, expiring in January 2005 and August 2007, for our Northern California research and development staff. Our European research and development staff occupy approximately 8,100 square feet in Bristol, United Kingdom under three leases expiring in October 2006, October 2009 and September 2010.

Powerwave also leases four office suites for our regional sales and support staff. These leases cover approximately 7,000 square feet and expire from 2003 through 2006.

We believe that our headquarters and manufacturing facility, as well as our remaining leased facilities, provide adequate space for our operations.

**ITEM 3. LEGAL PROCEEDINGS**

We are subject to various legal proceedings and threatened legal proceedings from time to time as part of our business. Powerwave is not currently party to any legal proceedings nor aware of any threatened legal proceedings, the adverse outcome of which, individually or in the aggregate, we believe would have a material adverse effect on our business, financial condition and results of operations. However, any potential litigation, regardless of its merits, could result in substantial costs to us and divert management's attention from our operations. Such diversions could have an adverse impact on our business, results of operations and financial condition.

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

No matters were submitted to a vote of security holders during the fourth quarter of 2002.

**PART II**

**ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY AND RELATED STOCKHOLDER MATTERS**

Powerwave's Common Stock is quoted on the Nasdaq National Market System under the symbol PWAV. Set forth below are the high and low sales prices as reported by Nasdaq for Powerwave's Common Stock for the periods indicated.

	<u>High</u>	<u>Low</u>
<b>Fiscal Year 2002</b>		
First Quarter Ended March 31, 2002 .....	\$20.1000	\$12.8700
Second Quarter Ended June 30, 2002 .....	\$15.1700	\$ 7.0500
Third Quarter Ended September 29, 2002 .....	\$ 8.3200	\$ 3.4800
Fourth Quarter Ended December 29, 2002 .....	\$ 7.2400	\$ 2.7500
<b>Fiscal Year 2001</b>		
First Quarter Ended April 1, 2001 .....	\$60.5625	\$11.8750
Second Quarter Ended July 1, 2001 .....	\$22.2900	\$ 8.7500
Third Quarter Ended September 30, 2001 .....	\$21.0000	\$10.1500
Fourth Quarter Ended December 30, 2001 .....	\$21.3000	\$ 9.6500

There were approximately 110 stockholders of record as of February 13, 2003. We believe there are approximately 24,000 stockholders of Powerwave's Common Stock held in street name. We have not paid any dividends to date and do not anticipate paying any dividends on our Common Stock in the foreseeable future. We anticipate that all future earnings will be retained to finance future growth.

All stock option plans under which our Common Stock is reserved for issuance have previously been approved by our shareholders. The following table provides summary information as of December 29, 2002 for all of our stock option plans:

	Number of Shares of Common Stock to be Issued upon Exercise of Outstanding Options Warrants and Rights	Weighted Average Exercise Price of Outstanding Options Warrants and Rights	No. of Shares of Common Stock Remaining Available for Future Issuance under our Stock Option Plans (excluding shares reflected in column 1)
Stock Option Plans Approved by Shareholders.....	9,598,722	\$14.40	1,627,288
Stock Option Plans not Approved by Shareholders.....	—	—	—
Total .....	<u>9,598,722</u>	<u>\$14.40</u>	<u>1,627,288</u>

#### ITEM 6. SELECTED FINANCIAL DATA

The following selected consolidated financial data has been derived from Powerwave's consolidated statements of operations for the fiscal years ended December 29, 2002, December 30, 2001, and December 31, 2000, and consolidated balance sheets as of December 29, 2002 and December 30, 2001, which are included herein, and have been audited by Deloitte & Touche LLP, independent auditors. Powerwave's consolidated statements of operations for the fiscal years ended January 2, 2000 and January 3, 1999 and consolidated balance sheets as of December 31, 2000, January 2, 2000 and January 3, 1999, which are not included herein, have also been audited by Deloitte & Touche LLP, independent auditors. The information set forth below is not necessarily indicative of the expectations of results for future operations and should be read in conjunction with the consolidated financial statements and notes thereto appearing elsewhere in this Annual Report on Form 10-K.

	Fiscal Years Ended				
	December 29, 2002	December 30, 2001	December 31, 2000	January 2, 2000	January 3, 1999
	(in thousands, except per share data)				
<b>Consolidated Statements of Operations Data:</b>					
Net sales.....	\$ 384,889	\$ 300,293	\$ 447,422	\$ 292,547	\$ 100,231
Operating income (loss).....	\$ 3,910	\$ (37,615)	\$ 64,717	\$ 28,725	\$ (7,001)
Net income (loss).....	\$ 4,111	\$ (20,512)	\$ 45,653	\$ 20,265	\$ (2,966)
Basic earnings (loss) per share.....	\$ 0.06	\$ (.33)	\$ 0.75	\$ 0.34	\$ (0.06)
Diluted earnings (loss) per share .....	\$ 0.06	\$ (.33)	\$ 0.71	\$ 0.33	\$ (0.06)
Basic weighted average common shares .....	65,485	64,197	61,953	58,480	51,534
Diluted weighted average common shares .....	66,230	64,197	65,313	60,671	51,534
<b>Consolidated Balance Sheet Data:</b>					
Cash and cash equivalents .....	\$ 162,529	\$ 123,171	\$ 128,733	\$ 76,671	\$ 13,307
Working capital .....	\$ 218,504	\$ 186,255	\$ 196,733	\$ 118,566	\$ 35,210
Total assets .....	\$ 369,173	\$ 363,017	\$ 393,797	\$ 223,038	\$ 131,985
Long-term debt, net of current portion .....	\$ —	\$ 239	\$ 42	\$ —	\$ 17,621
Total shareholders' equity .....	\$ 325,661	\$ 316,235	\$ 316,272	\$ 169,779	\$ 71,070

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

The following discussion should be read in conjunction with the consolidated financial statements and notes thereto.

##### Results of Operations

The following table summarizes Powerwave's results of operations as a percentage of net sales for the fiscal years ended December 29, 2002, December 30, 2001 and December 31, 2000.

	As a Percentage of Net Sales		
	Fiscal Years Ended		
	December 29, 2002	December 30, 2001	December 31, 2000
Net sales.....	100.0%	100.0%	100.0%
Cost of sales.....	<u>83.7</u>	<u>90.1</u>	<u>68.2</u>
Gross profit.....	16.3	9.9	31.8
Operating expenses:			
Sales and marketing.....	3.0	4.6	4.7
Research and development.....	8.6	11.6	9.2
General and administrative.....	<u>3.7</u>	<u>6.3</u>	<u>3.4</u>
Total operating expenses.....	<u>15.3</u>	<u>22.5</u>	<u>17.3</u>
Operating income (loss).....	1.0	(12.6)	14.5
Other income, net.....	<u>0.5</u>	<u>1.9</u>	<u>1.3</u>
Income (loss) before income taxes.....	1.5	(10.7)	15.8
Provision (benefit) for income taxes.....	<u>0.4</u>	<u>(3.9)</u>	<u>5.6</u>
Net income (loss).....	<u>1.1%</u>	<u>(6.8)%</u>	<u>10.2%</u>

#### Significant Accounting Policies

We prepare the consolidated financial statements of Powerwave in conformity with accounting principles generally accepted in the United States of America. As such, we are required to make certain estimates, judgments and assumptions that we believe are reasonable based upon the information currently available. These estimates and assumptions affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the periods presented. Any future changes to these estimates and assumptions could have a significant impact on the reported amounts of revenue, expenses, assets and liabilities in our financial statements. The significant accounting policies which we believe are the most critical to aid in fully understanding and evaluating our reported financial results include the following:

##### *Revenue Recognition*

Powerwave recognizes revenue from product sales at the time of shipment and passage of title. We also offer certain of our customers the right to return products that do not function properly within a limited time after delivery. We continuously monitor and track such product returns and we record a provision for the estimated amount of such future returns based on historical experience and any notification we receive of pending returns. While such returns have historically been within our expectations and the provisions established, we cannot guarantee that we will continue to experience the same return rates that we have in the past. Any significant increase in product failure rates and the resulting credit returns could have a material adverse impact on our operating results for the period or periods in which such returns materialize.

##### *Accounts Receivable*

We perform ongoing credit evaluations of our customers and adjust credit limits based upon payment history, the customer's current credit worthiness and various other factors, as determined by our review of their current credit information. We continuously monitor collections and payments from our customers and maintain a provision for estimated credit losses based upon our historical experience and any specific customer collection issues that we have identified. While such credit losses have historically been within our expectations and the provisions established, we cannot guarantee that we will continue to experience the same credit loss rates that we have in the past. Since our accounts receivable are highly concentrated in a small number of customers, a significant change in the liquidity or financial position of any one of these customers could have a material adverse impact on the collectibility of our accounts receivables, our liquidity and our future operating results. See "Additional Factors That May Affect Future Results—We rely upon a few customers for a significant amount of our revenues..."

##### *Inventories*

We value our inventory at the lower of the actual cost to purchase and/or manufacture the inventory or the current estimated market value of the inventory. We regularly review inventory quantities on hand and record a

provision for excess and obsolete inventory based primarily on our estimated forecast of product demand and production requirements for the next twelve months. Our industry is characterized by rapid technological change, frequent new product development, and rapid product obsolescence that could result in an increase in the amount of obsolete inventory quantities on hand. As demonstrated during 2001 and 2002, demand for our products can fluctuate significantly. A significant increase in the demand for our products could result in a short-term increase in the cost of inventory purchases while a significant decrease in demand could result in an increase in the amount of excess inventory quantities on hand. In addition, our estimates of future product demand may prove to be inaccurate, in which case we may have understated or overstated the provision required for excess and obsolete inventory. In the future, if our inventory is determined to be overvalued, we would be required to recognize such costs in our cost of goods sold at the time of such determination. Likewise, if our inventory is determined to be undervalued, we may have over-reported our costs of goods sold in previous periods and would be required to recognize such additional operating income at the time of sale. Therefore, although we make every reasonable effort to ensure the accuracy of our forecasts of future product demand, any significant unanticipated changes in demand or technological developments could have a significant impact on the value of our inventory and our reported operating results. See "Additional Factors That May Affect Future Results—We have experienced, and will continue to experience, significant fluctuations in sales and operating results from quarter to quarter...; and —The wireless communications infrastructure equipment industry is extremely competitive and is characterized by rapid technological change..."

#### *Deferred Taxes*

We recognize deferred tax assets and liabilities based on the differences between the financial statement carrying values and the tax bases of assets and liabilities. Powerwave regularly reviews its deferred tax assets for recoverability and establishes a valuation allowance based on historical taxable income, projected future taxable income, and the expected timing of the reversals of existing temporary differences. If we operate at a loss or are unable to generate sufficient future taxable income, or if there is a material change in the actual effective tax rates or time period within which the underlying temporary differences become taxable or deductible, we could be required to increase the valuation allowance against all or a significant portion of our deferred tax assets which could substantially increase our effective tax rate for such period. Alternatively, if our future taxable income is significantly higher than expected and/or we are able to utilize our tax credits, we may be required to reverse all or a significant part of our valuation allowance against such deferred tax assets which could substantially reduce our effective tax rate for such period. Therefore, any significant changes in statutory tax rates or the amount of our valuation allowance could have a material impact on the value of our deferred tax assets and liabilities, and our reported financial results.

#### *Goodwill and Long Lived Assets*

We review the recoverability of the carrying value of goodwill on an annual basis or more frequently when an event occurs or circumstances change to indicate that an impairment of goodwill has possibly occurred. Since we operate in a single business segment as a single business unit, the determination of whether any potential impairment of goodwill exists is based on a comparison of the fair value of the entire Company to the accounting value of our net assets. In estimating the fair value of the entire Company, we review the average and closing stock prices for our Common Stock, as well as other factors. If the fair value of the entire Company is determined to be less than the accounting value of our net assets, we would be required to record an impairment loss for our goodwill that could have a material adverse impact on our operating results for the period in which such charge was recorded. As of December 29, 2002, the accounting value of our goodwill was approximately \$4.9 million. Based on the current accounting value of our net assets, we may be required to record a charge for the impairment of our goodwill in the future should our stock price decline and consistently remain at a price of less than approximately \$5.00 per share. Such impairment charge could have a material adverse impact on reported operating results in the period recognized. See "Additional Factors That May Affect Future Results—Our Common Stock price has been and may continue to be volatile..."

We also review the recoverability of the carrying value of identified intangibles and other long-lived assets on an annual basis or whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of these assets is determined based upon the forecasted undiscounted future net cash flows from the operations to which the assets relate, utilizing our best estimates, appropriate assumptions and projections at the time. These projected future cash flows may significantly vary over time as a result of increased competition, changes in technology, fluctuations in demand, consolidation of our customers and reductions in average selling prices. If the carrying value is determined not to be recoverable from future operating cash flows, the asset is deemed impaired and an impairment loss would be recognized to the extent the carrying value exceeded the estimated fair market value of the asset. Such an impairment charge could have a material adverse impact on our

future operating results. See "Impairment Charge" and "Additional Factors That May Affect Future Results—The wireless communications infrastructure equipment industry is extremely competitive and is characterized by rapid technological change...; —Our success is tied to the growth of the wireless services market...; —We have experienced, and will continue to experience, significant fluctuations in sales and operating results from quarter to quarter...; —We rely upon a few customers for a significant amount of our revenues...; and —Our average sales prices have declined..."

#### *Warranties*

We offer warranties of various lengths to our customers depending upon the specific product and terms of the customer purchase agreement. Our standard warranties require us to repair or replace defective product returned to us during such warranty period at no cost to the customer. We record an estimate for warranty related costs based on our actual historical return rates and repair costs at the time of sale. While our warranty costs have historically been within our expectations and the provisions established, we cannot guarantee that we will continue to experience the same warranty return rates or repair costs that we have in the past. A significant increase in product return rates, or a significant increase in the costs to repair our products, could have a material adverse impact on our operating results for the period or periods in which such returns or additional costs materialize.

#### *Stock-Based Compensation*

Powerwave accounts for employee stock-based compensation under the "intrinsic value" method prescribed in Accounting Principles Board Opinion No. 25, *Accounting for Stock Issued to Employees* ("APB 25"), as opposed to the optional "fair value" method prescribed by Statement of Financial Accounting Standards No. 123, *Accounting for Stock-Based Compensation* ("SFAS 123"). Pursuant to the provisions of APB 25, we generally do not record an expense for the value of stock-based awards granted to employees. If proposals currently under consideration by various accounting standards organizations and governmental authorities are adopted, we may be required to treat the value of stock-based awards granted to employees as compensation expense in the future, which could have a material adverse impact on our reported operating results and could negatively impact the price of our Common Stock. If these proposals are adopted, we could decide to reduce the number of stock-based awards granted to employees in the future, which could adversely impact our ability to attract qualified candidates or retain existing employees without increasing their cash compensation and, therefore, have a material adverse effect on our business, results of operations and financial condition. See "Additional Factors That May Affect Future Results—If we are unable to hire and retain highly qualified technical and managerial personnel..."

#### *New Accounting Pronouncements*

In June 2001, the Financial Accounting Standards Board ("FASB") issued Statement of Financial Accounting Standards No. 142, *Goodwill and Other Intangible Assets* ("SFAS 142"). Under SFAS 142, we are no longer required to amortize goodwill and other intangible assets with indefinite lives but will be required to test these assets periodically for impairment. SFAS 142 supersedes APB Opinion No. 17, *Intangible Assets*, effective for fiscal years beginning after December 15, 2001. We adopted SFAS 142 effective December 31, 2001 and such adoption did not have a material impact on our consolidated results of operations and financial position.

Statement of Financial Accounting Standards No. 143, *Accounting for Obligations Associated with the Retirement of Long-Lived Assets* ("SFAS 143"), was issued by the FASB in June 2001. SFAS 143 establishes accounting standards for the recognition and measurement of an asset retirement obligation and its associated asset retirement cost. It also provides accounting guidance for legal obligations associated with the retirement of tangible long-lived assets. SFAS 143 is effective for fiscal years beginning after September 15, 2002, with early adoption permitted. We adopted SFAS 143 effective December 31, 2001 and such adoption did not have a material impact on our consolidated results of operations and financial position.

The FASB issued Statement of Financial Accounting Standards No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets* ("SFAS 144"), in August 2001. SFAS 144 establishes a single accounting model for the impairment or disposal of long-lived assets and new standards for reporting discontinued operations. SFAS 144 superseded Statement of Financial Accounting Standards No. 121, *Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of*, and APB Opinion No. 30, *Reporting the Results of Operations - Reporting the Effects of Disposal of a Segment of a Business, and Extraordinary, Unusual and Infrequently Occurring Events and Transactions*. The provisions of SFAS 144 are effective in fiscal years beginning after December 15, 2001 and, in general, are to be applied prospectively. We adopted SFAS 144 effective December 31, 2001 and such adoption did not have a material impact on our consolidated results of operations and financial position.

In June 2002, the FASB issued Statement of Financial Accounting Standards No. 146, *Accounting for Costs Associated with Exit or Disposal Activities* ("SFAS 146"), which addresses financial accounting and reporting for costs associated with exit or disposal activities and supersedes Emerging Issues Task Force ("EITF") Issue 94-3, *Liability Recognition for Certain Employee Termination Benefits and Other Costs to Exit an Activity (including Certain Costs Incurred in a Restructuring)*. SFAS 146 requires that a liability for a cost associated with an exit or disposal activity be recognized when the liability is incurred. Under EITF Issue 94-3, a liability for an exit cost as defined in EITF Issue 94-3 was recognized at the date of an entity's commitment to an exit plan. SFAS 146 also establishes that the liability should initially be measured and recorded at fair value. SFAS 146 is effective for exit and disposal activities initiated after December 31, 2002. We are currently evaluating the provisions of SFAS 146 but expect that they will not have a material impact on our consolidated results of operations and financial position upon adoption.

In November 2002, the FASB issued FASB Interpretation No. 45 ("FIN 45"), *Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees and Indebtedness of Others*. FIN 45 elaborates on the disclosures to be made by the guarantor in its interim and annual financial statements about its obligations under certain guarantees that it has issued. It also requires that a guarantor recognize, at the inception of a guarantee, a liability for the fair value of the obligation undertaken in issuing the guarantee. The initial recognition and measurement provisions of this interpretation are applicable on a prospective basis to guarantees issued or modified after December 31, 2002; while the provisions of the disclosure requirements are effective for financial statements of interim or annual reports ending after December 15, 2002. We adopted the disclosure provisions of FIN 45 during the fourth quarter of fiscal 2002 and such adoption did not have a material impact on our consolidated financial statements. We are currently evaluating the recognition provisions of FIN 45 but expect that they will not have a material adverse impact on our consolidated results of operations or financial position upon adoption.

In December 2002, the FASB issued Statement of Financial Accounting Standards No. 148, *Accounting for Stock-Based Compensation - Transition and Disclosure* ("SFAS 148"). SFAS 148 amends Statement No. 123, *Accounting for Stock-Based Compensation* ("SFAS 123"), to provide alternative methods for voluntary transition to SFAS 123's fair value method of accounting for stock-based employee compensation ("the fair value method"). SFAS 148 also requires disclosure of the effects of an entity's accounting policy with respect to stock-based employee compensation on reported net income (loss) and earnings (loss) per share in annual and interim financial statements. The provisions of SFAS 148 are effective in fiscal years beginning after December 15, 2002. We are currently evaluating the provisions of SFAS 148 but expect that they will not have a material adverse impact on our consolidated results of operations and financial position upon adoption since we have not adopted the fair value method. However, should we be required to adopt the fair value method in the future, such adoption would have a material impact on our consolidated results of operations or financial position. See Note 12 of the "Notes to Consolidated Financial Statements" under Item 8, "Financial Statements and Supplementary Data."

In January 2003, the FASB issued FASB Interpretation No. 46 ("FIN 46"), *Consolidation of Variable Interest Entities*. In general, a variable interest entity is a corporation, partnership, trust, or any other legal structure used for business purposes that either (a) does not have equity investors with voting rights or (b) has equity investors that do not provide sufficient financial resources for the entity to support its activities. FIN 46 requires certain variable interest entities to be consolidated by the primary beneficiary of the entity if the investors do not have the characteristics of a controlling financial interest or do not have sufficient equity at risk for the entity to finance its activities without additional subordinated financial support from other parties. The consolidation requirements of FIN 46 apply immediately to variable interest entities created after January 31, 2003. The consolidation requirements apply to older entities in the first fiscal year or interim period beginning after June 15, 2003. Certain of the disclosure requirements apply in all financial statements issued after January 31, 2003, regardless of when the variable interest entity was established. Since we currently have no variable interest entities, we expect that the adoption of the provisions of FIN 46 will not have a material impact on our consolidated results of operations or financial position.

#### **Impairment Charge**

As a result of poor economic conditions and reductions in the forecasted future demand for products acquired through our HP Acquisition, we recorded a non-cash charge of \$6.5 million during the fourth quarter of fiscal year 2001 for the impairment of intangible assets associated with the HP Acquisition. This amount included approximately \$3.6 million recorded in cost of sales related to the writedown of developed technology and approximately \$2.9 million recorded in general and administrative expenses related to the writedown of goodwill. The amount of this impairment charge was determined by comparing the carrying value of these intangible assets to the net present value of the estimated future cash flows, based on our best estimates using appropriate judgments and assumptions, from the operations to which these assets relate. Powerwave did not record any similar impairment

charges in fiscal years 2002 or 2000. Excluding this non-cash impairment charge and the related tax benefit of \$2.3 million, Powerwave would have reported a net loss of \$16.3 million and a basic loss per share of 26 cents for the fiscal year ending December 30, 2001.

Years ended December 29, 2002 and December 30, 2001

### *Net Sales*

Our net sales are derived primarily from the sale of RF power amplifiers for use in wireless communications networks. Sales increased by 28% to \$384.9 million for the year ended December 29, 2002 from \$300.3 million for the year ended December 30, 2001. The increase in revenue resulted primarily from increased demand for wireless infrastructure products in both the Cellular and PCS frequency ranges. For the year ended December 29, 2002, total sales of products for networks in the Cellular frequency range accounted for approximately 63% of sales or \$242.5 million, compared to approximately 60% of sales or \$181.1 million for the year ended December 30, 2001. Sales of products for networks in the PCS frequency range accounted for approximately 22% of sales or \$84.2 million for the year ended December 29, 2002, compared to approximately 19% of sales or \$57.1 million for the year ended December 30, 2001. For the year ended December 29, 2002, sales of products for use in networks over 2000 MHz, which largely consist of 3G products, accounted for approximately 15% of sales or \$58.2 million, as compared to 21% of sales or \$62.1 million for the year ended December 30, 2001.

We track the geographic location of our sales based upon the location of our customers. Since many of our customers purchase products from us at central locations and then reship the product with other base station equipment to locations throughout the world, we are unable to identify the final installation location of our products. Sales to customers in North America accounted for the majority of our sales, comprising approximately 67% of revenue or \$257.0 million for the year ended December 29, 2002, compared to approximately 59% of revenue or \$176.3 million for the year ended December 30, 2001. Total international sales (excluding North American sales) accounted for approximately 33% of revenues or \$127.9 million for the year ended December 29, 2002, compared to approximately 41% or \$124.0 million for the year ended December 30, 2001. Total Asian sales accounted for approximately 10% of revenues or \$37.5 million for the year ended December 29, 2002 compared to approximately 15% or \$46.0 million for the year ended December 30, 2001. The reduction in our Asian sales for fiscal 2002 compared to fiscal 2001 is largely due to a reduction in sales to our Korean based customers, which was partially offset by an increase in demand from customers located in China. Offsetting the reduction in demand in Asia during fiscal 2002 was an increase in our revenues to our customers in Europe, which included products for both 2G and 3G networks. Total sales to Europe and other international locations accounted for approximately 23% of revenues or \$90.4 million for the year ended December 29, 2002, as compared to 26% or \$77.3 million for the year ended December 30, 2001. See "Additional Factors That May Affect Future Results—We rely upon a few customers for a significant amount of our revenues...; —Our success is tied to the growth of the wireless services market...; and —There are many risks associated with international operations..."

For the year ended December 29, 2002, total sales to Nortel accounted for approximately 49% of revenues and sales to Cingular Wireless and Nokia each accounted for 10% or more of revenues for the year. Total sales to Nortel accounted for approximately 44% of revenues for the year ended December 30, 2001 and sales to Cingular Wireless accounted for 10% or more of revenues for such year. We cannot guarantee that we will continue to be successful in attracting new customers or retaining or increasing business with our existing customers. In addition, we believe that a significant portion of our business with OEMs, such as Ericsson, Lucent, Motorola, Nokia and Nortel, is dependent upon the deployment schedules of wireless network operators who are purchasing wireless infrastructure equipment from such OEMs and on such OEMs' strategy concerning the outsourcing of RF power amplifiers. During fiscal 2002, several major OEMs made announcements that they were lowering their expectations for wireless infrastructure demand due to lower than anticipated capital spending plans by major wireless network operators. Reduced demand for our products negatively impacted our revenues and operating results in the second half of fiscal 2002. If these forecasted reductions in overall market demand continue to result in a significant reduction in the future demand for our products by OEM customers, our business, financial condition and results of operations will be negatively impacted. See "Additional Factors That May Affect Future Results—We rely upon a few customers for a significant amount of our revenues...; —There are many risks associated with international operations...; and —We have experienced, and will continue to experience, significant fluctuations in sales and operating results from quarter to quarter..."

A number of factors have caused delays and may cause future delays in new wireless infrastructure and upgrade deployment schedules for both North American and international deployments, including deployments in the United States, Europe, Asia, South America and other areas. Such factors include economic slowdowns in the wireless operator's operating region, the inability of wireless network operators to fund infrastructure deployment

plans, reductions in spending on TDMA networks due to planned conversions to GSM or other protocol based networks, decisions to delay or eliminate spending on W-CDMA or 3G based networks due to the high projected capital cost of building such networks and market concerns regarding the inoperability of such network protocols, the desire of wireless network operators to reduce capital spending in order to preserve cash, delays in government approvals required for system deployment, reduced subscriber demand for wireless services, high prices for new spectrum licenses, increased competition and bidding between OEMs for infrastructure contracts, and delays in the development and delivery of telephone handsets and base station equipment that are compatible with new wireless protocols. In addition, a number of factors may cause OEMs to alter their outsourcing strategy concerning RF power amplifiers, which could cause such OEMs to reduce or eliminate their demand for external supplies of RF power amplifiers or shift their demand to alternative suppliers or internal suppliers. Such factors include lower perceived internal manufacturing costs and competitive reasons to remain vertically integrated. Some OEMs, such as Ericsson, have acquired certain of our competitors to strengthen their vertical integration. Due to the possible uncertainties associated with wireless infrastructure deployments and OEM demand, we have experienced and expect to continue to experience significant fluctuations in demand from our OEM and network operator customers. Such fluctuations have caused and may continue to cause significant reductions in our revenues and/or operating income, which has harmed and may continue to harm our business, financial condition and results of operations. See "Additional Factors That May Affect Future Results —We rely upon a few customers for a significant amount of our revenues...; —There are many risks associated with international operations...; and —We have experienced, and will continue to experience, significant fluctuations in sales and operating results from quarter to quarter..."

### *Gross Profit*

Cost of sales consists primarily of raw materials, assembly and test labor, overhead and warranty costs. Gross profit margins for fiscal 2002 and 2001 were 16.3% and 9.9%, respectively. The increase in our gross profit margins during fiscal 2002 as compared to fiscal 2001 is due to several factors, including our increase in revenue which resulted in higher absorption of our manufacturing overhead expenses and improved manufacturing efficiencies due to increased production volume. The impact of these factors was partially offset by lower sales prices throughout fiscal 2002. In addition, our 2001 gross profit margins were negatively impacted by \$12.5 million in provisions for and disposals of excess and obsolete inventories as a result of the reduction in demand during fiscal 2001. Our 2001 gross profit margin was further reduced by a non-cash charge of \$3.6 million during the fourth quarter relating to the writedown of developed technology acquired through the HP Acquisition. See "Impairment Charge." In fiscal 2002, approximately \$0.4 million of cost of goods sold represented the amortization of developed technology acquired as part of the HP and Toracomm acquisitions. This compares to approximately \$2.3 million of amortization of developed technology related solely to the HP acquisition in fiscal 2001.

The wireless communications infrastructure equipment industry is extremely competitive and is characterized by rapid technological change, new product development and product obsolescence, evolving industry standards and significant price erosion over the life of a product. Certain of our competitors have aggressively lowered prices in an attempt to gain market share. Due to these competitive pressures, we expect that the average sales prices of our products will continue to decrease and negatively impact our gross margins. We have introduced new products at lower sales prices and these lower sales prices have impacted the average sales prices of our products. We have also reduced prices on our existing products in response to our competitors. Future pricing actions by our competitors and us may adversely impact our gross profit margins and profitability, which could result in decreased liquidity and adversely affect our business, financial condition and results of operations. See "Additional Factors That May Affect Future Results—The wireless communications infrastructure equipment industry is extremely competitive..."

While we continue to strive for manufacturing and engineering cost reductions to offset pricing pressures on our products, we cannot guarantee that these cost reduction or redesign efforts will keep pace with price declines and cost increases. If we are unable to further reduce our costs through our manufacturing and/or engineering efforts, our gross margins and profitability will be adversely affected. For a discussion of the effects of declining average sales prices on our business, see "Additional Factors That May Affect Future Results—Our average sales prices have declined..."

### *Operating Expenses*

Sales and marketing expenses consist primarily of sales commissions, salaries, other expenses for sales and marketing personnel, travel expenses, charges for customer demonstration units, and trade show expenses. Sales and marketing expenses decreased by 17% to \$11.4 million for the year ended December 29, 2002, from \$13.7 million for the year ended December 30, 2001. As a percentage of sales, sales and marketing expenses were 3.0% and 4.6% for the fiscal years ended December 29, 2002 and December 30, 2001, respectively. The decrease in sales and marketing expenses was primarily attributable to lower sales commissions, lower personnel costs and continued

operating expense controls during fiscal 2002. For the year ended December 29, 2002, approximately \$0.09 million in sales and marketing expenses represents the amortization of a non-compete agreement acquired as part of our acquisition of Hewlett-Packard Company's RF power amplifier business in October 1998 (the "HP Acquisition"). This compares to approximately \$0.6 million of sales and marketing expenses related to the amortization of a customer list and non-compete agreement from the HP Acquisition for the year ended December 30, 2001.

Research and development expenses include ongoing RF power amplifier design and development expenses, as well as design expenses associated with reducing the cost and improving the manufacturability of existing RF power amplifiers. Current programs include cellular, PCS, and next generation "2.5G" and "3G" products. Research and development expenses can fluctuate dramatically from year to year depending on numerous factors including new product introduction schedules, prototype developments, hiring patterns and depreciation on capital equipment. Research and development expenses decreased by 5% to \$33.1 million for the year ended December 29, 2002, as compared to \$34.8 million for the year ended December 30, 2001. Research and development expenses as a percentage of sales for the years ended December 29, 2002 and December 30, 2001 were 8.6% and 11.6%, respectively. The slight decrease in research and development expenses was primarily attributable to continued operating expense controls during fiscal 2002.

General and administrative expenses consist primarily of salaries and other expenses for management, finance, information systems, facilities maintenance and human resources. General and administrative expenses decreased by 24% to \$14.4 million for the year ended December 29, 2002, from \$18.9 million for the year ended December 30, 2001. General and administrative expenses as a percentage of sales for the years ended December 29, 2002 and December 30, 2001 were 3.7% and 6.3%, respectively. The decrease in general and administrative expenses was primarily due to approximately \$5.1 million in one time expenses that occurred in 2001, of which \$2.2 million related to the move to our new Southern Californian headquarters and manufacturing facility during the first quarter of 2001 and \$2.9 million related to a non-cash charge for the write-down of goodwill associated with the HP Acquisition during the fourth quarter of 2001. See "Impairment Charge." In addition, general and administrative expenses during the year ended December 30, 2001 also included approximately \$0.5 million related to the amortization of goodwill, which ceased to be amortizable during the year ended December 29, 2002 due to the adoption of SFAS 142. These decreases were partially offset by higher personnel, professional and office related costs in fiscal 2002.

#### *Other Income (Expense)*

We earned other income, net, of \$2.0 million in fiscal year 2002, compared to \$5.6 million in fiscal year 2001. Other income consists primarily of interest income, net of any interest expense. The decrease in other income is primarily due to the decline in short-term interest rates on our cash investments which decreased by more than 60% from fiscal year 2001 rates.

#### *Provision (Benefit) for Income Taxes*

During the year ended December 29, 2002, we recorded a tax provision at a rate of 30.0% as compared to a tax benefit at a rate of 36.0% for the year ended December 30, 2001. The decrease in our effective tax rate was primarily due to lower state taxes.

Years ended December 30, 2001 and December 31, 2000

#### *Net Sales*

Sales decreased by 33% to \$300.3 million for the year ended December 30, 2001 from \$447.4 million for the year ended December 31, 2000. We believe that the decline in net sales for fiscal year 2001 compared to fiscal year 2000 was predominantly due to the affects of the global economic recession that impacted the wireless communications industry resulting in reductions and delays in wireless infrastructure spending during 2001. During 2001, we experienced lower demand for the majority of our products that are sold through our original equipment manufacturer ("OEM") customers, as well as weakness in demand from our direct network operator customers. The weakness in demand occurred in both the 800-1000 MHz and the 1800-2000 MHz ranges. For the year ended December 30, 2001, total sales of products for networks in the 800-1000 MHz range accounted for approximately 60% of revenues or \$181.1 million, compared to approximately 78% or \$348.3 million for the year ended December 31, 2000. Sales of products for networks in the 1800-2000 MHz range accounted for approximately 19% of revenues or \$57.1 million for the year ended December 30, 2001, compared to approximately 21% or \$96.1 million for the year ended December 31, 2000. The decline in sales of 800-1000 MHz and 1800-2000 MHz products was partially offset by increased sales of products for use in networks over 2000 MHz or the new 3G networks as they are commonly known. Sales of products for use in networks over 2000 MHz accounted for approximately 21% of

sales or \$62.1 million for the year ended December 30, 2001 compared to approximately 1% or \$3.0 million for the year ended December 31, 2000.

Total North American sales accounted for approximately 59% of revenues or \$176.3 million for the year ended December 30, 2001, compared to approximately 79% of revenues or \$352.7 million for the year ended December 31, 2000. Total international sales (excluding North American sales) accounted for approximately 41% of revenues or \$124.0 million for the year ended December 30, 2001, compared with approximately 21% or \$94.7 million for the year ended December 31, 2000. Total Asian sales accounted for approximately 15% of revenues or \$46.0 million for the year ended December 30, 2001 compared to approximately 10% of revenues or \$44.6 million for the year ended December 31, 2000. Total sales to Europe increased to \$77.3 million or approximately 26% of revenues for the year ended December 30, 2001, as compared to \$48.2 million or approximately 11% of revenues for the year ended December 31, 2000.

For fiscal 2001, total sales to Nortel accounted for approximately 44% of revenues and sales to Cingular Wireless accounted for 10% or more of revenues for the year. For fiscal 2000, total sales to Nortel approximated 47% of revenues and sales to Ericsson accounted for 10% or more of revenues for the year.

#### *Gross Profit*

Gross profit margins for fiscal 2001 and 2000 were 9.9% and 31.8%, respectively. The decrease in our gross profit margins during fiscal 2001 as compared to fiscal 2000 was due to several factors, the most significant being the large decline in revenues which resulted in lower absorption of manufacturing overhead expenses and increased labor costs, when viewed as a percentage of revenues. In addition, our 2001 gross profit margins were also negatively impacted by \$12.5 million in provisions for and disposals of excess and obsolete inventories as a result of the reduction in demand during fiscal 2001. For both fiscal 2001 and 2000, approximately \$2.3 million of cost of goods sold represented the amortization of developed technology acquired as part of the HP Acquisition. Our 2001 gross profit margin was further reduced by a non-cash charge of \$3.6 million during the fourth quarter relating to the writedown of developed technology acquired through the HP Acquisition. See "Impairment Charge."

#### *Operating Expenses*

Sales and marketing expenses decreased by 35% to \$13.7 million for the year ended December 30, 2001 from \$21.2 million for the year ended December 31, 2000. As a percentage of sales, sales and marketing expenses were 4.6% and 4.7% for the years ended December 30, 2001 and December 31, 2000, respectively. The decrease in sales and marketing expenses in absolute dollars was primarily attributable to decreases in sales commissions and reduced personnel costs. For fiscal 2001 and 2000, approximately \$0.6 million and \$0.8 million, respectively, in sales and marketing expenses represented the amortization of a customer list and non-compete agreement acquired as part of the HP Acquisition.

Research and development expenses decreased by 15% to \$34.8 million for the year ended December 30, 2001 from \$41.1 million for the year ended December 31, 2000. Research and development expenses as a percentage of sales for the years ended December 30, 2001 and December 31, 2000 were 11.6% and 9.2%, respectively. The decrease in research and development expenses in absolute dollars was primarily due to reductions in material and engineering expenditures as several of our design projects entered the production stage during 2001.

General and administrative expenses increased by 23.3% to \$18.9 million for the year ended December 30, 2001 from \$15.3 million for the year ended December 31, 2000. General and administrative expenses as a percentage of sales for the years ended December 30, 2001 and December 31, 2000 were 6.3% and 3.4%, respectively. The increase in general and administrative expenses in absolute dollars during 2001 was primarily attributable to approximately \$5.1 million in one time expenses, of which \$2.2 million related to the move to our new Southern Californian headquarters and manufacturing facility during the first quarter of 2001 and \$2.9 million related to a non-cash charge for the write-down of goodwill associated with the HP Acquisition during the fourth quarter of 2001. See "Impairment Charge."

#### *Other Income*

We earned other income, net, of \$5.6 million in fiscal 2001 compared to \$6.1 million for fiscal 2000. The decrease in other income during fiscal 2001 was primarily due to the decline in short-term interest rates on our cash investments.

### *Provision (Benefit) for Income Taxes*

Our effective tax rate was 36.0% and 35.5% for the years ended December 30, 2001 and December 31, 2000, respectively. The slight increase in our effective tax rate was the result of the availability of net operating loss carrybacks and carryforwards.

### *Liquidity and Capital Resources*

We have historically financed our operations primarily through a combination of cash on hand, cash provided from operations, equipment lease financings, available borrowings under bank lines of credit and both private and public equity offerings. As of December 29, 2002, we had working capital of \$218.5 million, including \$162.5 million in cash and cash equivalents, as compared to working capital of \$186.3 million at December 30, 2001, which included \$123.2 million in cash and cash equivalents. We currently invest our excess cash in short-term, investment-grade, money market instruments with maturities of three months or less. We typically hold such investments until maturity and then reinvest the proceeds in similar money market instruments. We believe that all of our cash investments would be readily available to us should the need arise.

Net cash provided by operations was approximately \$40.1 million during the year ended December 29, 2002, compared with cash used in operations of \$6.3 million during the year ended December 30, 2001. The increase in cash flow from operating activities during fiscal 2002 as compared to fiscal 2001 was due to several factors, including enhanced operating profitability associated with our increased sales during 2002, improved inventory management, and the carryback of our fiscal 2001 net operating loss which resulted in income tax refunds of approximately \$9.6 million. During fiscal 2002, our net accounts receivable decreased to \$53.3 million at December 29, 2002 from \$59.7 million at December 30, 2001, consistent with our lower sales volume during the fourth quarter of fiscal 2002 compared to the fourth quarter of fiscal 2001. See "Additional Factors That May Affect Future Results—We rely upon a few customers for a significant amount of our revenues..." Net inventories decreased to \$29.9 million at December 29, 2002, from \$33.5 million at December 30, 2001 consistent with our improved inventory management. Net accounts payable increased to \$26.8 million at December 29, 2002 from \$22.7 million at December 30, 2001.

Total capital expenditures during fiscal 2002 and fiscal 2001 were approximately \$5.1 million and \$21.6 million, respectively. Capital spending during fiscal 2002 included approximately \$1.8 million for computer hardware and software and \$3.2 million for tooling and electronic test equipment utilized in our manufacturing and research and development areas. Capital spending for fiscal 2001 included approximately \$9.0 million for capital improvements to our Santa Ana facility and approximately \$12.6 million for electronic test equipment utilized in our manufacturing and research and development areas.

Net cash provided by financing activities was \$3.1 million for fiscal 2002, compared to \$9.2 million for fiscal 2001. Net cash provided by financing activities primarily represents proceeds from employee stock option exercises as well as proceeds from the issuance of Common Stock under our Employee Stock Purchase Plan. The amount of cash provided by employee option exercises is subject to various factors beyond our control, including the market price of our Common Stock and an individual's timing decisions regarding the exercise of such options. Therefore, we cannot be assured that this will continue to be a source of cash for Powerwave on an on-going basis.

Effective May 31, 2002, we renewed our \$20 million revolving credit agreement with Comerica Bank-California for a period of one year. The credit facility provides for an unsecured revolving line of credit up to a maximum principal amount outstanding at any one time of \$20 million (the "Revolving Commitment Amount"). We are required to pay a commitment fee of 0.25% per annum on the unused portion of the Revolving Commitment Amount, payable quarterly in arrears. The revolving credit facility allows for borrowings based either upon the bank's prime rate (4.25% at December 29, 2002) or the bank's LIBOR rate plus an applicable LIBOR margin of 1.25% or 1.50%, based upon our debt leverage ratio. The revolving credit facility terminates on May 31, 2003. The revolving credit facility contains certain standard affirmative and negative covenants, including limitations on future indebtedness, restricted payments, transactions with affiliates, liens, dividends, mergers, transfers of assets and leverage ratios. At December 29, 2002, we were in compliance with all covenants contained in the revolving credit facility. There were no amounts outstanding and the full \$20 million of the Revolving Commitment Amount was available to us at December 29, 2002.

We currently believe that our existing cash balances and funds expected to be generated from operations will provide us with sufficient funds to finance our operations for at least the next 12 months. For fiscal 2003, we currently anticipate capital spending on property and equipment to be in the range of \$5 to \$10 million and we plan to fund these expenditures from our existing cash balances. Our principal sources of liquidity consist of existing cash balances and funds expected to be generated from future operations. Cash and cash equivalents were \$162.5 million at December 29, 2002, compared with \$123.2 million at December 30, 2001.

We regularly review our cash funding requirements and attempt to meet those requirements through a combination of cash on hand and cash provided by operations. Our ability to increase revenues and generate profits is subject to numerous risks and uncertainties and any significant decrease in our revenues or profitability could reduce our operating cash flows and erode our existing cash balances. During fiscal 2002, several major OEM's made announcements that they were lowering their expectations for wireless infrastructure demand due to lower than anticipated capital spending plans by major wireless network operators. No assurances can be given that we will continue to be able to generate positive operating cash flows or maintain and/or grow our existing cash balances. See "Additional Factors That May Affect Future Results—We rely upon a few customers for a significant amount of our revenues...; —The wireless communications infrastructure equipment industry is extremely competitive...; —Our average sales prices have declined...; —Our success is tied to the growth of the wireless services market...; and —We have experienced, and will continue to experience, significant fluctuations in sales and operating results from quarter to quarter..."

In the past, we have occasionally utilized both operating and capital lease financing for certain equipment purchases used in our manufacturing and research and development operations and may continue to do so selectively in the future. We may also require additional funds in the future to support our working capital requirements or for other purposes, and we may seek to raise such additional funds through the sale of public or private equity and/or debt financings, as well as from other sources. Our ability to maintain existing financing arrangements and to secure additional financing or sources of funding is dependent on our credit rating and the market price for our common stock, which are both directly impacted by our ability to grow revenues and generate profits. We can make no guarantees that we will be able to obtain additional financing or secure new financing arrangements in the future. See "Additional Factors That May Affect Future Results—We rely upon a few customers for a significant amount of our revenues...; —The wireless communications infrastructure equipment industry is extremely competitive...; —Our average sales prices have declined...; —Our success is tied to the growth of the wireless services market...; —We have experienced, and will continue to experience, significant fluctuations in sales and operating results from quarter to quarter..."; and —"We may need additional capital in the future..."

#### **Contractual Obligations and Commercial Commitments**

We incur various contractual obligations and commercial commitments in our normal course of business. Such obligations and commitments primarily consist of the following:

*Capital Lease Obligations*—We do not currently have any outstanding capital lease obligations. Such obligations would be included under debt and recorded on our consolidated balance sheet.

*Operating Lease Obligations*—We have various operating leases covering facilities in Santa Ana, California, El Dorado Hills, California, Bristol, England and various sales offices in the United States and France. We also have some minor operating leases relating to equipment rentals that amount to less than \$0.2 million per year.

*Purchase Commitments with Contract Manufacturers*—We regularly provide various contract manufacturers with rolling six-month forecasts of material and finished goods requirements for planning and long-lead time parts procurement purposes only. We generally issue purchase orders to such contract manufacturers with delivery dates from four to six weeks from the purchase order date. We are committed to accept delivery of such materials or product orders pursuant to such purchase orders subject to various contract provisions which allow us to delay receipt of such order or allow us to cancel orders beyond certain agreed lead times. Such cancellations may or may not include cancellation costs payable by us. In the past, we have been required to take delivery of materials that were in excess of our requirements and we have previously recognized charges and expenses related to such excess material. If we are not able to adequately manage our contract manufacturers and adjust such commitments for changes in demand, we may incur additional inventory expenses related to excess and obsolete inventory. Such expenses could have a material adverse effect on our business, financial condition and results of operations.

*Other Purchase Commitments*—We also incur various future purchase obligations with other vendors and suppliers for the purchase of inventory, as well as other goods and services, in the normal course of business. These obligations are generally evidenced by purchase orders with delivery dates from four to six weeks from the purchase date, and in certain cases, supply agreements that contain the terms and conditions associated with these purchase arrangements. We are committed to accept delivery of such materials or product orders pursuant to such purchase orders subject to various contract provisions which allow us to delay receipt of such order or allow us to cancel orders beyond certain agreed lead times. Such cancellations may or may not include cancellation costs payable by us. In the past, we have been required to take delivery of materials that were in excess of our requirements and we have previously recognized charges and expenses related to such excess material. If we are not able to adequately manage our supply chain and adjust such commitments for changes in demand, we may incur additional inventory

expenses related to excess and obsolete inventory. Such expenses could have a material adverse effect on our business, financial condition and results of operations.

*Guarantees Under Letters of Credit*—We have issued standby letters of credit from time to time as security for certain liabilities. At December 29, 2002, all outstanding letters of credit related to contingent liabilities under our workers compensation insurance policies.

As of December 29, 2002, future payments related to contractual obligations and commercial commitments are as follows:

	Amounts Due by Period (in thousands)				Total
	1 year and less	2-3 years	4-5 years	Thereafter	
Capital Lease Obligations .....	\$ —	\$ —	\$ —	\$ —	\$ —
Operating Lease Obligations .....	1,661	2,956	1,600	211	6,428
Purchase Commitments with Contract					
Manufacturers .....	16,178	—	—	—	16,178
Other Purchase Commitments .....	11,024	—	—	—	11,024
Guarantees under Letters of Credit .....	<u>290</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>290</u>
Total Contractual Obligations and Commercial Commitments .....	<u>\$29,153</u>	<u>\$2,956</u>	<u>\$ 1,600</u>	<u>\$ 211</u>	<u>\$33,920</u>

We believe that our existing cash balances and funds expected to be generated from future operations will be sufficient to satisfy these contractual obligations and commercial commitments and that the ultimate payments associated with these commitments will not have a material adverse impact on our liquidity position.

#### Disclosure About Stock Option Plans

Our stock option program is a broad-based, long-term retention program that is intended to attract and retain talented employees and align stockholder and employee interests. The program consists of five separate plans: one under which non-employee directors may be granted options to purchase shares of stock, and four broad-based plans under which options may be granted to all employees, including officers. Options granted under these plans expire either 5 or 10 years from the grant date and generally vest over 2 to 4 years.

All stock option grants to our executive officers and vice presidents are made after a review by, and with the approval of, either the Compensation Committee of the Board of Directors or the entire Board of Directors. All members of the Compensation Committee are independent directors, as defined in the applicable rules for issuers traded on The Nasdaq Stock Market. Our executive officers include Bruce C. Edwards, President and Chief Executive Officer, Ronald J. Buschur, Chief Operating Officer, and Kevin T. Michaels, Senior Vice President, Finance, Chief Financial Officer and Secretary. See the "Report Of The Compensation Committee On Executive Compensation" appearing in the Company's 2002 Proxy Statement for further information concerning the policies and procedures of the Company and the Compensation Committee regarding the use of stock options.

During the year ended December 29, 2002, we granted options to purchase 3,032,800 shares of Common Stock to employees and directors. After deducting 987,930 shares for options forfeited, this resulted in net new option grants of 2,044,870. Net options granted after forfeitures during the year represented 3.11% of our total outstanding common shares of 65,707,477 as of December 29, 2002. The following table summarizes the net stock option grants to our employees, directors and executive officers during the three most recent fiscal years:

	Fiscal Year Ended December 29, 2002	Fiscal Year Ended December 30, 2001	Fiscal Year Ended December 31, 2000
Net grants during the year as % of total outstanding common shares .....	3.11%	1.61%	4.44%
Grants to executive officers during the year as % of total options granted during the year .....	18.96%	19.63%	24.03%
Grants to executive officers during the year as % of total outstanding common shares .....	0.88%	0.69%	1.10%
Cumulative options held by executive officers as % of total options outstanding .....	19.49%	17.59%	19.41%

At December 29, 2002, a total of 1,627,288 options were available for grant under all of our option plans and a total of 316,599 shares of Common Stock were held in escrow to cover all remaining exercises under the 1995 Stock Option Plan. Please see Note 12 of the Notes to Consolidated Financial Statements included herein for additional information on our stock option plans and the activity under such plans.

The following table summarizes outstanding stock options that are in-the-money and out-of-the-money as of December 29, 2002. For purposes of this table, in-the-money stock options are those options with an exercise price less than \$5.34 per share, the closing price of Powerwave Common Stock on the last trading day of the year, and out-of-the-money stock options are stock options with an exercise price greater than or equal to the \$5.34 per share closing price.

	<u>Exercisable</u>		<u>Unexercisable</u>		<u>Total Shares</u>
	<u>Shares</u>	<u>Wtd. Avg. Exercise Price</u>	<u>Shares</u>	<u>Wtd. Avg. Exercise Price</u>	
In-the-Money.....	1,473,138	\$ 3.37	121,500	\$ 4.45	1,594,638
Out-of-the-Money.....	<u>3,071,745</u>	\$21.48	<u>4,932,339</u>	\$13.53	<u>8,004,084</u>
Total Options Outstanding..	<u>4,544,883</u>	\$15.61	<u>5,053,839</u>	\$13.31	<u>9,598,722</u>

The following table sets forth certain information concerning grants of options to each of our executive officers during the twelve months ended December 29, 2002. In addition, in accordance with the rules and regulations of the Securities and Exchange Commission, the following table sets forth the hypothetical gains that would exist for the options based on the assumption that the stock price were to appreciate annually from the closing price on the grant date by 5% and 10%, respectively. These rates do not represent our estimate or projection of future Common Stock prices and there is no assurance that the share price will appreciate at all or at the rates shown in the table below.

<u>Name</u>	<u>Number of Securities Underlying Options Granted</u>	<u>% of Total Options Granted to Employees During the Period<sup>(1)</sup></u>	<u>Exercise Price (\$/Share)<sup>(2)</sup></u>	<u>Expiration Date<sup>(3)</sup></u>	<u>Potential Realizable Value at Assumed Annual Rates of Stock Price Appreciation<sup>(4)</sup></u>	
					<u>5%</u>	<u>10%</u>
Bruce C. Edwards	400,000 <sup>(5)</sup>	13.19%	\$5.41	08/05/2012	\$1,360,928	\$3,448,859
Ronald J. Buschur	100,000 <sup>(5)</sup>	3.30%	\$5.41	08/05/2012	\$ 340,932	\$ 862,215
Kevin T. Michaels	75,000 <sup>(5)</sup>	2.47%	\$5.41	08/05/2012	\$ 255,174	\$ 646,661

- (1) Options to purchase an aggregate of 3,032,800 shares of Common Stock were granted to directors and employees, including the executive officers, during the year ended December 29, 2002.
- (2) The exercise price of each option is equal to the fair market value of Common Stock on the date of the grant.
- (3) Options granted have a term of 10 years, subject to earlier termination in certain events related to termination of employment.
- (4) This amount assumes a Common Stock price of \$8.81 at 5% appreciation and \$14.03 at 10% appreciation. There is no guarantee that the Common Stock price will actually appreciate to these levels.
- (5) Subject to continued employment with the Company, the options become exercisable as to one forty-eighth per month beginning September 1, 2002.

The following table sets forth certain information concerning the exercise of options by each of our executive officers during the year ended December 29, 2002, including the aggregate value of gains on the date of exercise. In addition, the table includes the number of shares covered by both exercisable and unexercisable stock options as of December 29, 2002. Also reported are the values for "in-the-money" options which represent the positive spread between the exercise prices of any such existing stock options and the closing price of the Company's Common Stock on the last trading day of the year.

Name	Shares Acquired on Exercise	Value Realized	Number of Securities Underlying Unexercised Options at 12/29/2002		Value of Unexercised In-the- Money Options at 12/29/2002 <sup>(1)</sup>	
			Exercisable	Unexercisable	Exercisable	Unexercisable
Bruce C. Edwards	115,625	\$982,427 <sup>(2)</sup>	683,333	366,667	—	—
Ronald J. Buschur	—	—	158,333	341,667	—	—
Kevin T. Michaels	—	—	187,166	133,334	\$144,158	—

(1) In accordance with the Securities and Exchange Commission's rules, values are calculated by subtracting the exercise price from the fair market value of the underlying common stock. For purposes of this table, fair market value per share is deemed to be \$5.34, the Company's closing Common Stock price reported by Nasdaq on December 27, 2002, the last trading day of the year.

(2) Represents estimated market value on the date of exercise of shares, less option exercise price. These options were exercised and the shares are still held by the executive.

#### Disclosure About Foreign Currency Risk

We have operations in France, the United Kingdom, and the People's Republic of China that incur or will incur expenses in foreign currencies. These expenses expose us to foreign currency transactions and result in gains and losses from such transactions. In addition, a significant portion of our revenues are derived from international sources, with our international customers accounting for approximately 33% of fiscal 2002 net sales, 41% of our fiscal 2001 net sales, and 21% of our fiscal 2000 net sales. We regularly pursue new customers in various domestic and international locations where new deployments or upgrades to existing wireless communication networks are planned. Such international locations include Europe and South America, where there has been instability in several of the region's currencies, including the Brazilian Real and Argentine Peso. Although we currently invoice most of our customers in U.S. Dollars, changes in the value of the U.S. Dollar versus the local currency in which our products are sold, along with the economic and political conditions of such foreign countries, could adversely affect our business, financial condition and results of operations. In addition, the weakening of an international customer's local currency and banking market may negatively impact such customer's ability to meet their payment obligations to us. Although we currently believe that our international customers have the ability to meet all of their obligations to us, there can be no assurance that they will continue to be able meet such obligations. We regularly monitor the credit worthiness of our international customers and make credit decisions based on both prior sales experience with such customers and their current financial performance, as well as overall economic conditions. In the future, we may be required or decide to offer certain international customers extended payment terms and/or sell products or services in the local currency of such customers. During fiscal 2003, we expect to begin to sell products to customers in China in their local foreign currency and receive payments in such local foreign currency. If we sell products or services in a foreign currency, we may be required to convert the payments received into U.S. dollars or utilize such foreign currencies as payments for expenses of our business. Given the uncertainty as to when and what specific foreign currencies we may be required or decide to accept as payment from our international customers, we cannot predict the ultimate impact that such a decision would have on our business, gross margins and results of operations.

Several of the international markets in which we sell our products have experienced significant weaknesses in their currencies, banking systems and equity markets in the last few years. Such weaknesses could negatively impact demand for wireless services and thereby reduce demand for our products. Such a reduction in demand for our products could have a negative impact on our future sales and gross margins. Our foreign customers generally pay for our products with U.S. Dollars. The past strengthening of the U.S. Dollar as compared to the Brazilian Real or the South Korean Won effectively increased the cost of our products by as much as 100% or more for our Brazilian and South Korean customers. Such a significant increase in the local currency based cost of such products makes them less attractive to such customers. Accordingly, changes in exchange rates, and in particular a strengthening of the U.S. Dollar, may negatively impact our future sales and gross margins. For further discussion of the risks associated with our international sales, see "Additional Factors That May Affect Future Results—There are many risks associated with international operations..."

#### Disclosure About Terrorist Risk

We did not experience any direct impact from the September 11, 2001 terrorist attacks on the United States other than minor delays in certain material shipments due to disruptions in the air transportation system. These delays did not have a material impact on us. We are unable to estimate or predict what future impact these events

will have on us, our customers, our suppliers and the market demand for our products. Any production delays or shutdowns, reduction in demand or loss of customers due to terrorist attacks could have a negative impact on our results of operations and future sales.

#### **Additional Factors That May Affect Our Future Results**

*Our future operating results may be impacted by a number of factors that could cause our actual results to differ materially from those stated in this document and should be reviewed in their entirety when analyzing our business. These factors include the following:*

- the ability to add new customers to reduce our dependence on any one customer;
- the ability to maintain our existing customers;
- the ability to timely develop and produce commercially viable products at competitive prices;
- industry specific factors, including a slowdown in the demand for wireless communications and RF power amplifiers;
- the impact of any reduction in demand for our products;
- the ability to manage rapid change in demand for our products;
- the availability and cost of components;
- the ability to manage expense levels given reductions in demand;
- the ability to increase demand for our products from major wireless infrastructure original equipment manufacturers, or OEMs;
- the ability to produce both new and existing products which meet the quality standards and price targets of both our existing and potential new customers;
- the ability to manage contract manufacturers that produce our products;
- the ability to ramp-up production of new products in both a timely and cost effective manner;
- the ability to accurately anticipate customer demand;
- the ability to finance our activities and maintain our financial liquidity;
- the ability of our products to operate and be compatible with various OEMs' base station equipment;
- the ability to manage future product repairs;
- worldwide and regional economic downturns and unfavorable political conditions; and
- the ability to maintain a stable and reliable source of electricity to support our operations at a reasonable cost.

*We rely upon a few customers for a significant amount of our revenues and the loss of any one of these customers, or a significant loss, reduction or rescheduling of orders from any of our customers, would have a material adverse effect on our business, results of operations and financial condition.*

We sell most of our products to a small number of customers, and we expect that this will continue. We believe that our future success depends upon our ability to broaden our customer base and maintain relationships with major wireless OEMs, such as Ericsson, LGIC, Lucent, Motorola, Nokia, Nortel and Samsung, as well as major operators of wireless networks, such as ALLTEL Corporation, AT&T Wireless, Cingular Wireless and Verizon Wireless. Our dependence on a small number of major customers exposes us to numerous risks, including:

- slowdowns or delays in deployment of wireless networks that reduce customer demand for our products;
- changes in customer forecasts and demand;
- customers leveraging their buying power to change the terms of pricing, payment and product delivery schedules;
- direct competition should a customer decide to manufacture or increase their current level of manufacturing RF power amplifiers internally; and
- concentration of accounts receivable credit risk.

For the year ended December 29, 2002, our largest customer, Nortel, accounted for approximately 49% of our net sales, or \$187.5 million while Cingular Wireless and Nokia, each accounted for 10% or more of our net sales for such fiscal year. During fiscal 2002, a number of major OEMs made multiple announcements lowering their expectations for total wireless infrastructure demand due to lower than anticipated capital spending plans by major wireless network operators. As a result, we experienced decreased revenues during the second half of fiscal 2002. If these forecasted reductions in overall market demand continue in 2003, they could result in additional significant reductions in demand for our products by our customers and have an adverse effect on our business, results of operations and financial condition. In addition, several of our major OEM customers continue to experience poor

financial performance that has resulted in downgrades of their credit worthiness by outside credit rating agencies and significant reductions in their common stock price and overall market value. While we perform ongoing credit evaluations and have not experienced any significant payment delays from these customers, further reductions in their financial liquidity could result in future payment delays and/or the declaration of bankruptcy causing the non-payment of their accounts receivable, which in turn, would have a material adverse effect on our business, liquidity, results of operations and financial condition.

There are several examples of the risks related to our customer and industry concentration levels. During 2001, we experienced an overall reduction in revenue of \$147.1 million from our 2000 revenue levels, \$80.0 million of which related to a single customer, Nortel. During 1998, we had a significant geographic customer concentration in South Korea, which experienced an economic and financial crisis. As a result, our fiscal 1998 sales to South Korean customers decreased by approximately 70%, or \$69.1 million, to \$30.2 million as compared to \$99.3 million or approximately 83% of our total net sales for fiscal 1997.

At various times throughout fiscal 2002, we experienced significant reductions in network operator demand. In addition, we have experienced significant delays in demand for W-CDMA or 3G based products due to the high projected capital cost of building such networks and market concerns regarding the inoperability of such network protocols. In combination with these market issues, we believe that a majority of wireless network operators have reduced their capital spending plans in order to improve their overall cashflow. The continuation of these various reductions in demand for our products will have a material adverse effect on our business, results of operations and financial condition in the future.

We believe that continued purchases of our products by OEMs is dependent upon many factors, including the OEMs' view of utilizing third party suppliers of RF power amplifiers. During the third quarter of 2001, Lucent announced that it had sold its internal power amplifier group to a new private entity called Celiant Corporation, which was subsequently acquired during the second quarter of 2002 by Andrew Corporation, a competitor. During fiscal 2000, Ericsson purchased Microwave Power Devices, Inc., one of our competitors. Any shift in demand by an OEM away from utilizing third party suppliers of RF amplifiers could have a negative impact on our business, results of operations and financial condition. Additionally, OEM purchasers are impacted by their current view of wireless infrastructure deployments and orders for our products could be significantly reduced due to any delays of such deployments. A number of factors may cause delays in wireless infrastructure deployments, including the following factors:

- reduced subscriber demand for wireless services;
- the inability of network operators to raise additional capital to fund network expansion;
- higher than anticipated network infrastructure costs;
- technical delays in the development of new wireless protocols, such as 3G;
- delays in government approvals required for system deployment; and
- economic or political problems in the wireless operator's operating region.

In addition, from time to time, OEMs may purchase products from us in large quantities over a short period of time, which may cause demand for our products to change rapidly. Due to these and other uncertainties associated with wireless infrastructure deployments and OEMs' purchasing strategies, we may experience significant fluctuations in demand from our OEM customers. Such fluctuations could cause a significant increase in demand that could exceed our production capacity and could negatively impact our ability to meet customers' demands as well as potentially impact product quality. Alternatively, such fluctuations could cause a significant reduction in revenues, which could have a material adverse effect on our business, results of operations and financial condition. We cannot guarantee that a major customer will not reduce, delay or eliminate purchases from us, which could have a material adverse effect on our business, results of operations and financial condition.

*We have experienced, and will continue to experience, significant fluctuations in sales and operating results from quarter to quarter. Our quarterly results fluctuate due to a number of factors, including:*

- variations in the timing, cancellation, or rescheduling of customer orders and shipments;
- variations in manufacturing costs, capacities and efficiencies;
- capacity and production constraints, including constraints associated with single-source component suppliers;
- changes in a network operator's transmission protocol;
- delays in qualification of new products or redesigns by our customers;
- product failures and associated in-field service support costs;
- competitive factors, including pricing, availability and demand for competing amplification products;

- cancellations or reductions of customer orders and shipments due to economic slowdowns in the customers' operating regions;
- cancellations or rescheduling of customer orders and shipments due to excess inventory levels caused by changes in demand or deployment schedules at the customer;
- warranty expenses;
- the availability and cost of components;
- the timing, availability and sale of new products by us or our competitors;
- changes in the mix of products having differing gross margins;
- changes in average sales prices;
- long sales cycles associated with our products;
- variations in product development and other operating expenses;
- discounts given to certain customers for large volume purchases;
- interruptions in the supply of electricity and significant increases in the cost of electricity; and
- high fixed expenses that increase operating expenses, especially during a quarter with a sales shortfall.

On occasion, we have generated a large percentage of our revenues in the last month of a quarter. Since we attempt to ship products quickly after we receive orders, we may not always have a significant backlog of unfilled orders at the start of each quarter and we may be required to book a substantial portion of our orders during the quarter in which they ship. Our major customers generally have no obligation to purchase forecasted amounts and may cancel orders, change delivery schedules or change the mix of products ordered with minimal notice and without penalty. We cannot make any guarantee that such orders will actually be shipped or that such orders will not be cancelled in the future. We make regular adjustments to our order backlog as customer delivery schedules change and in response to changes in our production schedule. In addition, our customers may change their ordering practices and purchasing patterns. As a result, we may not be able to accurately predict our quarterly sales. Because our expense levels are partially based on our expectations of future sales, our expenses may be disproportionately large relative to our revenues and we may be unable to adjust spending in a timely manner to compensate for any unexpected revenue shortfall. Any shortfall in sales in relation to our quarterly expectations or any delay of customer orders would likely have an immediate and adverse impact on our business, results of operations and financial condition.

Order deferrals and cancellations by our customers, declining average sales prices, changes in the mix of products sold, delays in the introduction of new products and longer than anticipated sales cycles for our products have, in the past, adversely affected our results of operations. We cannot guarantee that our results of operations will not be similarly adversely affected in the future. In spite of these limitations, we maintain significant finished goods, work-in-progress and raw materials inventory as well as increased levels of technical production staff to meet estimated order forecasts. If customers purchase less than the forecasted amounts or cancel or delay existing purchase orders, we will have higher levels of inventory that face a greater risk of obsolescence and excess production staff. If our customers desire to purchase products in excess of the forecasted amounts or in a different product mix, we may lack the inventory or manufacturing capacity to fill their orders. Either situation could have a material adverse effect upon our business, financial condition and results of operations and future business with such customers.

Due to these and other factors, our past results are not reliable indicators of our future performance. Future revenues and operating results may not meet the expectations of public market analysts and investors. In either case, the price of our Common Stock could be materially adversely affected. See "Our Common Stock price has been and may continue to be volatile and you may not be able to resell shares of our stock at or above the price you paid for such shares."

*Our average sales prices have declined, and we anticipate that the average sales prices for our products will continue to decline and negatively impact our gross profit margins.*

Wireless service providers are placing increasing price pressure on wireless infrastructure manufacturers, which in turn, has resulted in downward pricing pressure on our products with certain competitors aggressively reducing prices in an effort to increase market share. Fierce competition among third-party suppliers has also increased the downward price pressure on our products. Since wireless infrastructure manufacturers frequently negotiate supply arrangements far in advance of delivery dates, we must often commit to price reductions for our products before we know how, or if, we can obtain such cost reductions. In addition, average sales prices are affected by price discounts negotiated without firm orders for large volume purchases by certain customers. To offset declining average sales prices, we must reduce manufacturing costs and ultimately develop new products with

lower costs or higher average sales prices. If we cannot achieve such cost reductions or product improvements, our gross margins will continue to decline.

*Our success is tied to the growth of the wireless services market, and if there is a slower than expected increase in the size of this market, sales of our products would be materially adversely affected.*

Almost all of our revenues come from the sale of RF power amplifiers for wireless communications networks. Our future success depends to a considerable extent upon the continued growth and increased availability of wireless communications services. Wireless communications services may not continue to grow and create demand for our products. In addition, as experienced during fiscal 2002, wireless network operators may decide to continue to reduce or delay capital spending on wireless networks in order to preserve their operating cash and improve their balance sheets, which would have a negative impact on our business, financial condition and results of operations.

We believe that continued growth in the use of wireless communications services depends, in part, on lowering the cost per subscriber by reducing the costs of the infrastructure capital equipment and thereby enabling reductions in wireless service pricing. Although FCC regulations require local phone companies to reduce the rates charged to wireless carriers for connection to their wireline networks, wireless service rates will probably remain higher than rates charged by traditional wireline companies. Alternatively, if wireless service rates fall too far, wireless network operators may not be able to maintain profitable operations and, therefore, may be forced to further reduce future spending on wireless infrastructure, which in turn, would have a negative impact on our business, financial condition and results of operations.

The expansion of wireless communications services depends on developed countries, such as the United States, continuing to allow deployment of new networks and upgrades to existing networks, and on less developed countries deploying wireless communications networks. Our performance could be adversely affected by any of the following risks:

- failure of local governments or foreign countries to allow construction of new wireless communications systems;
- termination or delays by local governments or foreign countries of existing construction of wireless communications systems;
- imposition of moratoriums by local governments or foreign countries on building new base stations for existing wireless communications systems; and
- foreign authorities may disfavor wireless communications systems because of environmental concerns, political unrest, economic downturns, favorable prices for other communications services or delays in implementing wireless communications systems.

*We depend on single sources or limited sources for key components and products, and a failure by any of these sources to provide components or products of sufficient quality and quantity, on a timely basis, would cause us to delay product shipments, which could result in delayed or lost revenues, potential financial penalties for late deliveries, and customer dissatisfaction.*

A number of the parts used in our products are available from only one or a limited number of outside suppliers due to unique component designs as well as certain quality and performance requirements. To take advantage of volume pricing discounts, we also purchase certain customized components from single or limited sources. We have experienced, and expect to continue to experience, shortages of single-sourced and limited-sourced components. Shortages have compelled us to adjust our product designs and production schedules and have caused us to miss customer requested delivery dates. If single-sourced or limited-sourced components become unavailable in sufficient quantities in the desired time periods, are discontinued or are available only on unsatisfactory terms, we would be required to purchase comparable components from other sources and "retune" our products to function with the replacement components, or we may be required to redesign our products to use other components, either of which could delay production and delivery of our products. If production and delivery of our products are delayed due to the unavailability of single-sourced or limited-sourced components such that we do not meet the agreed upon delivery dates of our customers, such delays could result in lost revenues due to customer cancellations, as well as potential financial penalties payable to our customers if they incur excess costs due solely to delays by Powerwave. Any such loss of revenue or financial penalties could have a material adverse affect on our business, results of operations and financial condition.

In the fourth quarter of fiscal 2002, we announced that we were utilizing Celestica to supply both subassemblies and complete product builds from one of its facilities in mainland China. This is the first time that we have outsourced a complete product build to a contract manufacturer. If there are any delays in the process of

transferring our production process and equipment to Celestica, any delays in the ramp up of the new production lines in China, or any delays in the qualification by our customers of the China facility and the products produced there, such delays could cause us to miss customer agreed product delivery dates. This, in turn, could result in lost revenues due to customer cancellations, as well as potential financial penalties payable to our customers if they incur excess costs due solely to delays by Powerwave. Additionally, if any delays occur, we may be required to spend additional sums to expedite products and/or production schedules, which could create additional expenses for Powerwave. Any such loss of revenue or additional unanticipated expenses could have a material adverse affect on our business, results of operations and financial condition.

Similarly, if we are unable to obtain cargo space or secure delivery of single-sourced or limited-sourced components due to labor strikes, lockouts, work slowdowns and/or work stoppages by longshoremen, dock workers, truck drivers, airline pilots and other transportation industry workers, our transportation costs could increase due to the utilization of alternative transportation methods and/or our delivery of products could be adversely delayed. A prolonged work slowdown or future lockouts similar to the fiscal 2002 longshoreman and dockworkers lockout and work slowdown on the West Coast of the United States could cause our transportation costs and/or transit times to significantly increase due to an increased demand for air transportation of cargo. In addition, products built in China for export to other countries require air or ocean transport. These transportation costs would escalate if there were a shortage of air or ocean cargo space. Any significant increase in transportation costs could have a negative impact on our business, results of operations and financial condition.

Our reliance on certain single-sourced and limited-sourced components and products also exposes us to quality control issues if these suppliers experience a failure in their production process. A failure in a single-sourced or limited-sourced component or product could force us to repair or replace a product utilizing replacement components. Such a requirement could have a material adverse effect on our business, results of operations and financial condition. In addition, if we cannot obtain comparable replacements or effectively retune or redesign our products, there could be a material adverse effect on our business, results of operations and financial condition.

As a result of our reliance on certain single-sourced and limited-sourced customized components and products, an abrupt reduction in customer demand could result in excess inventories of such components or products due to the nature of the volume purchasing agreements that we utilize to obtain cost reductions. If we are unable to utilize such components or products in a timely manner, and are unable to sell such components or products due to their customized nature, the resulting negative impact on our liquidity and resulting increased inventory levels could have a material adverse effect on our business, results of operations and financial condition.

*Many wireless infrastructure manufacturers have internal RF power amplifier production and/or capabilities and if these manufacturers begin offering their own RF power amplifiers, demand for our products would be reduced and our business, financial condition and results of operations would be materially adversely affected.*

Many of the leading wireless infrastructure equipment manufacturers internally design and/or manufacture their own RF power amplifiers. We believe that our existing customers continuously evaluate whether to manufacture their own RF power amplifiers or utilize contract manufacturers to produce their own internal designs. Certain of our customers regularly produce or design RF power amplifiers in an attempt to replace products manufactured by us. We believe that this practice will continue. During 2000, Ericsson, one of our OEM customers, purchased Microwave Power Devices, Inc., one of our competitors. In the event that our customers manufacture or design their own RF power amplifiers, such customers could reduce or eliminate their purchases of our products. We cannot guarantee that our current customers will continue to rely or expand their reliance on us as an external source of supply for their RF power amplifiers.

Wireless infrastructure equipment manufacturers with internal manufacturing capabilities could also sell RF power amplifiers externally to other manufacturers, thereby competing directly with us. During 2001, Lucent announced the split off of its internal amplifier group creating Celiant Corporation. Subsequently, one of our competitors, Andrew Corporation, completed their acquisition of Celiant Corporation during the second quarter of 2002. Even if we are successful in selling our products to OEM customers, we believe that such customers will demand price and other concessions based on their ability to manufacture and/or design RF power amplifiers internally. If, for any reason, our major customers decide to produce their RF power amplifiers internally or through joint ventures with other competitors or contract manufacturers, or require us to participate in joint venture manufacturing with them, our business, results of operations and financial condition could be materially adversely affected.

*Our reliance on contract manufacturers to produce some of our products subjects us to various risks which could adversely impact our business, financial condition and results of operations.*

In an effort to reduce the costs of our products, we have recently begun to utilize a contract manufacturer for the complete manufacture of certain single-carrier products in China and currently anticipate that we will continue to expand the outsourcing of our production to contract manufacturers during fiscal 2003. We have historically utilized various contract manufacturers for various components within our products and continue to do so. As a result of utilizing a contract manufacturer for a complete product build, the cost, quality, performance and availability of our offshore contract manufacturing operations are and will be essential to the successful production and sale of selected products. Our ability to successfully transition the production of selected products to offshore contract manufacturing facilities depends upon numerous facts, which include our ability to:

- manage the impact on and maintain positive employee relations with our existing U.S. workforce;
- maintain pricing leverage with our existing supplier base;
- develop additional suppliers to support our offshore contract manufacturer;
- design products which our contract manufacturer can effectively manufacture and timely resolve any quality issues;
- provide our offshore contract manufacturer with product volumes that are stable and sufficient enough to achieve adequate cost savings;
- obtain customer acceptance and qualification of the products that are manufactured by our offshore contract manufacturer within a reasonable timeframe; and
- develop efficient and cost effective methods to transport products produced offshore to our customers.

If we are unable to successfully transition selected products to offshore contract manufacturers, our supply chain may be disrupted and the cost, quality and availability of our products could be adversely affected. This would have a negative impact on our business, financial condition and results of operations.

*The wireless communications infrastructure equipment industry is extremely competitive and is characterized by rapid technological change, frequent new product development, rapid product obsolescence, evolving industry standards and significant price erosion over the life of a product. If we are unable to compete effectively, our business would be harmed.*

Our products compete on the basis of the following key characteristics:

- performance;
- functionality;
- reliability;
- pricing;
- quality;
- designs that can be efficiently manufactured in large volumes;
- time-to-market delivery capabilities; and
- compliance with industry standards.

While we believe that we currently compete favorably with respect to these characteristics, this may change in the future. If we fail to address our competitive challenges, there could be a material adverse effect on our business, financial condition and results of operations.

Our current competitors include Allen Telecom, Inc., Andrew Corporation, Fujitsu Limited, Hitachi Kokusai Electric Inc., Japan Radio Co., Ltd., Mitsubishi Electric Corporation and Remec, Inc., in addition to a number of privately held companies throughout the world, subsidiaries of certain multinational corporations and the internal RF power amplifier manufacturing operations and RF amplifier design groups of the leading wireless infrastructure manufacturers such as Ericsson, Motorola, Nokia, Nortel and Samsung. Some competitors have adopted aggressive pricing strategies in an attempt to gain market share, which has caused us to lower our prices in order to remain competitive. Such pricing actions have had a negative impact on our financial condition and results of operations. In addition, some competitors have significantly greater financial, technical, manufacturing, sales, marketing and other resources than we do and have achieved greater name recognition for their products and technologies than we have. If we are unable to successfully increase our market penetration or our overall share of the RF power amplifier market, our results of operations could be adversely impacted.

Our future success depends largely upon the rate at which wireless infrastructure manufacturers incorporate our products into their systems. A substantial portion of the present worldwide production of RF power amplifiers is captive within the internal manufacturing operations of leading wireless infrastructure manufacturers such as Ericsson, Motorola, Nokia and Samsung. These companies regularly evaluate whether to manufacture their own RF

power amplifiers, outsource their designs to contract suppliers, purchase from other third party suppliers or purchase from us. In addition, various companies could also compete directly with us by selling their RF power amplifiers to other manufacturers and operators, including our customers. If we are not successful in increasing the use of our products by the leading wireless infrastructure manufacturers, there would be a material adverse effect on our business, financial condition and results of operations.

*Our failure to enhance our existing products or to develop and introduce new products that meet changing customer requirements and evolving technological standards would adversely impact our ability to sell our products.*

To succeed, we must improve current products and develop and introduce new products that are competitive in terms of price, performance and quality. These products must adequately address the requirements of wireless infrastructure manufacturing customers and end-users.

To develop new products, we invest in the research and development of RF power amplifiers for wireless communications networks. We target our research and development efforts on major wireless network deployments worldwide, which cover a broad range of frequency and transmission protocols. In addition, we are currently working on products for third generation networks as well as development projects for products requested by our customers. In spite of our efforts, the deployment of a wireless network may be delayed which could result in the failure of a particular research or development effort to generate a revenue producing product. Additionally, the new products we develop may not achieve market acceptance or may not be able to be manufactured cost effectively in sufficient volumes. We cannot guarantee the success of our research and development efforts.

We also continue efforts to improve our existing Cellular, PCS and 3G lines of RF power amplifier products. Any delays in the shipment of these products may cause customer dissatisfaction and delay or loss of product revenues. In addition, it is possible that a significant number of development projects will not result in manufacturable new products or product improvements. If we fail to develop new products or improve existing products in a timely manner, there will be a material adverse effect on our business, financial condition and results of operations.

*We may fail to develop products that are sufficiently manufacturable or of adequate quality and reliability, which would adversely impact our ability to sell our products.*

Manufacturing our products is a complex process that requires significant time and expertise to meet customers' specifications. Successful manufacturing is substantially dependent upon the ability to tune these products to meet specifications in an efficient manner. In this regard, we depend on our staff of trained technicians and those of our contract manufacturers. If we cannot design our products to minimize the manual tuning process, if we are unable to attract additional trained technicians, if we lose a number of our trained technicians, or if our contract manufacturers cannot train or maintain an adequate number of trained technicians, it would have a material adverse effect on our business, financial condition and results of operations.

We have had quality problems with our products in the past and may have similar problems in the future. We have replaced components in some products in accordance with our product warranties. We believe that our overall relationship with our customers is good and that they consider our products to be of good quality. We also believe that our customers will demand increasingly stringent product performance and reliability. However, we cannot provide any assurance that our product designs will remain successful or that they will keep pace with technological developments, evolving industry standards and new communications protocols. In addition, we may fail to adequately improve product quality and meet the quality standards of our customers or our contract manufacturers may fail to achieve the quality standards of our customers. Either scenario could cause us to lose customers. Design problems could also damage relationships with existing and prospective customers and could limit our ability to market our products to large wireless infrastructure manufacturers, many of which build their own, high quality RF power amplifiers and have stringent quality control standards. See "Many wireless infrastructure manufactures have internal RF power amplifier production capabilities and if these manufacturers begin offering their own RF power amplifiers, demand for our products would be reduced, and our business, financial condition and results of operations would be materially adversely affected."

*If we are unable to hire and retain highly qualified technical and managerial personnel, we may not be able to sustain or grow our business.*

Competition for personnel, particularly qualified engineers, is intense, and the loss of a significant number of such persons, as well as the failure to recruit and train additional technical personnel in a timely manner, could have a material adverse effect on our business, results of operations and financial condition. The departure of any of our management and technical personnel, the breach of their confidentiality and non-disclosure obligations to

Powerwave or the failure to achieve our intellectual property objectives may have a material adverse effect on our business, financial condition and results of operations.

We believe that our success depends upon the knowledge and experience of our management and technical personnel and our ability to market our existing products and to develop new products. Our employees are employed on an at-will-basis and do not have non-compete agreements. Therefore, we have had, and may continue to have employees leave us and go to work for competitors. While we believe that we have adequately protected our proprietary technology and that we have taken all legal measures to protect it, we will continue to pursue all legal measures available to protect it and to prohibit the unauthorized use of our proprietary technology. In spite of our efforts, the use of our processes by a competitor could have a material adverse effect on our business, financial condition and results of operations.

*There are many risks associated with international operations, including the following:*

- compliance with multiple and potentially conflicting regulations, including export requirements, tariffs, import duties and other barriers, as well as health and safety requirements;
- potential labor strikes, lockouts, work slowdowns and work stoppages at U.S. and international ports;
- differences in intellectual property protections;
- difficulties in staffing and managing foreign operations;
- longer accounts receivable collection cycles;
- currency fluctuations;
- terrorists attacks on American companies;
- economic instability, including inflation and interest rate fluctuations, such as those previously seen in South Korea and Brazil;
- competition from foreign based suppliers;
- restrictions against the repatriation of earnings from a foreign country;
- overlapping or differing tax structures; and
- political or civil turmoil.

For all of fiscal years 2002, 2001, and 2000, international revenues (excluding North American sales) accounted for approximately 33%, 41%, and 21%, respectively, of our net sales. We currently expect that international revenues will continue to account for a significant percentage of our revenues for the foreseeable future.

We have traditionally invoiced most of our international sales in U.S. dollars. Accordingly, we do not currently engage in foreign currency hedging transactions. However, as we continue to expand our international operations, we will be paid in foreign currencies and, therefore, will become exposed to possible losses from foreign currency transactions. In December 2001, we acquired Toracomm Limited, a company located in Bristol, United Kingdom. Due to this acquisition, we incur foreign currency expenses that expose us to additional foreign currency transactions, and the resulting gains and losses from such transactions are included in our operating results. In October 2002, we announced the initial start-up of contract manufacturing in the People's Republic of China. Our operations within China will expose us to both foreign exchange and currency risk, as well as political risk, with respect to the products produced in China.

Since we sell our products in many countries, the price of our products in those countries rises and our sales into those countries may fall when the U.S. dollar strengthens and becomes more expensive relative to the local currency of our foreign customers. This happened to us in South Korea during 1998. In addition, as we sell our products into foreign countries, our products can become subject to tariffs and import duties which raise the overall price of our products such that our products are no longer price competitive with those from locally based suppliers. If any of the above risks actually occur, there may be a material adverse effect on our business, financial condition and results of operations.

*Our ability to compete effectively and manage future growth depends on our ability to:*

- manage production and inventory levels, including those of our contract manufacturers, to meet product demand and new product introductions;
- manage and improve production quality;
- manage and improve the performance of our suppliers and contract manufacturers while reducing our cost of materials;
- expand both the range of customers and the geographic scope of our customer base;
- reduce product costs;

- effectively manage our workforce, both from a qualifications and research and development perspective; and
- improve financial and management controls, reporting systems and procedures.

Any failure to manage growth effectively could have a material adverse effect on our business, financial condition and results of operations.

*The sales cycle associated with our products is typically lengthy, often lasting from nine to eighteen months, which could cause delays in forecasted sales and cause us to incur substantial expense before we earn associated revenues.*

Our customers normally conduct significant technical evaluations of our products and our competitors' products before making purchase commitments. Our OEM customers typically require extensive technical qualification of our products before they are integrated into any OEM's product. This qualification process involves a significant investment of time and resources from both the OEMs and us in order to ensure that our product designs are fully qualified to perform with each OEM's equipment. Individual wireless network operators can also subject our products to field and evaluation trials, which can last anywhere from one to nine months, before making a purchase. The qualification and evaluation process, as well as customer field trials, may delay the shipment of sales forecasted for a specific customer for a particular quarter and our operating results for that quarter could be materially adversely affected.

*Protection of our intellectual property is limited and we are at risk of third-party claims of infringement that could harm our competitive position.*

We rely upon trade secrets and patents to protect our intellectual property. We execute confidentiality and non-disclosure agreements with our employees and suppliers and limit access to and distribution of our proprietary information. We have an on-going program to identify and file applications for both U.S. and international patents for various aspects of our technology. We have been granted a total of 24 U.S. patents and 2 foreign patents, and we have filed applications for over 25 additional U.S. patents and over 50 additional foreign patents. All of these efforts, along with the knowledge and experience of our management and technical personnel, strengthen our ability to market our existing products and to develop new products. The departure of any of our management and technical personnel, the breach of their confidentiality and non-disclosure obligations to us, or the failure to achieve our intellectual property objectives may have a material adverse effect on our business, financial condition and results of operations.

Certain of our customers and other wireless communications infrastructure equipment manufacturers may decide to protect their intellectual property by deciding not to purchase RF power amplifiers from external sources. The appearance of a close working relationship with a particular customer may adversely affect our ability to establish or maintain a relationship with, or sell products to, competitors of that particular customer. The failure of our major customers to purchase products from us due to our relationship with other customers could have a material adverse effect on our business, financial condition and results of operations.

We do not have non-compete agreements with our employees who are employed on an "at-will" basis. Therefore, employees may leave us and go to work for a competitor. We have had employees leave us and go to work for competitors in the past. While we believe that we have adequately protected our proprietary technology, and we believe that we have taken all legal measures to protect it, we may not be successful in prohibiting the unauthorized use of our proprietary technology or the use of our processes by a competitor. Any such unauthorized use of our proprietary technology could have a material adverse effect on our business, financial condition and results of operations.

Our ability to compete successfully and achieve future revenue growth will depend, in part, on our ability to protect our proprietary technology and operate without infringing the rights of others. We may fail to do so. In addition, the laws of certain countries in which our products are or may be sold may not protect our products and intellectual property rights to the same extent as the laws of the United States.

As the number of patents, copyrights and other intellectual property rights in our industry increases, and as the coverage of these rights and the functionality of the products in the market further overlap, we believe that we, along with other companies in our industry, may face more frequent infringement claims. Such claims, whether or not valid, could result in substantial costs and diversion of our resources. A third party claiming infringement may also obtain an injunction or other equitable relief, which could effectively block the distribution or sale of allegedly infringing products. Although we may seek licenses from third parties covering intellectual property that we are allegedly infringing, we cannot guarantee that any such licenses could be obtained on acceptable terms, if at all. See "We are at risk of litigation which could result in substantial costs to us and adversely impact our operations."

*Actual or alleged defects in our products may create liability to those claiming injury.*

Any of the following could have a material adverse effect on our business, financial condition and results of operations:

- a determination or allegation that systems or devices relying on or incorporating our products create a health risk, causing us to be named as a defendant, and held liable, in a product liability lawsuit;
- delays or prohibitions on the installation of wireless communications networks due to alleged health or environmental risks; and
- our inability to maintain insurance at an acceptable cost or to otherwise protect against potential product liability lawsuits.

*The communications industry is heavily regulated and we must obtain regulatory approvals to manufacture and sell our products, and our customers must obtain approvals to operate our products. Any failure or delay by us or any of our customers to obtain such approvals would adversely impact our ability to sell our products.*

The FCC has adopted regulations that impose stringent RF emissions standards on the communications industry. These regulations may require that we alter the manner in which radio signals are transmitted or otherwise alter the equipment transmitting such signals. We are also subject to regulatory requirements in international markets where prominent local competitors may have the ability to influence regulations in situations where we do not. The enactment by governments of new laws or regulations or a change in the interpretation of existing regulations could adversely affect the market for our products. Deregulation of international communications industries, along with RF spectrum allocations made by the FCC, has increased the potential demand for our products. We cannot guarantee that the trend toward deregulation and current regulatory developments favorable to the promotion of new and expanded wireless services will continue or that other future regulatory changes will have a positive impact on us.

The increasing demand for wireless communications has exerted pressure on regulatory bodies worldwide to adopt new standards for such products, generally following extensive investigation and deliberation over competing technologies. In the past, the delays inherent in this governmental approval process have caused, and may in the future cause, the cancellation, postponement or rescheduling of the installation of communications systems by our customers. These delays could have a material adverse effect on our business, results of operations and financial condition.

*Our Common Stock price has been and may continue to be volatile and you may not be able to resell shares of our stock at or above the price you paid for such shares.*

The price for shares of our Common Stock has exhibited high levels of volatility with significant volume and price fluctuations, which makes our Common Stock unsuitable for many investors. The stock market has also experienced significant price and volume fluctuations from time to time. The fluctuations in the stock market are often unrelated to the operating performance of particular companies, and the market prices for securities of technology companies have been especially volatile. These broad market fluctuations may adversely affect the market price of shares of our Common Stock. Our Common Stock may also be affected by:

- fluctuations in our results of operations or the operations of our competitors or customers;
- failure of such results of operations to meet the expectations of stock market analysts and investors;
- reductions in demand or expectations of future demand by our customers;
- delays or postponement of wireless infrastructure deployments, including new 3G deployments;
- changes in the political or economic outlook of the markets into which we sell our products;
- changes in stock market analyst recommendations regarding us, our competitors or our customers;
- the timing and announcements of technological innovations or new products by us or our competitors;
- changes in the wireless communications industry; and
- general market conditions.

In addition, our shareholder rights plan and provisions of our certificate of incorporation and provisions of the Delaware General Corporation Law could make it more difficult for a third party to acquire us, even if doing so would be beneficial to our stockholders. The shareholder rights plan and such provisions of our certificate of incorporation and Delaware law are intended to encourage potential acquirers to negotiate with us and allow our board of directors the opportunity to consider alternative proposals in the interest of maximizing stockholder value. However, such provisions may also discourage acquisition proposals or delay or prevent a change in control, which could harm our stock price.

Furthermore, based on the current accounting value of our assets, we may be required to record a charge for the impairment of our goodwill in the future should our stock price decline and consistently remain at a price of less

than approximately \$5.00 per share. Such a charge would have a material adverse impact on our reported operating results at the time of such charge and could further depress the price of our Common Stock. See "Significant Accounting Policies—Goodwill and Long Lived Assets".

Based on the above, we expect that our stock price will continue to be volatile. Therefore, we cannot guarantee that our investors will be able to resell their Powerwave shares at or above their acquisition price.

*We may need additional capital in the future and such additional financing may not be available on favorable terms.*

While we believe we have adequate working capital to meet our expected cash requirements for the immediate future, we may need to raise additional funds through public or private debt or equity financings in order to:

- take advantage of unanticipated opportunities, including more rapid international expansion or acquisitions of complementary businesses or technologies;
- develop new products or services;
- repay outstanding indebtedness; or
- respond to unanticipated competitive pressures.

Our ability to secure additional financing or sources of funding is dependant upon numerous factors including the current outlook of our business, our credit rating and the market price of our common stock, all of which are directly impacted by our ability to grow revenues and generate profits. Our ability to increase revenues and generate profits is subject to numerous risks and uncertainties and any significant decrease in our revenues or profitability could reduce our operating cash flows and erode our existing cash balances. No assurances can be given that we will continue to be able to generate positive operating cash flows or maintain and/or grow our existing cash balances. If we are unable to secure additional financing or such financing is not available on acceptable terms, we may not be able to take advantage of unanticipated opportunities, develop new products or services or otherwise respond to unanticipated competitive pressures. In such case, our business, results of operations and financial condition could be materially adversely affected.

*Future acquisitions or strategic alliances may present risks, and we may be unable to achieve the financial and strategic goals intended at the time of any acquisition or strategic alliance.*

From time to time, we may acquire or invest in companies, products or technologies, or may enter into joint ventures, mergers and strategic alliances with other companies. We would expect to encounter risks in such transactions including the following:

- we may have difficulty assimilating the operations and personnel of the acquired company;
- we may have difficulty effectively integrating the acquired technologies or products with our current products and technologies;
- our ongoing business may be disrupted by transition and integration issues;
- we may be unable to retain key technical and managerial personnel from the acquired business;
- we may be unable to achieve the financial and strategic goals for the acquired and combined businesses;
- we may have difficulty in maintaining controls, procedures and policies during the transition and integration;
- our relationships with existing suppliers or customers could be adversely affected;
- our relationships with employees could be impaired;
- our due diligence process may fail to identify significant issues, including issues with respect to product quality, product architecture, legal and financial contingencies, and product development; and
- we may be required to sustain significant exit charges if products acquired in business combinations are unsuccessful.

If we are unable to effectively manage these risks, our business, financial condition and results of operations could be adversely impacted.

*Insurance costs continue to rise and coverages are becoming increasingly restrictive due to worldwide terrorist activity and accounting irregularities. It is becoming progressively difficult to secure adequate policy limits to manage risk in a cost effective matter.*

We purchase insurance to cover a wide variety of potential risks and liabilities. In the current worldwide insurance market, premiums are rising rapidly while coverage is becoming more restrictive. Our total cost of insurance increased by more than 44% during fiscal 2002 and is expected to almost double again within the next

year. It is also possible that certain coverages may no longer be available or may only be available at prices that are prohibitively expensive. If we are unable to maintain our insurance coverages at their historical levels and at a reasonable cost, or if we are forced to bear an increased portion of the risks that we have traditionally insured, our results of operations and financial condition could be adversely affected due to increased insurance costs and potential losses arising from reduced coverages.

*Our business is subject to the risks of earthquakes and other natural catastrophic events, and to interruption by manmade problems such as computer viruses or terrorism.*

Our corporate headquarters and our manufacturing facilities, as well as the majority of our research and development operations, are located in the state of California in regions known for seismic activity. A significant natural disaster, such as an earthquake, could have a material adverse impact on our business, operating results and financial condition. In addition, despite our implementation of network security measures, our servers are vulnerable to computer viruses, break-ins, and similar disruptions from unauthorized tampering with our computer systems. Any such event could have a material adverse effect on our business, operating results and financial condition. The terrorist attacks in New York and Washington, D.C. on September 11, 2001 disrupted commerce throughout the world and intensified the uncertainty of the U.S. and other economies. The continued threat of terrorism and heightened security and military action in response to this threat, or any future acts of terrorism, may cause further disruptions to these economies and create further uncertainties. To the extent that such disruptions or uncertainties result in delays or cancellations of customer orders, or the manufacture or shipment of our products, our business, operating results and financial condition could be materially and adversely affected.

*Our facilities are located in the State of California which has previously experienced an electricity shortage, and we are not able to guarantee that we, or any of our suppliers located in California, will not experience any significant interruptions in electrical service to our or their facilities in the future.*

The two largest investor-owned electric utility companies in California, Pacific Gas & Electric and Southern California Edison, have experienced electricity generation shortages due to the collapse of California's deregulation strategy. Pacific Gas & Electric has declared voluntary bankruptcy in order to restructure its outstanding obligations. The previous inability of these companies to purchase electricity resulted in rolling blackouts in certain parts of the state. Our Southern California operation is wholly dependent on Southern California Edison and our Northern California engineering center is wholly dependent upon Pacific Gas & Electric. As of December 29, 2002, we had not experienced any significant interruptions in electrical service to our facilities. We currently do not have backup power generators or alternate sources of power to support our needs in the event of a blackout and our current insurance does not provide coverage for any damages that our customers or we may suffer as a result of interruptions of power supply. The loss of electrical service would cause a temporary shutdown of our operations resulting in lost production and may require us to recalibrate our production equipment, resulting in potentially significant unanticipated costs. In addition, many of our suppliers are located in California and could be similarly affected. Frequent and continuing shutdowns of our operations and those of our suppliers could cause us to be unable to manufacture the products required by our customers in a timely manner. Shipments to our customers could be delayed, resulting in the delay or loss of product revenues. Such delay or loss of product revenues could have a material adverse effect on our business, financial condition and results of operations.

Furthermore, the deregulation of the energy industry instituted in 1996 by the California government has caused power prices to increase. Under deregulation, utilities were encouraged to sell their plants, which traditionally had produced most of California's power, to independent energy companies that were expected to compete aggressively on price. Instead, due in part to a shortage of supply, wholesale prices skyrocketed over the past year. As a result, we have incurred significant increases in our electricity costs that are negatively impacting our results of operations. If wholesale prices continue to increase and these increases are passed on to end users, the operating expenses associated with our facilities will increase, which could further harm our results of operations.

*We are at risk of litigation, which could result in substantial costs to us and adversely impact our operations.*

We are not currently party to any legal proceedings or threatened proceedings, the adverse outcome of which, individually or in the aggregate, we believe would have a material adverse effect on our business, financial condition and results of operations. Any potential litigation, regardless of its merits, could result in substantial costs to us and divert our attention from our operations. Such diversion could have an adverse impact on our business, results of operations and financial condition.

*Changes in laws, regulations and financial accounting standards may affect our reported results of operations.*

The recently enacted Sarbanes-Oxley Act of 2002 and related regulations may result in changes in accounting standards or accepted practices within our industry. New pronouncements and varying interpretations of pronouncements have occurred in the past and are likely to occur in the future as a result of recent Congressional and regulatory actions. New laws, regulations, and accounting standards, as well as the questioning of, or changes to, currently accepted accounting practices in the technology industry may adversely affect our reported financial results, which could have an adverse effect on our stock price. Proposals have been made concerning the expensing of stock options which could result in rules or laws that may adversely affect our reported financial results and have an adverse effect on our stock price.

#### **ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

Our financial instruments include cash and cash equivalents and long-term debt. At December 29, 2002, the carrying values of our financial instruments approximated their fair values based on current market prices and rates.

Our international sales expose us to foreign currency risk in the ordinary course of our business. Currently, we do not enter into derivative financial instruments and we do not currently have any significant direct foreign currency exposure. Aside from the net operating costs of our foreign operations in China, France and the United Kingdom, we have not to date been required to transact business in foreign currencies. However, we do anticipate selling certain products in foreign currencies during fiscal 2003 which will increase our direct foreign currency exposure in the future. Please review our "Disclosure About Foreign Currency Risk" in this Form 10-K for a more detailed description of the various risks involved in our international sales. As a result, we do not have any significant direct foreign currency exposure at December 29, 2002.

We are exposed to a number of market risks in the ordinary course of business. These risks, which include interest rate risk, foreign currency exchange risk and commodity price risk, arise in the normal course of business rather than from trading. We have examined our exposures to these risks and concluded that none of our exposures in these areas is material to fair values, cash flows or earnings. We regularly review these risks to determine if we should enter into active strategies, such as hedging, to help manage the risks. At the present time, we do not have any hedging programs in place and we are not trading in any financial or derivative instruments.

We currently do not have any material debt outstanding. As a result, we do not have significant interest rate risk from a liability perspective. However, we do have a significant amount of cash and short-term investments with maturities less than three months. This cash portfolio exposes us to interest rate risk as short-term investment rates fell significantly during fiscal 2001 and have fallen to historical lows during fiscal 2002. This has contributed to a significant reduction in interest income from our cash investments. Given the short-term maturities and high-grade investment quality of our investment portfolio, we believe that we are not subject to material fluctuations in principal and the effective interest rate of our portfolio tracks closely to various short-term money market interest rate benchmarks.

We require significant quantities of RF transistors, semiconductors and various metals for use in the manufacture of our products. Therefore, we are exposed to certain commodity price risk associated with variations in the market prices for these electronic components. We attempt to manage this risk by entering into supply agreements with various suppliers of these components. These supply agreements are not long-term supply agreements. If we become subject to a significant increase in the price of one of these components, we would likely be forced to pay such higher prices and we may not be able to pass such costs onto our customers. In addition, certain transistors and semiconductors are regularly revised or changed by their manufacturers, which may result in a requirement for us to redesign a product that utilizes such components or cease to produce such products. In such events, our business, results of operations and financial condition could be adversely affected. In addition, we require specialized electronic test equipment, which is utilized in both the design and manufacture of our products. Such electronic test equipment is available from limited sources and may not be available in the time periods required for us to meet our customers' demand. If required, we may be forced to pay higher prices for such equipment and/or we may not be able to obtain the equipment in the time periods required, which would then delay our development or production of new products. Such delays and any potential additional costs could adversely affect our business, results of operations and financial condition.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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## INDEPENDENT AUDITORS' REPORT

To the Board of Directors and Shareholders of Powerwave Technologies, Inc.:

We have audited the accompanying consolidated balance sheets of Powerwave Technologies, Inc. and subsidiaries (the Company) as of December 29, 2002 and December 30, 2001, and the related consolidated statements of operations, comprehensive operations, shareholders' equity and cash flows for each of the three years in the period ended December 29, 2002. Our audits also included the financial statement schedule listed in Item 8. These financial statements and the financial statement schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and the financial statement schedule based on our audits.

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

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of Powerwave Technologies, Inc. and subsidiaries as of December 29, 2002 and December 30, 2001, and the results of their operations and their cash flows for each of the three years in the period ended December 29, 2002, in conformity with accounting principles generally accepted in the United States of America. Also, in our opinion, such 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.

As discussed in Note 2 to the financial statements, the Company changed its method of accounting for goodwill and other intangible assets during 2002 in accordance with Statement of Financial Accounting Standards No. 142, "Goodwill and Other Intangible Assets".

DELOITTE & TOUCHE LLP

Costa Mesa, California  
January 27, 2003

**POWERWAVE TECHNOLOGIES, INC.**  
**CONSOLIDATED BALANCE SHEETS**  
(in thousands, except per share data)

	December 29, 2002	December 30, 2001
<b>ASSETS</b>		
Current Assets:		
Cash and cash equivalents .....	\$162,529	\$123,171
Accounts receivable, net of allowance for sales returns and doubtful accounts of \$2,505 and \$3,143 at December 29, 2002 and December 30, 2001, respectively .....	53,264	59,732
Inventories .....	29,921	33,525
Prepaid expenses and other current assets .....	9,288	5,595
Deferred tax assets .....	<u>6,931</u>	<u>10,707</u>
Total current assets .....	261,933	232,730
Property, plant and equipment .....	135,253	144,540
Less accumulated depreciation and amortization .....	<u>(50,431)</u>	<u>(42,748)</u>
Net property, plant and equipment .....	84,822	101,792
Goodwill .....	4,852	4,852
Deferred tax assets .....	14,922	21,194
Other non-current assets .....	<u>2,644</u>	<u>2,449</u>
<b>TOTAL ASSETS</b> .....	<b><u>\$369,173</u></b>	<b><u>\$363,017</u></b>
<b>LIABILITIES AND SHAREHOLDERS' EQUITY</b>		
Current Liabilities:		
Accounts payable .....	\$26,842	\$22,692
Accrued expenses and other current liabilities .....	14,227	20,928
Short-term notes payable and current portion of long-term debt .....	79	659
Income taxes payable .....	<u>2,281</u>	<u>2,196</u>
Total current liabilities .....	43,429	46,475
Long-term debt, net of current portion .....	—	239
Other non-current liabilities .....	<u>83</u>	<u>68</u>
Total liabilities .....	43,512	46,782
Commitments and Contingencies (Note 13) .....	—	—
Shareholders' Equity:		
Preferred Stock, \$.0001 par value, 5,000 shares authorized and no shares issued and outstanding .....	—	—
Common Stock, \$.0001 par value, 135,000 shares authorized, 65,707 and 65,081 shares issued and outstanding at December 29, 2002 and December 30, 2001, respectively .....	247,415	242,100
Retained earnings .....	<u>78,246</u>	<u>74,135</u>
Total shareholders' equity .....	<u>325,661</u>	<u>316,235</u>
<b>TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY</b> .....	<b><u>\$369,173</u></b>	<b><u>\$363,017</u></b>

The accompanying notes are an integral part of these consolidated financial statements.

**POWERWAVE TECHNOLOGIES, INC.**  
**CONSOLIDATED STATEMENTS OF OPERATIONS**  
(in thousands, except per share data)

	Years Ended		
	December 29, 2002	December 30, 2001	December 31, 2000
Net sales .....	\$384,889	\$300,293	\$447,422
Cost of sales .....	<u>322,107</u>	<u>270,507</u>	<u>305,095</u>
Gross profit .....	62,782	29,786	142,327
Operating expenses:			
Sales and marketing .....	11,384	13,733	21,217
Research and development .....	33,087	34,750	41,054
General and administrative .....	<u>14,401</u>	<u>18,918</u>	<u>15,339</u>
Total operating expenses .....	<u>58,872</u>	<u>67,401</u>	<u>77,610</u>
Operating income (loss) .....	3,910	(37,615)	64,717
Other income, net .....	<u>1,963</u>	<u>5,565</u>	<u>6,063</u>
Income (loss) before income taxes .....	5,873	(32,050)	70,780
Provision (benefit) for income taxes .....	<u>1,762</u>	<u>(11,538)</u>	<u>25,127</u>
Net income (loss) .....	<u>\$ 4,111</u>	<u>\$(20,512)</u>	<u>\$ 45,653</u>
Basic earnings (loss) per share .....	<u>\$ 0.06</u>	<u>\$ (0.33)</u>	<u>\$ 0.75</u>
Diluted earnings (loss) per share .....	<u>\$ 0.06</u>	<u>\$ (0.33)</u>	<u>\$ 0.71</u>
Basic weighted average common shares .....	<u>65,485</u>	<u>64,197</u>	<u>61,953</u>
Diluted weighted average common shares .....	<u>66,230</u>	<u>64,197</u>	<u>65,313</u>

The accompanying notes are an integral part of these consolidated financial statements.

POWERWAVE TECHNOLOGIES, INC.  
CONSOLIDATED STATEMENTS OF COMPREHENSIVE OPERATIONS  
(in thousands)

	Years Ended		
	December 29, 2002	December 30, 2001	December 31, 2000
Net income (loss) .....	\$4,111	\$(20,512)	\$45,653
Other comprehensive income (loss), net of tax:			
Unrealized gain on available-for-sale securities .....	—	—	276
Reclassification of unrealized gains for amounts included in net income (loss) .....	—	(276)	—
Other comprehensive income (loss) .....	—	(276)	276
Comprehensive income (loss) .....	<u>\$4,111</u>	<u>\$(20,788)</u>	<u>\$45,929</u>

The accompanying notes are an integral part of these consolidated financial statements.

**POWERWAVE TECHNOLOGIES, INC.**  
**CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY**  
(in thousands)

	Common Stock		Accumulated Other Comprehensive	Retained	Total
	<u>Shares</u>	<u>Amount</u>	<u>Income</u>	<u>Earnings</u>	<u>Shareholders' Equity</u>
Balance at January 2, 2000.....	60,489	\$120,785	\$ —	\$48,994	\$169,779
Issuance of Common Stock related to the exercise of stock options.....	1,417	8,403	—	—	8,403
Tax benefit related to stock option exercises .....	—	28,454	—	—	28,454
Compensation expense related to stock option grants.....	—	78	—	—	78
Issuance of Common Stock related to the Employee Stock Purchase Plan.....	103	1,647	—	—	1,647
Tax benefit related to the sale of shares purchased under the Employee Stock Purchase Plan.....	—	297	—	—	297
Issuance of Common Stock, net.....	1,500	61,685	—	—	61,685
Net income .....	—	—	—	45,653	45,653
Unrealized gain on available-for-sale securities....	—	—	276	—	276
Balance at December 31, 2000.....	63,509	\$221,349	\$ 276	\$94,647	\$316,272
Issuance of Common Stock related to the exercise of stock options.....	1,177	6,605	—	—	6,605
Tax benefit related to stock option exercises .....	—	6,536	—	—	6,536
Compensation expense related to stock option grants.....	—	59	—	—	59
Issuance of Common Stock related to the Employee Stock Purchase Plan.....	145	2,857	—	—	2,857
Tax benefit related to the sale of shares purchased under the Employee Stock Purchase .....	—	146	—	—	146
Issuance of Common Stock, net.....	250	4,548	—	—	4,548
Net loss.....	—	—	—	(20,512)	(20,512)
Reclassification of unrealized gains for amounts included in net income .....	—	—	(276)	—	(276)
Balance at December 30, 2001.....	65,081	\$242,100	\$ —	\$74,135	\$316,235
Issuance of Common Stock related to the exercise of stock options.....	402	2,024	—	—	2,024
Tax benefit related to stock option exercises .....	—	1,222	—	—	1,222
Compensation expense related to stock option grants.....	—	59	—	—	59
Issuance of Common Stock related to the Employee Stock Purchase Plan.....	224	1,941	—	—	1,941
Tax benefit related to the sale of shares purchased under the Employee Stock Purchase Plan .....	—	69	—	—	69
Net income .....	—	—	—	4,111	4,111
Balance at December 29, 2002.....	<u>65,707</u>	<u>\$247,415</u>	<u>\$ —</u>	<u>\$78,246</u>	<u>\$325,661</u>

The accompanying notes are an integral part of these consolidated financial statements.

**POWERWAVE TECHNOLOGIES, INC.**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**  
(in thousands)

	Years Ended		
	December 29, 2002	December 30, 2001	December 31, 2000
<b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>			
Net income (loss).....	\$ 4,111	\$(20,512)	\$ 45,653
Adjustments to reconcile net income (loss) to net cash provided by operating activities:			
Depreciation and amortization .....	21,303	25,922	19,009
Impairment charges .....	—	6,547	—
Provision for excess and obsolete inventories .....	5,797	8,828	4,211
Provision for sales returns and doubtful accounts .....	3,967	1,988	2,165
Deferred income taxes .....	11,339	(11,240)	(3,786)
Compensation costs related to stock options .....	59	59	78
Loss on disposal of property, plant and equipment .....	770	267	99
Gain on sale of available-for-sale securities .....	—	(568)	—
Changes in operating assets and liabilities:			
Accounts receivable .....	2,502	18,426	(34,695)
Inventories .....	(2,193)	8,922	(23,791)
Prepaid expenses and other current assets .....	(3,693)	(587)	(2,468)
Accounts payable .....	4,150	(28,525)	20,701
Accrued expenses and other current liabilities .....	(6,701)	(3,183)	4,624
Income taxes payable .....	85	90	28,043
Other non-current assets .....	(1,435)	6	(1,916)
Other non-current liabilities .....	15	(168)	(364)
Net cash provided by operating activities .....	40,076	6,272	57,563
<b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>			
Purchase of property, plant and equipment.....	(5,062)	(21,608)	(84,060)
Proceeds from sale of property, plant and equipment.....	1,198	4	—
Proceeds from sale of available-for-sale securities.....	—	568	—
Payment received on notes receivable .....	—	26	7,019
Cash paid for acquisition, net of cash acquired .....	—	(68)	—
Net cash used in investing activities .....	(3,864)	(21,078)	(77,041)
<b>CASH FLOWS FROM FINANCING ACTIVITIES:</b>			
Principal payments on long-term debt .....	(819)	(218)	(195)
Proceeds from issuance of Common Stock .....	—	—	61,685
Proceeds from sale of stock under employee stock purchase plans .....	1,941	2,857	1,647
Proceeds from exercise of stock options.....	2,024	6,605	8,403
Net cash provided by financing activities .....	3,146	9,244	71,540
<b>NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS .....</b>	<b>39,358</b>	<b>(5,562)</b>	<b>52,062</b>
CASH AND CASH EQUIVALENTS, beginning of year .....	123,171	128,733	76,671
CASH AND CASH EQUIVALENTS, end of year .....	<u>\$ 162,529</u>	<u>\$ 123,171</u>	<u>\$128,733</u>

The accompanying notes are an integral part of these consolidated financial statements.

**POWERWAVE TECHNOLOGIES, INC.**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS—(Continued)**  
(in thousands)

	Years Ended		
	December 29, 2002	December 30, 2001	December 31, 2000
<b>SUPPLEMENTAL CASH FLOW INFORMATION:</b>			
Cash paid (received) for:			
Interest .....	\$ 81	\$ 82	\$ 47
Income taxes .....	\$ (9,662)	\$ 400	\$ 869
<b>NON CASH ITEMS:</b>			
Acquisition of property and equipment through capital lease .....	\$ —	\$ 128	\$ 208
Tax benefit related to stock option exercises .....	\$ 1,222	\$ 6,536	\$ 28,454
Tax benefit related to sale of shares purchased under the Employee Stock Purchase Plan .....	\$ 69	\$ 146	\$ 297
Unrealized gain on available-for-sale securities, net of tax, of \$192 .....	\$ —	\$ —	\$ 276
Reclassification of unrealized gains for amounts included in net income, net of tax of \$192 .....	\$ —	\$ 276	\$ —
Business acquisitions (Note 15).....	\$ —	\$ 5,256	\$ —

The accompanying notes are an integral part of these consolidated financial statements.

POWERWAVE TECHNOLOGIES, INC.  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS  
(tabular amounts in thousands, except per share data)

Note 1. Nature of Operations

Powerwave Technologies, Inc. ("Powerwave" or the "Company") is a Delaware corporation engaged in the design, manufacture and marketing of radio frequency ("RF") power amplifiers and related equipment for use in the wireless communications market. The Company manufactures both single and multi-carrier RF power amplifiers for a variety of frequency ranges and a wide range of digital and analog transmission protocols. The Company's products are currently being utilized in cellular, PCS and 3G base stations throughout the world.

Note 2. Summary of Significant Accounting Policies

*Basis of Presentation*

The consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America and include the accounts of Powerwave Technologies, Inc. and its wholly-owned subsidiaries. All intercompany balances and transactions have been eliminated in the accompanying consolidated financial statements.

*Fiscal Year*

The Company operates on a 52-53 week fiscal year that ends on the Sunday closest to December 31. Fiscal year 2000 ended on December 31, 2000, fiscal year 2001 ended on December 30, 2001 and fiscal year 2002 ended on December 29, 2002. Fiscal year 2003 will end on December 28, 2003 and fiscal year 2004 will end on January 2, 2005.

*New Accounting Pronouncements*

In June 2001, the Financial Accounting Standards Board ("FASB") issued Statement of Financial Accounting Standards No. 142, *Goodwill and Other Intangible Assets* ("SFAS 142"). Under SFAS 142, the Company is no longer required to amortize goodwill and other intangible assets with indefinite lives but will be required to test these assets periodically for impairment. SFAS 142 supersedes APB Opinion No. 17, *Intangible Assets*, effective for fiscal years beginning after December 15, 2001. The Company adopted SFAS 142 effective December 31, 2001 and such adoption did not have a material impact on its consolidated financial statements.

Statement of Financial Accounting Standards No. 143, *Accounting for Obligations Associated with the Retirement of Long-Lived Assets* ("SFAS 143"), was issued by the FASB in June 2001. SFAS 143 establishes accounting standards for the recognition and measurement of an asset retirement obligation and its associated asset retirement cost. It also provides accounting guidance for legal obligations associated with the retirement of tangible long-lived assets. SFAS 143 is effective for fiscal years beginning after September 15, 2002, with early adoption permitted. The Company adopted SFAS 143 effective December 31, 2001 and such adoption did not have a material impact on its consolidated financial statements.

The FASB issued Statement of Financial Accounting Standards No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets* ("SFAS 144"), in August 2001. SFAS 144 establishes a single accounting model for the impairment or disposal of long-lived assets and new standards for reporting discontinued operations. SFAS 144 superseded Statement of Financial Accounting Standards No. 121, *Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of*, and APB Opinion No. 30, *Reporting the Results of Operations - Reporting the Effects of Disposal of a Segment of a Business, and Extraordinary, Unusual and Infrequently Occurring Events and Transactions*. The provisions of SFAS 144 are effective in fiscal years beginning after December 15, 2001 and, in general, are to be applied prospectively. The Company adopted SFAS 144 effective December 31, 2001 and such adoption did not have a material impact on its consolidated financial statements.

In June 2002, the FASB issued Statement of Financial Accounting Standards No. 146, *Accounting for Costs Associated with Exit or Disposal Activities* ("SFAS 146"), which addresses financial accounting and reporting for costs associated with exit or disposal activities and supersedes Emerging Issues Task Force ("EITF") Issue 94-3, *Liability Recognition for Certain Employee Termination Benefits and Other Costs to Exit an Activity (including Certain Costs Incurred in a Restructuring)*. SFAS 146 requires that a liability for a cost associated with an exit or disposal activity be recognized when the liability is incurred. Under EITF Issue 94-3, a liability for an exit cost as

defined in EITF Issue 94-3 was recognized at the date of an entity's commitment to an exit plan. SFAS 146 also establishes that the liability should initially be measured and recorded at fair value. SFAS 146 is effective for exit and disposal activities initiated after December 31, 2002. The Company is currently evaluating the provisions of SFAS 146 but expects that they will not have a material impact on its consolidated financial statements upon adoption.

In November 2002, the FASB issued FASB Interpretation No. 45 ("FIN 45"), *Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees and Indebtedness of Others*. FIN 45 elaborates on the disclosures to be made by the guarantor in its interim and annual financial statements about its obligations under certain guarantees that it has issued. It also requires that a guarantor recognize, at the inception of a guarantee, a liability for the fair value of the obligation undertaken in issuing the guarantee. The initial recognition and measurement provisions of this interpretation are applicable on a prospective basis to guarantees issued or modified after December 31, 2002; while the provisions of the disclosure requirements are effective for financial statements of interim or annual reports ending after December 15, 2002. The Company adopted the disclosure provisions of FIN 45 during the fourth quarter of fiscal 2002 and such adoption did not have a material impact on its consolidated financial statements. The Company is currently evaluating the recognition provisions of FIN 45 but expects that they will not have a material adverse impact on its consolidated financial statements upon adoption.

In December 2002, the FASB issued Statement of Financial Accounting Standards No. 148, *Accounting for Stock-Based Compensation – Transition and Disclosure* ("SFAS 148"). SFAS 148 amends Statement No. 123, *Accounting for Stock-Based Compensation* ("SFAS 123"), to provide alternative methods for voluntary transition to SFAS 123's fair value method of accounting for stock-based employee compensation. SFAS 148 also requires disclosure of the effects of an entity's accounting policy with respect to stock-based employee compensation on reported net income (loss) and earnings (loss) per share in annual and interim financial statements. The provisions of SFAS 148 are effective in fiscal years beginning after December 15, 2002. The Company is currently evaluating the provisions of SFAS 148 but expects that they will not have a material adverse impact on its consolidated financial statements upon adoption since it has not adopted the fair value method.

In January 2003, the FASB issued FASB Interpretation No. 46 ("FIN 46"), *Consolidation of Variable Interest Entities*. In general, a variable interest entity is a corporation, partnership, trust, or any other legal structure used for business purposes that either (a) does not have equity investors with voting rights or (b) has equity investors that do not provide sufficient financial resources for the entity to support its activities. FIN 46 requires certain variable interest entities to be consolidated by the primary beneficiary of the entity if the investors do not have the characteristics of a controlling financial interest or do not have sufficient equity at risk for the entity to finance its activities without additional subordinated financial support from other parties. The consolidation requirements of FIN 46 apply immediately to variable interest entities created after January 31, 2003. The consolidation requirements apply to older entities in the first fiscal year or interim period beginning after June 15, 2003. Certain of the disclosure requirements apply in all financial statements issued after January 31, 2003, regardless of when the variable interest entity was established. The Company expects that the provisions of FIN 46 will not have a material impact on its consolidated financial statements upon adoption since the Company currently has no variable interest entities.

#### *Foreign Currency Translation*

In accordance with Statement of Financial Accounting Standards ("SFAS") No. 52, *Foreign Currency Translation*, the United States Dollar is considered to be the functional currency for the Company's foreign subsidiaries and translation adjustments are included in other income, net, in the Company's consolidated statements of operations. Translation adjustments have not had a significant impact on the Company's financial results.

#### *Revenue Recognition*

The Company recognizes revenue from product sales at the time of shipment and passage of title. The Company also offers certain of its customers a right to return products that do not function properly within a limited time after delivery. The Company continuously monitors and tracks such returns and records a provision, as a charge to revenues, to reflect the Company's estimate of such returns, based on historical experience and any notification received by the Company of such a return. Such returns have historically been within management's expectations.

#### *Cash and Cash Equivalents*

Cash and cash equivalents generally consist of cash, time deposits, commercial paper, auction rate securities, money market funds and other money market instruments with maturity dates of three months or less. The

Company invests its excess cash in only investment grade money market instruments from companies in a variety of industries and, therefore, believes that it bears minimal principal risk. Such investments are stated at cost, which approximates fair value.

*Accounts Receivable*

The Company performs ongoing credit evaluations of its customers and generally does not require collateral. The Company continuously monitors collections and payments from its customers and regularly adjusts credit limits of customers based upon payment history and a customer's current credit worthiness, as judged by the Company. The Company maintains a provision for estimated credit losses and such losses have been within management's expectations.

*Inventories*

Inventories are stated at the lower of cost, determined on a first-in, first-out basis, or market. The Company periodically reviews inventory quantities on hand and records a provision for excess and obsolete inventory based primarily on current production requirements and forecasted product demand.

*Property, Plant and Equipment*

Property, plant and equipment are stated at cost. The Company depreciates or amortizes these assets using the straight-line method over the estimated useful lives of the various classes of assets, as follows:

Machinery and equipment .....	2 to 5 years
Office furniture and equipment.....	3 to 5 years
Leasehold improvements .....	Remaining life of lease
Property under capital leases .....	3 to 5 years
Buildings.....	30 years
Building improvements.....	Remaining life of building

*Goodwill*

The Company adopted SFAS 142 effective December 31, 2001 and no impairment was identified. As a result, Powerwave is no longer required to amortize goodwill or workforce intangibles effective for fiscal 2002 and such amounts have been combined and reported as goodwill in the reported balance sheets at December 29, 2002 and December 30, 2001. Prior to the adoption of SFAS 142, these intangibles were amortized over the following estimated useful lives:

Goodwill.....	10 years
Workforce.....	10 years

Total amortization expense related to these items of \$0.5 million was recorded as expense in the financial statements for each of fiscal years 2001 and 2000. Had the non-amortization provisions of SFAS 142 been in effect for fiscal years 2001 and 2000, earnings (loss) per share would have improved by less than \$0.01 per share.

The Company operates in a single business segment as a single business unit and periodically reviews the recoverability of the carrying value of goodwill using the methodology prescribed in SFAS 142. Recoverability of goodwill is determined by comparing the fair value of the entire Company to the accounting value of the underlying net assets. If the fair value of the Company is determined to be less than the fair value of the net assets, goodwill is deemed impaired and an impairment loss is recognized to the extent that the carrying value of goodwill exceeds the difference between the fair value of the Company and the fair value of all other assets and liabilities.

*Other Intangible Assets*

Other intangible assets are amortized under the straight-line method over the following estimated useful lives:

Developed technology .....	3 to 5 years
Customer list.....	3 years
Non-compete agreement.....	4 years

The Company periodically reviews the recoverability of its intangibles and other long-lived assets using the methodology prescribed in SFAS No. 144. The Company also reviews these assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of

these assets is determined by comparing the forecasted undiscounted future net cash flows from the operations to which the assets relate, based on management's best estimates using appropriate assumptions and projections at the time, to the carrying amount of the assets. If the carrying value is determined not to be recoverable from future operating cash flows, the asset is deemed impaired and an impairment loss is recognized equal to the amount by which the carrying amount exceeds the estimated fair value of the asset.

#### *Warranties*

The Company offers warranties generally ranging from one to five years, depending on the product and negotiated terms of purchase agreements with its customers. Such warranties require the Company to repair or replace defective product returned to the Company during such warranty period at no cost to the customer. An estimate by the Company for warranty related costs is recorded by the Company at the time of sale based on its actual historical product return rates and repair costs. Such costs have been within management's expectations.

#### *Stock Based Compensation*

The Company accounts for stock based compensation awards using the intrinsic value method prescribed under APB Opinion No. 25, *Accounting for Stock Issued to Employees*, and its related interpretations. Accordingly, compensation cost is only recorded to the extent that the quoted market price at the grant date exceeds the amount the employee must pay to acquire the stock.

#### *Income Taxes*

The Company accounts for income taxes in accordance with Statement of Financial Accounting Standards No. 109, *Accounting for Income Taxes*, which requires that the Company recognize deferred tax liabilities and assets based on the differences between the financial statement carrying amounts and the tax bases of assets and liabilities, using enacted tax rates in effect in the years the differences are expected to reverse. Deferred income tax benefit (expense) results from the change in net deferred tax assets or deferred tax liabilities. A valuation allowance is recorded when it is more likely than not that some or all or any deferred tax assets will not be realized.

#### *Earnings (Loss) Per Share*

In accordance with Statement of Financial Accounting Standards No. 128, *Earnings Per Share*, basic earnings (loss) per share is based upon the weighted average number of common shares outstanding. Diluted earnings (loss) per share is based upon the weighted average number of common and potential common shares for each period presented. Potential common shares include stock options using the treasury stock method.

#### *Comprehensive Income*

The year ended December 29, 2002 had no other comprehensive income (loss). For the years ended December 30, 2001 and December 31, 2000, the Company had other comprehensive income (loss) of \$(0.3) million and \$0.3 million, respectively, all of which reflect the change in unrealized gains on available-for-sale securities, net of tax.

#### *Use of Estimates*

The preparation of the consolidated financial statements, in conformity with accounting principles generally accepted in the United States of America, requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting years. Actual results could differ from those estimates.

#### *Reclassifications*

Certain prior year amounts have been reclassified to conform to the fiscal 2002 presentation.

### Note 3. Inventories

Inventories consist of the following:

	December 29, December 30,	
	<u>2002</u>	<u>2001</u>
Parts and components.....	\$ 7,939	\$14,436
Work-in-process.....	900	9,612
Finished goods.....	<u>21,082</u>	<u>9,477</u>
Total.....	<u>\$29,921</u>	<u>\$33,525</u>

Inventories are net of an allowance for excess and obsolete inventory of \$9.0 million and \$11.1 million as of December 29, 2002 and December 30, 2001, respectively. The Company regularly reviews inventory quantities on hand and records an allowance for excess and obsolete inventory based primarily on sales backlog, forecasted product demand and production requirements for the next twelve months.

### Note 4. Property, Plant and Equipment

Net property, plant and equipment consist of the following:

	December 29, December 30,	
	<u>2002</u>	<u>2001</u>
Machinery and equipment.....	\$70,568	\$78,031
Buildings and improvements.....	38,227	37,912
Land.....	14,838	14,838
Office furniture and equipment.....	10,199	12,786
Leasehold improvements.....	953	919
Construction in progress.....	<u>468</u>	<u>54</u>
Gross property, plant and equipment.....	135,253	144,540
Less accumulated depreciation and amortization.....	<u>(50,431)</u>	<u>(42,748)</u>
Net property, plant and equipment.....	<u>\$84,822</u>	<u>\$101,792</u>

During the year ended December 29, 2002, the Company retired and disposed of approximately \$5.1 million of fully depreciated machinery and equipment and \$4.1 million of fully depreciated office furniture and equipment. As a result, the cost and accumulated depreciation of these items has been reduced by such amounts.

### Note 5. Intangible Assets

Intangible assets are included in other non-current assets and consist of the following:

	December 29, December 30,	
	<u>2002</u>	<u>2001</u>
Developed technology.....	\$8,490	\$8,490
Customer list.....	2,000	2,000
Non-compete agreement.....	<u>500</u>	<u>500</u>
Total intangible assets.....	10,990	10,990
Less accumulated amortization.....	<u>(10,419)</u>	<u>(9,881)</u>
Net intangible assets.....	<u>\$ 571</u>	<u>\$1,109</u>

Amortization expense related to these intangibles was \$0.5 million and \$3.0 million for fiscal years 2002 and 2001, respectively. The expected future amortization expense related to these intangibles is \$0.4 million and \$0.2 million for fiscal years 2003 and 2004, respectively.

### Note 6. Impairment Charges

As a result of continuing poor economic conditions and reductions in the forecasted future demand for products acquired through the Company's 1998 acquisition of the RF amplifier group of Hewlett Packard Company, Powerwave recorded a non-cash charge of \$6.5 million during fiscal year 2001 for the impairment of intangible assets associated with such acquisition. This charge included approximately \$3.6 million recorded in cost of sales related to the writedown of developed technology and approximately \$2.9 million recorded in general and administrative expenses related to the writedown of goodwill. Powerwave did not record any similar impairment charges in fiscal years 2002 or 2000.

**Note 7. Financing Arrangements**

On May 31, 2002, the Company renewed its unsecured revolving credit agreement with Comerica Bank-California ("Comerica"). The credit facility provides for a revolving line of credit up to a maximum principal amount outstanding at any one time of \$20 million (the "Revolving Commitment Amount"). The Company is required to pay a commitment fee of 0.25% per annum on the unused portion of the Revolving Commitment Amount. The commitment fee is payable quarterly in arrears. The revolving credit facility allows for borrowings based either upon the bank's prime rate (4.25% at December 29, 2002) or Comerica's LIBOR rate plus an applicable LIBOR Margin of 1.25% or 1.50%, based upon the Company's debt leverage ratio. The revolving credit facility terminates on May 31, 2003. The revolving credit facility contains certain standard affirmative and negative covenants, including limitations on future indebtedness, restricted payments, transactions with affiliates, liens, dividends, mergers, transfers of assets and leverage ratios. At December 29, 2002 the Company was in compliance with all covenants contained in the amended revolving credit facility. There were no amounts outstanding and the full \$20 million of the Revolving Commitment Amount was available to the Company at December 29, 2002.

**Note 8. Income Taxes**

The provision (benefit) for income taxes for the fiscal years ended December 29, 2002, December 30, 2001 and December 31, 2000 consists of the following:

	<u>2002</u>	<u>2001</u>	<u>2000</u>
Current:			
Federal .....	\$(9,337)	\$ (483)	\$ 24,807
State .....	(240)	174	4,106
Foreign.....	—	11	—
Total current provision (benefit).....	<u>(9,577)</u>	<u>(298)</u>	<u>28,913</u>
Deferred:			
Federal .....	11,008	(10,353)	(3,850)
State .....	298	(887)	64
Foreign.....	33	—	—
Total deferred provision (benefit).....	<u>11,339</u>	<u>(11,240)</u>	<u>(3,786)</u>
Provision (benefit) for income taxes.....	<u>\$ 1,762</u>	<u>\$ (11,538)</u>	<u>\$ 25,127</u>

The provision (benefit) for income taxes in the accompanying consolidated financial statements reconciles to the amount computed by applying the federal statutory rate of 35% to income (loss) before income taxes for the fiscal years ended December 29, 2002, December 30, 2001 and December 31, 2000 as follows:

	<u>2002</u>	<u>2001</u>	<u>2000</u>
Taxes at federal statutory rate.....	\$2,055	\$(11,217)	\$24,773
State taxes, net .....	(57)	(463)	2,712
Other .....	(236)	142	(2,358)
Research and experimentation tax credits.....	(1,052)	(387)	(824)
Change in valuation allowance.....	<u>1,052</u>	<u>387</u>	<u>824</u>
Provision (benefit) for income taxes.....	<u>\$1,762</u>	<u>\$ (11,538)</u>	<u>\$25,127</u>

Deferred income taxes reflect the net tax effects of tax carryforwards and temporary differences between the carrying amount of assets and liabilities for tax and financial reporting purposes. The Company's deferred tax assets and liabilities were comprised of the following major components:

	December 29, December 30,	
	<u>2002</u>	<u>2001</u>
Depreciable property and equipment .....	\$(5,524)	\$ (3,167)
Accruals and provisions .....	4,631	6,895
Costs capitalized into inventories .....	4,311	5,510
State taxes .....	(1,403)	(1,450)
Amortizable intangible assets .....	8,809	9,461
Tax credit carryforwards .....	10,992	8,214
Net operating loss carryforwards .....	9,890	14,376
Other .....	122	116
Valuation allowance .....	<u>(9,975)</u>	<u>(8,054)</u>
Net deferred tax assets .....	<u>\$21,853</u>	<u>\$31,901</u>

As of December 29, 2002, Powerwave had combined federal and state operating loss carryforwards of approximately \$21.6 million and \$46.3 million, respectively, that expire from 2016 to 2022. The Company also had federal and California tax credit carryforwards of \$3.6 million and \$7.4 million, respectively. The federal tax credits will begin to expire in 2016 and the California tax credits will begin to expire in 2006.

The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income and the actual timing within which the underlying temporary differences become taxable or deductible. The addition to the valuation allowance during fiscal 2002 includes approximately \$1.1 million associated with Federal research tax credits and \$0.8 million associated with California investment and research credits. Based on historical taxable income, projected future taxable income, and the expected timing of the reversals of existing temporary differences, management believes that it is more likely than not that the remaining net deferred tax assets at December 29, 2002 will be realized by the Company.

#### Note 9. Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities consist of the following:

	December 29, December 30,	
	<u>2002</u>	<u>2001</u>
Accrued warranty costs .....	\$5,133	\$6,669
Accrued payroll and employee benefits .....	4,015	4,469
Accrued vendor cancellation costs .....	982	4,969
Other accrued expenses .....	<u>4,097</u>	<u>4,821</u>
Total accrued expenses and other current liabilities .....	<u>\$14,227</u>	<u>\$20,928</u>

A summary of the activity that affected the Company's accrued warranty costs is as follows:

<u>Description</u>	<u>Accrued Warranty Costs</u>
Balance at December 31, 2000:	\$8,748
Reductions for warranty costs incurred .....	(4,493)
Warranty accrual related to current year sales .....	2,892
Change in estimate related to previous warranty accruals .....	<u>(478)</u>
Balance at December 30, 2001:	<u>\$6,669</u>
Reductions for warranty costs incurred .....	(3,647)
Warranty accrual related to current year sales .....	2,942
Change in estimate related to previous warranty accruals .....	<u>(831)</u>
Balance at ended December 29, 2002:	<u>\$5,133</u>

#### Note 10. 401(k) and Profit-Sharing Plans

The Company sponsors a 401(k) and profit-sharing plan covering all eligible employees and provides for a Company match in cash on a portion of participant contributions. The Company's 401(k) and profit sharing plan is managed by Fidelity Investments, and is an employee self-directed plan which offers a variety of investment choices via mutual funds. Employees may contribute up to 15% of their base salary, subject to IRS maximums. During the

first half of fiscal 2000, the Company matched 10% of the first 20% of eligible compensation contributed by an employee. Starting in the second half of fiscal 2000, the Company matched 100% of the first 2% of eligible compensation contributed by an employee. During fiscal 2001 and 2002, the Company matched 100% of the first 3% of eligible compensation contributed and 50% of the next 2% of eligible compensation contributed. The Company's matching contributions are invested in the same percentage among the various funds offered as selected by the employee. Employer matching contributions for the years ended December 29, 2002, December 30, 2001 and December 31, 2000 were \$1.2 million, \$1.1 million, and \$0.4 million, respectively. There were no discretionary profit sharing contributions authorized for the years ended December 29, 2002, December 30, 2001 and December 31, 2000.

#### Note 11. Shareholders' Equity

In August 2000, the Company sold a total of 1,500,000 shares of its Common Stock at a price per share of \$41.19 pursuant to a previously filed shelf registration. Total net proceeds after offering expenses were approximately \$61.7 million.

On May 31, 2001, the Board of Directors adopted a Shareholder Rights Plan to protect shareholder interests against takeover strategies that may not provide maximum shareholder value. A dividend of one preferred stock purchase right ("Right") for each share of the Company's Common Stock was distributed to shareholders of record on June 18, 2001. The Rights automatically attached to outstanding shares so no separate certificates were issued. Each Right allows its holder to purchase one one-hundredth of a share of Series A Jr. Participating Preferred Stock at an exercise price of \$115.00 per share. This portion of a preferred share gives the shareholder approximately the same dividend, voting and liquidation rights as one share of Common Stock. The Rights are not currently exercisable, but will become exercisable if certain events occur relating to a person or group acquiring or attempting to acquire 15 percent or more of the outstanding shares of Common Stock. The Rights expire on June 1, 2011, unless redeemed or exchanged by the Company earlier.

In December 2001, the Company issued a total of 250,000 shares of its Common Stock valued at \$4.5 million in connection with the acquisition of Toracomm Limited.

#### Note 12. Stock Option Plans

The purposes of the Company's stock option plans are to attract and retain the best available personnel for positions of substantial responsibility with the Company and to provide participants with additional incentives in the form of options to purchase the Company's Common Stock which will encourage them to acquire a proprietary interest in, and to align their financial interests with those of the Company and its shareholders.

*1995 Stock Option Plan*— The Company's 1995 Stock Option Plan (the "1995 Plan"), as amended, permits executive personnel, key employees and non-employee members of the Board of Directors of the Company to participate in ownership of the Company. The 1995 Plan is administered by the Compensation Committee of the Company's Board of Directors. The 1995 Plan provides for the grant of non-statutory stock options under the applicable provisions of the Internal Revenue Code. The option price per share may not be less than 85% of the fair market value of a share of Common Stock on the grant date as determined by the Company's Board of Directors. In addition, for any individual possessing 10% or more of the voting power of all classes of stock of the Company, the exercise price may not be less than 110% of the fair market value of a share of Common Stock on the grant date, as determined by the Company's Board of Directors. Options generally vest at the rate of 25% on the first anniversary of the grant date and 2% per month thereafter. All options expire no later than ten years after the grant date. Up to 5,815,845 shares of the Company's Common Stock were reserved for issuance under the 1995 Plan. Pursuant to the amended Stockholder's Agreement dated as of November 8, 1996, between the Company and certain of its original shareholders, those certain shareholders agreed that once the Company issued 3,285,000 shares of Common Stock under the 1995 Stock Option Plan, any additional shares issued under that Plan upon an option exercise would be coupled with a redemption from those shareholders of an equal number of shares at a redemption price equaling the option exercise price. The Company and those certain shareholders have agreed that this share redemption agreement applies only to the exercise of options to purchase a total of 2,530,845 shares of the Company's Common Stock. As of December 29, 2002, a total of 5,499,246 options have been exercised under the 1995 Plan, of which a total of 2,214,246 shares of Common Stock have been funded from those shareholders party to the amended Stockholder's Agreement. The effect of this transaction is to eliminate any dilution from the further exercise of options under the 1995 Plan. At December 29, 2002 there were 315,284 options outstanding under the 1995 Plan at a weighted average exercise price of \$4.22 per share. There were 1,315 shares available for grant under the 1995 Plan at December 29, 2002 and there was a total of 316,599 shares of Common Stock held in escrow by the Company on behalf of those shareholders party to the Stockholder's Agreement to fund all future exercises under the 1995 Plan.

*1996 Stock Incentive Plan*—The Company's 1996 Stock Incentive Plan (the "1996 Plan"), as amended, provides for the granting of "incentive stock options," within the meaning of Section 422 of the Internal Revenue Code of 1986, as amended (the "Code"), non-statutory options and restricted stock grants to directors, officers, employees and consultants of the Company, except that incentive stock options may not be granted to non-employee directors or consultants. A total of 9,000,000 shares of the Company's Common Stock are reserved for issuance under the 1996 Plan. As of December 29, 2002, all of the options granted under the 1996 Plan have been non-statutory options. The 1996 Plan provides that for non-statutory stock options, the option price per share may not be less than 85% of the fair market value of a share of Common Stock on the grant date and that the exercise price may not be less than 110% of the fair market value of a share of Common Stock on the grant date for any individual possessing 10% or more of the voting power of all classes of stock of the Company. Authority to control and manage the 1996 Plan is vested with the Company's Board of Directors, which has sole discretion and authority, consistent with the provisions of the 1996 Plan, to determine the administration of the 1996 Plan and to determine which eligible participants will receive options, the time when options will be granted, the terms of options granted and the number of shares which will be subject to options granted under the 1996 Plan. Options generally vest at the rate of 25% on the first anniversary of the grant date and the remaining 75% vests in equal monthly installments over the following three years. All options expire no later than ten years after the grant date. As of December 29, 2002, a total of 3,791,392 options have been exercised under the 1996 Plan and there were 5,107,466 options outstanding under the 1996 Plan at a weighted average exercise price of \$15.31 per share. There were 101,162 shares available for grant under the 1996 Plan at December 29, 2002.

*1996 Director Stock Option Plan*—The Company's 1996 Director Stock Option Plan (the "Director Plan"), as amended, provides that a total of 1,200,000 shares of the Company's Common Stock are reserved for issuance under the plan. The Director Plan provides that each member of the Company's Board of Directors who is not an employee or paid consultant of the Company will automatically be eligible to receive non-statutory options to purchase common stock under the Director Plan. Pursuant to the terms of the Director Plan, each director elected after December 5, 1996, will be granted an initial option under the Director Plan covering 30,000 shares of Common Stock, that shall vest at the rate of 25% on the first anniversary of the grant date and the remaining 75% shall vest in equal monthly installments over the following three years. Furthermore, on each anniversary date of December 5, each director who shall have been an eligible participant under the Director Plan for at least six (6) months shall be granted an annual option under the Director Plan to purchase 10,000 (5,000 shares for years prior to 2002) shares of Common Stock that vests 100% on the fourth anniversary date of the grant. The Director Plan provides that the exercise price per share of grants issued under the Director Plan shall be equal to 100% of the fair market value of a share of Common Stock on the grant date. All options expire no later than five years after the grant date. As of December 29, 2002, a total of 135,000 options have been exercised under the Director Plan. There were 570,000 options outstanding under the Director Plan as of December 29, 2002 at a weighted average exercise price of \$19.96 per share. There were 495,000 shares available for grant under the Director Plan at December 29, 2002.

*2000 Stock Option Plan*—The Company's 2000 Stock Option Plan (the "2000 Plan") was approved by the shareholders of the Company on April 26, 2000. The 2000 Plan provides that a total of 2,640,000 shares of the Company's Common Stock are reserved for issuance under the 2000 Plan. The 2000 Plan provides for the granting of only non-statutory stock options to employees, executive officers and consultants of the Company. The exercise price per share of Common Stock of the Company covered by each option shall be equal to 100% of the fair market value of the Common Stock on the date that the option is granted. In no event shall any participant under the 2000 Plan be granted options under the 2000 Plan covering more than 300,000 shares in any one calendar year. Authority to control and manage the 2000 Plan is vested with the Company's Board of Directors, which has sole discretion and authority, consistent with the provisions of the 2000 Plan, to determine the administration of the 2000 Plan. The Board of Directors may delegate such responsibilities in whole or in part to a committee consisting of two (2) or more members of the Board of Directors or two (2) or more executive officers of the Company (the "Administrator"). All option grants to executive officers of the Company shall be approved by the Board of Directors or the Compensation Committee of the Board of Directors. The Administrator of the 2000 Plan shall have the authority, consistent with the provisions of the 2000 Plan and the authority granted by the Board of Directors, to determine which eligible participants will receive options, the time when options will be granted, the terms of options granted and the number of shares which will be subject to options granted under the 2000 Plan. Notwithstanding the foregoing, the Administrator shall not have the authority to amend an Option Agreement to effect a "re-pricing" of the exercise price of an option either by (i) lowering the exercise price of a previously granted option or (ii) canceling a previously granted option and granting a new option, except that changes in the Company's capital structure or a change in control of the Company pursuant to the terms of the 2000 Plan shall not be considered a re-pricing of such option. Options generally vest at the rate of 25% on the first anniversary of the grant date and the remaining 75% vests in equal monthly installments over the following three years. All options expire no later than five years after the grant date. As of December 29, 2002, 4,197 shares have been exercised under the 2000 Plan. There were 2,567,305 options outstanding under the 2000 Plan as of December 29, 2002 at a

weighted average exercise price of \$16.25 per share. There were 68,498 shares available for grant under the 2000 plan at December 29, 2002.

*2002 Stock Option Plan*—The Company's 2002 Stock Option Plan (the "2002 Plan") was approved by the shareholders of the Company on April 24, 2002. The 2002 Plan provides that a total of 2,000,000 shares of the Company's Common Stock are reserved for issuance under the 2002 Plan. Employees and consultants or independent advisors who are in the service of the Company or its subsidiaries are eligible to participate in the 2002 Plan. The Company's executive officers and other highly paid employees are also eligible to participate in the 2002 Plan. The 2002 Plan provides only for the granting on non-statutory stock options. The exercise price per share of Common Stock of the Company covered by each option shall be equal to 100% of the fair market value of the Common Stock on the date that the option is granted. In no event shall any participant under the 2002 Plan be granted options under the 2002 plan covering more than 300,000 shares in any one calendar year. All options granted pursuant to the 2002 Plan shall have a maximum term of no more than ten years from the grant date. Authority to control and manage the 2002 Plan is vested with the Company's Board of Directors, which has sole discretion and authority, consistent with the provisions of the 2002 Plan, to determine the administration of the 2002 Plan. The Board of Directors may delegate such responsibilities in whole or in part to a committee consisting of two or more members of the Board of Directors or two or more officers of the Company. All options grants to executive officers of the Company shall be approved by the Board of Directors or the Compensation Committee of the Board of Directors. The Administrator of the 2002 Plan shall have the authority, consistent with the provisions of the 2002 Plan and the authority of the Board of Directors, to determine which eligible participants will receive options, the time when options will be granted, the terms of options granted and the number of shares which will be subject to options granted under the 2002 Plan. Notwithstanding the foregoing, the Administrator shall not have the authority to amend an option agreement to effect a "re-pricing" of the exercise price of such option either by (1) lowering the exercise price of a previously granted option or (2) by canceling a previously granted option and granting a new option except that changes in the Company's capital structure or a change in control of the Company pursuant to the terms of the 2002 Plan shall not be considered a re-pricing of such option. As of December 29, 2002, no shares have been exercised under the 2002 Plan. There were 1,038,687 options outstanding under the 2002 Plan as of December 29, 2002 at a weighted average exercise price of \$5.39 per share. There were 961,313 shares available for grant under the 2002 plan at December 29, 2002.

At December 29, 2002, a total of 1,627,288 options were available for grant under all of the Company's option plans. The following table summarizes activity under the Company's stock plans.

	Number of Shares	Price Per Share	Weighted Average Exercise Price	Number of Options Exercisable as of Fiscal Year End	Weighted Average Exercise Price
Balance at January 2, 2000 .....	7,464	\$ 0.82-\$25.65	\$ 6.12	<u>1,455</u>	<u>\$ 3.28</u>
Granted .....	2,913	\$15.42-\$73.56	\$34.68		
Exercised .....	(2,017)	\$ 0.82-\$25.65	\$ 4.77		
Canceled .....	<u>(93)</u>	\$ 1.33-\$50.92	\$16.50		
Balance at December 31, 2000 .....	8,267	\$ 0.82-\$73.56	\$16.40	<u>2,047</u>	<u>\$ 5.31</u>
Granted .....	2,292	\$10.50-\$50.00	\$14.03		
Exercised .....	(1,293)	\$ 0.82-\$17.71	\$ 5.46		
Canceled .....	<u>(1,244)</u>	\$ 2.29-\$73.56	\$17.01		
Balance at December 30, 2001 .....	8,022	\$ 0.82-\$73.56	\$17.39	<u>3,319</u>	<u>\$ 13.54</u>
Granted .....	3,033	\$ 3.37-\$20.10	\$ 8.17		
Exercised .....	(468)	\$ 0.82-\$11.66	\$ 4.59		
Canceled .....	<u>(988)</u>	\$ 4.58-\$67.08	\$24.21		
Balance at December 29, 2002 .....	<u>9,599</u>	\$ 0.82-\$73.56	\$14.40	<u>4,545</u>	<u>\$ 15.61</u>

The following table summarizes information about all stock options outstanding at December 29, 2002 under the 1995 Plan, 1996 Plan, Director Plan, 2000 Plan and 2002 Plan.

<u>Range of Exercise Prices</u>	<u>Options Outstanding at December 29, 2002</u>			<u>Options Exercisable at December 29, 2002</u>	
	<u>Options Outstanding</u>	<u>Weighted Average Exercise Price</u>	<u>Weighted Average Remaining Contractual Life</u>	<u>Options Exercisable</u>	<u>Weighted Average Exercise Price</u>
\$ 0.82 - \$ 5.31.....	1,595	\$3.45	5.38	1,473	\$3.37
\$ 5.34 - \$ 5.41.....	1,726	\$5.41	8.95	141	\$5.41
\$ 5.42 - \$11.67.....	1,716	\$8.80	5.38	923	\$9.02
\$11.75 - \$15.42.....	1,649	\$12.73	6.22	525	\$13.48
\$15.50 - \$31.50.....	2,182	\$24.18	5.58	1,033	\$28.16
\$33.29 - \$73.56.....	<u>731</u>	\$47.22	5.23	<u>450</u>	\$46.12
Total .....	<u>9,599</u>	\$14.40	6.20	<u>4,545</u>	\$15.61

The Company records compensation expense for options granted with an exercise price below the market value of the Company's common stock at the date of grant. This compensation expense is calculated as the difference between the market value of the stock and the option exercise price at the grant date and is amortized over the option vesting period. The Company recorded a total of \$0.1 million as compensation expense during each of fiscal 2002, 2001, and 2000. The remaining unamortized compensation expense as of December 29, 2002 was less than \$0.1 million and will be amortized through September 2003.

*Employee Stock Purchase Plan*—The Company's Employee Stock Purchase Plan (the "ESPP") provides that a total of 1,500,000 shares of Common Stock are reserved for issuance under the plan. The ESPP, which is intended to qualify as an "employee stock purchase plan" under Section 423 of the Code, is implemented utilizing six-month offerings with purchases occurring at six-month intervals. The ESPP administration is overseen by the Board of Directors. Employees are eligible to participate if they are employed by the Company for at least 20 hours per week and if they have been employed by the Company for at least 90 days. The ESPP permits eligible employees to purchase Common Stock through payroll deductions, which may not exceed 20% of an employee's compensation. The price of Common Stock purchased under the ESPP will be 85% of the lower of the fair market value of the Common Stock at the beginning of each six-month offering period or on the applicable purchase date. Employees may end their participation in an offering at any time during the offering period, and participation ends automatically upon termination of employment. The Board may at any time amend or terminate the ESPP, except that no such amendment or termination may adversely affect shares previously granted under the ESPP. During fiscal 2002, the tenth and eleventh purchases under the ESPP occurred on January 31, 2002 and July 31, 2002, respectively. A total of 76,400 shares were purchased in the tenth purchase at \$15.30 per share and 147,918 shares were purchased in the eleventh purchase at \$5.22 per share. At December 29, 2002, there were rights to purchase approximately 169,000 shares outstanding under the ESPP and there were 558,103 shares available for purchase under the plan.

Pursuant to SFAS No. 123, the Company has elected to continue using the intrinsic value method of accounting for stock-based awards granted to employees and directors in accordance with APB Opinion No. 25 and Related Interpretations in accounting for its stock option and purchase plans. Accordingly, no compensation cost has been recognized for its stock option plans and its stock purchase plan other than that described above.

The Black-Scholes option valuation model prescribed by SFAS No. 123 was developed for use in estimating the fair value of traded options that have no vesting restrictions and are fully transferable. Option valuation methods require the input of highly subjective assumptions including the expected stock price volatility. Using the Black-Scholes option valuation model, the estimated weighted average fair value of options granted during 2002, 2001 and 2000 were \$7.07 per share, \$9.01 per share, and \$21.37 per share, respectively. Had compensation cost for the Company's stock option plans and its stock purchase plans been determined based on the estimated fair value at the grant dates for awards under those plans consistent with the fair value method of SFAS No. 123 utilizing the Black-Scholes option-pricing model, the Company's net income (loss) and basic and diluted earnings (loss) per share for the years ended December 29, 2002, December 30, 2001 and December 31, 2000, would have approximated the pro forma amounts indicated below:

	<u>2002</u>	<u>2001</u>	<u>2000</u>
Net income (loss):			
As reported .....	\$ 4,111	\$(20,512)	\$ 45,653
Deduct: Additional expense per SFAS No. 123, fair value method, net of related tax effects.....	(12,566)	(17,583)	(16,151)
Pro forma .....	<u>\$ (8,455)</u>	<u>\$(38,095)</u>	<u>\$ 29,502</u>
Basic earnings (loss) per share:			
As reported .....	\$0.06	\$(0.33)	\$0.75
Pro forma .....	\$(0.13)	\$(0.59)	\$0.48
Diluted earnings (loss) per share:			
As reported .....	\$0.06	\$(0.33)	\$0.71
Pro forma .....	\$(0.13)	\$(0.59)	\$0.45

The fair value of options granted under the Company's stock incentive plans during 2002, 2001 and 2000 was estimated on the date of grant using the Black-Scholes option-pricing model utilizing the multiple option approach using the following weighted-average assumptions:

	<u>2002</u>	<u>2001</u>	<u>2000</u>
Weighted average risk-free interest rate .....	2.18%	3.35%	5.01%
Expected life (in years).....	5.1	5.2	5.1
Expected stock volatility.....	180%	105%	101%
Dividend yield .....	None	None	None

Because the Company's employee stock options have characteristics significantly different from those of traded options, and because changes in the subjective input assumptions can materially affect the fair value estimates, management does not believe that the existing models provide a reliable single measure of the fair value of its employee stock options. Therefore, the Company believes that the pro forma net expense per SFAS No. 123 calculated above is not a reliable measure of the costs of the Company's stock option plans.

#### **Note 13. Commitments and Contingencies**

The Company had various outstanding leases as of December 29, 2002, the majority of which relate to real estate operating leases, including 115,000 square feet of warehouse space in Santa Ana, California, 31,500 square feet of engineering and office space in El Dorado Hills, California, and 8,100 square feet of engineering and office space in Bristol, United Kingdom.

Future minimum lease payments required under the Company's operating leases at December 29, 2002 are payable as follows:

<u>Fiscal Year</u>	<u>Total</u>
2003 .....	\$1,661
2004 .....	1,673
2005 .....	1,283
2006 .....	1,176
2007 .....	424
Thereafter.....	<u>211</u>
Total future minimum lease payments.....	<u>\$6,428</u>

Total rent expense was \$1.5 million, \$2.8 million and \$3.2 million for the years ended December 29, 2002, December 30, 2001 and December 31, 2000, respectively.

During its normal course of business, the Company has made certain indemnities, commitments and guarantees under which it may be required to make payments in relation to certain transactions. These indemnities include intellectual property indemnities to the Company's customers in connection with the sales of its products, indemnities to various lessors in connection with facility leases for certain claims arising from such facility or lease, and indemnities to directors and officers of the Company to the maximum extent permitted under the laws of the State of Delaware. In addition, the Company has contractual commitments to various customers which could require it to incur costs to repair an epidemic defect with respect to its products outside of the normal warranty period if such defect were to occur. The Company has also issued a guarantee in the form of a standby letter of credit as security for contingent liabilities under certain workers compensation insurance policies. The duration of these indemnities, commitments and guarantees varies, and in certain cases, is indefinite. The majority of these

indemnities, commitments and guarantees do not provide for any limitation of the maximum potential future payments the Company could be obligated to make. The Company has not recorded any liability for these indemnities, commitments and guarantees in the accompanying consolidated balance sheets.

The Company is subject to various legal proceedings from time to time as part of its business. The Company does not believe that it is currently party to any legal proceedings or threatened legal proceedings, the adverse outcome of which, individually or in the aggregate, would have a material adverse effect on its business, financial condition and results of operations.

Note 14. Earnings (Loss) Per Share

	<u>2002</u>	<u>2001</u>	<u>2000</u>
Basic:			
Basic weighted average common shares.....	65,485	64,197	61,953
Net income (loss).....	<u>\$4,111</u>	<u>\$(20,512)</u>	<u>\$45,653</u>
Basic earnings (loss) per share.....	<u>\$ 0.06</u>	<u>\$ (0.33)</u>	<u>\$ 0.75</u>
Diluted:			
Basic weighted average common shares.....	65,485	64,197	61,953
Potential common shares .....	<u>745</u>	<u>—</u>	<u>3,360</u>
Diluted weighted average common shares.....	66,230	64,197	65,313
Net income (loss).....	<u>\$4,111</u>	<u>\$(20,512)</u>	<u>\$45,653</u>
Diluted earnings (loss) per share.....	<u>\$ 0.06</u>	<u>\$ (0.33)</u>	<u>\$ 0.71</u>

Potential common shares of 1,688,536 have been excluded from diluted weighted average common shares for fiscal year 2001, as the effect would be anti-dilutive.

Note 15. Acquisitions

On December 28, 2001, the Company acquired the net assets of Toracomm Limited in exchange for 250,000 shares of the Company's Common Stock valued at \$4.5 million, a cash payment of \$0.1 million, and a short-term promissory note in the amount of \$0.5 million. The acquisition was accounted for under the purchase method of accounting and the total purchase price of approximately \$5.3 million, was allocated based on the estimated fair value at the date of acquisition as follows: \$0.1 million to net assets (including cash acquired of \$0.05 million), \$0.6 million to developed technology, \$0.04 million to in-process research and development (expensed immediately), and \$4.6 million to goodwill.

Note 16. Customer Concentrations

The Company's product sales have historically been concentrated in a small number of customers. For the years ended December 29, 2002, December 30, 2001 and December 31, 2000, sales to customers that accounted for 10% or more of revenues for the year totaled \$294.3 million, \$170.3 million and \$274.4 million, respectively. One customer accounted for approximately 49%, 44% and 47% of total revenues during fiscal 2002, fiscal 2001 and fiscal 2000, respectively. During fiscal 2002, two additional customers accounted for approximately 15% and 13% of total revenues, one of which also accounted for approximately 13% of total revenues during fiscal 2001. During fiscal 2000, one additional customer accounted for approximately 14% of total revenues. These same customers accounted for approximately 74% and 66% of the Company's accounts receivable as of December 29, 2002 and December 30, 2001, respectively. The loss of, or reduction in sales to any of these customers could have a material adverse effect on the Company's business, financial condition and results of operations.

Note 17. Supplier Concentrations

Certain of the Company's products utilize components that are available in the short-term only from a single or a limited number of sources. In addition, in order to take advantage of volume pricing discounts, the Company purchases certain customized components for its RF power amplifiers from single sources. Any inability to obtain single-sourced components in the amounts needed on a timely basis or at commercially reasonable prices could result in delays in product introductions or interruption in product shipments or increases in product costs, which could have a material adverse effect on the Company's business, financial condition and results of operations until alternative sources could be developed at a reasonable cost.

#### Note 18. Segments

The Company currently operates in a single business segment as a designer and manufacturer of radio frequency (RF) power amplifiers for wireless telecommunications equipment. Net sales are derived primarily from the sale of RF power amplifiers for use in wireless communications networks. The Company reviews its revenues based upon the RF frequency in which the product is utilized in, i.e. 800-1000 MHz commonly referred to as "Cellular", 1800-2000 MHz, commonly referred to as "PCS" and over 2000 MHz, which includes "3G" frequency bands. Cost of sales, operating expenses and specific assets are not tracked or allocated to these RF frequency ranges. The following schedule presents an analysis of Powerwave's net sales based upon RF frequency range.

	RF Frequency Ranges			
	800-1000 MHz	1800-2000 MHz	2000+ MHz	Total
Net sales for the year ended December 29, 2002.....	\$242,498	\$84,209	\$58,182	\$384,889
Net sales for the year ended December 30, 2001.....	\$181,083	\$57,142	\$62,068	\$300,293
Net sales for the year ended December 31, 2000.....	\$348,368	\$96,092	\$ 2,962	\$447,422

The following schedule presents an analysis of the Company's net sales based upon the geographic location to which a product was shipped. North American sales include sales to the United States, Canada and Mexico. International sales include sales to all other foreign countries. Sales to Canada were \$128.7 million, \$53.1 million, and \$140.1 million for the fiscal years ended December 29, 2002, December 30, 2001 and December 31, 2000, respectively. Sales to Mexico for the fiscal years ended December 29, 2002, December 30, 2001 and December 31, 2000, were \$0, \$0.8 million, and \$8.2 million, respectively. For the fiscal years ended December 29, 2002, December 30, 2001 and December 31, 2000 sales to South Korea were \$18.3 million, \$39.5 million and \$34.2 million, respectively. Sales to France for these periods were \$32.0 million, \$62.3 million and \$40.3 million, respectively.

	North American	International	Total
Net sales for the year ended December 29, 2002 .....	\$257,009	\$127,880	\$384,889
Net sales for the year ended December 30, 2001 .....	\$176,295	\$123,998	\$300,293
Net sales for the year ended December 31, 2000 .....	\$352,733	\$94,689	\$447,422

The majority of the Company's assets are located in the United States, in the State of California. Total accounts receivable as of December 29, 2002 include 42% from customers in Canada, 26% from customers based in the United States, 14% from customers based in Finland and 10% from customers based in France. Total accounts receivable as of December 30, 2001 include 61% from customers based in the United States and 19% from customers based in France.

#### Note 19. Related Party Transactions

During the second quarter ended July 30, 2002, Ronald J. Buschur, the Chief Operating Officer of the Company, repaid a \$1.4 million bridge loan that was issued by the Company in connection with his relocation to Southern California. The Company had no other significant transactions with, receivables from or payables to officers, directors, or significant shareholders of the Company.

During fiscal 2000, 2001 and until August 2002, the President and CEO of the Company, Bruce Edwards, was a member of the Board of Directors of Metawave Communications Corporation ("Metawave"), a supplier of "smart" antennas to the wireless communications market and a customer of the Company. Mr. Edwards resigned from his Board position with Metawave effective August 20, 2002. During the years ended December 29, 2002, December 30, 2001 and December 31, 2000, the Company had net sales to Metawave in the amount of \$2.9 million, \$5.0 million and \$19.7 million, respectively. Total outstanding accounts receivable from Metawave were \$0 and \$1.2 million at December 29, 2002 and December 30, 2001, respectively.

On April 28, 1998, the Company purchased \$2.5 million of 13.75% Senior Secured Bridge Notes due April 28, 2000 (the "Notes") from Metawave in a private offering. The total amount raised in this private offering was \$29.0 million. The Notes initially accrued interest at a rate of 13.75% per annum and interest was payable semi-annually. The Notes contained provisions to increase the rate of interest during the life of the Notes if the Notes were not repaid prior to maturity. The Notes were secured by certain assets of Metawave and were repaid in full on April 28, 1999. Upon the issuance of the Notes, the Company received related warrants to purchase 53,576 shares of Metawave Series D Preferred Stock at \$0.01 per share. The Company exercised these warrants in April 1999. These shares of Series D Preferred Stock were converted into 51,420 shares of Metawave Common Stock upon

Metawave's initial public offering in May 2000. The Company sold these shares in February 2001, at an average price per share, net of commissions of \$11.06, and recognized a gain of approximately \$0.6 million. This gain was included in other income, net, during the first quarter of 2001.

QUARTERLY FINANCIAL DATA (UNAUDITED)

	Quarters Ended			
	March 31,	June 30,	September 29,	December 29,
	<u>2002</u>	<u>2002</u>	<u>2002</u>	<u>2002</u>
	(in thousands, except per share data)			
Fiscal 2002:				
Net sales .....	\$104,085	\$113,368	\$91,300	\$76,136
Gross profit.....	\$ 18,703	\$ 21,571	\$13,626	\$ 8,883
Operating income (loss) .....	\$ 3,199	\$ 5,521	\$ 643	\$ (5,452)
Net Income (loss) .....	\$ 2,720	\$ 4,377	\$ 1,003	\$ (3,989)
Basic earnings (loss) per share .....	\$0.04	\$0.07	\$0.02	\$(0.06)
Diluted earnings (loss) per share .....	\$0.04	\$0.07	\$0.02	\$(0.06)
Basic weighted average common shares .....	65,233	65,415	65,584	65,707
Diluted weighted average common shares .....	66,675	66,223	66,069	65,707

	Quarters Ended			
	April 1,	July 1,	September 30,	December 30,
	<u>2001</u>	<u>2001</u>	<u>2001</u>	<u>2001</u>
	(in thousands, except per share data)			
Fiscal 2001:				
Net sales .....	\$ 72,976	\$ 78,248	\$ 64,667	\$ 84,402
Gross profit.....	\$ 4,593	\$ 10,338	\$ 4,520	\$ 10,335
Operating loss.....	\$(17,438)	\$ (5,049)	\$ (8,684)	\$ (6,444)
Net loss.....	\$ (9,531)	\$ (2,379)	\$ (4,985)	\$ (3,617)
Basic loss per share .....	\$(0.15)	\$(0.04)	\$(0.08)	\$(0.06)
Diluted loss per share .....	\$(0.15)	\$(0.04)	\$(0.08)	\$(0.06)
Basic weighted average common shares .....	63,697	64,061	64,386	64,644
Diluted weighted average common shares .....	63,697	64,061	64,386	64,644

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

None.

### PART III

#### **ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT**

##### **Directors**

**John L. Clendenin**, 68, has been non-executive Chairman of the Company's Board of Directors since January 3, 1999 and has been a member of the Board of Directors since May 1998. Mr. Clendenin is a Chairman Emeritus of BellSouth Corporation, a telecommunications holding company. He served as Chairman of the Board of BellSouth until December 31, 1997 and as President and Chief Executive Officer from 1984 until his retirement at the end of 1996. Prior to BellSouth, Mr. Clendenin was President of Southern Bell from April 1981 to December 1983. He also serves on the Board of Directors of Coca-Cola Enterprises, Inc., Equifax Inc., Acuity Brands, Inc., The Kroger Company and The Home Depot, Inc.

**Daniel A. Artusi**, 48, joined the Company's Board of Directors in December 2002. Mr. Artusi is the President and Chief Operating Officer of Silicon Laboratories Inc., a designer and manufacturer of integrated circuits for the communications industry. Prior to joining Silicon Laboratories in August 2001, Mr. Artusi held various positions at Motorola, Inc. from 1977 to 2001. From August 1999 to August 2001, Mr. Artusi served as Corporate Vice President and General Manager of Motorola's Networking and Computing Systems Group. Mr. Artusi served as Vice President and General Manager of Motorola's Wireless Infrastructure Division from May 1997 to August 1999 and as General Manager of Motorola's RF Products Division from April 1996 to May 1997.

**Gregory M. Avis**, 44, has been a member of the Company's Board of Directors since October 1995. Mr. Avis has been a managing partner of Summit Partners, a venture capital and private equity firm, since January 1990. Mr. Avis also serves on the Board of Directors of Ditech Communications Corp. and IMPAC Medical Systems.

**Bruce C. Edwards**, 49, joined the Company in February 1996 as President and Chief Executive Officer and Director. Mr. Edwards was Executive Vice President, Chief Financial Officer and Director of AST Research, Inc., a personal computer company, from July 1994 to December 1995 and Senior Vice President, Finance and Chief Financial Officer of AST Research, Inc. from March 1988 to July 1994. Mr. Edwards currently serves on the Board of Directors of Emulex Corporation.

**David L. George**, 49, has been a member of the Company's Board of Directors since November 1995. Since April 2002 he has served as Chief Operating Officer, Chief Technical Officer and President of the Wireless Communications Division of Bizcom U.S.A., Inc. a public reporting company specializing in Emergency Management software solutions and Wireless Communications systems. Prior to joining Bizcom, Mr. George was in private practice providing consulting services to participants in the wireless industry. From June 2000 to June 2001, he was Executive Vice President of Operations for Securicor Wireless, Inc., a large mobile radio network provider. Mr. George was the co-founder and served as Executive Vice President and Chief Technical Officer of ComSpace Corporation ("Comspace"), formerly known as Unique Technologies, International, L.L.C., a wireless technology development company from February 1994 to June 2000. From November 1983 to February 1994, Mr. George served as Vice President, Director of Operations, Commercial Communications Division of Uniden America. A member of the Institute of Electrical and Electronic Engineers (I.E.E.E.) for more than 22 years, he holds several patents relating to wireless technology and networks.

**Eugene L. Goda**, 66, has been a member of the Company's Board of Directors since November 1995. From June 1997 to March 2000, Mr. Goda served as Chairman of the Board, President and Chief Executive Officer of Objectshare Inc., a software company. From October 1991 to October 1995, Mr. Goda served as Chief Executive Officer of Simulation Sciences, Inc., a software company. From July 1989 to September 1991, he served as Chief Executive Officer of Meridian Software Systems.

**Carl W. Neun**, 59, has been a member of the Company's Board of Directors since February 2000. From 1993 to January 2000, Mr. Neun was Senior Vice President and Chief Financial Officer of Tektronix, Inc. From 1987 to 1993 he was Senior Vice President of Administration and Chief Financial Officer of Conner Peripherals, Inc. Mr. Neun currently serves on the Board of Directors of Planar Systems, RadiSys Corp, and Oregon Steel Mills, Inc.

**Safi U. Qureshey**, 52, has been a member of the Company's Board of Directors since February 2000. Mr. Qureshey is the CEO of Avaz Networks, a fabless semiconductor company that provides semiconductor and

software platforms for video over packet and video on demand solutions for cable and DBS OEM's. Mr. Qureshey was the cofounder and former Chief Executive Officer and Chairman of AST Research, Inc. a personal computer company. Mr. Qureshey is also a former member of President Clinton's Export Council and was a Regent's Professor at the Graduate School of Management, University of California at Irvine.

Andrew J. Sukawaty, 47, has been a member of the Company's Board of Directors since May 1998. Mr. Sukawaty is President and Chief Operating Officer of Callahan Associates International (UK), a global communications development and operating company. He is also a Deputy Chairman of mm02, PLC, formerly BT Wireless. From September 1996 to June 2000, Mr. Sukawaty served as President and Chief Executive Officer of Sprint PCS. Prior to joining Sprint PCS, Mr. Sukawaty was Chief Executive Officer of NTL Limited, a British diversified broadcast transmission and communications company, since 1994. From 1989 to 1994, he was Chief Operating Officer of Mercury One-2-One, a PCS service provider in the United Kingdom. Prior to 1989, Mr. Sukawaty held various positions with US WEST, Inc., AT&T and Northwestern Bell.

#### Executive Officers

Bruce C. Edwards, 49, joined the Company in February 1996 as President and Chief Executive Officer and Director. Mr. Edwards was Executive Vice President, Chief Financial Officer and Director of AST Research, Inc., a personal computer company, from July 1994 to December 1995 and Senior Vice President, Finance and Chief Financial Officer of AST Research, Inc. from March 1988 to July 1994. Mr. Edwards currently serves on the Board of Directors of Emulex Corporation.

Ronald J. Buschur, 38, joined the Company in June 2001 as Chief Operating Officer. Prior to joining the Company, Mr. Buschur held various positions at HMT Technology/Komag, an independent supplier of thin-film disks, including President and Chief Operating Officer from 1999 to 2000, Vice President of Sales, Marketing and Quality Assurance from 1997 to 1999 and Vice President of Quality Assurance from 1994 to 1997. From 1993 to 1994, Mr. Buschur was Director of Quality at Maxtor, a disk drive company. Mr. Buschur held various managerial positions at Digital Equipment Corporation, a computer manufacturer from 1987 to 1993.

Kevin T. Michaels, 44, joined the Company in June 1996 as Vice President, Finance and Chief Financial Officer and was appointed Secretary in June 1996. Mr. Michaels was named Senior Vice President, Finance in February 2000. Prior to joining the Company, Mr. Michaels worked for AST Research, Inc. for eight years, most recently as Vice President, Treasurer from October 1995 to June 1996. From July 1991 to October 1995 Mr. Michaels was Treasurer of AST Research, Inc. and from June 1988 to June 1991, he was Assistant Treasurer.

#### Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Securities Exchange Act of 1934 requires the Company's directors and executive officers, and persons who own more than ten percent of a registered class of the Company's equity securities, to file reports of ownership with the Securities and Exchange Commission ("SEC") and Nasdaq. Directors, executive officers and greater than ten-percent beneficial owners are required by SEC regulations to furnish the Company with copies of all Section 16(a) forms they file.

Based solely on a review of filings with the Securities and Exchange Commission and written representations by each executive officer and director that no other reports were required, we believe that all of our directors and executive officers have complied with the reporting requirements of Section 16(a) of the Securities Exchange Act of 1934, during fiscal 2002.

#### ITEM 11. EXECUTIVE COMPENSATION

The information required hereunder is incorporated by reference from the sections of the Company's Proxy Statement filed in connection with its 2002 Annual Meeting of Stockholders under the headings "Executive Compensation" and "Stock Performance Comparison."

#### ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The information required hereunder is incorporated by reference from the sections of the Company's Proxy Statement filed in connection with its 2002 Annual Meeting of Stockholders under the caption "Stock Ownership."

### ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

The Company has entered into indemnification agreements with its directors and certain executive officers. Such agreements require the Company to indemnify such individuals to the fullest extent permitted by Delaware law.

During the second quarter of fiscal 2002, Ronald Buschur, the Chief Operating Officer of the Company, repaid a \$1.4 million bridge loan that was issued by the Company in connection with his relocation to Southern California in August 2001.

During fiscal 2000, 2001 and until August 2002, the President and CEO of the Company, Bruce Edwards, was a member of the Board of Directors of Metawave Communications Corporation ("Metawave"), a supplier of "smart" antennas to the wireless communications market and a customer of the Company. Mr. Edwards resigned from his Board position with Metawave effective August 20, 2002. During the years ended December 29, 2002, December 30, 2001 and December 31, 2000, the Company had net sales to Metawave in the amount of \$2.9 million, \$5.0 million and \$19.7 million, respectively. Total outstanding accounts receivable from Metawave were \$0 and \$1.2 million at December 29, 2002 and December 30, 2001, respectively.

On April 28, 1998, the Company purchased \$2.5 million of 13.75% Senior Secured Bridge Notes due April 28, 2000 (the "Notes") from Metawave in a private offering. The total amount raised in this private offering was \$29.0 million. The Notes initially accrued interest at a rate of 13.75% per annum and interest was payable semi-annually. The Notes contained provisions to increase the rate of interest during the life of the Notes if the Notes were not repaid prior to maturity. The Notes were secured by certain assets of Metawave and were repaid in full on April 28, 1999. Upon the issuance of the Notes, the Company received related warrants to purchase 53,576 shares of Metawave Series D Preferred Stock at \$0.01 per share. The Company exercised these warrants in April 1999. These shares of Series D Preferred Stock were converted into 51,420 shares of Metawave Common Stock upon Metawave's initial public offering in May 2000. The Company sold these shares in February 2001, at an average price per share, net of commissions of \$11.06, and recognized a gain of approximately \$0.6 million. This gain was included in other income, net, during the first quarter of 2001.

### ITEM 14. CONTROLS AND PROCEDURES

#### (a) *Evaluation of disclosure controls and procedures:*

Within the 90 days prior to the date of this report, Powerwave carried out an evaluation, under the supervision and with the participation of the Company's management, including the Company's Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of the Company's disclosure controls and procedures pursuant to Exchange Act Rule 13a-14. Based upon that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that the Company's disclosure controls and procedures are effective in timely alerting them to material information related to the Company that is required to be included in Powerwave's periodic SEC filings.

#### (b) *Changes in internal controls:*

There have been no significant changes in the Company's internal controls or in other factors that could significantly affect these internal controls subsequent to the date of our most recent evaluation.

## PART IV

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

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

##### (1) Index to Financial Statements

The financial statements included in Part II, Item 8 of this document are filed as part of this Report.

##### (2) Financial Statement Schedule

The financial statement schedule included in Part II, Item 8 of this document is filed as part of this Report. All other schedules are omitted as the required information is inapplicable or the information is included in the consolidated financial statements or related notes.

### (3) Exhibits

The following exhibits are filed as part of this Report:

<u>Exhibit Number</u>	<u>Description</u>
2.1	Amended and Restated Asset Purchase Agreement with Hewlett-Packard Company, dated as of October 9, 1998 (incorporated by reference to Exhibit 2.1 to the Company's Form 8-K as filed with the Securities and Exchange Commission on October 26, 1998).
2.2	Purchase and Sale Agreement and Joint Escrow Instructions with Hewlett-Packard Company, dated as of August 31, 1998. (incorporated by reference to Exhibit 2.2 to the Company's Form 8-K as filed with the Securities and Exchange Commission on October 26, 1998).
3.2	Form of Amended and Restated Certificate of Incorporation of the Company (incorporated by reference to Exhibit 3.2 to the Company's Registration Statement on Form-S-1 (File No. 333-13679) as filed with the Securities and Exchange Commission on December 3, 1996).
3.4	Form of Amended and Restated Bylaws of the Company (incorporated by reference to Exhibit 3.4 to the Company's Registration Statement on Form-S-1 (File No. 333-13679) as filed with the Securities and Exchange Commission on December 3, 1996).
3.5	Certificate of Amendment of Amended and Restated Certificate of Incorporation of Powerwave Technologies, Inc., a Delaware Corporation (incorporated by reference to Exhibit 3.1 to the Company's Form 10-Q as filed with the Securities and Exchange Commission on August 15, 2000).
3.6	Certificate of Designation of Rights, Preferences and Privileges of Series A Junior Participating Preferred Stock of Powerwave Technologies, Inc. (incorporated herein by reference to Exhibit 2.1 to Registrant's Form 8-A dated June 4, 2001.)
3.7	Rights Agreement, dated as of June 1, 2001 between Powerwave Technologies, Inc. and U.S. Stock Transfer Corporation, as Rights Agent, which includes as <u>Exhibit A</u> thereto the form of Certificate of Designation for the Series A Junior Participating Preferred Stock, as <u>Exhibit B</u> thereto the Form of Rights Certificate and as <u>Exhibit C</u> thereto a Summary of Terms of Stockholder Rights Plan. (incorporated herein by reference to Exhibit 2.1 to Registrant's Form 8-A dated June 4, 2001.)
4.1	Stockholders' Agreement, dated October 10, 1995, among the Company and certain stockholders (incorporated by reference to Exhibit 4.1 to the Company's Registration Statement on Form-S-1 (File No. 333-13679) as filed with the Securities and Exchange Commission on October 8, 1996).
4.2	Amendment to Stockholders Agreement (incorporated by reference to Exhibit 4.2 to the Company's Registration Statement on Form-S-1 (File No. 333-13679) as filed with the Securities and Exchange Commission on October 8, 1996).
10.1	Milcom International, Inc. 1995 Stock Option Plan (the "1995 Plan") (incorporated by reference to Exhibit 10.1 to the Company's Registration Statement on Form-S-1 (File No. 333-13679) as filed with the Securities and Exchange Commission on October 8, 1996).*
10.2	Form of Stock Option Agreement for 1995 Plan (incorporated by reference to Exhibit 10.2 to the Company's Registration Statement on Form-S-1 (File No. 333-13679) as filed with the Securities and Exchange Commission on October 8, 1996).*
10.3	Amendment No. 1 to 1995 Stock Option Plan (incorporated by reference to Exhibit 10.3 to the Company's Registration Statement on Form-S-1 (File No. 333-13679) as filed with the Securities and Exchange Commission on October 8, 1996).*
10.3.1	Amendment No. 2 to the 1995 Plan (incorporated by reference to Exhibit 10.3.1 to the Company's Registration Statement on Form-S-1 (File No. 333-28463) as filed with the Securities and Exchange Commission on June 4, 1997).*
10.4	Powerwave Technologies, Inc. 1996 Stock Incentive Plan (the "1996 Plan") (incorporated by reference to Exhibit 10.4 to the Company's Registration Statement on Form-S-1 (File No. 333-13679) as filed with the Securities and Exchange Commission on October 8, 1996).*

- 10.5 Form of Stock Option Agreement for 1996 Plan (incorporated by reference to Exhibit 10.5 to the Company's Registration Statement on Form-S-1 (File No. 333-13679) as filed with the Securities and Exchange Commission on October 8, 1996).\*
- 10.6 Form of Restricted Stock Purchase Agreement for 1996 Plan (incorporated by reference to Exhibit 10.6 to the Company's Registration Statement on Form-S-1 (File No. 333-13679) as filed with the Securities and Exchange Commission on October 8, 1996).\*
- 10.6.1 Amendment No. 1 to 1996 Plan (incorporated by reference to Exhibit 10.6.1 to the Company's Registration Statement on Form-S-1 (File No. 333-28463) as filed with the Securities and Exchange Commission on June 4, 1997).\*
- 10.6.2 Amendment No. 2 to 1996 Plan (incorporated by reference to Exhibit 4.6 to the Company's Registration Statement on Form S-8 (File No. 333-20549) as filed with the Securities and Exchange Commission on October 8, 1998).\*
- 10.7 Powerwave Technologies, Inc. 1996 Director Stock Option Plan (the "Director Plan") (incorporated by reference to Exhibit 10.7 to the Company's Registration Statement on Form-S-1 (File No. 333-13679) as filed with the Securities and Exchange Commission on October 8, 1996).\*
- 10.7.1 Amendment No.1 to Director Plan (incorporated by reference to Exhibit 4.7 to the Company's Registration Statement on Form S-8 (File No. 333-20549) as filed with the Securities and Exchange Commission on October 8, 1998).\*
- 10.8 Form of Stock Option Agreement for Director Plan (incorporated by reference to Exhibit 10.8 to the Company's Registration Statement on Form-S-1 (File No. 333-13679) as filed with the Securities and Exchange Commission on October 8, 1996).\*
- 10.9 Powerwave Technologies, Inc. Employee Stock Purchase Plan (incorporated by reference to Exhibit 10.9 to the Company's Registration Statement on Form-S-1 (File No. 333-13679) as filed with the Securities and Exchange Commission on October 8, 1996).\*
- 10.9.1 Amendment No. 1 to Employee Stock Purchase Plan (incorporated by reference to Exhibit 10.9.1 to the Company's Registration Statement on Form-S-1 (File No. 333-28463) as filed with the Securities and Exchange Commission on June 4, 1997).\*
- 10.11 Redemption Agreement, dated October 10, 1995, among the Company and certain stockholders (incorporated by reference to Exhibit 10.11 to the Company's Registration Statement on Form-S-1 (File No. 333-13679) as filed with the Securities and Exchange Commission on October 8, 1996).
- 10.14 Form of Indemnification Agreement (incorporated by reference to Exhibit 10.14 to the Company's Registration Statement on Form-S-1 (File No. 333-13679) as filed with the Securities and Exchange Commission on October 8, 1996).\*
- 10.24 Powerwave Technologies, Inc. 2000 Stock Option Plan (the "2000 Plan") (incorporated by reference to Exhibit 4.1 to the Company's Form S-8 (File No. 333-38568) as filed with the Securities and Exchange Commission on June 5, 2000).\*
- 10.25 Form of Stock Option Agreement for the 2000 Plan (incorporated by reference to Exhibit 4.2 to the Company's Form S-8 (File No. 333-38568) as filed with the Securities and Exchange Commission on June 5, 2000).\*
- 10.26 Agreement for Purchase and Sale of Property and Joint Escrow Instructions by and between Boeing Realty Corporation and Powerwave Technologies, Inc., dated as of May 9, 2000 (incorporated by reference to Exhibit 2.1 to the Company's Form 8-K as filed with the Securities and Exchange Commission on June 9, 2000).
- 10.27 First Amendment to Agreement for Purchase and Sale of Property and Escrow Instruction by and between Boeing Realty Corporation and Powerwave Technologies, Inc., dated May 12, 2000 (incorporated by reference to Exhibit 2.2 to the Company's Form 8-K as filed with the Securities and Exchange Commission on June 9, 2000).
- 10.28 Loan Agreement dated as of May 26, 2000, by and among the Company, Comerica Bank-California, as Agent, and the lenders party thereto (incorporated by reference to Exhibit 10.3 to the Company's Form 10-Q as filed with the Securities and Exchange Commission on August 15, 2000).

- 10.29 Revolving Note dated as of May 26, 2000, pursuant to the Loan Agreement dated as of May 26, 2000 by and among the Company, Comerica Bank-California, as Agent, and the lenders party thereto (incorporated by reference to Exhibit 10.4 to the Company's Form 10-Q as filed with the Securities and Exchange Commission on August 15, 2000).
- 10.30 First Amendment to Loan Agreement dated as of May 31, 2001, by and among the Company, Comerica Bank-California, as Agent, and the lenders party thereto (incorporated by reference to Exhibit 10.30 to the Company's Form 10-Q as filed with the Securities and Exchange Commission on August 7, 2001).
- 10.31 Second Amendment to Loan Agreement dated as of December 26, 2001, by and among the Company, Comerica Bank-California, as Agent, and the lenders party thereto (incorporated by reference to Exhibit 10.31 to the Company's Form 10-K as filed with the Securities and Exchange Commission on February 12, 2002).
- 10.32 Amendment No. 3 to Loan Agreement dated as of May 31, 2002, by and among the Company, Comerica Bank-California, as Agent, and the lenders party thereto (incorporated by reference to Exhibit 10.32 to the Company's Form 10-Q as filed with the Securities and Exchange Commission on July 26, 2002).
- 10.33 Manufacturing Services and Supply Agreement between the Company and Celestica Corporation dated as of November 1, 2002.\*\*
- 10.34 Powerwave Technologies, Inc. 2002 Stock Option Plan ("2002 Plan") (incorporated by reference to Exhibit 4.2 to the Company's Form S-8 (File No. 333-88836) as filed with the Securities and Exchange Commission on May 5, 2002).\*
- 10.35 Form of Stock Option Agreement for the 2002 Plan (incorporated by reference to Exhibit 4.1 to the Company's Form S-8 (File No. 333-88836) as filed with the Securities and Exchange Commission May 5, 2002.\*
- 21.1 Subsidiaries of the registrant
- 23.1 Independent Auditors' Consent
- 99.1 Certification of the Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. Section 1350.
- 99.2 Certification of the Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. Section 1350.

\* Indicates Item 14(a)(3) exhibit (management contract or compensation plan or arrangement).

\*\* Registrant has sought confidential treatment pursuant to Rule 24b-2 of the Exchange Act for a portion of the referenced exhibit.

*(b) Items reported on Form 8-K in Fourth Quarter*

None

*(c) Financial Statement Schedule*

Schedule II Valuation and Qualifying Accounts

Powerwave Technologies and Powerwave are registered trademarks of Powerwave Technologies, Inc. The Powerwave Technologies logo is a trademark of Powerwave Technologies, Inc.

All other products or service names mentioned herein may be trademarks or registered trademarks of their respective owners.



## CERTIFICATIONS

I, Bruce Edwards, certify that:

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

Date: February 19, 2003

By: /s/ Bruce C. Edwards  
Bruce C. Edwards  
President and Chief Executive Officer  
Powerwave Technologies, Inc.

I, Kevin Michaels, certify that:

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

Date: February 19, 2003

By: /s/ Kevin T. Michaels  
Kevin T. Michaels  
Senior Vice President, Finance and  
Chief Financial Officer  
Powerwave Technologies, Inc.

**SCHEDULE II — VALUATION AND QUALIFYING ACCOUNTS**  
(in thousands)

<u>Description</u>	<u>Balance at Beginning of Period</u>	<u>Charges to Costs and Expenses</u>	<u>Deductions</u>	<u>Balance at End of Period</u>
Year ended December 29, 2002:				
Allowance for doubtful accounts and sales returns .....	\$ 3,143	\$3,967	\$(4,605)	\$ 2,505
Allowance for excess and obsolete inventory.....	\$11,114	\$5,797	\$(7,913)	\$ 8,998
Year ended December 30, 2001:				
Allowance for doubtful accounts and sales returns .....	\$ 3,021	\$1,988	\$(1,866)	\$ 3,143
Allowance for excess and obsolete inventory.....	\$ 9,449	\$8,828	\$(7,163)	\$11,114
Year ended December 31, 2000:				
Allowance for doubtful accounts and sales returns .....	\$ 2,988	\$2,165	\$(2,132)	\$ 3,021
Allowance for excess and obsolete inventory.....	\$ 6,192	\$4,211	\$ (954)	\$ 9,449

**INVESTOR INFORMATION**

A copy of our reports filed with the Securities and Exchange Commission (Forms 8-K, 10-Q and 10-K) may be obtained by writing to:

*Investor Relations*  
 Powerwave Technologies, Inc.  
 1801 E. St. Andrew Place  
 Santa Ana, CA 92705

Requests for investor information can also be sent via electronic mail to invest@pwav.com. In addition, Powerwave Technologies' annual report, press releases and certain filings with the Securities and Exchange Commission can be found on Powerwave's website at www.POWERWAVE.com.

**PRODUCT INFORMATION**

Further information regarding Powerwave's products can be obtained by contacting our Sales & Marketing Department at (714)466-1000, by fax (714)466-5805, or by visiting our website at www.POWERWAVE.com.

**WORLD WIDE WEB ADDRESS**

www.POWERWAVE.com

**STOCK LISTING**

Powerwave Technologies, Inc. Common Stock trades on the Nasdaq National Market System under the symbol "PWAV".

**COMMON STOCK PRICES**

Powerwave has never paid any cash dividends on its Common Stock. Powerwave's Board of Directors currently believes that earnings will create greater long-term value if reinvested to create growth. Therefore, the Company does not anticipate paying cash dividends for the foreseeable future. Set forth below are the high and low sales prices as reported by Nasdaq for Powerwave's Common Stock for the periods indicated.

FISCAL YEAR 2002	High	Low
First Quarter Ended March 31, 2002	\$ 20.1000	\$ 12.8700
Second Quarter Ended June 30, 2002	\$ 15.1700	\$ 7.0500
Third Quarter Ended September 29, 2002	\$ 8.3200	\$ 3.4800
Fourth Quarter Ended December 29, 2002	\$ 7.2400	\$ 2.7500

FISCAL YEAR 2001	High	Low
First Quarter Ended April 1, 2001	\$ 60.5625	\$ 11.8750
Second Quarter Ended July 1, 2001	\$ 22.2900	\$ 8.7500
Third Quarter Ended September 30, 2001	\$ 21.0000	\$ 10.1500
Fourth Quarter Ended December 30, 2001	\$ 21.3000	\$ 9.6500

**FORWARD LOOKING STATEMENTS**

The statement regarding Forward Looking Statements contained in the attached Form 10-K is incorporated herein by reference.

Powerwave Technologies, Powerwave and the Powerwave Technologies logo are registered trademarks of Powerwave Technologies, Inc. All other products and service names mentioned herein may be trademarks or registered trademarks of their respective owners.

**BOARD OF DIRECTORS**

- JOHN L. CLENDENIN  
*(Chairman of the Board)*
- DANIEL A. ARTUSI
- GREGORY M. AVIS
- BRUCE C. EDWARDS
- DAVID L. GEORGE
- EUGENE L. GODA
- CARL W. NEUN
- SAFI U. QURESHEY
- ANDREW J. SUKAWATY

**INDEPENDENT AUDITORS**

DELOITTE & TOUCHE LLP  
 Costa Mesa, California

**TRANSFER AGENT AND REGISTRAR**

*U.S. Stock Transfer Corporation*  
 1745 Gardena Avenue  
 Glendale, California 91204  
 (818) 502-1404  
 www.USSTOCK.com

**CORPORATE HEADQUARTERS**

*Powerwave Technologies, Inc.*  
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 Santa Ana, CA 92705  
 (714) 466-1000  
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