AMPLIDYNE INC
Form 10KSB
April 15, 2003

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

REPORT ON FORM 10-KSB

[X] Annual Report pursuant to Section 13 or 15(d) of the
Securities Exchange Act of 1934

For the fiscal year ended December 31, 2002

Commission File No. 0-21931

AMPLIDYNE, INC.
(Exact name of registrant as specified in its charter)

Delaware	22-3440510
(State of or other jurisdiction of incorporation or organization)	(IRS Employer Identification No.)
59 LaGrange Street Raritan, New Jersey	08869
(Address of Principal Executive Offices)	(Zip Code)

Registrant's telephone number, including area code: (908) 253-6870

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 per share
(Title of Class)

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of the Regulation S-B is not contained in this form, and no disclosure will 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-KSB or any amendment to this Form 10-KSB. [X]

Issuer's revenues for its most recent fiscal year were $1,613,732

The aggregate market value of the voting stock held by non-affiliates of the Registrant, computed by reference to the closing price of such stock as of March 31, 2003, was approximately $592,281

Number of shares outstanding of the issuer's common stock, as of March 31, 2003 was 9,676,500.

Documents Incorporated by Reference: None

PART I

Item 1. BUSINESS

General

Amplifier Products

Amplidyne, Inc., a Delaware corporation ("Amplidyne" or the "Company") designs, manufactures and sells ultra linear power amplifiers and related subsystems to the worldwide wireless, local loop and satellite uplink telecommunications market. These power amplifiers, which are a key component in cellular base stations, increase the power of radio frequency ("RF") and microwave signals with low distortion, enabling the user to significantly increase the quality and quantity of calls processed by new and existing cellular base stations. The Company's wireless telecommunications products consist of solid-state, RF and microwave, single and multi-carrier power amplifiers that support a broad range of analog and digital transmission protocols including advanced mobile phone services ("AMPS"), code division multiple access ("CDMA"), time division multiple access ("TDMA"), total access communication systems ("TACS"), extended total access communication systems ("ETACS"), Nordic mobile telephone ("NMT"), global system for mobile communications ("GSM"), digital communication service at 1800 MHz ("DCS-1800") and wideband code division multiple access 3G communications ("W-CDMA"). The products are marketed to the cellular, wireless local loop and personal communication systems ("PCS") segments of the wireless telecommunications industry.

The Company has also refined amplifier products for the 3.5 GHZ digital data transmission systems that are presently being deployed by some major OEM's in North America. The Company also refined its amplifier products such as the MINI amplifier for its high-speed wireless Internet products. The Company has had its test site in Sparta New Jersey under continuous operation for more than 3 years. The Company has been able to get reliable and successful service under various and severe weather including rain and snow.

In the year 2002,the Company experienced a considerable downturn in its overall business due to the general decline in the Telecommunications Industry as well as slow down in demand for its High Speed Internet products, due to prevailing economic conditions. Sales in the first three quarters were particularly down, only the fourth quarter showed a recovery for us. Sales in the fourth quarter were $550,00 (33% of sales for the year 2002). The first three quarters generated sales totaling $1,063,732, compared to $1,838,519 for the same period in 2001, a decrease of 42% from 2001. The Company increased its sales and marketing and support team for the High Speed Wireless Internet products, but due to market conditions the sales did not increase significantly in the first three quarters. Therefore the Company began to aggressively reduce staff and expenditures in the third and fourth quarters. The Company was unable to raise any additional funds and as a result the Company has been operating under severe cash flow conditions since the middle of the third quarter of 2002.

Amplidyne has several products covered by a patent issued by the United States Patent and Trademark Office for Pre-Distortion and Pre-Distortion Linearization which, the Company believes, is very effective in reducing distortion, in amplifiers. In addition to Company's product line of single channel power amplifiers, which are currently utilized by the wireless communications industry, the Company also develops, designs and manufactures Multi-carrier Linear Power Amplifiers ("MCLPAs"). MCLPAs combine the performance capabilities of many single carrier amplifiers into one unit, eliminating the need for numerous single carrier amplifiers and the corresponding unnecessary space occupied by the cavity filters encasing the amplifiers. Management believes that with its (i) proprietary technology (which effectively reduces distortion), (ii) technological expertise and (iii) established product line consisting of ultra linear single channel power amplifiers, the Company can achieve similar performance with its MCLPAs. The Company's linear power amplifiers and MCLPAs utilizes the Company's patented predistortion and proprietary feed forward technology, which amplifies many channels with minimal distortion at the same time with one product.

High Speed Wireless Internet Products

In 1999 the Company made its entry into the emerging wireless Internet access market with new products in the ISM license exempt operating band (2.4 to 2.4835 GHz). The line of spread spectrum radio products has been expanded to provide complete solutions, with designs for indoor, outdoor and hybrid indoor/outdoor network coverage including point-to-point and point-to-multi-point configurations.

These products include ISP Base Stations, PCMCIA radio cards, modular customer premise equipment (CPE), micro-cells, client base station, amplifiers, and other network components to provide a turn-key network solution. These products are IEEE 802.11 compliant and provide high-speed internet access and private network access from any point in the network. The Company's capabilities include engineering design to provide coverage over a wide area. Wireless network elements therefore provide users access from anywhere in the wireless network. Management believes that this type of design delivers high performance and lower operating and maintenance costs, compared to a conventional wired network. An additional value added to a network utility is full roaming access for portable devices anywhere in the network. The Company installed its own wireless network in the fourth quarter of 1999 to provide a customer demonstration system, which has proven to be successful.

The Company designs outdoor solutions specifically targeted to the ISP market which consist of point-to-point backbones for the networks and point-to-multi-point access to wireless clients. ISP's can order complete turn-key systems for various applications or components for expansion and concentration of existing networks. During 2002, Amplidyne continued offered its "ISP in a Box" complete network start-up kit for deployment to ISPs.

The Company also expanded its LAN products to include a new access points, refined gateway and high power PCMCIA radio card to support its indoor market development and penetration into Multi-Dwelling Units ("MDUs"). The use of discreet antennas and intelligent amplifiers has proved especially effective in

providing ubiquitous coverage in tall buildings, large atriums, and sprawling campus applications. The SOHO package was also refined in 2002 to quickly and easily implement simple home and small office networks without professional installation or maintenance.

In light of the events of 2002,particularly the downsizing of the Company and serious cash flow constraints during the year, the Company will need to re-evaluate its products and future marketing strategy during 2003.

Historical

The Company was incorporated on December 14,1995 pursuant to the laws of the State of Delaware as the successor to Amplidyne, Inc., a New Jersey corporation ("Amplidyne-NJ"), which was incorporated in October 1988. The Company was organized to effectuate a reincorporation of Amplidyne-NJ with and into the Company on December 22, 1995. The Company maintains its executive offices at 59 LaGrange Street, Raritan, NJ 08869 and its telephone number is (908) 253-6870. The Company completed its initial public offering of 1,610,000 Units (each Unit consisting of one (1) share of Common Stock and one (1) Redeemable Common Stock Purchase Warrant ("Warrants")) in January 1997 pursuant to firm commitment underwritten offering. The offering price was $5.10 per Unit. The Warrants were redeemed in May 2000. Prior to redemption, 124,871 Warrants were exercised. The Common Stock trades on the NASD OTC Bulletin Board under the symbol AMPD.OB.

Forward Looking Statements

Certain information contained in this Annual Report is forward-looking statements (within the meaning of Section 27A of the Securities Act of 1933, as amended and Section 21E of the Securities Exchange Act of 1934, as amended). Factors set forth that appear with the forward-looking statements, or in the Company's other Securities and Exchange Commission filings, could affect the Company's actual results and could cause the Company's actual results to differ materially from those expressed in any forward-looking statements made by, or on behalf of, the Company in this Annual Report. In addition to statements, that explicitly describe such risks and uncertainties, readers are urged to consider statements labeled with the terms "believes," "belief," "expects," "intends," "estimate," "project," "may," "will," "should," continue," "anticipates" or "plans" to be uncertain and forward-looking. The forward-looking statements contained herein are also subject generally to other risks and uncertainties that are described from time to time in the Company's reports and registration statements filed with the Securities and Exchange Commission, including the risks described in Part I-Risk Factors. Such potential risks and uncertainties include, but are not limited to: the ability to increase revenues and reduce operating losses; the successful deployment and sale of products; the successful distribution of our products in the marketplace; the successful expansion of business with sales made by ISPs; managing expansion; dependence on a limited number

of customers; reductions, delays or cancellations in orders from new or existing customers; potential deterioration of business and economic conditions in the Company's customers marketplaces; new product development and product obsolescence; potential deterioration of the Company's customers credit quality due to deteriorating economic conditions in the Company's customers marketplaces; a limited number of potential customers; intensely competitive industry with increasing price competition; successful development of strategic partnerships globally; reliance on certain key personnel; variability in gross margins on new products and resulting impacts on operating results; continued

success in the design of new products and the ability to manufacture in quantity such new products; continued favorable business conditions and growth in the wireless communications market; and dependence on certain suppliers for single-sourced components. In addition, prior financial performance and customer orders are not necessarily indicative of the results that may be expected in the future and the Company believes that such comparisons cannot be relied upon as indicators of future performance. Due to the foregoing factors, the Company believes that period-to-period comparisons of its operating results are not necessarily meaningful and that such comparisons cannot be relied upon as indicators of future performance. Additionally, the Company undertakes no obligation to publicly release the results of any revisions to these forward-looking statements which may be made to reflect events or circumstances occurring after the date hereof or to reflect the occurrence of unanticipated events.

Wireless Local Loop Amplifier Products

The Company has continued to refine its wireless local loop amplifier products during 2002. These products operate in the NMT 450 band. The Company designed a prototype amplifier for the 3.5 GHz band for a major North American OEM customer during 2000 and refined the products during 2001, and has been manufacturing products during 2002. The Company expects to obtain future orders for its NMT450 and 3.5GHz amplifiers during 2003 as systems get deployed.

Cellular Systems

A cellular system consists of a number of cell sites that are networked to form a cellular system operator's geographic coverage area. Each cell site has a base station which houses the equipment that transmits and receives telephone calls between the cellular subscriber within the cell and the switching office of the local wireline telephone system. Such base station equipment includes an antenna and a series of transceivers, power amplifiers and cavity filters. Large cell sites, which generally cover a geographic area of up to five miles in radius, are commonly referred to as "macrocells."

The ability of cellular system operators to increase system capacity through the use of microcells is largely dependent on their ability to broadcast multiple signals with acceptable levels of interference and distortion. In cellular systems, the amplifier is generally the greatest source of signal interference and distortion, particularly with multi carrier high power amplifiers. Consequently, obtaining amplifiers that can transmit and

receive multiple signals with low distortion or interference from adjacent signals ("high spectral purity") is critical to a cellular system operator's ability to increase system capacity. Substantial resources and technical expertise are required to design and manufacture multi carrier power amplifiers with high spectral purity. To achieve high spectral purity, multi carrier amplifier systems must have high interference cancellation properties.

The Company believes that the potential opportunities for wireless communication services in countries without reliable or extensive wireline systems may be even greater than in countries with developed telecommunication systems. The Company has developed and refined its products for this market such as the 2.4 GHz and 3.5 GHz wireless local loop amplifiers and the NMT-450 products. As a result of these developments, the Company has continued to obtain orders for these products from its customers, including major OEMs and expects

to continue to do so in 2003.

The Company's satellite amplifier products are used to amplify the signal, which is being transmitted from the ground up to the satellite. The manufacturers of satellite communications equipment operate in commercial markets such as television broadcast services and commercial military communications. Amplidyne has also provided amplifiers for terrestrial radio systems, which are used, for television and audio signal transmission.

Company Strategy

Utilizing its proprietary, patented technology and experience in interference cancellation, the Company is pursuing a strategy, focused on the need of cellular, wireless local loop and PCS system operators, to develop technologically advanced amplifier based products. The Company has recently developed products which address the technical issues faced by such system operators as a result of the spots of growth in wireless telephone use (cellular, NMT-450 and wireless local loop) particularly in developing countries, while a general downward trend has remained in the Telecommunications market.

The Company's products have been evaluated and successfully deployed in the OEM systems. However, due to market conditions, the Company expects the 3.5GHz products to be given priority in the near future by its OEM customers.

Management believes that with its predistortion technology and the linear capability of its core amplifier technology, the Company can achieve similar performance from a multicarrier amplifier which others achieve by using dual feed forward loops; this results in much higher component count within the amplifier unit and may result in poor reliability for such products, compared to predistortion based feed forward amplifiers which use fewer components and thereby have a high reliability.

The Company's business strategy focuses primarily on the wireless communication market and consists of the following elements:

Wireless Internet Products. The Company's high-speed wireless Internet products have been successfully deployed since 1999. Our wireless Internet products are aimed at four market segments: (a) Hospitality and Multi-Dwelling Units (MDU) including hotels and condominiums, (b) enterprise, corporate and education campuses (c) Internet Service Provider (ISP) networks, (d) Small Office/Home Office (SOHO),

Increase Penetration of Wireless Equipment Manufacturers. Since 1991, the Company has positioned itself as a supplier of amplifier products to large wireless telecommunications OEMs. Amplidyne seeks to capitalize on its existing customer relationships and become a more significant source of its customers' amplifiers by working closely with OEM customers to offer innovative solutions to technical requirements and problems. Amplidyne has demonstrated its 3.5 GHz and 450 MHz single and multichannel products to OEM's during 2002. The Company intends to pursue this market segment during 2003. There can be no assurance that the Company will be successful since some of the Company's competitors have vast financial, technical and marketing resources.

Maintain a Technology Edge. In management's belief the Company, with its innovative products, has been addressing the needs of its customers for products

that solve significant technical problems. The Company believes its interference cancellation technologies are among the most advanced that are commercially available in the industry, both in performance and diversity of methodology. The Company utilizes proprietary and patented pre-distortion technology and proprietary feed forward interference cancellation technology in its linear power amplifiers and MCLPAs to enable the user to significantly increase the quality and quantity of calls processed by new and existing cellular base stations. The Company intends to continue to maintain resources in research and development associated with its interference cancellation technologies. The Company has continued its development on 3.5GHz, NMT-450, 3G (Third Generation) amplifiers and wireless local loop products during 2002.

Develop Innovative Proprietary Products. To date, the Company has focused its efforts in the development of amplifier products which are highly innovative, and which are not the standard "commodity" type product. In addition, the Company believes that it has compiled an extensive design library in the solid-state, high power amplifier industry utilizing its proprietary and patented technology and expertise in interference cancellation. The Company has developed and intends to continue to develop products, which combine basic components in unique and high performance configuration to command higher prices in the wireless communications market. In addition, the Company has adapted this expertise for new commercial market applications and product requirements and develops products for the NMT-450, 3G (Third Generation) and wireless local loop markets.

Provide Support from Product Design through Installation and Operation. The Company works with its customers throughout the design process to assist them in

refining and developing their amplifier specifications. Once the specifications have been met and the product delivered, Amplidyne continues to provide technical support to facilitate system integration, start-up and continued operation. By providing customer support services from the product design phase through installation and operation, management believes it fosters increased levels of customer loyalty and satisfaction. In addition, through this process, the Company believes it will develop new product definitions and implementations to further enhance the strategic position of the Company in the wireless market.

Maintain Control of the Manufacturing Process. Amplidyne has consistently analyzed in house automated manufacturing versus the use of subcontracted manufacturers in order to control its production schedule. The Company installed automated manufacturing equipment in the first quarter of 2000, to enhance its manufacturing process for NMT-450 and wireless local loop amplifiers and other related products. In certain instances, Amplidyne has made the strategic decisions to select single or limited source suppliers in order to obtain lower pricing, receive more timely delivery and maintain quality control.

The Amplidyne Advantage

The Company believes that its products have several features, which differentiate them from those of its competitors, such as:

The Predistortion Solution. Utilizing its proprietary technology the Company can obtain significant distortion reduction in its core amplifiers. This enables the pre-distorted amplifier to have feed forward correction (which is described below, see "Technology") applied to it to achieve distortion cancellation.

Superior Distortion and Spurious Cancellation Resulting in Ultra Linear

High Power Amplifiers. The Company believes the use of MCLPAs is critical in the implementation of new cellular systems and upgrade of older analog systems. Cellular systems need to cover large areas with minimum hardware in order to minimize cost per subscriber. Reduction of the distortion and spurious signals from the amplifiers is a key enabling technology. Amplidyne has developed proprietary interference cancellation technology using multiple methods to achieve high suppression of spurious output and distortion typically associated with higher power amplifiers. . The Company's single channel amplifiers have also been well received in the industry, however, the Company has experienced more competition in this area. The Company is seeking to position itself to be a viable source in this area. The Company constantly monitors such situations and will employ resources to explore such opportunities, as financing permits.

By utilizing its proprietary and patented predistortion technology and its proprietary feed forward technology, the MCLPAs amplification capacities of the Company's amplifiers are, in management's belief, among the best in the industry.

Linearity, Low Distortion and High Amplification. Wireless service providers' ability to manage scarce spectrum resources more effectively and accommodate large numbers of subscribers is largely dependent on their ability to broadcast signals with high linearity, which pertains to the ability of a component to amplify a wave form without altering its characteristics in undesirable ways. Linear amplifiers allow signals to be amplified without introducing spurious emissions that might interfere with adjacent channels. Higher linearity increases the capacity of cellular systems by enabling a more efficient use of digital transmission technologies, micro-cellular architectures and adaptive channel allocation. In current cellular systems, the power amplifier is generally the source of the greatest amount of signal distortion. Consequently, obtaining power amplifiers with high linearity and low distortion is critical to wireless service providers' ability to improve spectrum efficiency.

The Company has several products covered by a patent issued by the United States Patent and Trademark Office, which we believe, gives us a significant advantage over our competitors.

Multicarrier Designs. Multicarrier amplification, in which all channels are amplified together by a MCLPA, rather than each channel using a separate amplifier, allows for instantaneous electronic channel allocation. Functionally, it combines many single channel power amplifiers, into a single unit, thereby eliminating the single channel power amplifiers and the corresponding tunable cavity filters. MCLPAs require significantly higher linearity compared to single channel designs.

By virtue of the Company's high linearity products which incorporates pre-distortion and feed forward technology achieving, in management's belief, among the lowest distortion in the industry, the MCLPA amplified signal remains within their prescribed band and spectrum with low interference of adjacent channels thus providing flexibility to accommodate any frequency plan.

Wireless Internet Products. One of the key components in the wireless Internet access system is the bi-directional tower top amplifier. We also have considerable experience in the design, development and deployment of fixed broadband amplifier products. The amplifier has to operate reliably in an outdoor application. Our expertise in this area is an advantage over competitors who are required to purchase their amplifiers from outside sources.

We also have considerable know-how of other related products such as antennas, filters, power supplies and digital control circuits. We are therefore able to offer a turnkey solution to ISP's, providing indoor and outdoor networking support using our existing resources. We have a cost advantage because we manufacture our own amplifiers, which we can, if necessary, rapidly refine and change.

We intend to refine our products as needed and in a timely fashion in order to obtain market share.

High Quality, Reliability and Customer Support. The Company believes that the power amplifier in cell sites historically has been the single most common point of equipment failure in wireless telecommunications networks. Increasingly reliable power amplifiers, therefore, will improve the level of service offered by wireless service providers, while reducing their operating costs. In addition, MCLPAs eliminate the need for high-maintenance; tunable cavity filters that should further reduce costs.

The Company works closely with its customers throughout the design process in refining and developing their amplifier specifications. The Company uses the latest equipment and computer aided design and modeling, solid-state device physics, advanced digital signal processing ("DSP") and digital control systems, in the development of its products in their specialized engineering and research departments. The integration of the Company's design and production is a factor in the Company's ability to provide its customers with high reliability, low distortion and low maintenance amplifiers.

Technology

Wireless Transmit Technology. A typical wireless communications system comprises a geographic region containing a number of cells, each with a base station, which are networked to form a service provider's coverage area. Each base station or cell site houses the equipment that transmits and receives telephone calls to and from the cellular subscriber within the cell and the switching office of the local wire line telephone system. Such equipment includes a series of transceivers, power amplifiers, tunable cavity filters and an antenna. In a single channel system, each channel requires a separate transceiver, power amplifier and tunable cavity filter. The power amplifier within the base station receives a relatively weak signal from the transceiver and significantly boosts the power of the outgoing wireless signal so that it can be broadcast throughout the cell. The radio power levels necessary to transmit the signal over the required range must be achieved without distorting the modulation characteristics of the signal. The signal must also be amplified with linearity in order to remain in the assigned channel with low distortion or interference with adjacent channels.

Because cellular operators are allocated a small RF spectrum and certain channels, it is necessary to make efficient use of the spectrum to enable optimum system capacity. By amplifying all channels with minimum distortion at the same time, rather than inefficient use of single channel amplification, one obtains better system capacity. A MCLPA combines the performance capabilities of many single carrier amplifiers into one unit, eliminating the need for numerous single carrier amplifiers and their corresponding tunable cavity filters. These MCLPAs require less space than multiple single channel amplifiers and their corresponding tunable cavity filters, which reduce the size and cost of a base station.

MCLPAs create distortion products, which can cause adjacent channel interference. The minimization of these distortion products requires sophisticated technology. This is accomplished through interference cancellation techniques such as "predistortion" and "feed forward" accompanied by highly advanced control and

processing technology. The Company has developed certain proprietary technology and methods to achieve minimal distortion in its amplifiers, technically called predistortion and feed forward correction. The Company uses three distinct technologies (A) Linear class A and AB amplifiers, (B) Predistorted class A and AB amplifiers and (C) Predistortion feed forward amplifiers. The Company's proprietary leading edge products contain patented predistortion and proprietary feed forward technology combined in a proprietary automatic correction technique.

All amplifiers create distortion when they are run at a high power level. In an ideal case the output of the amplifier would faithfully reproduce the input signal without any distortion. In real life, however, distortion characteristics are produced. These distortion products can cause interference with another caller's channel, which in turn produces poor call quality. By using a simple, patented technology, Amplidyne recreates the distortion for the amplifier in such a manner to cancel the interference signals.

Feed forward cancellation involves taking the distortion created by the amplifier and processing it in such a way that when it is added back into the amplifier having been pre-distorted and combined with the feed forward technology, distortion cancellation occurs. The Company believes that its patented technology has the most unique and potent technology for distortion cancellation. Furthermore, Amplidyne has selected linear class AB technology for its base amplifier which it believes also has superior distortion characteristics compared to other competitors because it is easier to pre-distort. Thus the three key ingredients (a) Linear class A and AB amplifiers, (b) Predistortion technology and (c) Feed forward technology enables Amplidyne to produce MCLPAs for its major OEM customers.

The Company's wireless Internet access products consist of point-to-point and point to multipoint indoor and outdoor units that can be configured to provide broad coverage over a city or region or to create coverage in an indoor space with free roaming access.

At the remote site an indoor or outdoor LAN system can be connected using a single channel CPE or Access Point, with various antennae combinations. Amplifiers are used for range extension purposes.

Markets

The market for wireless communications services has grown substantially during the past decade as cellular wireless local loop, PCS and other new and emerging applications (such as W-CDMA) have become increasingly accessible and affordable to growing numbers of consumers. The growth of these markets has decreased substantially over the last year or so, decreasing the demand for the Company's products, although the Company cannot predict trends in these markets.

Cellular Market. The market for cellular communications still accounts for a fairly large portion of the wireless services. The general downturn in this segment decreased demand for amplifier products during 2002.

Wireless Local Loop. Wireless local loop systems are increasingly being adopted in developing markets to more quickly implement telephone and Data communication services. In certain developing countries, wireless local loop systems provide an attractive alternative to copper and fiber optic cable based systems, with the potential to be implemented more quickly and at lower cost than wireline telephone systems. The Company designs, manufactures and markets MCLPAs and single channel amplifiers for infrastructure equipment systems in the wireless local loop market in the 2 and 3.5 GHz bands.

Wireless Internet Access Market. The Company's products are aimed at four market segments: (a) Hospitality and Multi-Dwelling Units (MDU) including hotels and condominiums, (b) enterprise, corporate and education campuses (c) Internet Service Provider (ISP) networks, (d) Small Office/Home Office (SOHO).

Custom Communications and Other Markets. The custom communications market consists of small niche segments within the larger communications market: long-haul radio communications, land mobile communications, surveillance communications, ground-to-air communications, microwave communications, broadband communications and telemetry tracking. The Company sells custom amplifiers and related products to these segments.

Products

The Company designs and sells multi-carrier transmit amplifiers and low noise receive amplifiers for the cellular communications market, as well as the PCS and wireless local loop segments of the wireless communications industry. The Company also provides a large number of catalog and custom amplifiers to OEMs and to other customers in the communications market in general. In addition, the Company also sells a complete line of fixed broadband wireless networking and LAN products for private networks, virtual private networks and Internet access.

- Multicarrier Linear Power Amplifiers (MCLPAs). When a cellular or PCS user places a call, the call is processed through a base station, amplified, and then transmitted on to the person receiving the call. Therefore, all base stations require amplifiers (MCLPAs) whether they are being used for cellular, PCS or 3G (Third Generation) local loop applications. Amplidyne designs and manufactures these amplifiers. The objective is to provide a quality product at a good price and to have exemplary reliability. Management believes that Amplidyne's products with its patented pre-distortion technology; core linear amplifier technology and proprietary feed forward technology achieve all of the objectives mentioned above. Amplidyne's MCLPAs are a unique line of ultra linear devices, which utilize a proprietary pre-distortion and phase locked feed forward architecture.

- Wireless Internet Products. The Company's wireless Internet products operate in the 2.4 GHz ISM band using Direct Sequencing Spread Spectrum technology.

- High Power Linear Amplifiers. Amplidyne's product line of linear amplifiers have a high third order intercept point, which translates to better call

quality. These high power amplifiers are supplied as modules or plug in enclosures. The communication bands available are NMT-450, AMPS, TACS, ETACS and PCS. The output power ranges from 1 to 200 Watts. These amplifiers can be used in instances where service providers only need a single transmit channel.

- 3G (Third Generation) Amplifier Development. The Company held a live demonstration of its 4channel ultra-linear 3G amplifier at the CTIA expo in March of 2002.Deployment of this Technology has been delayed; the Company is maintaining contact with its customers for future opportunities.

- Local Loop and Mini Cell Amplifiers. Local loop and mini cell amplifiers are designed with a proprietary circuit to achieve a high IMD specification, which translates to better call quality through the mini cell. These amplifiers can be ordered as modules or in a rack configuration.

- Low Noise Amplifier, Cellular, PCN, PCS, GSM. Amplidyne's low noise amplifiers are manufactured with a mix of silicon and GaAsFET devices. These amplifiers offer the user the lowest noise and the highest intercept point, while maintaining good efficiency. Received calls at a base station are low in level due to the fact that hand held cellular phones typically operate at half a watt power level. This weak signal has to be amplified clearly which is done by using Amplidyne's low noise amplifier. All amplifiers undergo a 72-hour burn-in period to ensure reliable filed operation.

- Communication Amplifiers. These amplifiers are designed for cellular and PCN/PCS applications and use GaAs or Silicon Bipolar FET devices. The transmit amplifiers are optimized for low distortion products. Custom configurations are available for all communication amplifiers. This line of products is aimed at the single channel base station users employing the digital cellular standards (CDMA and TDMA).

The Company's wireless telecommunications amplifiers can be configured as modules separate plug-in amplifier units or integrated subsystems. The Company's products are integrated into systems by OEM customers, and therefore must be engineered to be compatible with industry standards and with certain customer specifications, such as frequency, power, linearity and built-in test (BIT) for automatic fault diagnostics.

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Product Warranty

The Company warrants new products against defects in materials and workmanship generally for a period of one (1) year from the date of shipment. To date, the Company has not experienced a material amount of warranty claims.

Backlog/Future Orders

The Company regularly reviews its backlog (which includes projected future orders from customers) that it expects to ship over the next 12 months. We have had to change schedules and delay orders depending on customer needs. Customer schedules or requirements may frequently change and in some cases result in cancellation of orders, in response to which the Company has to change its production schedule. Changes and cancellations exist since, among other matters, the wireless communications industry is characterized by rapid technological change, new product development, product obsolescence and evolving industry

standards. In addition, the decline in the Telecommunications industry resulted in low activity in the first three quarters of 2002. Only the fourth quarter showed somewhat of a recovery for sales of our products. The outlook for 2003 has improved, however some uncertainty remains to the extent of the recovery and its sustainability. This uncertainty may lead to postponement or cancellation of future or current orders. In addition, as technology changes, corporations are frequently requested to update and provide new prototypes in accordance with new specifications if products become obsolete or inferior. Therefore, the Company has been focusing on strategic partnerships to provide better quality solutions to our partners with higher margin sales opportunities.

As of December 31, 2002, the Company had signed purchase orders for approximately $500,000. The Company expects to ship these products during the first quarter of 2003. In the present state of the Telecommunications Industry there is a reluctance of companies to commit to large blanket orders. We expect to see this trend, of just in time orders, to continue during 2003. The Company would like to stress, although useful for scheduling production, backlog as of any particular date may not be a reliable indicator of sales for any future period. The Company expects sales to improve during the first half of 2003 as compared to the half of 2002.

The Company expects to continue to ship products to its major OEM customers during 2003 at the levels or above the levels of 2002.

The acquisition of certain of the Darwin assets in 2001 (which included access to hotels) and the Company venturing into the "hospitality" market in 2001 was new to the Company and turning this venture into a success depended largely on the Company being able to dispose of some of the assets rapidly in a "bulk" sale. The value of some of these assets has decreased with time. These products are being sold under the Ampwave product line.

Customers, Sales & Marketing

Customers. The Company markets its products worldwide generally to wireless communications manufacturers (OEMs) and communications system operators. The table below indicates net revenues derived from customers in the Company's markets in 2001 and 2002.

Net Revenues By Market Categories
(In thousands)

	Year Ended December 31,	
	2001	2002
Amplifier Markets		
Cellular Analog and digital	$ 267.5	264.5
Wireless Telephony	1,361.3	711.1
Satellite Communications, Custom and other Products	170.0	57.0
Digital PCS Products	0	0
Ampwave Market		
Wireless Internet Products. And Broadband solutions	406.2	581.0
Total	$2,205.0	$1,613.6

Wireless Telephony. Sales to the wireless telephone segments of the wireless

communications industry have decreased from approximately 62% of total revenues for fiscal year end 2001 to approximately 44% of total revenue for the fiscal year end 2002.

* Wireless Internet and Broadband solutions. The Company shipped products to its customers in 2002 with total sales for the year of $581,613, which accounts for approximately 36% of total revenues. The Company sold some of its Darwin Hotel assets and inventory during 2002.

* International Sales. Sales of wireless products outside the United States (primarily to Western Europe and Canada represented approximately 81% and 62% of net sales during fiscal 2001 and fiscal 2002, respectively.

* Sales and Marketing. The Company reduced its sales and marketing force considerably during 2002.The Company's officers and sales and marketing consultants maintain significant contact with key customers, ensuring close technical liaison with customer engineers and purchasing managers. The Company's High Speed Wireless Internet products generated sales of approximately 36% of total revenues for 2002.

Competition

Amplifier Products

The ability of the Company to compete successfully and operate profitably depends in part upon the rate of which OEM customers incorporate the Company's products into their systems. The Company believes that a substantial majority of the present worldwide production of power amplifiers is captive within the manufacturing operations of a small number of wireless telecommunications OEMs and offered for sale as part of their wireless telecommunications systems. The Company's future success is dependent upon the extent to which these OEMs elect to purchase from outside sources rather than manufacture their own amplification products. There can be no assurance that OEM customers will incorporate the Company's products into their systems or that in general OEM customers will continue to rely, or expand their reliance, on external sources of supply for their power amplification products. Since each OEM product involves a separate proposal by the amplifier supplier, there can be no assurance that the Company's current OEM customers will not rely upon internal production capabilities or a non-captive competitor for future amplifier product needs. The Company's OEM customers continuously evaluate whether to manufacture their own amplification products or purchase them from outside sources. These OEM customers are large manufacturers of wireless telecommunications equipment who could elect to enter the non-captive market and compete directly with the Company. Such increased competition could materially adversely affect the Company's business, financial condition and results of operations.

Certain of the Company's competitors have substantially greater technical, financial, sales and marketing, distribution and other resources than the Company and have greater name recognition and market acceptance of their products and technologies. In addition, certain of these competitors are already established in the wireless amplification market, but the Company believes it can compete with them effectively. No assurance can be given that the Company's competitors will not develop new technologies or enhancements to existing products or introduce new products that will offer superior price or performance

features. To the extent that OEMs increase their reliance on external sources for their power amplification needs more competitors could be attracted to the market.

The Company expects its competitors to offer new and existing products at prices necessary to gain or retain market share. The Company expects to experience significant

price competition, which could have a materially adverse effect on gross margins. Certain of the Company's competitors have substantial financial resources, which may enable them to withstand sustained price competition or downturns in the power amplification market. Currently, the Company competes primarily with non-captive suppliers of power amplification products. The Company believes that its competition, and ultimately the success of the Company, will be based primarily upon service, pricing, reputation and the ability to meet the delivery schedules of its customers.

High Speed Wireless Internet Products

The Company has targeted its products to segments: (a) Hospitality and Multi-Dwelling Units (MDU) including hotels and condominiums, (b) enterprise, corporate and education campuses (c) Internet Service Provider (ISP) networks, and (d) Small Office/Home Office (SOHO). The Company first derived significant revenue from these products during 2001, and this market accounted for approximately 36% of the total sales for the year 2002.

The Company has relied on being able to work strategically with its partners and consultants, as well as its own engineers to develop and refine its products. The Company has taken some risks in introducing products to certain sectors by providing samples and system trials, which in certain cases may not result in revenues. The vast majority of ISP's are in need of capital to grow their businesses and in certain cases may not be able to obtain such financing.

Manufacturing

The Company assembles, tests, packages, and ships its products at its manufacturing facilities located in Raritan, New Jersey. This facility includes a separate assembly and test facility for various custom products.

The Company's manufacturing process consists of purchasing components, assembling and testing components and subassemblies, integrating the subassemblies into a final product and testing the product. The Company's amplifiers consist of a variety of subassemblies and components designed or specified by the Company including housings, harnesses, cables, packaged RF power transistors, integrated circuits and printed circuit boards. Most of these components are manufactured by others and are shipped to the Company for final assembly. Each of the Company's products receives extensive in process and final quality inspections and tests.

The Company's devices, components and other electrical and mechanical subcomponents are generally purchased from multiple suppliers. The Company does not have any written agreement with any of its suppliers. The Company has followed a general policy of multiple sourcing for most of its suppliers in order to assure a continuous flow of such supplies. However, the Company does purchase certain transistors produced by a single manufacturer because of the high quality of its components. The Company believes it is unlikely that such transistors would become

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unavailable, however, if that were to occur, there are multiple manufacturers of generally comparable transistors. The Company would require a period of time to "return" its products to function properly with the replacement transistors. The Company believes that the distributors of such transistors maintain adequate inventory levels, which would mitigate any adverse effect on the Company's production in the event unavailability or shortage of such transistors. If for any reason the Company could not obtain comparable replacement transistors or could not return its products to operate with the replacement transistors, the Company's business, financial condition and results of operations could be adversely affected.

The Company currently utilizes discrete circuit technology on printed circuit boards, which are designed by the Company and provided by suppliers to the Company's specifications. All transistors and other semiconductor devices are purchased in sealed packages ready for assembly and testing. Other components such as resistors, capacitors, connectors or mechanical supported subassemblies are also manufactured by others. Components are ordered from suppliers under master purchase orders with deliveries timed to meet the Company's production schedules. As a result, the Company maintains a low inventory of components, which could result in delay in production in the event of delays in such deliveries.

The Company purchased automated surface mount machinery ("SMT") to enhance its manufacturing ability for amplifiers as well as wireless internet products, which was installed during the first quarter of 2000. The equipment has provided improved efficiency in production and faster turn around for certain products. The Company has started to manufacture some of the products for its High Speed Wireless Internet products.

The Company manufacturers some of its High Speed Wireless Internet products and amplifiers in its New Jersey facility and the rest in offshore facilities, which are ISO 9001, certified.

Research, Engineering and Development

The Company's research, engineering and development efforts are focused on the design of amplifiers for new protocols, the improvement of existing product performance, cost reductions and improvements in the manufacturability of existing products.

The Company has historically devoted a significant portion of its resources to research, engineering and development programs The Company's research, engineering and development expenses in fiscal 2001 and 2002 were approximately $593,823 and $406,614, respectively, and represented approximately 27% and 25%, respectively, of net revenues. These efforts were primarily dedicated to the development of the linear feed forward, high power, low distortion amplifiers, resulting in the Company's models for 3Gand refinements to its bi-directional amplifier, Client Base Station, ISP Base Station and Microcell for its wireless internet

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systems and other high speed wireless internet products. During the third and

fourth quarters of 2002 the Company significantly reduced its costs by staff and consulting reductions.

During the first half of 2002, the Company was able to maintain its research and development costs by being able to develop significant products in house, thereby, minimizing commitments to outside suppliers and consultants. The Company did, however, incur consulting fees regarding the development of the High Speed Wireless Internets Products.

The Company uses the latest equipment and computer aided design and modeling, solid-state device physics, advanced digital signal processing ("DSP") and digital control systems, in the development of its products in the specialized engineering and research departments.

The Company uses a CAD environment employing networked workstations to model and test new circuits. This design environment, together with the Company's experience in interference cancellation technology and modular product architecture, allows the Company to rapidly define, develop and deliver new and enhanced products and subsystems sought by its customers.

The markets in which the Company and OEM customers compete are characterized by rapidly changing technology, evolving industry standards and continuous improvements in products and services.

Patents, Proprietary Technology and Other Intellectual Property

The Company's ability to compete successfully and achieve future revenue growth will depend, in part, on its ability to protect its proprietary technology and operate without infringing the rights of others. The Company has a policy of seeking patents, when appropriate, on inventions resulting from its ongoing research and development and manufacturing activities.

Presently, the Company has been granted a patent (No. 5,606,286) by the United States Patent and Trademark Office with respect to its Pre-Distortion and Pre-Distortion Linearization technology which, the Company believes, is more effective in reducing distortion then other currently available technology. There can be no assurance that the Company's patent will not be challenged or circumvented by competitors.

Notwithstanding the Company's active pursuit of patent protection, the Company believes that the success of its amplifier business depends more on its specifications, CAE/CAD design and modeling tools, technical processes and employee expertise than on patent protection. The Company generally enters into confidentiality and non-disclosure agreements with its employees and limits access to and distribution of its proprietary technology. The Company may in the future be notified that it is infringing certain patent and/or other intellectual property rights of others. Although there are no such pending lawsuits against the Company or unresolved notices that the Company is

infringing intellectual property rights of others, there can be no assurance that litigation or infringement claims will not occur in the future. The Company's wireless internet access products are marketed under the trademark Ampwave(TM)

Governmental Regulations

The Company's customers must obtain regulatory approval to operate their base stations. The United States Federal Communications Commission ("FCC") has

regulations that impose more stringent RF and microwave emissions standards on the telecommunications industry. There can be no assurance that the Company's customers will comply with such regulations, which could materially adversely affect the Company's business, financial condition and results of operations. The Company manufactures its products according to specifications provided by its customers, which specifications are given to comply with applicable regulations. The Company does not believe that costs involved with manufacturing to meet specifications will have a material impact on its operations. There can be no assurances that the adoption of future regulations would not have a material adverse affect on the Company's business.

Employees

As of December 31, 2002, the Company had a total of 14 employees, 9 in operations, 2 in engineering, 3 in administration; the Company employs 2 consultants in sales andmarketing. The employee headcount was reduced significantly in the third and fourth quarters of 2002, from 33 employees and 3 consultants during the second quarter, to the present levels. The Company believes its future performance will depend in large part on its ability to retain highly skilled employees. None of the Company's employees is represented by a labor union and the Company has not experienced any work stoppages. The Company considers its employee relations to be good.

Environmental Regulations

The Company is subject to Federal, state and local governmental regulations relating to the storage, discharge, handling, emissions, generation, manufacture and disposal of toxic or other hazardous substances used to manufacture the Company's products. The Company believes that it is currently in compliance in all material respects with such regulations. Failure to comply with current or future regulations could result in the imposition of substantial fines on the Company, suspension of production, alteration of its manufacturing process, cessation of operations or other actions which could materially and adversely affect the Company's business, financial condition and results of operations.

In addition to other information in this Annual Report, the following important factors should be carefully considered in evaluating the Company and its business because such factors currently have a significant impact on the Company's business, prospects, financial condition and results of operations.

RISK FACTORS

You should carefully consider the risks described below before investing in our company. The risks and uncertainties described below are not the only ones facing our company. Other risks and uncertainties that we have not predicted or assessed may also adversely affect our company.

Some of the information in this Annual Report contains forward-looking statements that involve substantial risks and uncertainties. You can identify these statements by forward-looking words such as "may," "will," "expect," "anticipate," "believe,' "intend," "estimate," and "continue" or other similar words. You should read statements that contain these words carefully for the following reasons:

- the statements may discuss our future expectations;
- the statements may contain projections of our future earnings or of

our financial condition; and

- the statements may state other "forward-looking" information.

We believe it is important to communicate our expectations to our investors. There may be events in the future, however, that we are not accurately able to predict or over which we have no control. The risk factors listed below, as well as any cautionary language in or incorporated by reference into this Annual Report, provide examples of risks, uncertainties and events that may cause our actual results to differ materially from the expectations we describe in our forward-looking statements. Before you invest in our company, you should be aware that the occurrence of any of the events described in the risk factors below, elsewhere in or incorporated by reference into this Annual Report and other events that we have not predicted or assessed could have a material adverse effect on our earnings, financial condition or business. In such case, the trading price of our securities could decline and you may lose all or part of your investment.

We Have a Recent History of Losses and Expect Losses to Continue. We have incurred net losses of $2,024,882 and $2,380,027 for the years ended December 31, 2001 and 2002, respectively. These losses were due, in large part, to the research, engineering and development costs associated with the creation of our line of multicarrier linear power amplifiers, sales and marketing efforts and high speed wireless internet products and stock compensation costs for the use of stock or stock options to obtain services or to obtain financing. We have made commitments to vendors to purchase hardware for use in our wireless internet systems. We may need to cancel such orders, and the inability to do so may result in material losses to the company. We expected to have increased sales in this area to compensate for the expenses, however

we have reduced staff levels, therefore there is no guarantee that this will happen. The need for high bandwidth products may lead to rapid product obsolescence. With our reduced staff levels, we may not be able to compete. Further, we have not generated sufficient sales volume to cover our overhead costs and generate profits. We have minimized losses by staff reduction; this could result in loss of market share from which we may not be able to recover. We expect that our losses will increase and will continue until such time, if ever, as we are able to successfully manufacture and market our products on a larger scale and therefore generate higher profit margins. We will need to generate a substantial increase in revenues to become profitable. Accordingly, we cannot assure you that we will ever become or remain profitable. In addition, we had an accumulated deficit$21,949,679 as of December 31,2002.

Other factors may cause us to incur additional losses. We have experienced a down turn in our amplifier and High Speed Wireless Internet Access business due to the worldwide recession in the telecommunications market, and general lack of funding to Wisp's and corporate spending restraints. We may also not be able to sell-off certain of our Darwin assets or inventory, which will further contribute to our losses (or lower sales). We need to update our high speed wireless internet access products and amplifier products, but may not be able to accomplish this given the losses we have sustained and the capital that is required. Finally, we may not be able to collect certain Ampwave receivables, which will further cause us to sustain additional losses. In addition, we lost a lawsuit in May 2002 (See Risk Factors - We lost a lawsuit which brought a jury verdict against us and will need to use funds to make the required settlement payments, which will have an adverse effect on our cash position.

The report from our independent auditors includes an explanatory paragraph regarding the doubt of the Company to continue as a going concern. The auditors' report on the Company's financial statements for the year ended December 31, 2002 includes an explanatory paragraph stating that our losses, lack of cash and otherwise limited financial resources raise substantial doubt about our ability to continue as a going concern. The risk that we may not be able to continue in existence may limit our ability to access certain types of financing, or may prevent us from obtaining financing on acceptable terms.

We Will Require Additional Financing. We believe that collections of our current accounts receivable and sales in 2003, together with loans from an officer, will be adequate to fund our operations for at least three to four months. However, we will require additional financing during fiscal 2003. We have considerable accounts payable and accrued professional fees, which have aged considerably and need to be paid to avoid further undesirable collection action by vendors or even litigation. We have issued our common stock, when available to us, in lieu of cash payment of officer's salaries, commissions and consulting fees, although we may not be able to continue this practice. If additional financing is needed, we cannot be sure that such financing will be available to us on acceptable terms or at all. If adequate funds are not available, we will have to further reduce our operations, resulting in delays, scale back or elimination of our research, engineering and development or manufacturing programs, or we may have

to cease operation entirely. To raise funds through arrangements with partners or others may require us to relinquish rights to certain of our technologies, potential products or other assets. Thus, our inability to obtain the necessary financing will have a material adverse effect on our business, financial condition and operations.

Terrorist Attacks Or Acts Of War May Seriously Harm Our Business. Terrorist attacks or acts of war may impact our revenues, expenses and financial condition. The terrorist attacks that took place in the United States on September 11, 2001 were unprecedented events that have created many economic and political uncertainties, some of which may materially and adversely affect our business, results of operations, and financial condition. The potential for future terrorist attacks, the national and international responses to terrorist attacks, and other acts of war or hostility have created many economic and political uncertainties, which could materially and adversely affect our business, results of operations, and financial condition in ways that we currently cannot predict.

We Lost a Lawsuit, Which Brought a Jury Verdict Against Us. In connection with the complaint brought in the Superior Court of New Jersey, Law Division, Somerset County, by High Gain Antenna Co. Ltd. of Korea, a trial commenced on May 7, 2002, and on May 13, 2002, the jury brought in a verdict against us for $400,000. A settlement was reached, whereby we agreed to pay $200,000 in cash and to issue 700,000 shares of common stock. $75,000 has been paid to date and $25,000 is required to be paid quarterly until the balance is paid in full. If Amplidyne fails to make any payment when the same is due or within the fifteen (15) day cure period, then High Gain shall have the right to execute on the outstanding balance due under the $400,000 judgment, after crediting the value of the shares of stock transferred which shall be valued at $105,000 and crediting all payments made. High Gain will also be able to levy and execute its judgment, which will have an adverse effect on the company and may jeopardize our ability to continue to operate.

Our Success Relies Upon The Growth of Wireless Telecommunications Services. The demand for our products will depend in large part upon continued and growing

demand within the wireless telecommunications industry for power amplifiers and our high speed wireless internet access products. During 2002 a major downturn occurred in the Telecommunications market and recovery may not occur for a year or two, therefore the demand for our products will remain subject to great uncertainty from quarter to quarter.

Our Limited Lack of Automated Manufacturing Processes and Our Dependence on Third Party Manufacturers Could Adversely Affect Our Business. We have consistently reviewed our automated manufacturing needs in order to control our production schedule. To date, we have not established a fully automated manufacturing facility although we have purchased an automated surface mount machine and reflow process oven. Our wireless internet products are manufactured at offshore facilities, which are our sole suppliers. Until such time as we are able to establish such facilities, we expect to be dependent on third party manufacturers. We cannot be sure

that these third party manufacturers will be able to fulfill our production commitment. Furthermore, we do not have written agreements with these manufacturers. Our inability to obtain timely deliveries of acceptable assemblies could delay our ability to deliver products to our customers, and would have a material adverse effect on our business, financial condition and results of operations. In addition, if these manufacturers increase their production costs, we may not be able to recover such cost increases under the fixed price commitments with our customers.

Our Limited Number of Suppliers Could Adversely Affect Our Business. Power transistors and certain other key components used in our products for our amplifiers, as well as our wireless internet business are currently available from only a limited number of suppliers. Certain of our suppliers have limited operating histories and limited financial and other resources. Our suppliers may prove to be unreliable sources of certain components. Furthermore, we have no written agreements with our suppliers. In the past, we have not purchased key components in large volumes but anticipate that our need for component parts will increase. If we are unable to obtain sufficient quantities of components, particularly power transistors, we could experience delays or reductions in product shipments. Such delays or reductions could have a material adverse effect on our business, financial condition and results of operations. Additionally, such delays or reductions may have a material adverse effect on our relationships with customers and result in the termination of existing orders and/or a permanent loss in our future sales. Our wireless internet products are manufactured at offshore facilities. The lack of supply from this source due to any reason could adversely impact our business.

Our Success Will Rely On Our Ability To Enter Into Strategic Partnerships. We are currently developing and expect to continue to develop strategic partnerships and other relationships in order to expand our business. The failure to successfully develop such relationships could have a material adverse effect on our business, financial condition and result of operations.

Our Success Relies on a Small Number of Customers and Our Sales Orders Have Had a High Degree of Delays and Cancelled Orders. In 2001, approximately 74% of our net sales were derived from two customers (62% and 12%). In 2002, approximately 62% of our net sales were derived from two customers (44% and 18%). In the past few years we have experienced reductions, delays and cancellations in orders from our new and existing customers, we anticipate that sales of our products to relatively few customers will account for a majority of our 2003 revenues. . The reduction, delay or cancellation of orders from one or

more of our significant customers would materially and adversely affect our financial condition and results of operation. Moreover, we may experience significant fluctuations in net sales, gross margins and operating results in the future as a result of the uncertainty of such sales.

Our Limited Marketing Experience (Particularly for our High Speed Wireless Internet Products), May Adversely Affect Our Business. We are not sure whether our marketing efforts will be successful or that we will be able to maintain competitive sales and distribution capabilities. In addition, we have limited experience in the marketing and sales of our wireless internet products, and cannot be certain that this sector will grow in revenue as expected, particularly with our reduced staff levels.

Management of our Company Owns a Significant Amount of our Outstanding Common Stock. Our officers, directors and persons who may be deemed our affiliates beneficially own, in the aggregate, and have the right to vote approximately 24% of our issued and outstanding common stock, not including common stock options they may own. Accordingly, such holders may be in a position to affect the election of all of our directors and control our company.

We May Not Be Able To Comply In A Timely Manner With All Of The Recently Enacted Or Proposed Corporate Governance Provisions. Beginning with the enactment of the Sarbanes-Oxley Act of 2002 in July 2002, a significant number of new corporate governance requirements have been adopted or proposed. Although we currently expect to comply with all current and future requirements, we may not be successful in complying with these requirements at all times in the future. In addition, certain of these requirements will require us to make changes to our corporate governance practices. For example, one Nasdaq proposal (which may become applicable to companies listed on the OTC Bulletin Board, or its successor, the BBX Exchange) under review by the Securities and Exchange Commission will require that a majority of our Board of Directors be composed of independent directors by our 2004 Annual Meeting of Stockholders. Currently, two of the members of our Board of Directors are considered to be independent. We may not be able to attract a sufficient number of directors in the future to satisfy this requirement, if enacted and if it becomes applicable to our Company. Additionally, the Commission recently passed a final rule that requires companies to disclose whether a member of their Audit Committee satisfies certain criteria as a "financial expert" We currently do not have an Audit Committee member that satisfies this requirement and, we may not be able to satisfy this, or other, corporate governance requirements at all times in the future, and our failure to do so could cause the Commission or Nasdaq to take disciplinary actions against us, including an action to delist our stock from the OTC Bulletin Board or any other exchange or electronic trading system where our shares of common stock trade.

Our Success Depends on Our Ability to Manage the Size of Our Operations. We downsized some of our operations in order to maintain competitiveness and reduce our operating losses. We have also explored joint ventures and mergers in order to achieve these results, but have not consummated any such transaction. If we do not increase our sales, decrease overhead expenditure or do not adequately manage the size of our operations, our results of operations will be materially adversely affected.

Declining Average Sales Prices Could Adversely Affect Our Business. If wireless internet and telecommunications customers come under increasing price pressure from service providers, we could expect to experience downward pricing pressure on our products. In addition, competition among non-captive amplifier suppliers could increase the downward pricing pressure on our amplifier products. To date, we have not experienced such pressure. As our customers frequently negotiate supply arrangements with us far in advance of product delivery dates, we often must commit to price reductions before we can determine whether cost reductions can be obtained. If we are unable to achieve cost reductions, our gross margins will decline and our business, financial condition and results of operations could be materially and adversely affected.

Rapid Technological Change and Intense Competition Could Adversely Affect Our Business. The wireless internet and telecommunications equipment industry is extremely competitive and is characterized by rapid technological change, new product development, product obsolescence and evolving industry standards. In addition, price competition in this market is intense and characterized by significant price erosion over the life of a product. Currently, we compete primarily with non-captive suppliers of power amplification products. We believe that our success will be based primarily upon service, pricing, reputation, and our ability to meet product delivery schedules. Our existing and potential customers continuously evaluate whether to manufacture their own amplification products or to purchase such products from outside sources. These customers and other large manufacturers of wireless telecommunications equipment could elect to enter the market and compete directly with us. Many of our competitors have significantly greater financial, technical, manufacturing, sales and marketing capabilities and research and development personnel and other resources than us and have achieved greater name recognition of their existing products and technologies. In order for us to successfully compete, we must continue to develop new products, keep pace with advancing technologies and competitive innovations and successfully market our products. Our inability to successfully compete against our larger competitors will have a materially adverse affect on our business, financial condition and operations.

In addition, we are not sure whether new products or alternative technology will render our current or planned products obsolete or inferior. Rapid technological development by others may result in our products becoming obsolete before we recover a significant portion of the research, development and commercialization expenses we incurred with respect to those products.

Our Business Will Be Adversely Affected if We Do Not Keep Up With the Internet's Rapid Technological Change, Evolving Industry Standards and Changing User Requirements. To be successful, we must adapt to our rapidly changing market by continually enhancing the technologies used for Internet access. If we are unable, for technical, legal, financial or other reasons, to adapt in a timely manner in response to changing market conditions or user requirements, our business could be materially adversely affected. Significant issues concerning the commercial use of Internet technologies, including security, reliability, cost, ease of use and quality of service, remain unresolved and may inhibit the growth of businesses relying on the

Internet. Our future success will depend, in part, on our ability to meet these challenges. Among the most important challenges facing us is the need to:

- effectively use established technologies;
- continue to develop our technical expertise; and

- respond to emerging industry standards and other technical changes.

All of these changes must be met in a timely and cost-effective manner. We cannot assure you that we will succeed in effectively meeting these challenges and our failure to do so could materially and adversely affect our business.

Risks Associated with Sales Outside of the United States May Adversely Affect Our Business. International sales represented approximately 85% and 66% of our net revenues for the years ended December 31, 2001 and 2002, respectively. We expect that international sales will continue to account for a significant portion of our net revenues in the future. To the extent that we do not achieve and maintain substantial international sales, our business, results of operations and financial condition could be materially and adversely affected.

Sales of our products outside of the United States are denominated in US dollars. An increase in the value of the U.S. dollar relative to foreign currencies would make our products more expensive and, therefore, potentially less competitive outside the United States. Additional risks inherent in our sales abroad include:

- the impact of recessionary environments in economies outside the United States;

- generally longer receivables collection periods;

- unexpected changes in regulatory requirements;

- tariffs and other trade barriers;

- potentially adverse tax consequences;

- reduced protection for intellectual property rights in some countries;

- the burdens of complying with a wide variety of foreign laws.

These factors may have an adverse effect on our future international sales and, consequently, on our business, financial condition and results of operations.

Our Operating Results May Vary From Quarter to Quarter in Future Periods, and As A Result, Our Stock Price May Fluctuate or Decline. Our quarterly operating results may fluctuate significantly in the future due to a variety of factors that could affect our revenues or our expenses in any particular quarter. Factors that may affect our quarterly results include:

- our ability to attract and retain customers;

- development of competitive products;

- the short term nature of manufacturing and engineering orders to date;

- unforeseen changes in operating expenses;

- the loss of key employees; and

o unexpected revenue shortfalls.

A substantial portion of our operating expenses is related to personnel costs and overhead, which we cannot adjust quickly and are therefore relatively fixed in the short term. Our operating expense levels are based, in significant part, on our expectations of future revenues on a quarterly basis. If actual revenues are below our expectations, our results of operations and financial condition would be materially and adversely affected because a relatively small amount of our costs and expenses are proportionate with revenues in the short term.

Due to all of the foregoing factors and the other risks discussed in this Annual Report, it is possible that in some future periods our results of operations may be below the expectations of investors and public market analysts which may cause our stock price to fluctuate or decline.

We Are Dependent Upon Management and Technical Personnel. Our success is highly dependent upon the continued services of Devendar Bains, our Chief Executive Officer .The employment agreement terminates April 30, 2005 and contains certain covenants not to compete against our company following termination of employment with our company. We have obtained key man insurance on the life of Mr. Bains in the amount of $1,000,000. We cannot be sure whether we will be able to replace. Mr. Bains if his services become unavailable or, whether the proceeds of such insurance would be adequate to compensate us for the loss of his services.

Due to the specialized nature of our business, we are highly dependent on the continued service of, and on our ability to attract and retain, qualified technical and marketing personnel, particularly those involved in the development of new products and processes and the manufacture and enhancement of our existing products. In addition, as part of our team-based sales approach, we dedicate specific design engineers to service the requirements of individual customers. The loss of any such engineer could adversely affect our ability to obtain future purchase orders from the customers to which such engineer was dedicated. We have employment or non-competition agreements with most of our current design engineers and test technicians. The competition for such personnel is intense, and the loss of any such persons, as well as the failure to recruit additional key technical personnel in a timely manner, could have a material adverse effect on our business, financial condition and results of operations.

We rely on the Ability to Protect Proprietary Technology; Risk of Third Party Claims of Infringement May Affect Our Business. Our ability to compete successfully and achieve future revenue growth will depend, in part, on our ability to protect proprietary technology and operate without infringing upon the rights of others. Although there are no pending lawsuits regarding our technology or notices that we are

infringing upon intellectual property rights of others, litigation or infringement claims may occur in the future. Such litigation or claims could result in substantial costs, and diversion of resources and could have a material adverse effect on our business, financial condition, and results of operations. We generally enter into confidentiality and non-disclosure agreements with our employees and limit access to and distribution of proprietary information. However, we cannot be sure whether such measures will provide adequate protection for our trade secrets or other proprietary information, or whether our trade secrets or proprietary technology will

otherwise become known or independently developed by our competitors. Our failure to protect proprietary technology could have a material adverse effect on our business, financial condition and results of operations.

We Do Not Plan To Pay Dividends On Our Common Stock. We have never paid any dividends on our common stock and do not intend to pay dividends on our common stock in the foreseeable future. Any earnings that we may realize in the foreseeable future will be retained to finance our growth.

Governmental Regulations and Environmental Regulations Can Have a Large Impact on Our Business. Our customers must obtain regulatory approval to operate their base stations. The United States Federal Communications Commission has regulations that impose stringent radio frequency and microwave emissions standards on the telecommunications industry. Our customers are required to comply with such regulations. The failure of our customers to comply with these regulations could materially adversely affect our business, financial condition and results of operations. We manufacture products according to specifications provided by our customers, which specifications are required to comply with applicable regulations. We do not believe that costs involved with manufacturing to meet specifications will have a material impact on our operations. We cannot be sure whether the adoption of future regulations would have a material adverse affect on our business.

We are subject to Federal, state and local governmental regulations relating to the storage, discharge, handling, emissions, generation, manufacture and disposal of toxic or other hazardous substances used to manufacture our products. We believe that we are currently in compliance in all material respects with such regulations. Failure to comply with current or future regulations could result in the imposition of substantial fines on our company, suspension of our production, alteration of our manufacturing process, cessation of our operations or other actions, which could materially and adversely affect our business, financial condition and results of operations.

The Limited Public Market and Trading Market May Cause Volatility in Our Stock Price. There has only been a public market for our common stock since January 1997 and we are not sure whether an active trading market in our common stock will ever be maintained. In the absence of such a market, you may find it more difficult to sell our common stock. In addition, the stock market in recent years has experienced extreme price and volume fluctuations that have particularly affected the market prices of many smaller and technology based companies. The trading price of our common stock

is expected to be subject to significant fluctuations in response to variations in our quarterly operating results; changes in analysts' earnings estimates regarding our Company; announcements of technological innovations by us or our competitors; and general conditions in the wireless communications industry and other factors. These fluctuations, as well as general economic and market conditions, may have a material adverse effect on the market price of our common stock.

Penny Stock Regulations May Impose Certain Restrictions on Marketability of Our Securities. The SEC has adopted regulations which generally define a "penny stock" to be any equity security that has a market price of less than $5.00 per share or an exercise price of less than $5.00 per share, subject to certain exceptions. Since our common stock is listed on The NASD OTC Electronic Bulletin Board, it is subject to the definition of "penny stock and is subject to the

"penny stock" rules. These rules impose additional sales practice requirements on broker-dealers who sell such securities to persons other than established customers and accredited investors (generally those with assets in excess of $1,000,000 or annual income exceeding $200,000, or $300,000 together with their spouse). For transactions covered by these rules, the broker-dealer must:

- Make a special suitability determination with respect to each purchaser of securities;
- Receive the purchaser's written consent to the transaction prior to the purchase;
- Deliver, prior to the purchase, a risk disclosure document mandated by the SEC relating to the penny stock market;
- Disclose the commission payable to both the broker-dealer and the registered representative;
- Disclose current quotations for such securities;
- Disclose whether the broker-dealer has control over the particular market; and
- Deliver monthly statements disclosing recent price information for the securities and information on the limited market in penny stocks.

Consequently, the "penny stock" rules may restrict the ability of broker-dealers to sell our securities and adversely affect your ability to sell our securities in the secondary market and the price of our securities in the secondary market.

There Are Risks Associated With Our Stock Trading On The NASD OTC Bulletin Board Rather Than A National Exchange. There are significant consequences associated with our stock trading on the NASD OTC Bulletin Board rather than a national exchange. The effects of not being able to list our securities on a national exchange include:

- Limited release of the market prices of our securities;
- Limited news coverage of us;
- Limited interest by investors in our securities;
- Volatility of our stock price due to low trading volume;

- Increased difficulty in selling our securities in certain states due to "blue sky" restrictions;
- Limited ability to issue additional securities or to secure financing.

Anti-Takeover Provisions May Adversely Affect the Value of Our Outstanding Securities. Pursuant to our Certificate of Incorporation, our Board of Directors may issue up to 1,000,000 shares of preferred stock in the future with such preferences, limitations and relative rights as they may determine without stockholder approval. The rights of the holders of our common stock will be subject to, and may be adversely affected by, the rights of the holders of any preferred stock outstanding or that may we may issue in the future. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could have the effect of delaying or preventing a change in control of our company without further action by the stockholders. In addition, we are subject to the anti-takeover provisions of Section 203 of the Delaware General Corporation Law. Section 203 prohibits us

from engaging in a "business combination" with an "interested stockholder" for a period of three years after the date of the transaction in which the persons became an interested stockholder, unless the business combination is approved in a prescribed manner. The application of Section 203 also could have the effect of delaying or preventing a change of control of our company.

Additional Authorized Shares of Common Stock and Preferred Stock Available for Issuance May Adversely Affect the Market. We are authorized to issue 25,000,000 shares of our common stock. As of December 31, 2002, there were 9,676,500 shares of our common stock issued and outstanding, which amount does not include:

- (1) 20,000 exercisable at $1.00 through May 2010
- (2) 20,000 exercisable at $7.00 through December 2004
- (3) 30,000 exercisable at $6.00 through November 2004
- (4) 50,000 exercisable at $2.00 through December 2004
- (5) 50,000 exercisable at $4.00 through December 2004
- (6) 16,000 exercisable at $1.75 through December 2004
- (7) 41,500 exercisable at $1.80 through July 31, 2004
- (8) 207,500 exercisable at $3.00 through July 31, 2004
- (9) 55,000 exercisable at $1.20 through September 30, 2004
- (10) 300,000 exercisable at $2.00 through December 31, 2005
- (11) 75,000 exercisable at $.96 through March 2007
- (12) 80,000 exercisable at $1.50 through December 2004.
- 2,051,000 shares of our common stock issuable upon exercise of options granted to our employees and Directors at exercise prices ranging between $0.20 and $4.00 per share.

As of December 31, 2002, after reserving a total of 2,996,000 shares of our common stock for issuance upon the exercise of all options and warrants described above, we will have at least 12,327,500 shares of authorized but unissued common stock available for issuance without further shareholder approval. Any issuance of additional shares of our common stock may cause our current shareholders to suffer significant dilution, which may adversely affect the market for our securities.

In addition, we have 1,000,000 shares of authorized preferred stock. While we have no present plans to issue any additional shares of preferred stock, our Board of Directors has the authority, without shareholder approval, to create and issue one or more series of such preferred stock and to determine the voting, dividend and other rights of holders of such preferred stock. The issuance of any of our preferred stock could have an adverse effect on the holders of our common stock.

Shares Eligible for Future Sale May Adversely Affect the Market. As of December 31, 2002 we had 9,676,500 shares of our common stock issued and outstanding. Of these 9,676,500 shares of issued and outstanding common stock, approximately 6,292,143 shares are considered "restricted securities". These "restricted securities" may be sold pursuant to Rule 144 of the Securities Act of 1933 as follows:

- Approximately 6,283,894 shares of our common stock may currently be sold

pursuant to Rule 144;

- Approximately 8,159 shares of our common stock may be sold pursuant to Rule 144 commencing June 2003

Rule 144 provides, in essence, that a person holding "restricted securities" for a period of one year may sell only an amount every three months equal to the greater of:

(a) One percent of the Company's issued and outstanding shares; or

(b) The average weekly volume of sales during the four calendar weeks preceding the sale.

The amount of "restricted securities" which a person who is not an affiliate of our company may sell is not so limited. Non-affiliates may sell without volume limitation their shares held for two years if there is adequate current public information available concerning our company.

The sale in the public market of our common stock may adversely affect prevailing market prices of our common stock.

The Exercise of Outstanding Options and Warrants May Adversely Affect the Market for Our Common Stock. As of December 31, 2002, we had the following outstanding stock options and warrants to purchase shares of our common stock:

(1) 20,000 exercisable at $1.00 through May 2010
(2) 20,000 exercisable at $7.00 through December 2004
(3) 30,000 exercisable at $6.00 through November 2004
(4) 50,000 exercisable at $2.00 through December 2004
(5) 50,000 exercisable at $4.00 through December 2004
(6) 16,000 exercisable at $1.75 through December 2004
(7) 41,500 exercisable at $1.80 through July 31, 2004
(8) 207,500 exercisable at $3.00 through July 31, 2004
(9) 55,000 exercisable at $1.20 through September 30, 2004
(10) 300,000 exercisable at $2.00 through December 31, 2005
(11) 75,000 exercisable at $.96 through March 2007
(12) 80,000 exercisable at $1.50 through December 2004.

In addition, we have reserved 2,051,000 shares of our common stock for issuance pursuant to outstanding employee stock options. The exercise of our outstanding options and warrants will dilute the percentage ownership of our stockholders. Sales in the public market of our common stock underlying such options or warrants may adversely affect prevailing market prices for our common stock. Moreover, the terms upon which we will be able to obtain additional equity capital may be adversely affected since the holders of such outstanding securities can be expected to exercise their respective rights therein at a time when we would, in all likelihood, be able to obtain any needed capital on terms more favorable to us those provided in such securities.

Limitation on Director Liability May Adversely Affect the Value of our Common Stock. As permitted by Delaware law, our Certificate of Incorporation limits the liability of our directors for monetary damages for breach of their fiduciary duty except for liability in certain instances. As a result of our charter provision and Delaware law, you may have limited rights to recover against our directors for breach of their fiduciary duty.

Item 2. PROPERTIES.

The Company leases (from an unaffiliated party) approximately 11,000 square feet, at 59 LaGrange Street, Raritan, NJ 08869, which serves as the Company's executive offices and manufacturing facility. The lease term expires on July 13, 2004. The annual rental is $71,250 plus the Company's share of real estate taxes and other occupancy costs.

Item 3. LEGAL PROCEEDINGS

Other than as set forth below, the Company is not a party to any material pending litigation or governmental proceedings that, management believes, would result in judgments or fines that would have a material adverse effect on the Company.

The Company is a party to the following matters:

1. HIGH GAIN ANTENNA CO., LTD. OF KOREA

The Company (as well as an officer and director of the Company) was a defendant in a complaint brought in the Superior Court of New Jersey, Law Division, Somerset County, by High Gain Antenna Co., Ltd. of Korea in November 2000. The complaint sought damages for an alleged breach of a contract for the repair of certain equipment purchased by plaintiff from a distributor of the Company's products and the Company. A trial commenced on May 7, 2002, and on May 13, 2002, the jury brought in a verdict against the Company for $400,000. The Company filed a motion in the Law Division for a new trial, which was denied, and gave a notice of appeal of the verdict and judgment to the Superior Court of New Jersey, Appellate Division. 2. A stipulated settlement was signed on January 3,2003.According to the settlement the Company would pay $200,000 in cash, to be paid in installments. $75,000 has been paid to date; the balance of $125,000 has to be paid in quarterly payments of $25,000. The Company also issued 700,000 shares of common stock.

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2. AMPLIDYNE, INC. V. WAYNE FOGEL, DIGITAL COMMUNICATIONS NETWORK, INC. AND INTERNET NETWORK CORPORATION

On May 30, 2002, the Company filed a two-count lawsuit against the above mentioned defendants in the Superior Court of New Jersey, Law Division, Somerset County, seeking, among other things, declaratory relief that the Company is not obligated to pay a finders fee (in connection with the Company's purchase of the Darwin Assets), and that the Company is entitled to monetary damages as a result of defendant's false misrepresentations. On July 10, 2002, the matter was removed to the United States District Court of New Jersey but later transferred back to the United States Bankruptcy Court and then transferred to the United States District Court of New Jersey. On July 29, 2002, defendants filed a counterclaim seeking $200,000 in damages as a result of a finders fee agreement. In January 2003, the matter was transferred to the United States District Court for the Middle District of Florida. The defendants sought a further transfer to the United States Bankruptcy Court for the Middle District of Florida, but such motion was denied. Although the Company is confident in its position, it cannot predict the outcome of the case and any negative outcome may have a material adverse effect on the Company's financial position or prospects.

3. The Company was served with class action complaints on behalf of all purchasers of the Company's common stock and warrants between September 9, 1999

and September 14, 1999. By orders of the District Court for the District of New Jersey, the actions were consolidated and lead plaintiffs were appointed. On or about March 24, 2000, the Company was served with a consolidated and amended class action complaint on behalf of purchasers of the Company's common stock and warrants between September 9, 1999 and September 17, 1999. That complaint alleged that the Company and other individuals violated the federal securities laws by, among other things, the issuance of a press release on September 9, 1999. Although the Company believed that the complaint had no merit and vigorously contested it, the Company and the other parties to the class action reached a settlement on May 2, 2001, which was approved by the District Court for the District of New Jersey on August 14, 2001 (which became effective on September 14, 2001) Pursuant to the settlement agreement, a settlement fund consisting of $750,000 in cash ($50,000 of which was paid directly by the Company) was established for the benefit of members of the class. In addition, the Company issued 324,486 freely tradable shares of its common stock (which was valued at $500,000 as of May 2, 2001) on behalf of the class members. The Company had recorded the cost of the litigation, including a credit to Additional Paid-In Capital for the value of the settlement that has been settled by the issuance of common stock. In addition the Company is subject to an SEC formal order of private investigation relating to the subject matter of the class action. The Company has responded to the SEC requests. In April 2003, the SEC indicated that it intends to file a civil complaint against the Company and Devendar S. Bains. The Company and Mr. Bains are negotiating with the SEC in an attempt to reach a consensual resolution of this matter.

Item 4. Submission Of Matters To A Vote Of Security Holders

There were no matters submitted to a vote of stockholders in 2002.

PART II

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

The Company's Common Stock and Warrants commenced trading on the Nasdaq Small Cap Market on January 22, 1997. The Warrants were redeemed in May 2000. The Common Stock was regularly quoted and traded on the Nasdaq SmallCap Market under the symbol AMPD, through January 13, 2003. Since January 14, 2003, the common stock trades on the NASD OTC Bulletin Board under the symbol AMPD.OB.

The following table sets forth the range of high and low closing prices for the Company's Common Stock for fiscal years 2001 and 2002 and for the period of January 1, 2003 up to March 31, 2003 as reported by the Nasdaq SmallCap Market, or the NASD OTCBB, as the case may be. The trading volume of the Company's securities fluctuates and may be limited during certain periods. As a result, the liquidity of an investment in the Common Stock may be adversely affected.

Common Stock

2001 Calendar Year

	High	Low
January 1-March 31	2.78	1.250
April 1-June 30	1.95	1.13
July 1-September 30	1.57	.79
October 1-December 31	1.25	.69

2002 Calendar Year		
January 1 - March 31	1.37	.86
April 1-June 30	1.07	.58
July1-September 30	.57	.10
October 1-December 31	.28	.08
2003 Calendar Year		
January 1-March 31	.15	.05

On March 31, 2003, the closing price of the Common Stock as reported on the NASD OTCBB was $.08. On March 31, 2003 there were 9,676,500 shares of Common Stock outstanding, held of record by approximately 80 record holders (with over 2,300 beneficial owners).

Item 6. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS.

Results of Operations - Fiscal Year ended December 31, 2002 compared to Fiscal Year ended December 31, 2001.

Revenues for the fiscal year ended December 31, 2002 decreased by $591,696 from $2,205,428 to $1,613,732, or 27% compared to the fiscal year ended December 31, 2001. The primary reason for the decrease was the general decline in purchasing of equipment by the telecommunications industry. The decline is largely represented by the decrease in sales to European customers, which went down to $711,861 in 2002 from $1,361,316 in 2001, a decrease of $649,455 or 48%. Sales substantially declined in the first three quarters of 2002. Fourth quarter sales represented approximately 33% of the total sales for the year ($531,200). Coupled with the staff reductions and other aggressive cost cuts, the fourth quarter losses were significantly reduced.

The majority of the amplifier sales for the year ended December 31, 2002 were obtained from the Wireless Local Loop amplifier products to a major European customer. The Company has also supplied 3.5GHz linear amplifiers to its major North American customer.

The Company has continued to develop its IMT 2000 amplifiers for the worldwide 3G market, however, deployment of this technology has been delayed. The Company has focused its sales and marketing efforts in the more stable United States, European and Canadian markets.

Cost of sales was $1,520,237 or 94% of sales (including an inventory write-down of $233,995) during the year ended December 31, 2002, compared to 58% during the same period for 2001. Our fixed overhead costs are relatively high for our current sales volume. Excluding the inventory write-down, the cost of sales for the year ended December 31, 2002 was $1,286,242 or 80% of sales. The decline in gross margin was principally attributable to pricing pressures caused by business conditions in the telecommunications industry and a write-down of obsolete inventory in the 3rd quarter of 2002 of $233,995. Gross margin decreased from the year ended December 31, 2001 because of lower amplifier sales resulting in higher fixed direct costs and lower margins for the high-speed

wireless Internet products. The Company is continuing to assess cost reduction of its products and sales volume increases to improve gross margins in 2003.

Selling, general and administrative expenses (excluding stock based compensation) increased in 2002 by $183,943 to $2,088,433 from $1,904,490, in 2001. Expressed as a percentage of sales, the selling, general and administrative expenses (excluding stock based compensation) were 129% in 2002 and 86% in 2001. The principal factors contributing to the increase in selling, general and administrative expenses were related to increases in bad debts and salaries, offset by labor cutbacks and general cost cutting in the 3rd and 4th quarters.

Research, engineering and development expenses were 25% of net sales in 2002 compared to 27% in 2001. In 2002 and 2001, the principal activity of the business related to the design and production of product for OEM manufacturers, particularly for the IMT 2000 and 3.5 GHz single channel products and refinements to the High Speed Internet products. The research, engineering and development expenses consist principally of salary cost for engineers and the expenses of equipment purchases specifically for the design and testing of the prototype products. The Company's research and development efforts are influenced by available funds and the level of effort required by the engineering staff on customer specific projects.

The Company had interest income and other income in 2001 of $50,915 due to influx of new capital during 2000 and 2001 from our private placements and exercise of warrants and options. Interest income went down to $3,170 in 2002 because our cash balances which we have historically temporarily invested in interest bearing accounts declined by $709,879 and interest rates went down. This is a decline of approximately 102%. Interest income declined by $47,745 or approximately 94% , which is consistent with the steady decline in cash balances and interest rates in 2002. The Company also sold New Jersey Net operating loss carryforwards pursuant to the New Jersey Technology Certificate Transfer Program, receiving $163,687 in 2002 and $189,744 in 2001.

Interest expense was $932 in 2002 compared to $864 in 2001 and principally related to balances due on capitalized leases for testing equipment.

Actual and estimated litigation settlement costs (see financial statement Note I - Litigation) have been provided in both 2002 and 2001, to reflect our known exposure in litigation against the Company, as well as the actual cost of the settlement of the following matters:

- Class action lawsuit in 2001 with a cash cost of $50,000 to the Company plus the issuance of free-trading common shares valued at $500,000.
- Settlement of the High Gain Antenna matter for $200,000 plus 700,000 shares of restricted common stock of the Company (total charge $229.400).
- Because of the remoteness of any further assertions in another matter, we determined that the charge of $85,000 from 2001 should be reversed in 2002.

Stock compensation and financing expenses of $140,000 for the year ended December 31, 2001 is due to the financing cost associated with warrants extended and shares issued. There was no stock compensation cost for 2002.

As a result of the foregoing, the Company incurred net losses of $2,380,027 or $0.25 per share for the year ended December 31, 2002 compared with net losses of $2,024,882 or $0.26 per share for the same period in 2001.

Results of Operations - Fiscal Year ended December 31, 2001 compared to Fiscal Year ended December 31, 2000

Revenues for the fiscal year ended December 31, 2001 decreased from $2,595,090 to $2,205,429, or 15% compared to the fiscal year ended December 31, 2000. The primary reason for the decrease was the general decline in purchasing of equipment by the telecommunications industry. The decline is largely represented by the decrease in sales to Canadian customers, which went down to $264,488 in 2001 from $666,069 in 2000, a decrease of $401,581 or 60%.

The majority of the sales for the year 2001 were obtained from the Wireless Local Loop amplifier products to a major European customer. The Company has also supplied 900 MHz cellular multi carrier linear amplifiers to its major North American customer, as well as 3.5GHz amplifiers for the wireless local loop products.

The Company has continued to develop its IMT 2000 amplifiers for the worldwide 3G market, however, deployment of this technology has been delayed. The Company has focused its sales and marketing efforts in the more stable United States, European and Canadian markets. It is maintaining a more cautious approach towards the South Korean market due to the significant currency fluctuations and purchase order cancellations during the past few years in South Korea.

Cost of sales as a percentage of sales was 58% during the year ended December 31, 2001, compared to 95% during the same period for 2000. This decrease can be attributed to the decrease in the costs of certain components of our products with selling prices to customers remaining relatively stable and to the maturation of our manufacturing processes resulting in substantial reductions in production costs. The stability of our selling prices, combined with the decline of component costs, improved manufacturing efficiencies through automation and the reduction in subcontracted work resulted in our higher gross profits. Our fixed overhead costs are relatively high for our current sales volume. The increase in inventory held at year-end was in part due to component purchases in anticipation of orders from our major amplifier customers. Lead times for imported finished products and components required advance stocking for certain essential items. The Company is continuing to assess cost reduction of its products and sales volume increases to improve gross margins in 2002.

Selling, general and administrative expenses (excluding stock based compensation) decreased in 2001 by $81,680 to $1,904,490 from $1,986,170, in 2000. Expressed as a percentage of sales, the selling, general and administrative expenses were 86% in 2001 and 77% in 2000. The principal factors contributing to the increase in selling, general and administrative expenses were related to decreases in advertising, depreciation and professional fees.

Research, engineering and development expenses were 27% of net sales in 2001 compared to 23% in 2000. In 2001 and 2000, the principal activity of the business related

to the design and production of product for OEM manufacturers, particularly for the IMT 2000 and 3.5 GHz single channel products. The research, engineering and development expenses consist principally of salary cost for engineers and the expenses of equipment purchases specifically for the design and testing of the prototype products. Research, engineering and development expenses remained relatively unchanged from 2000 to 2001. The Company's research and development efforts are influenced by available funds and the level of effort required by the engineering staff on customer specific projects.

The Company had interest income and other income in 2001 of $50,915 due to influx of new capital during 2000 and 2001 from our private placements and exercise of warrants and options. Interest income went down because our cash balances which we have historically temporarily invested in interest bearing accounts declined by $1,268,000. This is a decline of approximately 65%. Interest income declined by approximately 56%, which is consistent with the steady decline in cash balances and interest rates in 2001, compared to increases balances in 2000. The Company also sold New Jersey Net operating loss carryforwards pursuant to the New Jersey Technology Certificate Transfer Program, in both 2001 and 2000.

Interest expense decreased in 2001 because of the decrease in balances due on capitalized leases on test equipment.

Estimated and actual litigation settlement costs have been provided in both 2001 and 2000, to reflect our estimated or known exposure in litigation against the Company, as well as the actual cost of the settlement of a class action lawsuit in 2001 with a cash cost of $50,000 to the Company plus the issuance of free-trading common shares valued at $500,000. See financial statement Note I - Litigation.

Stock compensation and financing expenses of $140,000 for the year ended December 31, 2001 compared to $114,546 for the comparable 2000 period is due to the financing cost associated with warrants extended and shares issued.

As a result of the foregoing, the Company incurred net losses of $2,024,882 or $.26 per share for the year ended December 31, 2001 compared with net losses of $2,440,045 or $.34 per share for the same period in 2000.

Liquidity and Capital Resources

Liquidity refers to our ability to generate adequate amounts of cash to meet our needs. We have been generating the cash necessary to fund our operations from continual loans from the President and Chief Executive Officer of the Company, Devendar Bains. We have incurred a loss in each year since inception.. It is possible that we will incur further losses, that the losses may fluctuate, and that such fluctuations may be substantial. As of December 31, 2002, we had an accumulated deficit of $21,949,679. Potential immediate sources of liquidity are loans from Mr. Bains. Another potential source of liquidity is the sale of restricted shares of our common stock, but there are no immediate plans for such sale.

As of December 31, 2002, our current liabilities exceeded our cash and receivables by $533,254. Our current ratio was 1.43 to 1.00, but our ratio of accounts receivable to current liabilities was only 0.45 to 1.00. This indicates

that we will have difficulty meeting our obligations as they come due. We are carrying $926,713 in inventory, of which $489,542 represents component parts. Based on last years usage, we are carrying 186 days worth of parts inventory. Because of the lead times in our manufacturing process, we will likely need to replenish many items before we use everything we now have in stock. Accordingly, we will need more cash to replenish our component parts inventory before we are able realize cash from all of our existing inventories.

As of December 31, 2002, we had an overdraft of $11,939 compared to cash and cash equivalents of $697,940 at December 31, 2001. Overall our cash and cash equivalents went down $709,879 during 2002. Our cash used for operating actives was $1,587,122, which was funded by loans and salary deferrals by officer/stockholders of $155,200 and proceeds from private placements of $724,201 (including collection of subscriptions receivable at December 31, 2001) as well as using up all of the cash we started the year with of $697,940.

The allowance for doubtful accounts on trade receivables increased form $131,104 (23% of accounts receivable of $580,294) in 2001 to $143,000 (25%of accounts receivable of $583,506) in 2002. Because of our relatively small number of customers and low sales volume, accounts receivable balances and allowances for doubtful accounts do not reflect a consistent relationship to sales. We determine our allowance for doubtful accounts based on a specific customer-by-customer review of collectiblity. In 2001, we had several large outstanding balances that we had doubt we would collect. In 2002, we concluded that several of those doubtful accounts were in fact not collectible and they were charged off against the previously established reserve. Because of the general decline in business in the telecommunications sector, we had to write off even more accounts in 2002. Bad debts expense increased from $67,592 in 2001 to $291,471 in 2002, even though the reserve increased only slightly by $11,896, because of the direct write-offs during the year.

Our inventories decreased by $254,969 to $926,713 in 2002 compared to $1,181,682 in 2001, a decrease of 22% We believe that the reasons for the decreased inventories were primarily due to the write-down in the 3rd quarter of 2002 of $233,995.

During 2002 we raised $540,000 from the privately placed sale of securities and collected $180,000 from subscriptions receivable for our preferred stock offering at December 31, 2001 for a total of $720,000. During 2001, the Company raised $1,054,750 ($180,000 of which was collected in 2002) from the privately placed sale of securities and from the exercise of warrants and options, which were used for working capital purposes. The Company has several lease obligations for its premises and certain equipment and an automobile requiring minimum monthly payments of approximately $5,900 through

2004. Although the Company did not convert salaries to officers through the issuance of Common Stock in 2002 or 2001, it may to do so in 2003. To help alleviate the cash flow difficulties, the Chief Executive Officer agreed to defer an aggregate of $54,000 of salaries. Additionally, the Secretary agreed to defer $9,000 and the Vice President of Operations also agreed to defer $20,000 of salaries.

The Company continues to explore strategic relationships with ISP's, customers and others, which could involve jointly developed products, revenue-sharing models, investments in or by the Company, or other arrangements. There can be no assurance that a strategic relationship can be consummated.

In 2001, the Company settled a class action lawsuit and another litigation

matter. The class action resulted in a cost to the Company of $550,000, $50,000 of which was cash and $500,000 in the Company's common stock. The other matter was settled for cash payments aggregating $200,000, with a down payment of $75,000 in March 2003 and $25,000 quarter from June 2003 through May 2004

In the past, the officers of the Company have deferred a portion of their salaries or provided loans to the Company to meet short-term liquidity requirements. Where possible, the Company has issued stock or granted warrants to certain vendors in lieu of cash payments, and may do so in the future. There can be no assurance that any additional financing will be available to the Company on acceptable terms, or at all. If adequate funds are not available, the Company may be required to delay, scale back or eliminate its research, engineering and development or manufacturing programs or obtain funds through arrangements with partners or others that may require the Company to relinquish rights to certain of its technologies or potential products or other assets. Accordingly, the inability to obtain such financing could have a material adverse effect on the Company's business, financial condition and results of operations.

With no remaining cash and no near term prospects of private placements, options or warrant exercises and reduced revenues, we believe that we will have great difficulty meeting our working capital and litigation settlement obligations over the n