



INTERPHASE®

Designed To Perform. Designed To Last.™

2004 ANNUAL REPORT
NOTICE OF 2005 ANNUAL MEETING
AND PROXY STATEMENT

Summary Financial Information

Statement of Operations Data: (In thousands, except per share data)

Year Ended December 31,	2004	2003	2002
<i>Revenues</i>	\$35,015	\$32,490	\$25,123
<i>Gross margin</i>	19,171	16,909	9,792
<i>Research and development</i>	8,033	7,719	7,005
<i>Sales and marketing</i>	6,107	6,929	5,991
<i>General and administrative</i>	3,675	3,547	3,285
<i>Operating income (loss)</i>	1,356	(1,286)	(6,489)
<i>Other, net</i>	240	305	611
<i>Income (loss) before income taxes</i>	1,596	(981)	(5,878)
<i>Net income (loss)</i>	\$1,718	\$(769)	\$(8,401)
<i>Net income (loss) per share</i>			
<i>Basic EPS</i>	\$0.30	\$(0.14)	\$(1.51)
<i>Diluted EPS</i>	\$0.27	\$(0.14)	\$(1.51)
<i>Weighted average common shares</i>	5,719	5,544	5,551
<i>Weighted average common and dilutive shares</i>	6,312	5,544	5,551

Balance Sheet Data: (In thousands)

December 31,	2004	2003	2002
<i>Working capital</i>	\$26,450	\$24,255	\$24,254
<i>Total assets</i>	32,098	30,743	30,749
<i>Total liabilities</i>	7,310	7,930	7,931
<i>Shareholders' equity</i>	\$24,788	\$22,813	\$22,818

Company Profile

Interphase Corporation (NASDAQ: INPH), a leader in high performance networking technology, enables rapid platform design and integration for the global voice, video and data communications markets through custom and off-the-shelf communications equipment, embedded software development suites, and systems integration and professional services for carrier and private networks. The Company's products provide communications computing and connectivity of telecommunications and enterprise computer systems to Wide Area Networks (WANs), Local Area Networks (LANs), and Storage Area Networks (SANs) using Asynchronous Transfer Mode (ATM), Ethernet, IP, Point to Point Protocol (PPP), Q.SAAL, Internet Protocol Security (IPSec) and protocol interworking technologies.

To Our Shareholders

2004 marked another exciting year for Interphase. We posted our first profitable year since 2000 and grew our revenues to \$35.0 million, an 8% increase in a market growing less than 3% annually. Our Broadband Telecommunications controllers increased 13% to \$20.2 million while we continued to expand our reach into key strategic accounts with new design wins. During 2004 we reported net income for the year of \$1.7 million, or \$0.27 cents per share (on a diluted basis), compared to a loss of \$769,000 in 2003. We also generated an additional \$1.3 million in cash during the year. We are very proud of the results stemming from our management of the Company; however, we are focused on the future and have been refining many of the strategic priorities for 2005 and beyond that will be crucial to our company's long term success.

We continue to manage our costs and conserve resources in order to secure a solid financial base upon which to respond to new and evolving market opportunities. Our working capital and cash resources provide us with the financial strength necessary to respond to market opportunities as the market continues to grow. With the most expansive product line in our company's history, and a lean and productive workforce with technical capabilities that are unrivaled in the industry, we stand to leverage new opportunities for expanding our business even further. It was our belief over these past several years that once the telecommunications market stabilized and began to grow, that we would enjoy the fruit of many years of hard work, and 2004 marked the beginning.

Since its inception, Interphase has acquired a strong reputation for producing high quality, high performance products, and for providing very capable and responsive customer support, particularly during the critical design-in cycle. Our reputation as a "trusted partner" in the telecommunications controller market, has given us access to key decision makers that otherwise would be difficult to reach. This has put us in a very good position to leverage the strong relationships we have built with our strategic customers to aggressively expand within these accounts.

2004 Financial Results

In 2004 Interphase revenues increased 8% to \$35 million from our prior year result of \$32.5 million. Interphase reported \$1.7 million in net profit in 2004, compared with a net loss of \$769,000, or \$(0.14) per share, for the year 2003.

Gross margin increased 3 points in 2004, our third consecutive year of progress. Internal process improvement teams were very focused throughout the year on design cost improvements, and in maximizing the efficiency of our manufacturing capabilities and purchasing practices. These efforts have resulted in many significant cost reductions that we believe will help us to remain price competitive going forward. We are delighted that our plant is full, producing at very efficient throughput levels, which coupled with our intense focus on costs, resulted in improvement to our gross margins even in light of significant pricing pressure.

We increased our investment in research and development by 4% and reduced our sales and marketing spending by 12%. We have not curtailed our spending related to the development of our current and future products; engineering development represented 23% of our revenues.

Our diligent focus on our fiscal resources has resulted in a strong financial position at the end of 2004. Our balance sheet remains very solid, with a strong cash position of more than \$20 million and virtually no debt service. Cash and securities are \$20.5 million at December 31, 2004, and working capital improved to \$26.5 million during the year.

Interphase ... changing with the changing market

Telecom equipment spending has finally stabilized after many years of decline. In line with this, Interphase has enjoyed key OEM account penetrations in both the United States and in Europe. These penetrations have positioned us well for the renewed growth in the telecom sector.

The turnaround in the telecommunications market is being driven by three areas that involve Interphase: the increased demand for converged networks services, a reduction in both the cost and time to market of the platforms delivered by the TEMs, and a drive to

a common, more standards based architecture that greatly reduces the operational costs for the carriers. To meet these new requirements, Interphase has expanded our iNAV and iSPAN product portfolio of cards, blades and network devices, which addresses the carriers' need to satisfy their customers' appetites for simple and secure communications services that are both portable and seamless to the network whether at home, work, or on the road. We also support the new AdvancedTCA architecture. This new standards based architecture delivers telecommunication equipment providers the ability to deploy many different applications across a common platform greatly reducing costs. We are presently rolling out Interphase products for inclusion in this consolidated platform at two of the largest TEMs. These offerings in our iSPAN product line include significant performance enhancements to drive the greatly increased throughput required of these consolidated platforms for the convergence of voice, data and video at high speeds.

One of the many significant benefits to the carrier of AdvancedTCA is the substantial cost and expense savings associated with deploying, maintaining and provisioning packet based technologies over legacy circuit-switched communications infrastructures. We believe that most carriers will migrate their networks to next generation technologies while attempting to extend the lifespan of installed equipment, rather than immediately discarding previous infrastructure investments. With the iNAV product portfolio, Interphase expects to play a key role for carriers in bridging between network overlays while also supporting packet-based services that will future-proof today's deployments. The Interphase iNAV family delivers functionality allowing carriers to take advantage of their existing network investments while connecting to the new IP based networks, reducing and delaying the expense of doing a forklift upgrade, and therefore significantly decreasing their costs.

The iNAV 9200 Multi-protocol interworking solution, our flagship appliance product, is a 1U turnkey system designed to span networks that lack a common communications language by translating between different network protocols. This product gives our customers unparalleled interworking functionality and packet processing performance at a very cost effective price. The coming attractions for the iNAV product family in 2005 will include new bridging and routing features to allow it to provide a very cost

competitive alternative to traditional routing products, encompassing features specifically targeted at the nascent video distribution and broadband internet (both DSL and broadband cable) markets. These new features, coupled with a large array of other network protocols and inter-working capabilities including PPP over Ethernet, PPP over ATM, Packets over SONET (POS), Ethernet VLAN, and IP Multicast amongst others, make the iNAV family a robust lineup for a variety of “Triple Play” (voice, video and data) applications.

In 2005, we intend to expand our footprint for sales of the iNAV family of products into new Tier 2 and Tier 3 accounts. These accounts are facing significant pressure to reduce costs and keep up with new technology, and cannot afford the huge investments required of wholesale change outs of their present equipment. We will refocus our channels to market for this specific product line to smaller telecom companies and internet service providers (ISPs), as well as the MPEG video distribution market segments both in the U.S. and in Asia.

During 2004, market interest in the Advanced Telecom Computing Architecture (ATCA) began to spread rapidly. The ATCA suite of standards, which was published in January of 2004, has been supported by the COTS industry as the first open standard architecture ever designed with the primary needs of the Telecom equipment manufacturers in mind. The ATCA architecture is considered the logical evolutionary step in the migration to more powerful platforms that will address the ever increasing processing needs of the carriers. Interphase has been an early adopter of ATCA, with a focus on ATCA Mezzanine Card (AMC) modules including a new quad Gigabit Ethernet AMC module to be rolled out during 2005. Interphase will continue to expand its footprint into the ATCA market in 2005 with the development of an ATCA intelligent quad and/or octal port T1/E1 AMC. We believe that expanding our successful T1/E1 product line into this AMC form factor is another step in demonstrating our commitment to our customers in the telecom sector for their next round of platform development.

We have also expanded our Enterprise-focused product lines with the addition of quad-port Gigabit Ethernet boards in PCI and PMC form factors, as well as Gigabit PCI-X TCP-IP security accelerators. The market acceptance of these products was almost

immediate and we have design wins for each product at major OEMs in both North America and in the Pacific Rim.

Positioning Interphase for 2005 and beyond

We feel that Interphase is well positioned to deliver solutions to a converging network. With a background derived from twenty plus years in both the IP/enterprise space as well as tremendous depth in telecommunications products, Interphase has the skills, product knowledge, market knowledge, and customer base to deliver exceptional solutions to bridge the gap between the existing network and the next generation network. This knowledge allows us to design and develop products that will serve the market beyond just a transition period. With our iNAV 9200 series of products, Interphase will deliver the next generation of integrated voice, data and multi-channel video services to the consumer and business market. As these systems enter the market, they present new and higher growth potential to our company by leveraging our knowledge of I/O, blades and integrated solutions. It is these future-proofing and future service delivering products that will be the foundation of tomorrow's Interphase.

In closing, I wish to thank our shareholders for their continued commitment to the company, our valued employees for their dedication and hard work in making Interphase successful, and our customers for their ongoing loyalty and support of our leading-edge technologies. This is an exciting time for our business, and we look forward to the future with excitement and anticipation.

Gregory B. Kalush
Chairman, President & CEO
March 23, 2005



NOTICE OF ANNUAL MEETING OF SHAREHOLDERS
To Be Held May 4, 2005

To the Holders of Common Stock of
Interphase Corporation:

NOTICE IS HEREBY GIVEN that the annual meeting of shareholders of Interphase Corporation, a Texas corporation (the "Company"), will be held on May 4, 2005 at 10:00 a.m. local time at the Sockwell Center at 6301 Chapel Hill Blvd., Plano, Texas, for the following purposes:

- (a) to elect six directors of the Company to serve until the next annual meeting of shareholders or until their respective successors shall be elected and qualified; and
- (b) to transact such other business as may properly come before the meeting or any adjournment thereof.

It is desirable that as large a proportion as possible of the shareholders' interests be represented at the meeting. Whether or not you plan to be present at the meeting, you are requested to sign the enclosed proxy and return it promptly in the enclosed envelope.

By order of the Board of Directors

S. Thomas Thawley
Vice Chairman and Secretary

Plano, Texas
March 31, 2005

**Interphase Corporation
Parkway Centre I
2901 North Dallas Parkway, Suite 200
Plano, Texas 75093**

**PROXY STATEMENT
ANNUAL MEETING OF SHAREHOLDERS
To be Held May 4, 2005**

This Proxy Statement is furnished to shareholders of Interphase Corporation, a Texas corporation (the "Company"), in connection with the solicitation of proxies by the Board of Directors of the Company for use at the annual meeting of shareholders to be held on May 4, 2005. Proxies in the form enclosed will be voted at the meeting if properly executed, returned to the Company prior to the meeting and not revoked. The proxy may be revoked at any time before it is voted by giving written notice to the Secretary of the Company. This proxy statement is first being mailed to shareholders on or about March 31, 2005.

PERSONS MAKING THE SOLICITATION

The accompanying proxy is being solicited by the Board of Directors of the Company. The cost of soliciting the proxies and the annual meeting will be borne entirely by the Company. In addition to the use of the mail, proxies may be solicited by personal interview, telephone and telegram by directors and officers and employees of the Company. Arrangements may also be made with brokerage houses and other custodians, nominees and fiduciaries to forward solicitation material to the beneficial owners of shares of Common Stock, \$.10 par value ("Common Stock"), held of record by such persons, and the Company may reimburse them for reasonable out-of-pocket expenses they incur in connection with forwarding the solicitation material.

OUTSTANDING CAPITAL STOCK AND RECORD DATE

The record date for shareholders entitled to notice of and to vote at the annual meeting is March 10, 2005. At the close of business on that date, the Company had issued, outstanding and entitled to be voted at the meeting 5,750,824 shares of Common Stock.

ACTION TO BE TAKEN AT THE MEETING

The accompanying proxy, unless the shareholder otherwise specifies in the proxy, will be voted for the election as directors of the Company of the six persons named under the caption "**Election of Directors**", and, in the discretion of the proxy holder, with respect to such other business as may properly come before the meeting.

Where shareholders have appropriately specified how their proxies are to be voted, they will be voted accordingly. If any other matter or business is brought before the meeting, the proxy holders may vote the proxies at their discretion. The directors do not know of any such other matter or business.

QUORUM AND VOTING

The presence, in person or by proxy, of the holders of a majority of the outstanding shares of Common Stock is necessary to constitute a quorum at the annual meeting. In deciding all questions, a holder of Common Stock is entitled to one vote, in person or by proxy, for each share held in his or its name on the record date. Abstentions will be included in vote totals and, as such, will have the same effect on each proposal other than the election of directors as a negative vote. Broker non-votes, if any, will not be included in vote totals and, as such, will have no effect on any proposal at this meeting.

PRINCIPAL SHAREHOLDERS

The following table sets forth certain information as to the number of shares of Common Stock of the Company beneficially owned as of March 10, 2005 by (i) each person who is known to the Company to own beneficially more than 5% of the outstanding Common Stock of the Company, (ii) certain executive officers and each director of the Company and (iii) all executive officers and directors as a group. To the knowledge of the Company, each of the owners named below has sole voting and investment power with respect to the shares of Common Stock beneficially owned by him or it unless otherwise indicated.

Name and address of Beneficial Owner	Amount and Nature of Beneficial Ownership		Percent of Class
Gregory B. Kalush	500,834	(1)	8.0%
S. Thomas Thawley	296,125	(1)	5.1%
Felix V. Diaz	230,000	(1)	3.8%
Steven P. Kovac	223,334	(1)	3.7%
Deborah A. Shute	125,000	(1)	2.1%
Randall E. McComas	124,874	(1)	2.1%
Paul N. Hug	58,000	(1)	1.0%
Randall D. Ledford	45,000	(1)	0.8%
James W. Gragg	45,000	(1)	0.8%
Michael J. Myers	35,000	(1)	0.6%
Kenneth V. Spenser	35,000	(1)	0.6%
All executive officers and directors as a group (11 persons)	1,718,167	(2)	23.8%
Royce & Associates, LLC 1414 Avenue of the Americas New York, NY 10019	550,200	(3)	9.6%

- (1) Includes vested options to purchase Common Stock with exercise prices ranging from \$4.12-\$31.00 per share (fair market value on the respective dates of grant) as follows: Mr. Kalush, 500,834 shares; Mr. Thawley, 55,000 shares; Mr. Diaz, 230,000 shares; Mr. Kovac, 223,334 shares; Ms. Shute, 125,000 shares; Mr. McComas, 124,874 shares; Mr. Hug, 45,000 shares; Mr. Ledford, 45,000 shares; Mr. Gragg, 45,000 shares; Mr. Myers, 35,000 shares and Mr. Spenser, 35,000 shares.
- (2) Includes 1,464,042 shares that may be acquired upon exercise of vested stock options.
- (3) Based upon information contained in Schedule 13G filings made prior to March 15, 2005.

ELECTION OF DIRECTORS

Six directors are to be elected at the meeting. To be elected a director, each nominee must receive a plurality of all of the votes cast at the meeting for the election of directors. Should any nominee become unable or unwilling to accept nomination or election, the proxy holders may vote the proxies for the election in his stead of any other person the Board of Directors may recommend. Each nominee has expressed his intention to serve the entire term for which election is sought.

A brief description of each nominee for director of the Company is provided below. Directors hold office until the next annual meeting of the shareholders or until their successors are elected and qualified.

OUR BOARD OF DIRECTORS AND NOMINATING AND GOVERNANCE COMMITTEE UNANIMOUSLY RECOMMEND THAT SHAREHOLDERS VOTE “FOR” EACH OF THE FOLLOWING NOMINEES FOR DIRECTOR.

Gregory B. Kalush, 48, was elected Chairman of the Board in May 2000. Mr. Kalush was appointed the Chief Executive Officer, President and Director of the Company in March 1999. He joined the Company in February 1998, as Chief Financial Officer, Vice President of Finance and Treasurer. Mr. Kalush is also the sole member of the New Employee and Retention Stock Option Committee of the Board of Directors. Prior to joining Interphase, Mr. Kalush was with DSC Communications Corporation from 1995 to 1998. While at DSC, he served as Vice President of Transmission Data Services, Vice President of Operations, International Access Products and Group Vice President of Finance, Transport Systems Group. Prior to DSC, Mr. Kalush was with IBM Corporation from 1978 to 1994. During that time his positions included Chief Financial Officer and Operations Executive for the Skill Dynamics Business Unit, Director of Finance, Planning and Administration for the Southwest Area, and Division Director of Finance and Operations for the Data Systems Division.

Paul N. Hug, 61, was elected a director in 1984. He has been a certified public accountant engaged in public accounting practice as owner of Paul Hug & Co. CPAs since 1988. Mr. Hug is a member of the Compensation Committee, the Nominating and Governance Committee and is Chairman of the Audit Committee of the Board of Directors.

Randall D. Ledford, 55, was elected to the Board of Directors in 2001. Mr. Ledford is currently Senior Vice President and Chief Technology Officer for Emerson Electric Co., a position he has held since 1997. He is also the President of Emerson Ventures Inc., an Emerson subsidiary that invests in technology venture companies. He serves on several CTO boards and forums both in the U.S. and abroad. Mr. Ledford is a member of the Nominating and Governance Committee and is Chairman of the Compensation Committee of the Board of Directors.

Michael J. Myers, 58, was elected to the Board of Directors in 2002. Mr. Myers is currently President, CEO and a member of the Board of Directors of Coppercom Inc., a provider of networking equipment for telecommunications operators. Mr. Myers served as the President of the Broadband Systems Division of Alcatel from 2000 to 2002 and as Group Vice President for Alcatel’s Networking Systems Group from 1998 to 2000. Prior to 1998, Mr. Myers worked for DSC Communications Corporation, serving as its Executive Vice President and Chief Operating Officer from 1997 to 1998, at its DSC Denmark A/S subsidiary, and as a Group Vice President for its transmission business in 1997. Mr. Myers also had prior experience with Nortel Networks, NCR, and General Motors Corporation. Mr. Myers is a member of the Compensation Committee, the Nominating and Governance Committee and the Audit Committee of the Board of Directors.

Kenneth V. Spenser, 56, was elected a director in 2002. Mr. Spenser is currently the Chief Executive Officer for Entivity Holdings. Mr. Spenser served as President, Chief Executive Officer and Chairman of the Board for Entivity, Inc. or its predecessors from 1997 to 2004. Entivity is a leading

provider of PC-based control systems to the automation marketplace. Mr. Spenser founded Think & Do Software in 1997 and merged it with Steeplechase Software in 2001 to create Entivity, Inc. Prior to founding Think & Do Software, Mr. Spenser served as Vice President for Texas Instruments' Information Technology Group and as General Manager for Autodesk's Mechanical Division. Mr. Spenser spent ten years on active duty as a naval aviator and twelve years in the Naval Reserves, retiring in 1993 with the rank of Captain. Mr. Spenser is a member of the Nominating and Governance Committee and the Audit Committee of the Board of Directors.

S. Thomas Thawley, 64, is a co-founder of the Company and has served as Secretary and a director of the Company since its inception in 1977. Mr. Thawley was elected Vice Chairman in May 2000 and is the Chairman of the Nominating and Governance Committee of the Board of Directors.

Committees and Meetings of the Board of Directors

The Board of Directors has established four committees, the Audit Committee, the Compensation Committee, the Nominating and Governance Committee and the New Employee and Retention Stock Option Committee. During 2004, the Audit Committee was composed of Mr. Hug, Chairman, Mr. Myers and Mr. Spenser. The Audit Committee met five times during 2004. The Audit Committee's responsibilities are described in the Audit Committee Charter (included as an exhibit to the Company's proxy statement for the 2004 annual meeting). During 2004, the Compensation Committee was composed of Mr. Ledford, Chairman, Mr. Hug and Mr. Myers. The Compensation Committee met two times during 2004 and reviewed the executive compensation plan of the Company in light of industry practices and circumstances unique to the Company. During 2004, the Nominating and Governance Committee was composed of Mr. Thawley, Chairman, Mr. Hug, Mr. Ledford, Mr. Myers and Mr. Spenser. The Nominating and Governance Committee is responsible for considering and approving nominees for election as director, and the other responsibilities set forth in its charter. The Nominating and Governance Committee met two times during 2004. In 2004, the New Employee and Retention Stock Option Committee was composed of one member, Mr. Kalush. The New Employee and Retention Stock Option Committee has the authority to grant stock options under the 2004 Long-Term Stock Incentive Plan to newly hired employees of the Company and, for retention purposes, to existing employees of the Company.

The Board of Directors held six meetings during the year ended December 31, 2004. None of the directors attended fewer than 75% of the meetings of the Board of Directors and its committees on which such director served.

The Company encourages board members and nominees for director to attend the annual meeting of shareholders. All current board members attended the Company's 2004 annual meeting of shareholders.

Compensation of Directors

Cash Compensation

The Company compensates its non-employee directors, who during 2004 were Mr. Hug, Mr. Ledford, Mr. Myers, Mr. Spenser and Mr. Thawley, based upon an estimated number of meetings of the board and committees on which such director serves, plus an annual retainer. This amount is reasonably estimated to be approximately \$27,000 per year, per director. Mr. Kalush does not receive cash compensation as a director.

Directors Stock Options

In May 2004, each director was granted an option under the 2004 Long-Term Stock Incentive Plan for 5,000 shares of Common Stock (an aggregate of 30,000 shares). These options have an exercise price of \$8.50 per share (fair market value on the date of grant) and will fully vest at 5 p.m. on the day preceding the 2005 Annual Meeting of Shareholders and have an expiration date of May 5, 2014.

AUDIT COMMITTEE

The Audit Committee of the Board of Directors is currently composed of Mr. Hug, Chairman, Mr. Myers and Mr. Spenser. The purpose of the Audit Committee is to assist the Board of Directors in carrying out its responsibility to oversee the Company's internal controls and financial reporting process.

Audit Committee Charter

The Board of Directors has adopted and maintains a written charter for the Audit Committee. A copy of the Audit Committee Charter was included as an exhibit to the Company's proxy statement for the 2004 annual meeting.

Audit Committee Member Independence

The Board of Directors has made the determination that all members of the Audit Committee are independent as defined in the applicable listing standards of the Nasdaq National Market.

Financial Expert

The Board of Directors has determined that Mr. Hug meets the SEC criteria of an "audit committee financial expert." Mr. Hug has been a certified public accountant engaged in public accounting practice as owner of Paul Hug & Co. CPAs since 1988, and as such, has participated in dealing with accounting, auditing, internal control and risk management issues.

Report of Audit Committee

March 31, 2005

To the Board of Directors of Interphase Corporation:

We have reviewed and discussed with management the Company's audited financial statements as of and for the year ended December 31, 2004.

We have discussed with the independent auditors the matters required to be discussed by Statement on Auditing Standards No. 61, Communication with Audit Committees, as amended, by the Auditing Standards Board of the American Institute of Certified Public Accountants.

We have received and reviewed the written disclosures and the letter from the independent auditors required by Independence Standard No. 1, "Independence Discussions with Audit Committees", as amended, by the Independence Standards Board, and have discussed with the auditors the auditors' independence.

Based on the reviews and discussions referred to above, we recommend to the Board of Directors that the financial statements referred to above be included in the Company's Annual Report on Form 10-K for the year ended December 31, 2004.

THE AUDIT COMMITTEE

Paul N. Hug, Chairman
Kenneth V. Spenser
Michael J. Myers

NOMINATING AND GOVERNANCE COMMITTEE

The members of the Nominating and Governance Committee are Mr. Thawley, Chairman, Mr. Hug, Mr. Ledford, Mr. Myers and Mr. Spenser. All members of the Committee meet the independence requirements of the Nasdaq National Market.

The responsibilities of the Nominating and Governance Committee are to identify individuals qualified to serve as Directors of the Company consistent with criteria developed by the Nominating and Governance Committee and approved by the Board. The Nominating and Governance Committee shall recommend that the Board select the Director nominees for the next annual meeting of shareholders; develop and recommend to the Board corporate governance principles applicable to the Company; and oversee the evaluation of the Board and the Company by the Directors. The Company has adopted a Nominating and Governance Committee Charter, which is available on the Company's website at www.interphase.com.

The Nominating and Governance Committee proposes and the Board of Directors adopts guidelines for identifying and evaluating Director candidates. Under those guidelines, the Nominating and Governance Committee shall consider a number of factors when identifying potential nominees, including: applicable requirements of law and of the Nasdaq National Market, independence from management, diversity, relevant business experience, good business judgment, specific expertise, strength

of character, integrity and reputation, existing commitments to other businesses, potential conflicts of interest with other pursuits, legal restraints, corporate governance background, financial and accounting background and education, executive compensation background and other factors deemed appropriate in adding value to the composition of the existing Board of Directors and its size and structure.

In all cases, Directors should have expertise that will be useful to the Company, and should possess the highest personal and professional integrity and ethics, and be willing and able to devote the required time to properly serve the Company.

The Nominating and Governance Committee may use a variety of means to identify potential nominees, including recommendations from the Chairman, other Directors or others associated with the Company or with the help of executive search firms (which receive a fee for their services).

The Nominating and Governance Committee will consider candidates for Director suggested by shareholders applying the criteria for candidates described above and considering the additional information set forth below.

Shareholders wishing to suggest a candidate for Director should write to our Secretary and include:

- a. as to each person whom the shareholder proposes to nominate for election or re-election as a Director:
 - i. the name, age, business address and residence of such person,
 - ii. the principal occupation or employment of such person,
 - iii. the class and number of shares of the Company which are beneficially owned by such person,
 - iv. information about each of the factors to be considered by the Committee listed above,
 - v. a statement detailing any relationship between the candidate and any customer, supplier or competitor of the Company,
 - vi. detailed information about any relationship or understanding between the shareholder proposing the candidate or any other shareholder and the candidate,
 - vii. a statement from the candidate that the candidate is willing to be considered and will serve as a Director if nominated and elected, and
 - viii. any other information relating to such person that is required to be disclosed in solicitations of proxies for election of Directors pursuant to Regulation 14A under the Securities Exchange Act of 1934 and any other applicable laws or rules or regulations of any governmental authority or of any national securities exchange or similar body overseeing any trading market on which shares of the Company are traded, and
- b. as to the shareholder giving the notice:
 - i. the name and record address of the shareholder, and
 - ii. the class and number of shares of the Company beneficially owned by the shareholder.

Any shareholder suggested candidates must be submitted no later than December 2, 2005 to be considered for election at the 2006 annual meeting of shareholders.

EXECUTIVE OFFICERS

The executive officers of the Company, their respective ages, positions held and tenure as officers are listed below:

<u>Name</u>	<u>Age</u>	<u>Position(s) Held with the Company</u>	Executive Officers of the Company <u>Since</u>
Gregory B. Kalush	48	Chairman of the Board, Chief Executive Officer and President	1998
Steven P. Kovac	49	Chief Financial Officer, Treasurer and Vice President of Finance	1999
Felix V. Diaz	54	Vice President of Engineering and Chief Technical Officer	2002
Randall E. McComas	55	Vice President of Global Sales and Marketing	2002
Deborah A. Shute	42	Vice President of Human Resources and Administration	2002
James W. Gragg	53	Vice President of Operations and Fulfillment	2004

Gregory B. Kalush joined the Company in February 1998, as Chief Financial Officer, Vice President of Finance and Treasurer. Mr. Kalush was appointed the Chief Executive Officer, President and Director of the Company in March 1999 and was elected Chairman of the Board in May 2000. Mr. Kalush is also the sole member of the New Employee and Retention Stock Option Committee of the Board of Directors. Prior to joining Interphase, Mr. Kalush was with DSC Corporation from 1995 to 1998. While at DSC, he served as Vice President of Transmission Data Services, Vice President of Operations, International Access Products and Group Vice President of Finance, Transport Systems Group. Prior to DSC, Mr. Kalush was with IBM Corporation from 1978 to 1994. During that time his positions included Chief Financial Officer and Operations Executive for the Skill Dynamics Business Unit, Director of Finance, Planning and Administration for the Southwest Area, and Division Director of Finance and Operations for the Data Systems Division.

Steven P. Kovac joined the Company in May 1999 as Chief Financial Officer, Vice President of Finance and Treasurer. Prior to joining Interphase, from 1997 to 1999 Mr. Kovac served as Chief Operating Officer and Chief Financial Officer for TPN Inc., a satellite television network. From 1989 to 1997 Mr. Kovac was the Regional Vice President of Finance and Chief Financial Officer for AT&T Wireless Services, McCaw Cellular Communications and LIN Cellular Communications. From 1988 to 1989, Mr. Kovac was Vice President of Finance and Administration for BBL Industries, a manufacturer of paging terminals and voice messaging equipment.

Felix V. Diaz joined the Company in May 1996, as Chief Technical Officer. In January 2001, Mr. Diaz became Vice President and General Manager, Telecom Products Group, a position he held until January 2004 when he returned to the position of Chief Technical Officer and Vice President of Engineering. Prior to joining Interphase, Mr. Diaz was Director of Systems Architecture and Engineering at DSC Corporation where he was responsible for the Company's Asynchronous Transfer Mode switching product line.

Randall E. McComas joined the Company in February 2002, as Vice President of Global Sales and Marketing. Prior to joining Interphase, Mr. McComas served as General Manager of Business Development, a position he held since 1998, for Scient, an enterprise organizational consulting firm. In that position Mr. McComas was responsible for overseeing all industry business units and delivery units for Scient, including sales and marketing. Prior to 1998, Mr. McComas was Vice President and General Manager of Telecommunications for Scient, managing the global telecom and utilities business units for that company.

Deborah A. Shute joined the Company in February 1999, as Director of Human Resources. In November 1999, Ms. Shute became Vice President of Human Resources and Administration. Prior to joining Interphase, Ms. Shute was Senior Director of Human Resources for Packard Bell NEC in Sacramento, California.

James W. Gragg joined the Company in 1998, as Manufacturing/Test Engineering Manager. In 2000 Mr. Gragg became Director of Manufacturing and Operations, a position he held until November 2004 when he became Vice President of Operations and Fulfillment. Prior to joining Interphase, Mr. Gragg was Manager, Hardware Design Engineering at Compaq Computer Corporation, a position he held since 1998. Prior to 1998, Mr. Gragg owned his own engineering consulting company, Emtech, Inc.

EXECUTIVE COMPENSATION

Report of the Compensation Committee of the Board of Directors on Executive Compensation

The Compensation Committee (under this caption, the “Committee”) is responsible for structuring and monitoring the Company’s executive compensation program. The Committee is currently composed of three members of the Board of Directors: Mr. Ledford, Chairman, Mr. Hug and Mr. Myers. Recommendations of the Committee are ultimately reviewed, considered and approved by the Board of Directors; however, after the executive compensation program has been approved by the Board of Directors, the Committee performs ministerial functions effecting and implementing aspects of the program on behalf of the Board of Directors.

The Committee views its primary objective to be the structuring of a compensation strategy designed to align the interests of executives with the interests of shareholders by creating incentives which are performance-based and tied to the attainment of overall Company goals. The markets in which the Company competes are highly competitive, and to succeed in them over the long term, the Company must be able to attract, motivate and retain executives with extraordinary qualifications and talents. The Committee evaluates the compensation strategy and compensation plans accordingly.

Salient components of the executive compensation program include annual salary, annual bonus plan and stock incentive grants.

At this time, based on the Company’s current executive compensation structure, the Company does not believe it is necessary to adopt a policy with respect to qualifying executive compensation in excess of \$1 million for deductibility under Section 162(m) of the Internal Revenue Code, except with respect to the 2004 Long-Term Stock Incentive Plan.

Annual Salary

The Committee attempts to establish annual salary levels that are appropriate with regard to (i) competitive salary levels, (ii) qualifications and experience, and (iii) the longevity, performance and responsibility of the executive. At least annually, the Committee reviews executive salaries and recommends adjustments where appropriate.

Executive Bonus Plan

The executive bonus plan is intended to link executive compensation with the attainment of defined Company goals on an annual basis.

Each fiscal year, the Committee, after consulting with management of the Company, establishes business and financial targets for the Company. Annual bonus amounts are established based upon these targets. The actual payment of bonuses is primarily dependent upon the extent to which these Company-wide objectives are achieved. Some financial targets for 2004 were achieved, thus some executive bonuses were paid.

Stock Option Grants

Through the granting of stock options, the Company intends to align the executives' long-term interests with those of the shareholders of the Company by tying executive compensation to the long-term performance of the Company's stock price. This is the Company's principal long-term incentive to executives.

The Committee recommends the number of shares to be granted to an executive based upon several factors including, but not limited to, management's recommendation, the executive's salary level, performance, position, contribution to the management team, and contribution to the overall success of the Company.

Chief Executive Officer Compensation

In keeping with the general compensation philosophy outlined above, Mr. Kalush's base salary is established to place emphasis on incentive compensation while remaining competitive with others in the Company's industry. Mr. Kalush's target annual bonus amount is established based upon annual financial targets for the Company developed by the Committee. The actual payment of a bonus is primarily dependent upon the extent to which these objectives are achieved. The amount of stock options granted to Mr. Kalush is based upon several factors including, but not limited to, base salary level, performance, position and contribution to the overall success of the Company. The Compensation Committee believes that the total compensation paid to Mr. Kalush is commensurate with the compensation paid to the chief executive officers of corporations in similar lines of business after adjustment to compensate for differences in size, business mix and geographic area.

Summary

The Compensation Committee, in its judgment, has established executive compensation levels which reflect the Committee's desire to reward executives for individual contribution to the attainment of the Company's goals while linking each executive's financial opportunity with increased value to the shareholders.

THE COMPENSATION COMMITTEE

Randall D. Ledford, Chairman
Paul N. Hug
Michael J. Myers

Employment Agreements

The Board of Directors approved Mr. Kalush's current employment agreement, effective March 12, 2000, pursuant to which the Company employs Mr. Kalush as its Chief Executive Officer and President. This agreement provided for a base salary from March 2000 until March 2003 of at least \$250,000 per year. A new two-year term began in April 2003 and provided for the same base salary. The employment agreement will continue for successive two-year terms, unless either Mr. Kalush or the Company gives notice to the other party more than 30 days prior to the expiration of the then-current term that the agreement will not be renewed. In addition, in accordance with his employment agreement, Mr. Kalush is entitled to (i) an annual bonus based upon the guidelines contained in the Company's Executive Bonus Plan, with his "annual bonus target" being established by the Compensation Committee, and (ii) certain benefits available to officers of the Company generally.

Mr. Kalush's employment agreement permits the Company to terminate Mr. Kalush without further compensation for overt misconduct. If Mr. Kalush dies or the Company terminates Mr. Kalush's employment agreement by reason of disability, then Mr. Kalush will be entitled to (i) receive severance compensation in the amount of two years base salary, and (ii) receive payment of two years of his annual bonus under the Company's Executive Bonus Plan. If the Company elects not to renew Mr. Kalush's employment agreement or terminates Mr. Kalush without cause, then Mr. Kalush will be entitled to receive severance payments in the amount of three years base salary and will be given an additional period of up to three years to exercise his options. However, following a "change in control" (as defined below), he will be entitled to (i) severance compensation in the amount of two years base salary, (ii) receive an immediate payment equal to two years of his annual bonus under the Company's Executive Bonus Plan and (iii) all of the stock options (the "Executive Stock Options") which have been granted to him shall be exercisable on the date of the "change in control". A "change in control" under these arrangements occurs when one investor, including its affiliates, accumulates 20% or more of the outstanding Common Stock of the Company.

The Board of Directors approved Mr. Kovac's current employment agreement, effective May 11, 1999, pursuant to which the Company employs Mr. Kovac as its Chief Financial Officer and Vice President of Finance, at a base salary of, at least, \$175,000 per year. In addition, in accordance with his employment agreement, Mr. Kovac (i) received in May 1999 a non-qualified stock option for 64,180 shares of Common Stock, and an incentive stock option for 35,820 shares of Common Stock, all for a ten year term and with an exercise price of \$8.375 per share, (ii) is entitled to an annual bonus based upon the guidelines contained in the Company's Executive Bonus Plan, with his "annual bonus target" being

established by the Compensation Committee, and (iii) is entitled to certain benefits available to officers of the Company generally.

Mr. Kovac's employment agreement permits the Company to terminate Mr. Kovac without further compensation for willful neglect of his duties. If the Company terminates Mr. Kovac for any reason other than willful neglect, Mr. Kovac will receive (i) nine months severance pay at his base salary, and (ii) a pro rata payment of his bonus for the year in which he is terminated if and only if he executes a general release of all claims against the Company. In the event of a "change in control" of the Company, as defined above, all outstanding stock options granted to Mr. Kovac will become exercisable, subject to certain restrictions.

The Board of Directors approved Mr. Diaz's current employment agreement, effective May 22, 1996, pursuant to which the Company employs Mr. Diaz at a base salary of, at least, \$120,000 per year. In addition, in accordance with his employment agreement, Mr. Diaz (i) received in May 1996 an incentive stock option for 10,000 shares of Common Stock, for a ten year term and with an exercise price of \$17.69 per share, (ii) is entitled to an annual bonus based upon the guidelines contained in the Company's Executive Bonus Plan, with his "annual bonus target" being established by the Compensation Committee and (iii) is entitled to certain benefits available to officers of the Company generally.

Mr. Diaz's employment agreement permits the Company to terminate Mr. Diaz without further compensation for overt misconduct. If the Company terminates Mr. Diaz for any reason other than overt misconduct, Mr. Diaz will receive (i) three months severance pay at his base salary provided he executes a general release of all claims against the Company. In the event of a "change in control" of the Company, as defined above, and if, within 12 months thereafter, Mr. Diaz's employment with the Company is terminated either by the Company, except for overt misconduct, or by Mr. Diaz for Good Reason, as defined in the agreement, or one investor other than a reporting company under the Securities Exchange Act of 1934 accumulates 50% or more of the outstanding stock of the Company, then all outstanding stock options granted to Mr. Diaz will become exercisable, subject to certain restrictions.

The Board of Directors approved Mr. McComas' current employment agreement, effective February 15, 2002, pursuant to which the Company employs Mr. McComas as its Vice President of Global Sales and Marketing, at a base salary of, at least, \$225,000 per year. The employment agreement automatically renews for successive 12-month periods, unless either Mr. McComas or the Company gives written notice to the other party 30 days prior to the expiration of the then current term that the agreement will not be renewed. In addition, in accordance with his employment agreement, Mr. McComas (i) received in February 2002 a non-qualified stock option for 40,597 shares of Common Stock, and an incentive stock option for 59,403 shares of Common Stock, all for a ten year term and with an exercise price of \$5.05 per share, (ii) is entitled to an annual bonus based upon the guidelines contained in the Company's Executive Bonus Plan, with his "annual bonus target" being established by the Compensation Committee, and (iii) is entitled to certain benefits available to officers of the Company generally.

Mr. McComas' employment agreement permits the Company to terminate Mr. McComas without further compensation for cause. If the Company terminates Mr. McComas for any reason other than cause or nonrenewal, Mr. McComas will receive no less than 6 months and no greater than 9 months base-salary compensation. In the event of a "change in control" of the Company, as defined above, and if, within 12 months thereafter, Mr. McComas' employment with the Company is terminated either by the Company, except for overt misconduct, or by Mr. McComas for Good Reason, as defined in the agreement, or one investor other than a reporting company under the Securities Exchange Act of 1934 accumulates 50% or more of the outstanding stock of the Company, then all outstanding stock options granted to Mr. McComas will become exercisable, subject to certain restrictions.

The Board of Directors approved Ms. Shute's current employment agreement, effective November 24, 1999, pursuant to which the Company employs Ms. Shute as its Vice President of Human Resources, at a base salary of, at least, \$130,000 per year. In addition, in accordance with her employment agreement, Ms. Shute (i) received in November 1999 a non-qualified stock option for 10,000 shares of Common Stock, for a ten year term and an exercise price of \$31.00 per share, (ii) is entitled to an annual bonus based upon the guidelines contained in the Company's Executive Bonus Plan, with her "annual bonus target" being established by the Compensation Committee, and (iii) is entitled to certain benefits available to officers of the Company generally.

Ms. Shute's employment agreement permits the Company to terminate Ms. Shute without further compensation for willful neglect of her duties. If the Company terminates Ms. Shute for any reason other than willful neglect, Ms. Shute will receive (i) six months severance pay at her base salary, and (ii) a pro rata payment of her bonus for the year in which she is terminated if and only if she executes a general release of all claims against the Company. In the event of a "change in control" of the Company, as defined above, and if, within 12 months thereafter, Ms. Shute's employment with the Company is terminated either by the Company except for overt misconduct or by Ms. Shute for Good Reason, as defined in the agreement, or one investor other than a reporting company under the Securities Exchange Act of 1934 accumulates 50% or more of the outstanding stock of the Company, then all outstanding stock options granted to Ms. Shute will become exercisable, subject to certain restrictions.

The Board of Directors approved Mr. Gragg's current employment agreement, effective November 1, 2004, pursuant to which the Company employs Mr. Gragg as its Vice President of Operations and Fulfillment, at a base salary of, at least, \$150,000 per year. The employment agreement automatically renews for successive 6-month periods, unless either Mr. Gragg or the Company gives written notice to the other party 30 days prior to the expiration of the then current term that the agreement will not be renewed. In addition, in accordance with his employment agreement, Mr. Gragg (i) received in November 2004 a non-qualified stock option for 2,959 shares of Common Stock, and an incentive stock option for 7,041 shares of Common Stock, all for a ten year term and with an exercise price of \$7.20 per share, (ii) is entitled to an annual bonus based upon the guidelines contained in the Company's Executive Bonus Plan, with his "annual bonus target" being established by the Compensation Committee, and (iii) is entitled to certain benefits available to officers of the Company generally.

Mr. Gragg's employment agreement permits the Company to terminate Mr. Gragg without further compensation for willful neglect of his duties. If the Company terminates Mr. Gragg for any reason other than willful neglect, Mr. Gragg will receive (i) six months severance pay at his base salary. In the event of a "change in control" of the Company, as defined above, and if, within 12 months thereafter, Mr. Gragg's employment with the Company is terminated either by the Company except for overt misconduct or by Mr. Gragg for Good Reason, as defined in the agreement, or one investor other than a reporting company under the Securities Exchange Act of 1934 accumulates 50% or more of the outstanding stock of the Company, then all outstanding stock options granted to Mr. Gragg will become exercisable, subject to certain restrictions.

Summary Compensation Table

A summary compensation table has been provided below and includes individual compensation information on the Chief Executive Officer and our five most highly paid executive officers other than the chief executive officer (collectively, the “Named Executive Officers”) during 2004.

	Year	<u>Annual Compensation (1)</u>		<u>Long-term Compensation</u>	<u>All Other Compensation (2)</u>
		Salary (\$)	Bonus (\$)	Securities Underlying Options/SARs (#)	
Gregory B. Kalush	2004	\$258,656	\$ 26,650	55,000	\$ 6,150
Chairman of the Board,	2003	\$247,000	\$ 8,272	60,000	\$ 6,000
Chief Executive Officer and President	2002	\$250,000	\$ 2,404	60,000	\$ 5,500
Steven P. Kovac	2004	\$206,920	\$ 6,700	20,000	\$ 4,369
Chief Financial Officer,	2003	\$200,000	\$ 4,323	20,000	\$ 4,038
Treasurer and Vice President of Finance	2002	\$200,000	\$ 1,923	30,000	\$ 4,269
Felix V. Diaz	2004	\$201,747	\$ 8,000	30,000	\$ 6,052
Vice President of Engineering	2003	\$195,000	\$ 4,500	30,000	\$ 5,850
and Chief Technical Officer	2002	\$195,000	\$ 1,875	30,000	\$ 5,500
Randall E. McComas	2004	\$232,785	\$ 13,250	50,000	\$12,811
Vice President of Global	2003	\$225,000	\$ 6,313	50,000	\$12,351
Sales and Marketing	2002	\$191,250	\$ 32,163	100,000	\$10,558
Deborah A. Shute	2004	\$146,569	\$ 5,400	15,000	\$ 4,397
Vice President of Human	2003	\$140,000	\$ 4,022	15,000	\$ 4,200
Resources and Administration	2002	\$140,000	\$ 6,346	25,000	\$ 4,200
James W. Gragg	2004	\$134,823	\$ 3,500	25,000	\$ 4,045
Vice President of	2003	\$116,923	\$ 3,304	15,000	\$ 3,508
Operations and Fulfillment	2002	\$115,000	\$ 2,106	-	\$ 3,450

(1) The table does not include the cost to the Company of benefits furnished to certain officers, including premiums for life and health insurance which benefits are also provided to employees. None of the Named Executive Officers received other compensation in excess of the lesser of \$50,000 or 10% of such officers' salary and bonus compensation.

(2) “All Other Compensation” consists of matching and discretionary (as defined) payments by the Company pursuant to its 401(k) plan for all executive officers and with respect to Mr. McComas, an additional amount of \$7,200 per year as a car allowance.

Option/SAR Grants in Last Fiscal Year

The following table provides information with respect to stock options/SARs granted to the Named Executive Officers during the year ended December 31, 2004. The potential realizable value reported below assumes compounded annual rates of return over the term of the options.

Name	Number of Securities Underlying Options/SARs Granted (#)	Total Options/SARs Granted to Employees in Fiscal Year (%)	Exercise Price (\$)	Expiration Date	Appreciation at Assumed Annual Rates of Stock Price for Option Term	
					5 Percent (\$)	10 Percent (\$)
Gregory B. Kalush	50,000	23.2%	\$11.45	3/16/2014	\$ 360,042	\$ 912,418
	5,000	2.3%	\$ 8.50	5/5/2014	\$ 26,728	\$ 67,734
Steven P. Kovac	20,000	9.3%	\$11.45	3/16/2014	\$ 144,017	\$ 364,967
Felix V. Diaz	30,000	13.9%	\$11.45	3/16/2014	\$ 216,025	\$ 547,451
Randall E. McComas	50,000	23.2%	\$11.45	3/16/2014	\$ 360,042	\$ 912,418
Deborah A. Shute	15,000	7.0%	\$11.45	3/16/2014	\$ 108,013	\$ 273,725
James W. Gragg	15,000	7.0%	\$11.45	3/16/2014	\$ 108,013	\$ 273,725
	10,000	4.6%	\$ 7.20	11/01/2014	\$ 45,280	\$ 114,749

**Aggregated Option/SAR Exercises in Last Fiscal Year
and Fiscal Year End Option/SAR Values**

The following table discloses incentive stock option exercises for the Named Executive Officers during the fiscal year ended December 31, 2004. In addition, the number and value of unexercised options/SARs that were outstanding at December 31, 2004 are summarized in the table. A distinction is made between options/SARs that were exercisable (vested) at December 31, 2004 and those options/SARs that were not exercisable at December 31, 2004.

Name	Shares	Value Realized	Number of Securities Underlying Unexercised Options/SARs at fiscal Year End		Value of Unexercised In-The-Money Options/SARs at fiscal Year End	
	Acquired On Exercise		Exercisable/Unexercisable	Exercisable/Unexercisable	Exercisable/Unexercisable	Exercisable/Unexercisable
	(#)	(\$)	(#)	(#)	(\$)	(\$)
Gregory B. Kalush	-	\$ -	462,501 /	104,999	\$ 485,212 /	\$ 142,963
Steven P. Kovac	-	\$ -	206,667 /	43,333	\$ 104,994 /	\$ 69,046
Felix V. Diaz	-	\$ -	210,000 /	60,000	\$ 365,785 /	\$ 85,780
Randall E. McComas	8,460	\$ 47,741	74,874 /	116,666	\$ 236,246 /	\$ 194,998
Deborah A. Shute	-	\$ -	111,667 /	33,333	\$ 87,451 /	\$ 54,749
James W. Gragg	-	\$ -	40,000 /	35,000	\$ 64,290 /	\$ 37,000

Compensation Committee Interlocks and Insider Participation

During 2004, the Compensation Committee was composed of Mr. Ledford, Mr. Hug and Mr. Myers. None of the Company's executive officers served during the year ended December 31, 2004 as a director or member of the compensation committee (or other committee serving an equivalent function) of any other entity, whose executive officers served on our Board of Directors or Compensation Committee.

Stock Performance Graph

The following chart compares the cumulative total shareholder return on Common Stock during the years ended December 31, 2004, 2003, 2002, 2001 and 2000 with the cumulative total return on the NASDAQ market index and a peer group index. The peer group consists of companies in the same four-digit SIC code (3577). The Company relied upon information provided by another firm with respect to the peer group stock performance. The Company did not attempt to validate the information supplied to it other than review it for reasonableness. The comparison assumes \$100 was invested on December 31, 1999 in the Common Stock and in each of the foregoing indices and assumes reinvestment of dividends.

	Cumulative Return					
	<u>12/99</u>	<u>12/00</u>	<u>12/01</u>	<u>12/02</u>	<u>12/03</u>	<u>12/04</u>
Interphase Corporation	100	42	26	17	61	40
Peer Group (SIC Code 3577)	100	69	49	39	55	52
NASDAQ	100	60	45	26	39	41

CERTAIN RELATED TRANSACTIONS

David H. Segrest served as the Assistant Secretary and a director of the Company through May 4, 2004. Mr. Segrest did not sit for re-election in 2004. Mr. Segrest is also a partner of Gardere Wynne Sewell LLP, the Company's general counsel. Mr. Segrest and others at Gardere Wynne Sewell LLP provide legal services to the Company and are typically compensated at prevailing hourly rates. During 2004, the Company paid Gardere Wynne Sewell LLP approximately \$104,000 for services provided.

SECTION 16(a) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Section 16(a) of the Securities Exchange Act of 1934 requires the Company's officers and directors, and persons who own more than ten percent of the Common Stock to file reports of ownership and changes in ownership on Forms 3, 4 and 5 with the Securities and Exchange Commission and furnish the Company with a copy. Based solely on the Company's review of the copies of such forms it has received, the Company believes that all of its officers, directors, and greater than ten percent shareholders complied with all filing requirements applicable to them during the reporting period ended December 31, 2004 except for Ms. Shute, Mr. McComas, Mr. Kovac, Mr. Diaz, Mr. Kalush and Mr. Gragg, each of whom made one late filing disclosing one transaction.

RELATIONSHIP WITH INDEPENDENT PUBLIC AUDITORS

Grant Thornton LLP ("Grant Thornton") served as the independent auditors of the Company for the year ended December 31, 2004. The Company's Audit Committee pre-approves all services performed by the Company's principal auditor. A representative of Grant Thornton is expected to be present at the annual meeting and will have the opportunity to make a statement and will be available to answer appropriate shareholder questions. At its August 2005 meeting, the Audit Committee of the Board of Directors will conduct its review of the independent auditors' performance, independence, qualifications and quality controls and will make its formal decision as to the retention of the independent public auditors to audit the Company's financial statements for the year ending December 31, 2005, which is expected to be Grant Thornton.

In September 2004, the Audit Committee of the Board of Directors authorized (1) the engagement of Grant Thornton as the independent auditors for the Company for the calendar year 2004 and (2) the dismissal of Interphase's existing independent auditors, PricewaterhouseCoopers LLP ("PwC").

During the two fiscal years ended December 31, 2003, and the subsequent interim period through September 7, 2004, the date of the dismissal of PwC, (1) there were no disagreements with PwC on any matter of accounting principles or practices, financial statement disclosure, or auditing scope or procedures, which disagreements, if not resolved to the satisfaction of PwC, would have caused PwC to make reference in connection with its report to the subject matter of the disagreement and (2) PwC has not advised the Company of any reportable events as defined in paragraphs (A) through (D) of Regulation S-K Item 304 (a)(1)(v).

The accountant's report of PwC on the consolidated financial statements of the Company and its subsidiaries as of and for the years ended December 31, 2003 and 2002 did not contain any adverse opinion or disclaimer of opinion and was not qualified or modified as to uncertainty, audit scope, or accounting principles.

During the two fiscal years ended December 31, 2003, and the subsequent interim period through September 7, 2004, Grant Thornton has not been consulted by the Company, or by anyone on the

Company's behalf, regarding either the application of accounting principles to a specified transaction, either completed or proposed, or the type of audit opinion that might be rendered on the financial statements of the Company.

Audit Fees

During 2004, the Company retained its principal auditor, Grant Thornton, to provide services in the following categories and amounts:

Audit Fees	\$ 121,420
Audit-Related Fees	1,200
Tax Fees	-
All Other Fees	<u>-</u>
Total	\$ 122,620

The Grant Thornton Audit Fees for the year ended December 31, 2004 were for professional services rendered for the audit of the consolidated financial statements of the Company, including quarterly reviews.

The Grant Thornton Audit-Related Fees for the year ended December 31, 2004 were for consultations regarding internal control reporting requirements under Section 404 of the Sarbanes-Oxley Act of 2002.

During 2004, PwC provided services for the Company from January 1, 2004 through September 7, 2004 in the following categories and amounts:

Audit Fees	\$ 40,350
Audit-Related Fees	1,450
Tax Fees	-
All Other Fees	<u>7,500</u>
Total	\$ 49,300

The PwC Audit Fees for the year ended December 31, 2004 were for professional services rendered for quarterly reviews.

The PwC Audit-Related Fees for the year ended December 31, 2004 were for consultations regarding internal control reporting requirements under Section 404 of the Sarbanes-Oxley Act of 2002.

The PwC All Other Fees for the year ended December 31, 2004 were for the filing of the Form 8-K relating to the change in auditors and the successor auditor workpaper review.

During 2003, the Company retained its principal auditor, PricewaterhouseCoopers LLP, to provide services in the following categories and amounts:

Audit Fees	\$ 128,000
Audit-Related Fees	-
Tax Fees	-
All Other Fees	-
Total	<u>\$ 128,000</u>

The Audit fees for the year ended December 31, 2003 were for professional services rendered for the audit of the consolidated financial statements of the Company.

SHAREHOLDERS' PROPOSALS

Any proposals that shareholders of the Company desire to have presented at the 2006 annual meeting of shareholders must be received by the Company at its principal executive offices no later than December 2, 2005, whether or not the shareholder wishes to include the proposal in the Company's proxy materials.

SHAREHOLDER COMMUNICATIONS

Shareholders wishing to communicate with the Board of Directors, the non-management directors, or with an individual Board member concerning the Company may do so by writing to the Board, to the non-management directors, or to the particular Board member, and mailing the correspondence to: Attn: Secretary, Interphase Corporation, Parkway Centre I, 2901 North Dallas Parkway, Suite 200, Plano, Texas 75093. The envelope should indicate that it contains a shareholder communication, and the correspondence must disclose the name of the shareholder submitting the communication and identify the number of shares of stock owned by him (or her) beneficially or of record. In general, all shareholder communications delivered to the secretary for forwarding to the Board or specified Board members will be forwarded in accordance with the shareholder's instructions. However, the secretary reserves the right to not forward to Board members any abusive, threatening or otherwise inappropriate materials.

MISCELLANEOUS

The Annual Report to Shareholders of the Company for 2004, which includes financial statements, accompanying this Proxy Statement, does not form any part of the material for the solicitation of proxies.

A copy of the Company's 2004 Form 10-K has been included with these proxy materials. Exhibits to the Form 10-K are available upon written request and upon payment of a reasonable charge to cover the Company's cost in providing such exhibits. Written requests should be sent to Investor Relations, Interphase Corporation, Parkway Centre I, 2901 North Dallas Parkway, Suite 200, Plano, Texas, 75093.

By Order of the Board of Directors

S. THOMAS THAWLEY
Vice Chairman and Secretary

Plano, Texas
March 31, 2005

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

FORM 10-K

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

For the Fiscal Year Ended December 31, 2004

Commission File Number 0-13071

INTERPHASE CORPORATION

(Exact name of registrant as specified in its charter)

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

75-1549797
*(I.R.S. Employer
Identification No.)*

**2901 North Dallas Parkway, Suite 200
Plano, Texas 75093**

(Address of principal executive offices and zip code)

Registrant's telephone number, including area code: (214) 654-5000

Securities registered pursuant to Section 12(b) of the Act:

None

Securities registered pursuant to Section 12(g) of the Act:

Common Stock, \$.10 par value

Title of Class

Indicate by check mark whether the registrant (1) has filed all reports required by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes No

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

Indicate by check mark whether the registrant is an accelerated filer (as defined in Exchange Act Rule 12b-2).

Yes No

The aggregate market value of the voting stock held by non-affiliates of the registrant as of June 30, 2004 was approximately \$56,046,615.

As of March 11, 2005, the registrant had 5,750,824 shares of Common Stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Parts of the following document is incorporated by reference into this annual report on Form 10-K: Portions of the Definitive Proxy Statement for Annual Meeting of Shareholders to be held on May 4, 2005 (Part III).

PART I

ITEM 1. BUSINESS

Introduction

Interphase Corporation and subsidiaries ("Interphase" or the "Company") enables rapid platform design and integration for the global voice, video, and data communications markets through custom and off-the-shelf communications equipment, embedded software development suites, and systems integration and professional services for carrier and private networks. The Company's products provide communications computing and connectivity of telecommunications and enterprise computer systems to Wide Area Networks (WANs), Local Area Networks (LANs), and Storage Area Networks (SANs) using Asynchronous Transfer Mode (ATM), Ethernet, Internet Protocol (IP), Point-to-Point Protocol (PPP), Q.SAAL, Internet Protocol Security (IPSec), and protocol interworking technologies.

The Company maintains a website on the Internet with the address of www.interphase.com. Copies of this Annual Report on Form 10-K for the year ended December 31, 2004 and copies of the Company's Quarterly Reports on Form 10-Q for 2003 and 2004 and any Current Reports on Form 8-K for 2003 and 2004, and any amendments thereto, are or will be available free of charge as soon as reasonably practical after they are filed with Securities and Exchange Commission ("SEC") at such website. The general public may obtain any materials the Company files with the SEC at 1-800-SEC-0330, or since the Company is an electronic filer, the SEC maintains an Internet website at www.sec.gov that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC.

Key Terms and Definitions

Interphase is a technology company and many terms used by the Company may be unfamiliar to those outside the industry. The following are some key terms that may be useful in helping the reader understand the products, technologies, and markets relevant for the Company.

Adapter – Also called a host bus adapter (HBA) or network interface card (NIC). An adapter is a device that connects a computer server to one or more peripheral devices (such as switches, hubs, storage devices, etc.) or other computers. An adapter card typically plugs into the expansion bus of a system and communicates with the operating system controlling the system via the use of specific device drivers. Adapters generally refer to passive (non-intelligent) printed circuit boards used for interfacing to a network.

AdvancedTCA or ATCA (Advanced Telecom Computing Architecture) – The next generation of system architecture beyond CompactPCI. It affords greater bandwidth, processing and board density, cooling abilities, and memory to meet the growing needs of next generation applications.

ATM (Asynchronous Transfer Mode) – A network technology used in WANs that supports real time voice, real time video, and data. The topology uses switches that establish a logical circuit from end to end, which guarantees a quality of service for that transmission. However, unlike telephone switches that dedicate circuits end to end, unused bandwidth in ATM circuits can be appropriated whenever available. For example, idle bandwidth in a videoconference circuit can be used to transfer data. ATM is also highly scalable and supports transmission speeds of 1.5, 25, 100, 155, 622 and 2488 Megabits per second (Mbps).

Backplane – The interconnect mechanism that links all printed circuit boards within a system such that various boards can communicate and work together for a common purpose as a system. The backplane extends perpendicularly across all boards in a system and offers sockets for boards to be plugged into.

Blade - A subsystem within a system contained within a single system slot. A blade can operate as a single board in a slot or with a multitude of boards, including mezzanine cards to a carrier card.

Broadband – A transmission facility (communications link) that has bandwidth (capacity) greater than a traditional voice grade line.

CDMA2000/1xRTT (Code Division Multiple Access 2000/one times Radio Transmission Technologies) – A third generation wireless system, which is based on earlier versions of CDMA and used in certain phone systems and Wireless Local Area Networks. CDMA2000 runs in the 800 MHz and 1.8-2.0 GHz spectrum.

Communications Controller – Communications controller modules (similar to a network interface card) are designed specifically for carrier-grade computer systems that often support signaling, switching and routing networks. Communication controllers must conform to specifications that maintain overall system compliance to the rigorous performance and reliability standards that apply to telecom service provider equipment into which they are integrated. Controllers are essentially intelligent network interface cards.

CompactPCI® – An industrial grade variation of the PCI bus standard that utilizes the Eurocard (VME) form factor. CompactPCI has been widely adopted by telecom equipment suppliers because of its high-density connectors, support for front or rear I/O access and hot-swap capabilities important for “Five 9’s” (99.999%) reliability. Often referred to as CPCI or cPCI, it is a standardized architecture for printed circuit boards (governed by PICMG) used in the embedded systems industry, particularly in carrier communications and industrial computing market segments.

CompactPCI Packet Switching Backplane (CPSB) – The newest generation of the CompactPCI standard that enables an Ethernet-based interconnection fabric across a system backplane in lieu of the H.110 PCI bus. This backplane technology served as the foundation for the new AdvancedTCA standard architecture from PICMG.

CPU (Central Processing Unit) – The part of a computer that performs the logic, computational and decision-making functions. Telephone systems typically have one CPU, which takes the form of a chip that controls the various functions in a telephone.

Ethernet – A Local Area Network standard used for connecting computers, printers, workstations, and servers. It operates over twisted wire and coaxial cable at speeds beginning at 10 Mbps.

Fast Ethernet – A variation of the Ethernet standard (10Base-T) that provides 100 Mbps transmission bandwidth, and up to 200 Mbps total I/O throughput with full duplex operation. Also known as 100Base-T Often 10/100Base-T is used to describe a link with the capability to support both Ethernet (10 Mbps) and Fast Ethernet (100 Mbps).

Frame Relay – A high-speed packet switching protocol used in wide area networks (WANs). Providing a granular service of up to DS3 speed (45 Mbps), it has become very popular for LAN-to-LAN connections across remote distances. All the major telecommunications carriers offer frame relay services. Frame relay is much faster than X.25 networks, the first packet-switching WAN standard, because frame relay was designed for today's reliable circuits and performs less rigorous error detection.

Gbps (Gigabits per second) – One thousand million bits per second.

Gigabit Ethernet – An Ethernet technology that raises transmission speed to one Gigabit per second (Gbps) and is used primarily for backbone networks and high-speed server-to-server connectivity. Also known as 1000BaseT or 10/100/1000BaseT where line rates are negotiated to regular Ethernet, Fast Ethernet, or Gigabit Ethernet speeds.

IETF (Internet Engineering Task Force) – Formed in 1986, the IETF sets technical standards that run the Internet such as routing, transport and security.

I/O (Input/output) – The transfer of data or voice traffic into and out of a computing device. The main function of an adapter, communications controller, or network interface card is to regulate or control communications I/O.

IP (Internet Protocol) – The standard method or protocol by which data is sent from one computer to another on the Internet.

IPSec (IP Security) – A security protocol from the Internet Engineering Task Force (IETF) that provides authentication and encryption over the Internet.

LAN (Local Area Network) – A short-distanced data communications network that is contained within a building or complex. Its primary use is to link computers and peripheral devices (such as printers) and to provide individuals with access to databases and applications running on servers attached to the network. Anyone connected to the LAN can send messages to and work jointly with others on the network.

Media Gateway – A networking device that converts data from the format required for one type of network to the format required for another. The media gateway is controlled by the media gateway controller. Both are a component of softswitch.

Mbps (Megabits per second) – One million bits per second, when used as a measurement for the speed of telecommunications, networking or local area networking.

NEP (Network Equipment Provider) – A company which designs, builds and markets telecommunications infrastructure platforms.

OC-3/STM-1 – The American and European standards (respectively) for ATM optical interconnect 3 traffic, which is a digital transmission link with capacity of 155 Mbps. This line speed is very common in telecommunications access networks.

Operating System – The master control program that runs the computer. It is the first program loaded when the computer is turned on, and its main part, called the kernel, resides in memory at all times. It may be developed by the vendor of the computer it is running in or by a third party. It is an important component of the computer system because it sets the operational guidelines for all application programs that run on the system. All programs must "talk to" the operating system. Popular network operating systems today include Windows NT, XP and 2000, VxWorks, Solaris and Linux.

OEM (Original Equipment Manufacturer) – A manufacturer who resells other company's products under their own name.

PCI (Peripheral Components Interconnect) – A printed circuit board bus standard that is currently the main general-purpose bus in many desktop computers and a majority of enterprise servers throughout the world. Telecom servers generally use the newer generation of the PCI architecture—CompactPCI.

PICMG (PCI Industrial Computer Manufacturers Group) – The technical standards governing body responsible for specifying technical requirements of specific systems architectures, including PCI, CompactPCI, CPSB, and AdvancedTCA. Standardized architectures are intended to provide a common set of rules and parameters for creating a system. The resulting benefit of such specifications is interoperability among multiple vendors for complementary system components and marketplace of cooperation and fair competition provided by commercial off the shelf (COTS) products, thereby providing alternatives to the market monopolies created by proprietary system architectures.

PMC (PCI Mezzanine Card) – a low profile mezzanine card that is electronically equivalent to the Peripheral Component Interconnect (PCI) specification. PMC cards are used as a quick and cost-effective method to add modular I/O to other card formats such as VME and CompactPCI, thus expanding the processing or I/O density of a single system slot.

PPP (Point-to-Point Protocol) – Provides router-to-router and host-to-network connections over synchronous and asynchronous circuits.

Protocol - The special set of common rules that end points in a telecommunication connection use when they communicate. A protocol could be described as a common language for communication across a network.

Protocol Interworking – A mechanism for protocol conversion or bridging in cases where computers or networks lack a common communications medium. Could be considered a protocol 'language' translation mechanism so that disparate technologies can interconnect.

PTMC (PCI Telecom Mezzanine Card) – A mezzanine card with connectors specific to telecom applications, based on the industry standard PICMG 2.15.

Q.SAAL – A communications protocol used for signaling applications where the SS7 protocol runs over ATM links.

SAN (Storage Area Network) – Servers providing high speed data storage and retrieval in enterprise environments.

SCSI (Small Computer System Interface) – Pronounced "skuzzy," SCSI is a widely used communications technology for connecting computer servers to storage devices.

Server – A computer in a network shared by multiple users. These are typically more powerful than computers used by individuals (often referred to as “desktops”) and require advanced I/O connectivity.

Softswitch (Software Switch) – A generic term for an open application program interface software used to bridge a public switched telephone network and the Internet Protocol by separating the call control functions of a phone call from the media gateway (transport layer).

SS7 (Signaling System 7) – The protocols used in the U.S. telephone system for setting up calls and providing modern transaction services such as caller ID, automatic recall and call forwarding. When you dial "1" in front of a number, SS7 routes the call to your long distance carrier and it also routes local calls based on the first three digits of the phone number.

System - A collection of elements or components that are organized for a common purpose. A computer system consists of hardware components that have been carefully chosen so that they work well together and software components or programs that run in the computer.

T1/E1 – A digital transmission link with a capacity of 1.544 Mbps (1,544,000 bits per second) or 2.048 Mbps for the European E1 standard. T1 links normally handle 24 voice conversations, but with digital encoding can handle many more voice channels. T1 lines are also used to connect networks across remote distances.

T3/E3 – A digital transmission link equivalent to 28 T1 lines. Providing a capacity of 45 Mbps, a T3 link is capable of handling 672 voice conversations. E3 is the European equivalent and J3 is the Japanese equivalent to T3.

VME (VersModule-Eurocard) – A mechanical and electrical bus standard developed in the late 70's, with a backplane that runs at 80 Mbps and is most commonly used in commercial, military and industrial applications.

WAN (Wide Area Network) – A communications network that covers a wide geographic area, such as a state or country. A WAN typically extends a LAN outside the building, over telephone common carrier lines to link to other LANs in remote locations, such as branch offices or at-home workers and telecommuters. WANs typically run over leased phone lines, but are increasingly also employing the Internet for VPN (virtual private network) connectivity.

6U – A standard size and design of printed circuit boards and the chassis that holds them.

Mission

The Company's mission is to provide innovative, high-performance connectivity solutions for the telecommunications and enterprise embedded system markets. To achieve this, Interphase pursues several key initiatives that include:

Providing an advanced line of communication for next-generation telecom systems

The Company offers original equipment manufacturers (OEMs) in the communications sector an advanced, high quality, high performing, feature-rich, and broad portfolio of communications boards and subsystems at competitive prices. The Company therefore maintains a *value* strategy while maintaining the utmost commitment to customer service and flexibility to customer needs.

OEMs, due to significant workforce reductions in recent years, have been outsourcing a greater portion of the equipment that they traditionally made in-house. To capitalize on this trend, Interphase offers a comprehensive line of standards-based, carrier-class communications controllers and network interface solutions for:

- *2.5 and 3G Wireless Networks* – controllers that provide enhanced mobile services and integration with other networks.
- *Broadband Network Telephony/Video Access* – controllers that enable high-speed network connectivity, i.e. Internet access through ADSL, cable and fixed wireless providers.
- *Intelligent (SS7) and Converging Networks* – controllers that help service providers migrate their intelligent network facilities to more scalable and cost-effective architectures and provide new platforms for softswitch and media gateway convergence of voice and data networks.

To further assist telecommunication server providers, Interphase offers professional services for customizing software and third party applications to customer-specific designs. With high-performance communication controllers, software development tools, protocol support, experience with third party protocols and professional services, Interphase products and services help decrease costs and improve time-to-market of OEMs building next-generation telecom equipment.

A comprehensive line of private network I/O adapters and modules

In order to provide Interphase customers with effective storage networking solutions, Interphase offers a comprehensive line of networking adapters and security acceleration modules specifically designed for use in demanding, enterprise class applications such as:

- *Private Networking/Enterprise Networking* – mission critical backbone and Internet servers served with unique, slot-saving designs.
- *Network Security* – Enterprise devices, such as virtual private networks (VPNs), which provide encryption and decryption of data traffic for preventing security breaches. Interphase serves this segment with network security co-processor modules.

- *Storage Area Networks* – servers providing high speed data storage and retrieval in enterprise environments. Interphase serves this segment with a legacy portfolio of fibre channel host bus adapters.

Currently, the Company is developing primarily specialized enterprise equipment due to the rapid commoditization of unspecialized (or “standardized”) equipment in this segment.

Delivering superior customer service

Over the past 28 years, Interphase has established strong relationships with key Fortune 500 suppliers of enterprise computer and telecommunication servers. Much of this success has been due to the superior pre-sale and post-sale service the Company delivers to customers. With a vertically integrated account perspective, Interphase provides flexibility, timely response and other customized account service features. Further, the Company’s technical support is staffed by experts for both Telecom and Enterprise products, allowing Interphase to specifically focus its support efforts for the different needs and requirements of its customers in these differing market segments.

Developing strategic partnerships

Interphase designs and tests products for multi-vendor interoperability. The Company leverages these efforts towards building more effective strategic partnerships. Through its partner program, Interphase builds synergistic marketing and technical relationships with other key suppliers in its respective markets. Rigorous product testing and early access to new partner product releases allows tighter product integration and helps assure compatibility for end-users of the Company’s products. Also, Interphase’s joint software development, particularly with third party protocol vendors, decreases the integration time for customers by offering a pre-integrated solution.

Products

Interphase offers an advanced line of telecom communication controllers, a comprehensive portfolio of specialized enterprise connectivity and storage adapters, and resource modules for security acceleration.

Telecom Products

Interphase products designed for use in next-generation broadband telecommunication networks include:

- *iNAV® 9200 Multiprotocol Gateway Appliance* - designed to meet the needs of both connection-oriented and connectionless packet switched networks, the new iNav®9200 series of specialized appliances is by far the industry’s most advanced, price/performance-maximized solution for applications requiring multiprotocol interworking, IP routing and classification and ATM SARing such as converging networks with those with dissimilar network protocols.

- *iNAV 4000 CompactPCI Network Processor Blade* – a protocol interworking, network protocol processing board with on-board intelligence suited to broadband convergence applications such as wireless gateways and media gateways.
- *iSPAN® 1635 CompactPCI Packet Switched Backplane T1/E1/J1 Communications Controller* – a 6U CompactPCI communications controller, based on the PICMG 2.16 Ethernet backplane standard, with an advanced architecture featuring the Motorola MPC8264 RISC CPU that offers superior performance over T1/E1/J1 communication links. The 1635 also offers dual Ethernet interfaces to 2.16 backplanes, and is capable of supporting a variety of network protocols including ATM, Frame Relay, SS7, Q.SAAL, PPP, Ethernet, and HDLC.
- *iSPAN 4531 PMC ATM over T3/E3 Communications Controller* – a PCI Mezzanine Card that provides reliable, high performance ATM communications over T3/E3 connections for applications such as aggregating Internet traffic for transport over the public ATM backbone network.
- *iSPAN 4532 PMC OC-3/STM-1 Communications Controller* – an intelligent, high-performance, PCI Mezzanine Card that provides direct access to SONET networks and software selectable access to an OC-3/STM-1 ATM network, as well as a 10/100 Ethernet interface. The 4532 is ideally suited for 3G networks that define ATM as the interconnect between radio network controllers and cell sites, for example. It also targets broadband access networks and gateways that require on-board ATM to Ethernet interworking. The 4532 has been recently leveraged to target a growing market niche, supporting the Q.SAAL protocol for SS7 over ATM traffic processing.
- *iSPAN 4532P PMC ATM over OC-3/STM-1 Communications Interface Card* – A passive interface module providing 155 Mbps connectivity for use with the iNAV 4000.
- *iSPAN 4534 PMC Quad-port Serial Communications Controller* – a PCI Mezzanine Card that provides reliable, high performance serial communications for multiple telecommunication protocols including ATM, ISDN, Frame Relay, X.25 and PPP.
- *iSPAN 4535 PMC Multiprotocol T1/E1 Communications Controller* – a cost-effective PCI Mezzanine Card that provides two high-speed serial communication links to provide connection to the Public Switch Telephone Network to support advanced SS7 or converged network applications.
- *iSPAN 4538 PMC T1/E1/J1 Communications Controller* – a PCI Mezzanine Card with 2 software selectable T1/E1/J1 interfaces on the front faceplate plus a 10/100 Ethernet port. It is targeted for signaling and control plane applications in wireless and “converged” voice and data telecom networks. With its on-board SS7 protocol processing, excellent SS7 performance, and its Ethernet access, it is a modular solution for signaling platforms and signaling gateway applications.
- *iSPAN 4539/4539F PMC T1/E1/J1 Communications Controller* – a PCI Mezzanine Card targeted for signaling/control plane and broadband/user plane telecom networks. The 4539 offers four software selectable T1/E1/J1 interfaces via front or rear access, and a

10/100 Ethernet interface on the front with an on-board CPU to offload host processors. The 4539/4539F supports multiple protocols on board, including ATM, and it can serve both narrowband and broadband networks in one solution.

- *iSPAN 4575 PMC ATM Communications Interface Card* – a PCI Mezzanine Card that provides cost-effective, reliable, high performance ATM over OC-3/STM-1 155 Mbps connectivity.
- *iSPAN 4576 PMC ATM Communications Interface Card* – the next generation of the 4575 product.
- *iSPAN 5539F PCI T1/E1/J1 Communications Controller* – a PCI version of the 4539 for use in traditional PCI-based systems.
- *iSPAN 5575 PCI ATM Communications Interface Card* – a PCI adapter card that provides full duplex ATM connectivity for systems running Windows NT, Novell NetWare, UnixWare, Solaris and AIX.
- *iSPAN 5576 PCI ATM Communications Interface Card* – the next generation of the 5575 product.
- *iSPAN 6535 CompactPCI T1/E1/J1 Communications Controller* – a 6U CompactPCI communications controller with an advanced architecture featuring the Motorola MPC8264 RISC CPU that offers superior multiprotocol processing performance over T1/E1/J1 communication links.
- *iSPAN 6575 CompactPCI ATM Communications Controller* – a 3U or 6U CompactPCI adapter that provides full duplex ATM connectivity at OC-3/STM-1 data rates for industrial and telecommunication systems.
- *iWARE®* – a software development suite that complements the intelligent communications controllers. It offers an application programming interface for developers to develop applications on the Interphase communications controllers and provides software for various protocols to be run on the Interphase controllers.

Enterprise Network Products

Interphase enterprise products targeted for use in enterprise applications include the following:

- *454E SlotOptimizer™ (Combo) PMC Fast Ethernet Interface Card* – a quad-port 10/100 Ethernet card enables slot conservation where high density Ethernet connectivity is required.
- *4526T PowerSAN™ PCI Fibre Channel Adapter* – a 33Mhz PMC adapter which provides single port 1-Gbps Fibre Channel connectivity.

- *552C SlotOptimizer (Combo) PCI Storage Networking Adapter* – a 64-bit PCI multifunction adapter card combining dual channel Ultra2 SCSI connectivity with two 10/100 Ethernet ports.
- *551E SlotOptimizer (Combo) Single-port Fast Ethernet Adapter* – a 64-bit PCI adapter card with a Fast Ethernet interface.
- *554E SlotOptimizer (Combo) Quad-port Fast Ethernet Adapter* – a 64-bit PCI adapter card that provides four independent full-duplex Fast Ethernet ports.
- *45NS PMC Network Security Acceleration Adapter* – a PCI mezzanine card designed for IPSec processing acceleration for use in encryption and decryption of security protocols.
- *55NS PCI Network Security Acceleration Adapter* – a PCI card designed for IPSec processing acceleration for use in encryption and decryption of security protocols.

New Product Development

As stated previously, the primary target markets for the Company's products are characterized by those areas of a telecom network that can reduce cost for service providers (carriers), decrease their time to market for deployment of new and existing services and finally, preserve carriers' prior network equipment investment. The economic downturn in the telecom business sector has motivated telecom service providers and network equipment providers ("NEPs"), to reexamine their areas of competitive value add and streamline their business operations. In particular, NEPs, and carriers as well, have been consolidating their product development and manufacturing groups, actions which generally lead to an increase in the use of off-the-shelf products, such as the products sold by Interphase. Consequently, the Company's new product development is driven by a focus on providing NEPs with "off the shelf" designs built from emerging standards that improve the performance and reliability of standard designs, while continuing to offer greater speed to market. See the research and development discussion in the Results of Operations section of Item 7. (Management's Discussion and Analysis of Financial Condition and Results of Operations.

Enterprise/Private Network Initiatives

In the enterprise network segment, Interphase will invest product development resources into product additions to the existing security acceleration product line. These security modules are designed to work as co-processor resources for servers required to perform compute-intensive security encryption and decryption functions. Use of these security modules offloads host Central Processing Units (CPUs) of encryption/decryption processing burdens and therefore improves overall system performance. Based upon interest from customers in the currently-available 45NS and 55NS security products, new additions to this line are expected to offer customers even greater throughput by way of a newer, more powerful co-processor chipset. New generations of these products will be announced in early 2005.

Additionally, Interphase has enhanced its SlotOptimizer™ product line, a portfolio of products that enable maximized port density, enabling OEMs and enterprises alike to consolidate multiple network interfaces on to a single slot. The end result is conservative usage of system slots for network I/O and real estate preservation within the server chassis. The SlotOptimizer line will be expanded to include PMC architectures. With the addition of a variety of new PMC-based

designs in 2004 and early 2005, maximized slot density solutions were brought to market for use with a broader set of system architectures, including CompactPCI, VersaModule-Eurocard (VME), and proprietary systems. This move is intended to broaden the list of suitable applications for the SlotOptimizer line to include carrier-grade and military uses in addition to a wide variety of enterprise networking applications.

Telecom Segment Initiatives

Interphase continues to build on its existing portfolio of telecom solutions by diversifying into an even broader set of capabilities. The Company continues to target three main carrier segments (via OEM channels) with the greatest opportunity for intelligent communications solutions including wireless, convergence/next generation public network equipment, and broadband network/telephony access. Expansion of the iSPAN and iNAV lines will continue in several ways, described below.

Migration to Pre-integrated Frameworks. Interphase has evolved from offering passive line interface modules to intelligent communications controllers in the last few years. In keeping with the same initiative, Interphase has made several pre-integrated frameworks available to customers. These solutions are generally a combination of multiple hardware and software modules which enable customers to spend less time and development resources for integrating their blade-level subsystems. This affords OEMs a better focus on their true core competencies (i.e. applications development), faster time to market, and a reduction in development costs. More of these frameworks, using a combination of Interphase products and partner components, are expected to become available in the coming year.

AdvancedTCA. The widely accepted telecom platform form factor, CompactPCI, is beginning to reach a performance peak, and NEPs and carriers alike are developing applications that are expected to outgrow the architecture. Vendors seeking to provide solutions with greater bandwidth, processing and board density, cooling abilities, and memory to meet the needs of next generation applications have initiated a new technology standard. Governed by the PICMG standards body, the PICMG 3.0 subcommittee has standardized the Advanced Telecom Computing Architecture (“AdvancedTCA” or “ATCA”) specification. Interphase is an active participant in this standards group, and it has developed two AdvancedTCA products to date with numerous products in development. In keeping with the blade-mezzanine solution strategy, Interphase is additionally developing ATCA-compliant PTMC Cards as well as a new generation of ATCA-specific mezzanine cards known as AdvancedMCs or AMCs. This new architecture has already begun acceptance by network OEMs, and full production units are expected to slowly replace CompactPCI systems in the next two to three years.

Appliances. Interphase has maintained a specialty in interworking multiple protocols and gateway-on-a-card technologies for several years and has begun to expand its product line upon this concept. The Company’s interworking solutions based on a single card (as opposed to previous methods requiring the use of multiple boards) have paved the way for compact, specialized appliances for bridging multiple protocols and routing communications traffic. The first product in this line of appliances, the iNAV 9200 Multiprotocol Gateway Appliance, is designed for bridging ATM and Ethernet protocols. Based on network processors, the 9200 offers numerous advantages to the network equipment OEMs and carriers alike, including improved performance, a hardware-based architecture (a substantial improvement in reliability and development time over software-based alternatives), reduced footprint, and significantly

reduced cycles for applications development due to the pre-development of protocol software. Protocol interworking is a widespread practice throughout the public network, because it enables carriers to migrate existing infrastructures to next generation technologies without forklift upgrades. Convergence of voice and video is a common theme today and Interphase appliances provide a higher performing, more cost effective solution in specific convergence applications requiring simple protocol conversions. Building on this gateway solution, Interphase is developing enhanced specialty appliances for IP routing in broadband access environments where video services are being deployed to the end user. 2005 could be an exciting year for Interphase appliances as the telecom carrier video market is in its infancy and projected to be very large.

Industry Standards Participation

The Company has been engaged in the development of new products and the refinement of its existing products since its inception. Throughout its history, Interphase has been active in the formulation of industry standards sanctioned by groups such as PICMG and the AdvancedTCA subcommittee in particular, IEEE, ANSI, VME International Trade Association (VITA), Fast Ethernet Alliance, SCSI Committee, the LADDIS Group, ONC/NFS Consortium, and Storage Networking Interoperability Association (SNIA), and FC-Open (Fibre Channel) Consortium. Throughout 2004 and into 2005, Interphase has been and continues to be a very active member of the PICMG standards body particularly for AdvancedTCA. Additionally, the AMC mezzanine subcommittee will be hosting a variety of industry interoperability “plugfests” that Interphase will be heavily engaged in.

Marketing and Customers

The Company's products are sold to network equipment OEMs for inclusion in embedded systems designed for use in carrier networks and enterprise data networks. These purchasers incorporate the Company's products into proprietary or standards-based systems for resale to either telecom carriers directly, or in cases of enterprise equipment, to distributors, system integrators or Value Added Resellers (“VARs”), (which may add specially designed software) prior to resale to the enterprise end-users. Also, the Company sells products directly to sophisticated end-users such as the military.

During 2004, sales to Lucent Technologies and Hewlett Packard accounted for \$12.6 million or 36% and \$9.6 million or 27% of the Company's consolidated revenues, respectively. During 2003, sales to Lucent Technologies and Hewlett Packard accounted for \$13.5 million or 42% and \$9.7 million or 30% of the Company's consolidated revenues, respectively. During 2002, sales to Hewlett Packard and Lucent Technologies accounted for \$8.7 million or 35% and \$7.2 million or 29% of the Company's consolidated revenues, respectively. No other customers accounted for more than 10% of the Company's consolidated revenues in the periods presented.

The Company markets its products through its direct sales force, manufacturers' representatives and value-added distribution partners. In addition to the Company's headquarters in Plano, Texas; the Company has sales offices located in or near Boca Raton, Florida; Santa Clara, California; Minneapolis, Minnesota; Newark, New Jersey; Munich, Germany; Helsinki, Finland; Sydney, Australia; and Paris, France. The Company's direct sales force markets products directly to key customers and support manufacturer's representatives and the distribution channel. In addition, the Company has entered into distribution agreements with key national

and international distribution partners located in countries in North America, Asia and Europe. See Note 13 of the accompanying notes to the consolidated financial statements for information regarding the Company's geographic assets and revenues.

Manufacturing and Supplies

Manufacturing operations are currently conducted at the Company's manufacturing facility located in Carrollton, Texas. The Company's products consist primarily of various integrated circuits, other electronic components and firmware assembled onto an internally designed printed circuit board.

The Company uses internally designed applications or specific integrated circuits (ASIC), some of which are sole-sourced, on some of its products, as well as standard off-the shelf items presently available from two or more suppliers. Historically, the Company has not experienced any significant problems in maintaining an adequate supply of these parts sufficient to satisfy customer demand. The Company believes that it has good relations with its vendors.

The Company generally does not manufacture products to stock finished goods inventory, as substantially all of the Company's production is dedicated to specific customer purchase orders. As a result, the Company has limited requirements to maintain significant finished goods inventories.

Intellectual Property and Patents

While the Company believes that its success is ultimately dependent upon the innovative skills of its personnel and its ability to anticipate technological changes, its ability to compete successfully will depend, in part, upon its ability to protect proprietary technology contained in its products. The Company does not currently hold any patents relative to its current product lines. Instead, the Company relies upon a combination of trade secret, copyright and trademark laws and contractual restrictions to establish and protect proprietary rights in its products. The development of alternative, proprietary and other technologies by third parties could adversely affect the competitiveness of the Company's products. Further, the laws of some countries do not provide the same degree of protection of the Company's proprietary information, as do the laws of the United States. Finally, the Company's adherence to industry-wide technical standards and specifications may limit the Company's opportunities to provide proprietary product features capable of protection.

The Company is also subject to the risk of litigation alleging infringement of third party intellectual property rights. Infringement claims could require the Company to expend significant time and money in litigation, pay damages, develop noninfringing technology or acquire licenses to the technology, which is the subject of asserted infringement.

The Company has entered into several nonexclusive software licensing agreements that allow the Company to incorporate third-party software into its product line thereby increasing its functionality, performance and interoperability.

Employees

At December 31, 2004, the Company had 159 full-time employees, of which 40 were engaged in manufacturing and quality assurance, 60 in research and development, 34 in sales, sales support, customer service and marketing and 25 in general management and administration.

The Company's success to date has been significantly dependent on the contributions of a number of its key technical and management employees. The loss of the services of one or more of these key employees could have a material adverse effect on the Company. In addition, the Company believes that its future success will depend in a large part upon its ability to attract and retain highly skilled and motivated technical, managerial, sales and marketing personnel. Competition for such personnel is intense.

None of the Company's employees are covered by a collective bargaining agreement and there have been no work stoppages. The Company considers its relationship with its employees to be good.

Competition

The Company's competition includes vendors specifically dedicated to the enterprise I/O and telecommunication product markets. Most of the Company's major OEM customers have chosen to outsource the design, manufacture and software integration of certain communications controllers and protocol processing, and the recent market conditions and reduction in resources have forced some network equipment providers to utilize off the shelf products for their product design. Increased competition and commoditization of network interface technologies could result in price reductions, reduced margins and loss of market share.

Risk Factors

Potential Fluctuations in Period-to-Period Results

Interphase has experienced fluctuations in its period-to-period revenue and operating results in the past and may experience fluctuations in the future. The Company's sales on both an annual and a quarterly basis can fluctuate as a result of a variety of factors, many of which are beyond its control. The Company may have difficulty predicting the volume and timing of orders for products, and delays in closing orders can cause the Company's operating results to fall short of anticipated levels for any period. Delays by Interphase's OEM customers in producing products that incorporate the Company's products could also cause operating results to fall short of anticipated levels. Other factors that may particularly contribute to fluctuations in the Company's revenue and operating results include success in achieving design wins, the market acceptance of the OEM products that incorporate the Company's products, the rate of adoption of new products, competition from new technologies and other companies, and the variability of the life cycles of Interphase's customers' products.

Because fluctuations can happen, Interphase believes that comparisons of the results of its operations for preceding quarters are not necessarily predictive of future quarters and that investors should not rely on the results for any one quarter as an indication of how Interphase will perform in the future. Investors should also understand that, if the Company's revenue or

operating results for any quarter are less than the level expected by securities analysts or the market in general, the market price for the Company's common stock could immediately and significantly decline.

Technological Change and New Product Introductions

The market for the Company's products is characterized by rapid technological change and frequent introduction of products based on new technologies. As these products are introduced, the industry standards change. Additionally, the overall telecommunications and networking industry is volatile as the effects of new technologies, new standards, new products and short life cycles contribute to changes in the industry and the performance of industry participants. The Company's future revenue will depend upon the Company's ability to anticipate technological change and to develop and introduce enhanced products of its own on a timely basis that comply with new industry standards. New product introductions, or the delays thereof, could contribute to quarterly fluctuations in operating results as orders for new products commence and orders for existing products decline. Moreover, significant delays can occur between a product introduction and commencement of volume production. A typical time period from design in of one of our products to actual production is 12 to 24 months. The inability to develop and manufacture new products in a timely manner, the existence of reliability, quality or availability problems in its products or their component parts, or the failure to achieve market acceptance for its products could have a material adverse effect on the Company's operating results, financial condition and cash flows.

Competition

The telecommunications, signaling and networking business is extremely competitive, and the Company faces competition from a number of established and emerging start-up companies both public and private. Many of the Company's principal competitors have established brand name recognition and market positions and have substantially greater financial resources to deploy on promotion, advertising and research and product development than the Company. In addition, as the Company broadens its product offerings, it may face competition from new competitors. Companies in related markets could offer products with functionality similar or superior to that offered by the Company's products. Increased competition could result in significant pricing pressures. These pricing pressures could result in significantly lower average selling prices for the Company's products. The Company may not be able to offset the effects of any price reductions with an increase in the number of customers, cost reductions or otherwise. The Company expects that competition will increase as a result of industry consolidations and alliances, as well as the emergence of new competitors. There can be no assurance that the Company will be able to compete successfully with its existing or new competitors or that competitive pressures faced by the Company will not have a material adverse effect on the Company's operating results, financial condition and cash flows.

Dependence on Key Customers

While the Company enjoys a very good relationship with its customers, there can be no assurance that the Company's principal customers will continue to purchase products from the Company at current levels. Orders from our customers are affected by factors such as new product introductions, product life cycles, inventory levels, manufacturing strategies, contract

awards, competitive conditions and general economic conditions. Customers typically do not enter into long-term volume purchase contracts with the Company, and customers have certain rights to extend or delay the shipment of their orders. The loss of one or more of the Company's major customers, or the reduction, delay or cancellation of orders or a delay in shipment of the Company's products to such customers could have a material adverse effect on the Company's operating results, financial condition and cash flows.

Design Wins

A design win occurs when a customer or prospective customer notifies the Company that its product has been selected to be integrated with their product. Ordinarily, there are a number of steps between the design win and when customers initiate production shipments. Design wins reach production volumes at varying rates, typically beginning approximately 12 to 24 months after the design win occurs. A variety of risks such as schedule delays, cancellations of programs and changes in customer markets can delay or prevent the design win from reaching the production phase. The customer's failure to bring their product to the production phase could have an adverse effect on the Company's operating results, financial condition and cash flows.

Product Liability

If the Company delivers products with errors, defects or problems, its credibility and the market acceptance and sales of its products could be harmed. Further, if Interphase's products contain errors, defects and problems, then the Company may be required to expend significant capital and resources to alleviate such problems. Defects could also lead to product liability as a result of product liability lawsuits against Interphase or against its customers. Interphase has agreed to indemnify its customers in some circumstances against liability from defects in its products. While no such litigation currently exists, product liability litigation arising from errors, defects or problems, even if it resulted in an outcome favorable to Interphase, would be time consuming and costly to defend. Existing or future laws or unfavorable judicial decisions could negate any limitation of liability provisions that are included in the Company's license agreements. A successful product liability claim could seriously harm the Company's business, financial condition and results of operations.

Interphase maintains insurance coverage for product liability claims. Although management believes this coverage is adequate, it is not assured that coverage under insurance policies will be adequate to cover product liability claims against the Company. In addition, product liability insurance could become more expensive and difficult to maintain and may not be available in the future on commercially reasonable terms or at all. The amount and scope of any insurance coverage may be inadequate if a product liability claim is successfully asserted against the Company.

Dependence on Third-Party Suppliers

Certain components used in the Company's products are currently available to the Company from one or a limited number of sources. There can be no assurance that future supplies will be adequate for the Company's needs or will be available on prices and terms acceptable to the Company. The Company's inability in the future to obtain sufficient limited-source components,

or to develop alternative sources, could result in delays in product introduction or shipments, and increased component prices could negatively affect the Company's gross margins, either of which could have a material adverse effect on the Company's operating results, financial condition and cash flows.

Dependence on Internal Manufacturing

The Company manufactures its products at its Carrollton, Texas facility, and is currently in negotiations to establish alternative manufacturing capabilities through a third party in the event of a disaster in its current facility. If the Company is successful in establishing an alternative third-party contract manufacturer, there can be no assurance that the Company would be able to retain their services at the same costs that the Company currently enjoys. In the event of an interruption in production, the Company may not be able to deliver products on a timely basis, which could have a material adverse effect on the Company's revenue and operating results. Although the Company currently has business interruption insurance and a disaster recovery plan to minimize the effect of the interruption, no assurances can be given that such insurance or recovery plan will adequately cover the Company's lost business as a result of such an interruption.

Dependence on Proprietary Technology

The Company's success depends partly upon certain proprietary technologies developed in its software. To date, the Company has relied principally upon trademark, copyright and trade secret laws to protect its proprietary technologies. The Company generally enters into confidentiality or license agreements with its customers, distributors and potential customers and limits access to and distribution of the source code to its software and other proprietary information. The Company's employees are subject to the Company's employment policy regarding confidentiality. There can be no assurance that the steps taken by the Company in this regard will be adequate to prevent misappropriation of its technologies or to provide an effective remedy in the event of a misappropriation by others.

Although management believes that the Company's products do not infringe on the proprietary rights of third parties, there can be no assurance that infringement claims will not be asserted, possibly resulting in costly litigation in which the Company may not ultimately prevail. Adverse determinations in such litigation could result in the loss of the Company's proprietary rights, subject the Company to significant liabilities, require that the Company seek licenses from third parties or prevent the Company from manufacturing or selling its products, any of which could have a material adverse effect on the Company's operating results, financial condition and cash flows.

It may be necessary for the Company to obtain technology licenses from others due to the large number of patents in the computer networking industry and the rapid rate of issuance of new patents and new standards or to obtain important new technology. There can be no assurance that these third party technology licenses will be available to the Company on commercially reasonable terms. The loss of or inability to obtain any of these technology licenses could result in delays or reductions in product shipments. Such delays or reductions in product shipments could have a material adverse effect on the Company's operating results, financial condition and cash flows.

Dependence on Employees

The Company's success depends on the continued contributions of its personnel and on its ability to attract and retain skilled employees. Changes in personnel could adversely affect the Company's operating results, financial condition and cash flows.

Foreign Currency

The Company is exposed to adverse movements in foreign currency exchange rates because it conducts business on a global basis and in some cases in foreign currencies. The Company's operations in France are measured in the local currency and converted into U.S. Dollars based on published exchange rates for the periods reported and are therefore subject to risk of exchange rate fluctuations (See Item 7A – Foreign Currency Risk).

The Company has Incurred Significant Losses in the Past

Although the Company posted net income of approximately \$1.7 million for the year ended December 31, 2004, the Company has incurred net losses of approximately \$769,000 for the year ended December 31, 2003, \$8.4 million for the year ended December 31, 2002, and \$9.6 million for the year ended December 31, 2001. As part of a broader strategic refocusing, the Company developed a strategy to end-of-life many of its legacy products in an effort to focus its resources on its new product lines. This strategy resulted in increased sales of legacy products in 2000, however legacy product revenues have consistently declined since. Management does not expect significant revenues from its legacy product lines in future periods. In order to sustain its profitability, the Company will need to generate higher revenues while containing costs and operating expenses. Management cannot be certain that the Company's revenues will continue to grow or that the Company will achieve sufficient revenues to maintain profitability on a long-term, sustained basis.

The Company May Need More Working Capital to Fund Operations and Expand the Business

Management believes the Company's current financial resources will be sufficient to meet the present working capital and capital expenditure requirements for the next twelve months. However, the Company may need to raise additional capital before this period ends to further:

- fund research and development of new products beyond what is expected in 2005;
- expand the Company's product and service offerings beyond what is contemplated in 2005 if unforeseen opportunities arise;
- respond to unforeseen competitive pressures.

The Company's future liquidity and capital requirements will depend upon numerous factors, including the success of the existing and new product and service offerings and potentially competing technological and market developments. However, any projections of future cash flows are subject to substantial uncertainty. If current cash, marketable securities, lines of credit and cash generated from operations are insufficient to satisfy the liquidity requirements, the Company may seek to sell additional equity securities, issue debt securities or increase the Company's working capital line of credit. The sale of additional equity securities could result in additional dilution to the Company's shareholders. From time to time, management expects to

evaluate the acquisition of, or investment in businesses and technologies that complement the Company. Acquisitions or investments might impact the Company's liquidity requirements or cause the Company to sell additional equity securities or issue debt securities. There can be no assurance that financing will be available in amounts or on terms acceptable to the Company, if at all. If adequate funds were not available on acceptable terms, the Company's ability to develop or enhance products and services, take advantage of future opportunities or respond to competitive pressures would be limited. This limitation could negatively impact the results of operations, financial condition and cash flows of the Company.

The Market Price of the Company's Common Stock is Likely to Continue to be Volatile

The trading price of the Company's common stock is subject to wide fluctuations in response to quarter-to-quarter fluctuations in operating results, general conditions in the computer and communications industries and other events or factors. In addition, stock markets have experienced extreme price and trading volume volatility in recent years. This volatility has had a substantial effect on the market price of the securities of many high technology companies for reasons frequently unrelated to the operating performance of the specific companies. These broad market fluctuations may adversely affect the market price of the Company's common stock. The Company's common stock has historically had relatively small trading volumes. As a result, small transactions in the Company's common stock can have a disproportionately large impact on the quoted price of the Company's common stock.

2006 will be the First Year That the Company's Internal Controls Over Financial Reporting Will be Audited by Our Independent Registered Public Accounting Firm in Accordance with Section 404 of the Sarbanes-Oxley Act of 2002 unless the company becomes an accelerated filer in 2005.

The year ending December 31, 2006 will be the first year that the Company's internal controls over financial reporting will be audited by the Company's independent registered public accounting firm in accordance with Section 404 of the Sarbanes-Oxley Act of 2002 ("Section 404"). However, if the Company becomes an accelerated filer in 2005 then the year ending December 31, 2005 will be the first year that the Company's internal controls over financial reporting will be audited in accordance with Section 404. As a result of the ongoing interpretation of new guidance issued by the standards-setting community and the audit testing yet to be completed, the Company's internal controls over financial reporting may include an unidentified material weakness which would result in receiving an adverse opinion on the Company's internal controls over financial reporting from the Company's independent registered public accounting firm. This could result in significant additional expenditures responding to the Section 404 internal control audit, heightened regulatory scrutiny and potentially an adverse effect to the price of the Company's stock.

ITEM 2. **PROPERTIES**

The Company's executive offices are located in a 22,000-square foot leased facility located in Plano, Texas. The executive offices serve as the primary location for the Company's administrative, engineering and marketing functions. The Company's manufacturing and

operations center is located in a 24,000-square foot leased facility in Carrollton, Texas. The executive offices lease extends through the end of 2008 and the manufacturing and operations center lease extends through the end of 2005. The Company also leases a 3,000-square foot facility in Lisle, Illinois that supports an engineering laboratory. The Lisle, Illinois lease extends through October 2006. In addition, the Company leases a 9,000-square foot facility in Chaville, France (near Paris) that primarily supports an engineering team. The Chaville, France lease which the Company is in the process of renewing, expires in June 2005. The Company believes that its facilities and equipment are in good operating condition and are adequate for its operations. The Company owns most of the equipment used in its operations. Such equipment consists primarily of engineering equipment, manufacturing and test equipment and fixtures.

ITEM 3. **LEGAL PROCEEDINGS**

None

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

Not applicable

PART II

ITEM 5. **MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES**

Since January 1984, shares of the Company's common stock have been traded on the Nasdaq National Market, or its predecessors, under the symbol INPH. The following table summarizes its high and low closing price for each quarter during 2004 and 2003 as reported by Nasdaq.

<u>2004</u>	<u>High</u>	<u>Low</u>
First Quarter	19.17	11.30
Second Quarter	12.67	8.36
Third Quarter	12.65	9.21
Fourth Quarter	10.22	6.70

<u>2003</u>	<u>High</u>	<u>Low</u>
First Quarter	4.25	3.17
Second Quarter	7.69	3.97
Third Quarter	10.58	6.50
Fourth Quarter	18.05	8.77

On March 10, 2005 there were approximately 56 shareholders of record of the Company's common stock.

The Company has not paid dividends on its common stock since its inception. The Board of Directors does not anticipate payment of any dividends in the foreseeable future and intends to continue its present policy of retaining earnings for reinvestment in the operations of the Company.

The Board of Directors has adopted a Shareholder Rights Plan whereby each holder of record as of December 29, 2000 received a right to purchase from the Company one share of common stock of the Company at a price of \$93 per share for each share held. These rights can only be exercised after certain events occur, such as if a person or entity acquires, or makes a tender or exchange offer to acquire 15% or more of the Company's common stock and the rights expire ten years from the record date. Upon acquisition of 15% or more of the Company's common stock, each right not owned by the acquiring person or group will be adjusted to allow the purchase for \$93 of a number of shares having a then market value of \$186. These rights are intended to provide the Company certain anti-takeover protections. The Board of Directors may terminate the Rights Plan, or redeem the rights for \$0.01 per right, at any time until the tenth business day following a public announcement of a 15% or more stock acquisition. The Company has reserved 7,000,000 shares of common stock for this plan. The rights were distributed to shareholders as of the record date as a nontaxable dividend. The rights are attached to and trade with Interphase common stock until the occurrence of one of the triggering events, at which time the rights would become detached from the common stock.

In November 2001, the Board of Directors authorized the repurchase of up to \$5 million of the Company's common stock. Purchases were authorized to be made from time to time during a twenty-four month period, ending in November 2003, in the open market or in privately negotiated transactions depending on market conditions. The Company canceled all shares that it repurchased.

See Note 8 of the accompanying notes to the consolidated financial statements for information regarding the Company's shareholder approved stock incentive plans.

ITEM 6. **SELECTED CONSOLIDATED FINANCIAL DATA**

The selected consolidated financial data presented below under the captions "Statement of Operations Data" and "Balance Sheet Data" have been derived from the consolidated balance sheets and the related statements of operations for the years ended December 31, 2004, 2003, 2002, 2001 and 2000, and the notes thereto appearing elsewhere herein, as applicable.

It is important that you also read "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" and the consolidated financial statements, including the notes, for the years ended December 31, 2004, 2003, and 2002.

Statement of Operations Data:

(In thousands, except per share data)

	Year ended December 31				
	2004	2003	2002	2001	2000
Revenue	\$ 35,015	\$ 32,490	\$ 25,123	\$ 28,732	\$ 55,697
Gross margin	19,171	16,909	9,792	9,004	29,688
Research and development	8,033	7,719	7,005	7,757	10,359
Sales and marketing	6,107	6,929	5,991	6,812	10,731
General and administrative	3,675	3,547	3,285	3,759	4,824
Restructuring costs and other special charges	-	-	-	2,091	-
Goodwill impairment charge	-	-	-	2,350	-
Income (loss) from operations	1,356	(1,286)	(6,489)	(13,765)	3,774
Other, net	240	305	611	(20)	333
Income (loss) from continuing operations before income taxes	1,596	(981)	(5,878)	(13,785)	4,107
Income tax (benefit) provision	(122)	(212)	2,523	(4,213)	1,707
Income (loss) from continuing operations	1,718	(769)	(8,401)	(9,572)	2,400
Discontinued operations, net	-	-	-	-	571
Net income (loss)	\$ 1,718	\$ (769)	\$ (8,401)	\$ (9,572)	\$ 2,971
Income (loss) from continuing operations per share					
Basic EPS	\$ 0.30	\$ (0.14)	\$ (1.51)	\$ (1.68)	\$ 0.41
Diluted EPS	\$ 0.27	\$ (0.14)	\$ (1.51)	\$ (1.68)	\$ 0.38
Net income (loss) income per share					
Basic EPS	\$ 0.30	\$ (0.14)	\$ (1.51)	\$ (1.68)	\$ 0.51
Diluted EPS	\$ 0.27	\$ (0.14)	\$ (1.51)	\$ (1.68)	\$ 0.48
Weighted average common shares	5,719	5,544	5,551	5,705	5,805
Weighted average common and dilutive shares	6,312	5,544	5,551	5,705	6,237

Balance Sheet Data:

(In thousands)

	December 31,				
	2004	2003	2002	2001	2000
Working capital	\$ 26,450	\$ 24,255	\$ 24,254	\$ 31,601	\$ 37,502
Total assets	32,098	30,743	30,749	39,243	54,473
Total liabilities	7,310	7,930	7,931	7,323	12,534
Redeemable common stock	-	-	-	762	1,780
Shareholders' equity	24,788	22,813	22,818	31,158	40,159

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

This report contains forward-looking statements about the business, financial condition and prospects of the Company. These statements are made under the “safe harbor” provisions of the Private Securities Litigation Reform Act of 1995. The actual results of the Company could differ materially from those indicated by the forward-looking statements because of various risks and uncertainties, including without limitation, our reliance on a limited number of customers, failure to see spending improvements in the telecommunications and computer networking industries, significant changes in product demand, the availability of products, changes in competition, various inventory risks due to changes in market conditions and other risks and uncertainties indicated in the Company’s filings and reports with the Securities and Exchange Commission. All the foregoing risks and uncertainties are beyond the ability of the Company to control, and in many cases, the Company cannot predict the risks and uncertainties that could cause its actual results to differ materially from those indicated by the forward-looking statements. When used in this report, the words “believes,” “plans,” “expects,” “intends,” and “anticipates” and similar expressions as they relate to the Company or its management are intended to identify forward-looking statements.

APPLICATION OF CRITICAL ACCOUNTING POLICIES

The Company’s consolidated financial statements are based on the selection and application of significant accounting policies, which require management to make significant estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Management believes the following are some of the more critical judgment areas in the application of the Company’s accounting policies that affect the Company’s financial condition and results of operations. Management has discussed the application of these critical accounting policies with the Board of Directors and Audit Committee.

Revenue Recognition: Revenues consist of product and service revenues and are recognized in accordance with SEC Staff Accounting Bulletin (“SAB”) 104, “Revenue Recognition.” Product revenues are recognized upon shipment, provided fees are fixed and determinable, a customer purchase order is obtained (when applicable), and collection is probable. Revenues from reseller agreements are recognized when the product is sold through to the end customer unless an established return history supports recognizing revenue upon shipment, less a provision for estimated sales returns. Deferred revenue consists primarily of revenue from reseller arrangements, service revenue and certain arrangements with extended payment terms. Revenue from extended payment terms is recognized in the period the payment becomes due if all other revenue recognition criteria have been met. Service revenue is recognized as the services are performed.

Revenue derived from the development and installation of highly customized software packages under a professional services contract is recognized on a percentage of completion basis measured by the relationship of hours worked to total estimated contract hours and the costs incurred as of the date of measurement. The Company follows this method since reasonably dependable estimates of the revenue and contract hours applicable to various elements of a contract can be made. Since the

financial reporting of these contracts depends upon estimates, which are assessed continually during the term of these contracts, recognized revenue and profit are subject to revisions as the contract progresses to completion. Revisions in profit estimates are reflected in the period in which the facts that give rise to the revisions become known. Accordingly, favorable changes in estimates result in additional revenue recognition and net income, and unfavorable changes in estimates result in a reduction of recognized revenue and net income. If estimates were to indicate that a loss would be incurred on a contract upon completion, a provision for the expected loss would be recorded in the period in which the loss became evident.

Warranty Reserve: The Company offers to its customers a limited warranty that its products will be free from defect in the materials and workmanship for a specified period. The Company has established a warranty reserve, as a component of accrued liabilities, for any potential claims. The Company estimates its warranty reserve based upon an analysis of all identified or expected claims and an estimate of the cost to resolve those claims. Changes in claim rates and differences between actual and expected warranty costs could impact the warranty reserve estimates.

Allowance for Doubtful Accounts: Management is required to estimate the collectibility of the Company's trade receivables. A considerable amount of judgment is required in assessing the realization of these receivables, including the current creditworthiness of each customer and related aging of the past due balances. Management evaluates all accounts periodically and a reserve is established based on the best facts available to management and reevaluated and adjusted as additional information is received. The reserves also are determined by using percentages applied to certain aged receivable categories based on historical results.

Allowance for Returns: The Company estimates its allowance for returns based upon expected return rates. The estimates of expected return rates are generally a factor of historical returns. Changes in return rates could impact allowance for return estimates.

Inventories: Inventories are valued at the lower of cost or market and include material, labor and manufacturing overhead. Cost is determined on a first-in, first-out basis. Valuing inventories at the lower of cost or market involves an inherent level of risk and uncertainty due to technology trends in the industry and customer demand for our products. In assessing the ultimate realization of inventories, management is required to make judgments as to future demand requirements and compare that with the current or committed inventory levels. Reserve requirements generally increase as projected demand requirements decrease due to market conditions, technological and product life cycle changes as well as longer than previously expected usage periods. The Company has experienced significant changes in required reserves in the past due to changes in strategic direction, such as discontinuances of product lines as well as declining market conditions. It is possible that significant changes in this estimate may continue to occur in the future as market conditions change.

Long-Lived Assets: Property and Equipment and other long-lived assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. Such determination is made in accordance with the applicable Generally Accepted Accounting Principles ("GAAP") requirements associated with the long-lived asset, and is based upon, among other things, estimates of the amount of future net cash flows to be generated by the long-lived asset and estimates of the current fair value of the asset. Adverse

changes in such estimates could result in an inability to recover the carrying value of the long-lived asset, thereby possibly requiring an impairment charge to be recognized in the future. All impairments are recognized in operating results when a permanent reduction in value occurs.

Tax Assessments: The Company is periodically engaged in various tax audits by federal and state governmental authorities incidental to its business activities. The Company records reserves for its estimated probable losses of these proceedings, if applicable.

Deferred Taxes: The Company records a valuation allowance to reduce its deferred income tax assets to the amount that is believed to be realizable under the guidance of Statement of Financial Accounting Standards No. 109 "Accounting for Income Taxes." The Company considers recent historical losses, future taxable income and ongoing prudent and feasible tax planning strategies in assessing the need for a valuation allowance. Management is required to make a continuous assessment as to the realizability of the deferred tax assets.

CONSOLIDATED STATEMENT OF OPERATIONS AS A PERCENTAGE OF REVENUE

	Year ended December 31,		
	2004	2003	2002
Revenue	100.0%	100.0%	100.0%
Cost of sales	45.2%	48.0%	61.0%
Gross margin	54.8%	52.0%	39.0%
Research and development	22.9%	23.8%	27.9%
Sales and marketing	17.5%	21.3%	23.8%
General and administrative	10.5%	10.9%	13.1%
Income (loss) from operations	3.9%	(4.0)%	(25.8)%
Interest income, net	0.7%	0.7%	2.0%
Other income, net	0.0%	0.3%	0.4%
Income (loss) before income taxes	4.6%	(3.0)%	(23.4)%
Income tax (benefit) provision	(0.3)%	(0.6)%	10.0%
Net income (loss)	4.9%	(2.4)%	(33.4)%

OVERVIEW

During 2004, we recorded our second consecutive year of revenue growth and our first full year of profitable operations since 2000. As we continue to add value to our product offerings, through innovative new technologies, we have been able to improve our gross margin three consecutive years due to lower excess and obsolete inventory charges, improved product mix, improved manufacturing efficiencies and achieved reductions in material costs of certain product lines due to increased production volumes. Total operating expenses decreased slightly in 2004 compared to 2003 as we continued to manage resources very judiciously throughout the year.

The Company continues to enjoy a strong and extremely liquid balance sheet. Cash and securities increased to their highest year-end level in the Company's history. Total liabilities decreased to their lowest levels since 1995 and working capital reached its highest level since 2001.

RESULTS OF OPERATIONS

Revenue: Total revenue for the years ended December 31, 2004, 2003 and 2002 were \$35 million, \$32.5 million and \$25.1 million, respectively.

Revenue increased 8% in 2004 compared to 2003. This increase was primarily attributable to broadband telecom product revenue. Broadband telecom revenue increased approximately 13% to \$20.2 million for the year ended December 31, 2004 compared to \$17.8 million for the year ended December 31, 2003. This increase was partially offset by SlotOptimizer revenue which declined approximately 6% to \$10.7 million for the year ended December 31, 2004 compared to \$11.4 million for the year ended December 31, 2003. The Company anticipates that SlotOptimizer revenue will continue to decline as the product line ages. All other revenue, composed primarily of security, professional services and legacy networking and storage product lines, increased approximately 26% for the year ended December 31, 2004 to \$4.1 million compared to \$3.3 million for the year ended December 31, 2003. One of the Company's major challenges in 2005 will be to replace the revenue impacted by our largest telecom customer migrating to a more cost effective Interphase controller board for their application. This migration makes for a more competitive solution offering which our customer will be selling in very price sensitive markets. Although we anticipate some volume growth due to this migration, we do not anticipate that growth to be sufficient enough to replace the revenue impacted by the transition. However, the company anticipates that revenue levels for 2005 will be comparable or higher as certain design wins from prior periods move into production and that customers will increase the part of product rollout.

Revenue increased 29% in 2003 compared to 2002. The increase was primarily attributable to broadband telecom and SlotOptimizer product revenue. Broadband telecom revenue increased approximately 51% to \$17.8 million for the year ended December 31, 2003 compared to \$11.8 million for the year ended December 31, 2002. In addition, SlotOptimizer revenue increased approximately 33% to \$11.4 million for the year ended December 31, 2003 compared to \$8.6 million for the year ended December 31, 2002. The increase in revenue related to these product lines was partially offset by the continued decrease in revenue related to legacy networking and storage product lines, which decreased approximately 72% to \$1.0 million for the year ended December 31, 2003, compared to \$3.7 million for the year ended December 31, 2002.

Gross Margin: Gross margin as a percentage of sales for the years ended December 31, 2004, 2003 and 2002 was 55%, 52% and 39%, respectively. The increase in the gross margin percentage in 2004 compared to 2003 is partially due to a continued shift toward more complex, and thus, higher margin products. In addition, the Company's excess and obsolete inventory charges decreased to \$300,000 for the year ended December 31, 2004, compared to \$700,000 for the year ended December 31, 2003. The Company also improved manufacturing efficiencies and achieved reductions in material costs for certain product lines due to increased production volumes. The Company believes that pricing pressures in the industry may dampen gross margins in future periods and it may become increasingly challenging to offset these pressures with incremental supplier cost reductions and factory productivity improvements.

The increase in the gross margin percentage in 2003 compared to 2002 is partially due to a continued shift in product mix toward more complex, and thus, higher margin products. In addition, the Company's excess and obsolete inventory charges decreased to \$700,000 for the year ended December 31, 2003, compared to \$1.8 million for the year ended December 31, 2002.

Research and Development: The Company's investment in the development of new products through research and development was \$8.0 million, \$7.7 million and \$7.0 million in 2004, 2003 and 2002, respectively. As a percentage of revenue, research and development expenses were 23%, 24% and 28% for 2004, 2003 and 2002, respectively. The Company anticipates that spending on research and development will remain steady in 2005, except for fluctuations in currency exchange rates because much of the Company's development expenses are associated with its engineering lab in France (see Item 7A – Foreign Currency Risk), as the Company continues to invest in development of our current and future products, however, the Company will continue to monitor the level of its investments concurrently with actual revenue results.

Research and development expenses increased \$314,000 in 2004 compared to 2003. The increase in research and development expense primarily is due to foreign currency changes as the dollar dropped significantly in value relative to the Euro (see Item 7A – Foreign Currency Risk) partially offset by reduced general overhead spending as the Company continues to work toward keeping break even levels as low as possible. The decrease in research and development costs as a percentage of total revenue is due to revenue increasing at a higher rate than research and development costs for the year.

Research and development expenses increased \$714,000 in 2003 compared to 2002. Approximately 78% of the increase in research and development expenses year over year is due to foreign currency changes as the dollar dropped significantly in value relative to the Euro (see Item 7A – Foreign Currency Risk). The remaining portion of the increase is primarily due to an increase in the development of new Broadband telecom products. The decrease in research and development costs as a percentage of total revenue is due to revenue increasing at a higher rate than research and development costs for the year.

Sales and Marketing: Sales and marketing expenses were \$6.1 million, \$6.9 million and \$6.0 million in 2004, 2003 and 2002, respectively. As a percentage of revenue, sales and marketing expenses were 18%, 21% and 24% for 2004, 2003 and 2002, respectively.

Sales and marketing expense decreased \$822,000 in 2004 compared to 2003. Approximately 82% of the decrease in sales and marketing expenses for the twelve months ended December 31, 2004 compared to the twelve months ended December 31, 2003 related to a reduction in sales

and marketing headcount related expenses, including contract labor and sales commissions. The remaining portion of the decrease primarily relates to reductions in advertising and promotional activities. The decrease in sales and marketing expense as a percentage of total revenue is due to revenue increasing while sales and marketing expenses decreased.

Sales and marketing expense increased \$938,000 in 2003 compared to 2002. Approximately 66% of the increase in sales and marketing year over year is due to higher sales commissions and bonuses due to higher revenue levels and other headcount related expenses in the sales organization. Additionally, approximately 23% of the increase in sales and marketing expense relates to higher marketing expenditures, including headcount. The remaining portion of the increase is due to increased travel and related expenses. The decrease in sales and marketing expense as a percentage of total revenue is due to revenue increasing at a higher rate than sales and marketing expense for the year.

General and Administrative: General and administrative expenses were \$3.7 million, \$3.5 million and \$3.3 million in 2004, 2003 and 2002, respectively. As a percentage of revenue, general and administrative expenses were 11%, 11% and 13% for 2004, 2003 and 2002, respectively.

General and administrative expenses increased \$128,000 in 2004 compared to 2003. The increase in general and administrative expenses primarily relates to increased employee compensation including bonuses tied to increased revenues and profits.

General and administrative expenses increased \$262,000 in 2003 compared to 2002. Approximately 84% of the increase in general and administrative expenses year over year is due to an increase in insurance premiums and other legal and accounting related expenses. The remaining portion of the increase is due to headcount related expenses partially offset by reductions in corporate spending related to the change in facilities in November of 2002. The decrease as a percentage of total revenue is due to revenue for the period increasing at a higher rate than general and administrative expenses.

Interest, Net: Interest income, net of interest expense, was \$232,000, \$226,000 and \$517,000 in 2004, 2003 and 2002, respectively.

The decrease in interest income, net of interest expense in 2003 compared to 2002 is primarily due to lower cash levels during 2003 as well as lower investment rates of return.

Other Income, Net: Other income, net, was \$8,000, \$79,000 and \$94,000 in 2004, 2003 and 2002, respectively.

Income Taxes: The Company's effective income tax rates were (8%) in 2004, (22%) in 2003 and 43% in 2002.

The effective tax rates for the periods presented differ from the U.S. statutory rate as the Company continues to provide a full valuation allowance for its net deferred tax assets at December 31, 2004, 2003 and 2002.

During the first quarter of 2004, after conducting a thorough review of the Company's Internal revenue Service ("IRS") transcripts, the Company discovered that the IRS had not paid allowable

interest on the refund from the IRS audit described below. As a result, the Company recognized a tax benefit of approximately \$100,000 in 2004.

During the third quarter 2003, the IRS concluded a federal income tax audit of the Company related to the tax years 1996 through 2001. In addition, the French tax administration also concluded a tax audit of the Company's French subsidiary covering the same periods resulting in a finding of no tax due. Due to the finalization of both tax audits, the Company recognized a benefit of approximately \$245,000 during the year ended December 31, 2003. This benefit was partially offset by taxes on foreign income.

The effective tax provision rate for 2002 was significantly more than the U.S. statutory rate due to a non-cash charge of approximately \$4.9 million to provide a full valuation allowance for the net deferred tax assets at December 31, 2002. The effective tax benefit rate excluding this charge would have been (40%), which differed from the U.S. statutory rate primarily due to the benefit of a foreign tax loss carry forward. The foreign tax loss carry forward expired at December 31, 2002.

Net Income (Loss): The Company reported net income of \$1.7 million for the twelve months ended December 31, 2004. The Company reported a net loss of \$769,000 in 2003 and \$8.4 million in 2002.

LIQUIDITY AND CAPITAL RESOURCES

Consolidated Cash Flows

During 2004 the Company purchased approximately \$14.0 million in marketable securities, which decreased cash and cash equivalents by \$9.3 million for the year ended December 31, 2004. Cash and cash equivalents increased \$4.3 million for the year ended December 31, 2003 and decreased \$558,000 for the year ended December 31, 2002. Cash flows are impacted by operating, investing and financing activities.

Operating Activities: Trends in cash flows from operating activities for 2004, 2003 and 2002, are generally similar to the trends in the Company's earnings except for noncash realized holding period loss on marketable securities, provision for uncollectible accounts and returns, provision for excess and obsolete inventory, depreciation and amortization and deferred income taxes. Cash provided by operating activities totaled \$1.5 million, \$385,000 and \$1.9 million for the years ended December 31, 2004, 2003 and 2002, respectively, compared to net income of \$1.7 million, a net loss of \$769,000 and a net loss of \$8.4 million in 2004, 2003 and 2002, respectively. The Company incurred noncash realized holding period losses on marketable securities in 2002 related to the other than temporary impairment of certain marketable securities received in the sale of the Company's Voice Over Internet Protocol ("VOIP") business. Provisions for uncollectible accounts and returns decreased during all three years due to the reduction in accounts receivable, an increased focus on credit evaluation and improved returns experience. Provision for excess and obsolete inventories has decreased in 2004 and 2003. Depreciation and amortization decreased slightly in 2004. Deferred income taxes decreased in 2002, due to the establishment of a full valuation allowance for the Company's domestic deferred tax assets (See Note to the consolidated financial statements).

Changes in assets and liabilities result primarily from the timing of production, sales and purchases. Such changes in assets and liabilities generally tend to even out over time and result in trends in cash flows from operating activities generally reflecting earnings trends.

Investing Activities: The Company's investing activities resulted in a net cash use of \$11.3 million, \$484,000 and \$1.8 million in 2004, 2003 and 2002, respectively. Cash used in investing activities in each of the three years related principally to additions to property and equipment, capitalized software and the Company's investments in marketable securities. Additions to property and equipment and capitalized software in each of the three years focused on the manufacturing, sales and engineering functions of the Company. The expenditures in 2004 were focused on software and equipment purchases for the sales, engineering and information technology functions of the Company. The expenditures in 2003 related primarily to manufacturing equipment and capitalized software used in the engineering and sales functions. Expenditures in 2002 related primarily to leasehold improvements made to the Company's new corporate offices and manufacturing facility and to the purchase of new manufacturing equipment which utilizes new technologies and increases automation of the manufacturing process to provide improved productivity and efficiency. Purchases of marketable securities significantly increased to \$14.0 million in 2004 compared to \$1.7 million in 2003 as the Company adjusted its investment strategy in 2004. Proceeds from the sale of marketable securities increased slightly and was \$3.3 million in 2004 compared to \$2.1 million in 2003.

Financing Activities: Net cash provided by financing activities totaled \$422,000 for the year ended December 31, 2004 and \$4.4 million for the year ended December 31, 2003. Net cash used by financing activities totaled \$783,000 for the year ended December 31, 2002. Cash provided by financing activities in 2004 is comprised of \$422,000 in proceeds from the exercise of stock options. Cash provided by financing activities in 2003 includes the removal of \$3.5 million of restrictions on cash in 2003 and \$931,000 in proceeds from the exercise of stock options due to the increase in stock option exercises as a result of the Company's increased stock price during the second half of 2003. Cash used from financing activities in 2002 includes the purchase of redeemable common stock of \$762,000 and the purchase of common stock of \$21,000.

Commitments

At December 31, 2004, the Company had no material commitments to purchase capital assets, however, planned capital expenditures for 2005 are estimated at approximately \$1.0 million, the majority of which relate to the Company's engineering tools and general office equipment. The Company's significant long-term obligations are its operating leases on its facilities and future debt payments. The Company has not paid any dividends since its inception and does not anticipate paying any dividends in 2005.

The following table summarizes the Company's future contractual obligations and payment commitments as of December 31, 2004.

Contractual Obligation	2005	2006	2007	2008	Total
Operating leases (1)	\$ 604	\$ 410	\$ 403	\$ 411	\$ 1,828
Long-term debt (2,3)	\$ 123	\$ 123	\$ 3,571	-	\$ 3,817
Total	\$ 727	\$ 533	\$ 3,974	\$ 411	\$ 5,645

- (1) The Company leases its facilities under non-cancelable operating leases with the longest terms extending to December 2008.
- (2) At December 31, 2004, the Company had borrowings of \$3.5 million under a \$5 million revolving credit facility with a bank. The revolving credit facility matures on July 31, 2007 and is secured throughout the term of the credit facility by marketable securities.
- (3) The Company incurs interest expense on the borrowings from the revolving credit facility at a rate of LIBOR + 1% (3.5% at December 31, 2004). The Company used the 3.5% rate to estimate interest expense for 2005 through July 2007. The interest expense estimate is \$123,000, \$123,000 and \$71,000 for years 2005, 2006 and 2007, respectively.

Contingencies

The Company has agreed to perform a minor repair, at no cost to a customer, of approximately 1,800 units that were shipped between December 2003 and April 2004. The actual cost to repair the units is insignificant. However, the Company has estimated that other costs including shipping related charges and installation related charges could be more significant. The Company has estimated that the range of the potential liability is between approximately \$225,000 and \$650,000 but cannot determine an amount within that range which is more likely than another. Therefore, in accordance with Financial Accounting Standards Board Interpretation No. 14 "Reasonable Estimation of the Amount of a Loss - an Interpretation of FASB Statement No. 5", the Company has recorded, in accrued liabilities, the minimum liability amount of approximately \$225,000 at December 31, 2004.

Other

Management believes that cash generated from operations and borrowing availability under the revolving credit facility, together with cash on hand, will be sufficient to meet the Company's liquidity needs for working capital, capital expenditures and debt services. To the extent that the Company's actual operating results or other developments differ from the Company's expectations, Interphase's liquidity could be adversely affected.

The Company periodically evaluates its liquidity requirements, alternative uses of capital, capital needs and available resources in view of, among other things, its capital expenditure requirements, and estimated future operating cash flows. As a result of this process, the Company has in the past and may in the future seek to raise additional capital, refinance or

restructure indebtedness, issue additional securities, repurchase shares of its common stock or take a combination of such steps to manage its liquidity and capital resources. In the normal course of business, the Company may review opportunities for acquisitions, joint ventures or other business combinations in the component products industry. In the event of any such transaction, the Company may consider using available cash, issuing additional equity securities or increasing the indebtedness of the Company or its subsidiaries.

Recently Issued Accounting Pronouncements

In October 2004, the American Jobs Creation Act of 2004 was enacted into law. The new law provides for a special 85% deduction for certain dividends received in 2005 from controlled foreign corporations. Because certain details in the new law lack clarification, and the impact of the special dividend received deduction to the Company is dependent, in part, on the Company's 2005 foreign and domestic taxable income, the Company has not yet determined whether it will benefit from the new law. In 2005, the Company plans to evaluate both clarifying guidance on the new law from the Internal Revenue Service and its year-to-date taxable income activity to determine the level of benefit, if any, the Company will derive from the special dividend received deduction.

Beginning in 2005, the new law also provides for a special deduction from U.S. taxable income equal to a stipulated percentage of a U.S. company's qualified income from domestic manufacturing activities (as defined). Although the Company believes that the majority of its operations meet the definition of qualified domestic manufacturing activities, the Company does not expect to benefit from the special manufacturing deduction in 2005, primarily because the Company projects its U.S. taxable income in 2005 will be fully offset by its existing U.S. NOL carryforwards.

In December 2004, the FASB issued SFAS No. 123 (R), "Share Based Payments", which replaces SFAS No. 123, "Accounting for Stock-Based Compensation", and supersedes APB Opinion No. 25, "Accounting for Stock Issued to Employees" and amends SFAS No. 95, "Statement of Cash Flows". SFAS No. 123 (R) requires all share-based payments to employees, including grants of employee stock options, to be recognized in the income statement based on their fair values. As such, pro forma disclosure in lieu of expensing is no longer an alternative. The new standard is effective in the first interim or annual reporting period beginning after June 15, 2005. The Company is currently assessing the impact that the statement may have on its financial statements.

In December 2004, the FASB issued SFAS No. 151 "Inventory Costs, an Amendment of ARB No. 43, Chapter 4". SFAS No. 151 clarifies the accounting for abnormal amounts of idle facility expense, freight, handling costs and wasted material and requires that these items be recognized as current period charges. SFAS No. 151 applies only to inventory costs incurred during periods beginning after the effective date and also requires that the allocation of fixed production overhead to conversion costs be based on the normal capacity of the production facilities. SFAS No. 151 is effective for the Company's fiscal year beginning January 1, 2006. The Company is currently assessing the impact, if any, of the adoption of the provisions of SFAS No. 151.

In December 2004, the FASB issued SFAS No. 153, "Exchanges of Nonmonetary Assets", which amends APB Opinion No. 29. The guidance in APB No. 29, "Accounting for Nonmonetary Transactions", is based on the principle that exchanges of nonmonetary assets should be measured based on the fair value of the assets exchanged. The amendment made by SFAS No. 153 eliminates

the exception for exchanges of similar productive assets and replaces it with a broader exception for exchanges of nonmonetary assets that do not have commercial substance. The provisions of the statement are effective for exchanges taking place in fiscal periods beginning after June 15, 2005. The Company does not believe the adoption of this statement will have a material impact on our financial statements.

ITEM 7A. **QUANTITATIVE AND QUALITATIVE DISCLOSURE ABOUT MARKET RISK**

Foreign Currency Risk

The Company is exposed to adverse movements in foreign currency exchange rates because it conducts business on a global basis and in some cases in foreign currencies. The Company's operations in France are measured in the local currency and converted into U.S. Dollars based on published exchange rates for the periods reported and are therefore subject to risk of exchange rate fluctuations. The Euro to U.S. Dollar translation accounted for a charge of approximately \$1.1 million and \$595,000 for the years ended December 31, 2004 and 2003, respectively. The Euro to U.S. Dollar translation accounted for a benefit of \$255,000 for the year ended December 31, 2002.

Market Price Risk

In 2002 the Company maintained a minority equity investment in a publicly traded company and recorded a net after tax loss on this investment of \$20,000 thus eliminating the Company's investment. The Company has no equity hedge contracts outstanding as of December 31, 2004 or December 31, 2003.

Interest Rate Risk

The Company's investments are subject to interest rate risk. Interest rate risk is the risk that the Company's financial condition and results of operations could be adversely affected due to movements in interest rates. The Company invests its cash in a variety of interest-earning financial instruments, including bank time deposits, money market funds, and variable rate and fixed rate obligations of corporations and national governmental entities and agencies. Due to the demand nature of the Company's money market funds and the short-term nature of the Company's time deposits and debt securities portfolio, these assets are particularly sensitive to changes in interest rates. The Company manages this risk through investments with shorter-term maturities and varying maturity dates.

A hypothetical 50 basis point increase in interest rates would result in an approximate decrease of less than 1% in the fair value of our available-for-sale securities at December 31, 2004. This potential change is based on sensitivity analyses performed on our marketable securities at December 31, 2004. Actual results may differ materially. The same hypothetical 50 basis point increase in interest rates would have resulted in an approximate decrease of less than 1%, in the fair value of our available-for-sale securities at December 31, 2003.

The Company's credit facility, bears interest at a variable rate tied to the London Interbank Offered Rate (LIBOR). In an effort to mitigate interest rate fluxations the Company typically locks in the rate under one year agreements. The current agreement which expires in October 2005 is at 3.5% (LIBOR + 1%). A hypothetical 100 basis point increase in LIBOR would increase annual interest expense on this credit facility by approximately \$32,000.

ITEM 8. **FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA**

See Item 15 (a) below.

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

None.

ITEM 9A. **CONTROLS AND PROCEDURES**

Evaluation of Disclosure Controls and Procedures

The Company's management, under the supervision of our Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO"), performed an evaluation of the effectiveness of the design and operation of the Company's disclosure controls and procedures as of the end of the period covered by this annual report. Based on that evaluation, the CEO and CFO concluded that the Company's disclosure controls and procedures are effective.

Changes in Internal Controls

The Company maintains a system of internal controls that are designed to provide reasonable assurance that its books and records accurately reflect, in all material respects, the transactions of the Company and that its established policies and procedures are adhered to. There were no changes to the Company's internal controls or in other factors that could significantly affect the Company's internal controls subsequent to the date of the evaluation by the Company's CEO and CFO, including any corrective actions with regard to significant deficiencies and material weaknesses.

ITEM 9B. **OTHER INFORMATION**

None.

PART III

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

Directors

See information regarding the directors and nominees for director under the heading “Election of Directors” of the Proxy Statement for the Annual Meeting of Shareholders to be held May 4, 2005, which is incorporated herein by reference.

Executive Officers

See information regarding the executive officers under the heading “Executive Officers” of the Proxy Statement for the Annual Meeting of Shareholders to be held May 4, 2005, which is incorporated herein by reference.

Code of Ethics

The Company has adopted a Code of Business Conduct, which applies to all of its employees, including its Chairman and Chief Executive Officer, its Chief Financial Officer and its Controller. The Code of Ethics is available on the Company’s website at www.interphase.com. The Company intends to satisfy the disclosure requirement under Item 5.05 of Form 8-K regarding an amendment to, or waiver from, a provision of this Code of Ethics by posting such information on its website, at the address specified above, and to the extent required by the listing standards of the Nasdaq Stock Market, by filing a Current Report on Form 8-K with the Securities and Exchange Commission disclosing such information.

ITEM 11. **EXECUTIVE COMPENSATION**

See information regarding executive compensation under the heading “Executive Compensation” of the Proxy Statement for the Annual Meeting of Shareholders to be held May 4, 2005, which is incorporated herein by reference.

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

See information regarding security ownership of certain beneficial owners and management under the headings “Principal Shareholders” and “Executive Compensation” of the Proxy Statement for the Annual Meeting of Shareholders to be held May 4, 2005, which is incorporated herein by reference.

ITEM 13. **CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS**

See information regarding certain relationships and related transactions under the headings “Principal Shareholders” and “Certain Related Transactions” of the Proxy Statement for the Annual Meeting of Shareholders to be held May 4, 2005, which is incorporated herein by reference.

ITEM 14. **PRINCIPAL ACCOUNTING FEES AND SERVICES**

See information regarding principal accountant fees and services under the heading “Relationship with Independent Public Accountants” of the Proxy Statement for the Annual Meeting of Shareholders to be held May 4, 2005, which is incorporated herein by reference.

ITEM 15. **EXHIBITS AND FINANCIAL STATEMENT SCHEDULES**

(a) (1) and (2) Financial Statements and Schedules.

Reference is made to the listing on page F-1 of all financial statements and schedules filed as a part of this report.

(3) Exhibits.

Reference is made to the Index to Exhibits on page E-1 for a list of all exhibits filed during the period covered by this report.

SIGNATURES

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

INTERPHASE CORPORATION

Date: March 18, 2005

By: /s/ Gregory B. Kalush
Gregory B. Kalush
Chairman of the Board,
Chief Executive Officer and
President

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities indicated on March 18, 2005.

<u>Name</u>	<u>Title</u>
<u>/s/ Gregory B. Kalush</u> Gregory B. Kalush	Chairman of the Board, Chief Executive Officer and President (Principal executive officer)
<u>/s/ Steven P. Kovac</u> Steven P. Kovac	Chief Financial Officer, Treasurer and Vice President of Finance (Principal financial officer)
<u>/s/ Paul N. Hug</u> Paul N. Hug	Director
<u>/s/ Randall D. Ledford</u> Randall D. Ledford	Director
<u>/s/ Michael J. Myers</u> Michael J. Myers	Director
<u>/s/ Kenneth V. Spenser</u> Kenneth V. Spenser	Director
<u>/s/ S. Thomas Thawley</u> S. Thomas Thawley	Vice Chairman, Director and Secretary

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* All schedules are omitted because they are not applicable or the required information is presented in the consolidated financial statements or notes thereto.

Report of Independent Registered Public Accounting Firm

The Board of Directors
Interphase Corporation

We have audited the accompanying consolidated balance sheet of Interphase Corporation and subsidiaries (the Company) as of December 31, 2004 and the related consolidated statement of operations, shareholders' equity, and cash flows for the year then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform an audit of its internal control over financial reporting. Our audit included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Interphase Corporation and subsidiaries as of December 31, 2004, and the results of their operations and cash flows for the year then ended in conformity with accounting principles generally accepted in the United States of America.

/s/ Grant Thornton LLP

Dallas, Texas
March 7, 2005

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of Interphase Corporation:

In our opinion, the accompanying consolidated balance sheets as of December 31, 2003 and 2002 and the related consolidated statements of operations, of shareholders' equity, and of cash flows present fairly, in all material respects, the financial position of Interphase Corporation and its subsidiaries (the Company) at December 31, 2003 and 2002, and the results of their operations and their cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of the Company's management; our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

/s/ PricewaterhouseCoopers LLP

Dallas, Texas

March 5, 2005

INTERPHASE CORPORATION
CONSOLIDATED BALANCE SHEETS
(in thousands, except share data)

	December 31,	
	2004	2003
<u>ASSETS</u>		
Cash and cash equivalents	\$ 4,928	\$ 14,204
Marketable securities	15,585	5,047
Trade accounts receivable, less allowances of \$141 and \$194, respectively	4,976	5,634
Inventories	3,509	2,961
Prepaid expenses and other current assets	956	751
Income taxes receivable	246	-
Total current assets	<u>30,200</u>	<u>28,597</u>
Machinery and equipment	6,170	5,626
Leasehold improvements	377	392
Furniture and fixtures	572	560
	<u>7,119</u>	<u>6,578</u>
Less-accumulated depreciation and amortization	(5,729)	(5,018)
Total property and equipment, net	<u>1,390</u>	<u>1,560</u>
Capitalized software, net	310	355
Other assets	198	231
Total assets	<u>\$ 32,098</u>	<u>\$ 30,743</u>
<u>LIABILITIES AND SHAREHOLDERS' EQUITY</u>		
Liabilities		
Accounts payable	\$ 529	\$ 1,106
Deferred revenue	244	373
Accrued liabilities	1,423	1,684
Accrued compensation	1,554	1,179
Total current liabilities	<u>3,750</u>	<u>4,342</u>
Deferred lease obligations	60	88
Long term debt	3,500	3,500
Total liabilities	<u>7,310</u>	<u>7,930</u>
Commitments and contingencies		
Shareholders' Equity		
Common stock, \$.10 par value; 100,000,000 shares authorized; 5,750,824 and 5,680,179 shares issued and outstanding, respectively	575	568
Additional paid in capital	38,633	38,218
Retained deficit	(13,846)	(15,564)
Cumulative other comprehensive loss	(574)	(409)
Total shareholders' equity	<u>24,788</u>	<u>22,813</u>
Total liabilities and shareholders' equity	<u>\$ 32,098</u>	<u>\$ 30,743</u>

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

INTERPHASE CORPORATION
CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands, except per share amounts)

	Years ended December 31,		
	2004	2003	2002
Revenues	\$ 35,015	\$ 32,490	\$ 25,123
Cost of sales	15,844	15,581	15,331
Gross margin	19,171	16,909	9,792
Research and development	8,033	7,719	7,005
Sales and marketing	6,107	6,929	5,991
General and administrative	3,675	3,547	3,285
Total operating expenses	17,815	18,195	16,281
Income (loss) from operations	1,356	(1,286)	(6,489)
Interest income, net	232	226	517
Other income, net	8	79	94
Income (loss) before income tax	1,596	(981)	(5,878)
Income tax (benefit) provision	(122)	(212)	2,523
Net income (loss)	\$ 1,718	\$ (769)	\$ (8,401)
Net income (loss) per share:			
Basic EPS	\$ 0.30	\$ (0.14)	\$ (1.51)
Diluted EPS	\$ 0.27	\$ (0.14)	\$ (1.51)
Weighted average common shares	5,719	5,544	5,551
Weighted average common and dilutive shares	6,312	5,544	5,551

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

INTERPHASE CORPORATION
CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY
(in thousands)

	Common Stock		Additional Paid in Capital	Retained Earnings (Deficit)	Cumulative Other Comprehensive Income (Loss)	Total	Comprehensive Income (Loss)
	Shares	Amount					
Balance at December 31, 2001	5,518	\$ 552	\$ 37,324	\$ (6,394)	\$ (324)	\$ 31,158	
Stock repurchase	(4)	(1)	(20)	-	-	(21)	
Comprehensive income:							
Foreign currency translation	-	-	-	-	32	32	32
Unrealized holding period gain	-	-	-	-	50	50	50
Net loss	-	-	-	(8,401)	-	(8,401)	(8,401)
Total comprehensive loss	-	-	-	-	-	-	\$ (8,319)
Balance at December 31, 2002	5,514	\$ 551	\$ 37,304	\$ (14,795)	\$ (242)	\$ 22,818	
Option exercises	166	17	914	-	-	931	
Comprehensive loss:							
Foreign currency translation	-	-	-	-	(46)	(46)	(46)
Unrealized holding period loss	-	-	-	-	(121)	(121)	(121)
Net loss	-	-	-	(769)	-	(769)	(769)
Total comprehensive loss	-	-	-	-	-	-	\$ (936)
Balance at December 31, 2003	5,680	\$ 568	\$ 38,218	\$ (15,564)	\$ (409)	\$ 22,813	
Option exercises	71	7	415	-	-	422	
Comprehensive income (loss):							
Foreign currency translation	-	-	-	-	21	21	21
Unrealized holding period loss	-	-	-	-	(186)	(186)	(186)
Net income	-	-	-	1,718	-	1,718	1,718
Total comprehensive income	-	-	-	-	-	-	\$ 1,553
Balance at December 31, 2004	5,751	\$ 575	\$ 38,633	\$ (13,846)	\$ (574)	\$ 24,788	

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

INTERPHASE CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	Years ended December 31,		
	2004	2003	2002
Cash flows from operating activities:			
Net income (loss)	\$ 1,718	\$ (769)	\$ (8,401)
Adjustments to reconcile net income (loss) to net cash provided by operating activities:			
Non-cash realized holding period loss on marketable securities	-	-	20
Provision for uncollectible accounts and returns	(3)	(42)	(77)
Provision for excess and obsolete inventories	300	700	1,849
Depreciation and amortization	788	902	845
Deferred income taxes	-	-	4,009
Change in assets and liabilities:			
Trade accounts receivable	661	91	(558)
Inventories	(848)	(540)	1,685
Prepaid expenses and other current assets	(187)	(62)	(185)
Income taxes receivable	(246)	247	2,229
Other assets	44	1	(25)
Accounts payable, deferred revenue and accrued liabilities	(976)	(183)	638
Accrued compensation	309	37	(252)
Deferred lease obligations	(28)	3	85
Net adjustments	(186)	1,154	10,263
Net cash provided by operating activities	<u>1,532</u>	<u>385</u>	<u>1,862</u>
Cash flows from investing activities:			
Purchase of property and equipment	(454)	(504)	(1,448)
Purchase of capitalized software	(86)	(329)	(34)
Proceeds from the sale of marketable securities	3,322	2,068	2,219
Purchases of marketable securities, net of unrealized holding period gain or loss	(14,047)	(1,719)	(2,491)
Net cash used in investing activities	<u>(11,265)</u>	<u>(484)</u>	<u>(1,754)</u>
Cash flows from financing activities:			
Decrease in restricted cash	-	3,500	-
Purchase of redeemable common stock	-	-	(762)
Purchase of common stock	-	-	(21)
Proceeds from the exercise of stock options	422	931	-
Repayment of long-term debt	-	(3,500)	-
Borrowings under new revolving credit facility	-	3,500	-
Net cash provided by (used in) financing activities	<u>422</u>	<u>4,431</u>	<u>(783)</u>
Effect of exchange rate changes on cash and cash equivalents	35	15	117
Net (decrease) increase in cash and cash equivalents	(9,276)	4,347	(558)
Cash and cash equivalents at beginning of year	14,204	9,857	10,415
Cash and cash equivalents at end of year	<u>\$ 4,928</u>	<u>\$ 14,204</u>	<u>\$ 9,857</u>
Supplemental Disclosure of Cash Flow Information:			
Income taxes paid	\$ -	\$ -	\$ 22
Interest paid	\$ 111	\$ 72	\$ 88

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

INTERPHASE CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Description of the Business: Interphase Corporation and subsidiaries (“Interphase” or the “Company”) enables rapid platform design and integration for the global voice, video, and data communications markets through custom and off-the-shelf communications equipment, embedded software development suites, and systems integration and consulting services for carrier and private networks. The Company’s products provide communications computing and connectivity of telecommunications and computer systems to Wide Area Networks (WANs), Local Area Networks (LANs), and Storage Area Networks (SANs) using Asynchronous Transfer Mode (ATM), Ethernet, Signaling System 7 (SS7), IP, Fibre Channel, HDLC, Frame Relay and multi-protocol interworking technologies. See Note 13 for information regarding the Company’s revenues related to North America and foreign countries.

Principles of Consolidation and Basis of Presentation: The accompanying consolidated financial statements include the accounts of Interphase Corporation and its wholly owned subsidiaries. Significant intercompany accounts and transactions have been eliminated. The Company has no involvement with any variable interest entity covered by the scope of FASB Interpretation (“FIN”) No. 46R, Consolidation of Variable Interest Entities.

Cash and Cash Equivalents: The Company considers cash and temporary investments with original maturities of less than three months, as well as interest bearing money market accounts, to be cash equivalents.

Marketable Securities: Investments in debt and equity securities are classified as available for sale with unrealized holding gains and losses reported in other comprehensive income. Gains and losses from securities are calculated using the specific identification method. Management determines the appropriate classification of securities at the time of purchase. Earnings from debt securities are calculated on a yield to maturity basis and recorded in the results of operation.

Allowance for Doubtful Accounts: Management is required to estimate the collectibility of the Company’s trade receivables. A considerable amount of judgment is required in assessing the realization of these receivables, including the current creditworthiness of each customer and related aging of the past due balances. Management evaluates all accounts periodically and a reserve is established based on the best facts available to management and reevaluated and adjusted as additional information is received. The reserves also are determined by using percentages applied to certain aged receivable categories based on historical results. The activity in this account was as follows (in thousands):

Year Ended:	Balance at Beginning of Period	Charged to (Income) Expense	Write-offs, Net of Recoveries	Balance at End of Period
December 31, 2004	\$ 89	\$ 9	\$ (62)	\$ 36
December 31, 2003	30	53	6	89
December 31, 2002	170	(77)	(63)	30

Allowance for Returns: The Company maintains an allowance for returns based upon expected return rates. The estimates of expected return rates are generally a factor of historical returns experience. Changes in return rates could impact allowance for return estimates. As of December 31, 2004, 2003 and 2002, the allowance for returns was \$105,000, \$105,000, and \$200,000 respectively maintained as a reduction to accounts receivable.

Inventories: Inventories are valued at the lower cost or market and include material, labor and manufacturing overhead. Cost is determined on a first-in, first-out basis (in thousands):

	Years ended December 31,	
	2004	2003
Raw Materials	\$ 1,818	\$ 1,907
Work-in-Process	747	745
Finished Goods	944	309
Total	<u>\$ 3,509</u>	<u>\$ 2,961</u>

Valuing inventory at the lower of cost or market involves an inherent level of risk and uncertainty due to technology trends in the industry and customer demand for the Company's products. Future events may cause significant fluctuations in the Company's operating results.

Property and Equipment: Property and equipment are recorded at cost. Depreciation is provided over the estimated useful lives of depreciable assets using the straight-line method. When property and equipment are sold or otherwise retired, the cost and accumulated depreciation applicable to such assets are eliminated from the accounts, and any resulting gain or loss is reflected in current operations. Related depreciation expense was as follows (in thousands):

Year ended December 31:	Depreciation Expense
2004	\$ 656
2003	\$ 721
2002	\$ 671

The depreciable lives of property and equipment are as follows:

Machinery and equipment	3-5 years
Leasehold improvements	Term of the respective leases
Furniture and fixtures	3-10 years

Capitalized Software: Capitalized software represents various software licenses purchased by the Company and utilized in connection with the Company’s network and mass storage products as well as the general operations of the Company. Capitalized software is amortized over three to five years utilizing the straight-line method. Related amortization expense and accumulated amortization were as follows (in thousands):

<u>Year ended December 31:</u>	<u>Amortization expense</u>	<u>Accumulated Amortization</u>
2004	\$ 132	\$ 2,429
2003	\$ 181	\$ 2,268
2002	\$ 174	\$ 2,190

Long-Lived Assets: Property and equipment and other long-lived assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. All impairments are recognized in operating results when a permanent reduction in value occurs.

Revenue Recognition: Revenues consist of product and service revenues and are recognized in accordance with SEC Staff Accounting Bulletin (“SAB”) 104, “Revenue Recognition.” Product revenues are recognized upon shipment, provided fees are fixed and determinable, a customer purchase order is obtained (when applicable), and collection is probable. Revenues from reseller agreements are recognized when the product is sold through to the end customer unless an established return history supports recognizing revenue upon shipment, less a provision for estimated sales returns. Deferred revenue consists primarily of revenue from reseller arrangements, service revenue and certain arrangements with extended payment terms. Revenue from extended payment terms is recognized in the period the payment becomes due if all other revenue recognition criteria have been met. Service revenue is recognized as the services are performed.

Revenue derived from the development and installation of highly customized software packages under a professional services contract is recognized on a percentage of completion basis measured by the relationship of hours worked to total estimated contract hours and the costs incurred as of the date of measurement. The Company follows this method since reasonably dependable estimates of the revenue and contract hours applicable to various elements of a contract can be made. Since the financial reporting of these contracts depends upon estimates, which are assessed continually during the term of these contracts, recognized revenue and profit are subject to revisions as the contract progresses to completion. Revisions in profit estimates are reflected in the period in which the facts that give rise to the revisions become known. Accordingly, favorable changes in estimates result in additional revenue recognition and net income, and unfavorable changes in estimates result in a reduction of recognized revenue and net income. If estimates were to indicate that a loss would be incurred on a contract upon completion, a provision for the expected loss would be recorded in the period in which the loss became evident.

At December 31, 2004, the Company had recognized revenue of approximately \$549,000 and had deferred revenue of \$51,000 related to a fixed price contract to provide services at a price of approximately \$800,000.

Warranty Reserve: The Company offers to its customers a limited warranty that its products will be free from defect in the materials and workmanship for a specified period. The Company has established a warranty reserve, as a component of accrued liabilities, for any potential claims. The

Company estimates its warranty reserve based upon an analysis of all identified or expected claims and an estimate of the cost to resolve those claims.

Concentration of Credit Risks: Financial instruments which potentially expose the Company to concentrations of credit risk consist primarily of trade accounts receivable. The majority of the Company's sales have been to original equipment manufacturers of computer systems or telecommunication networks. The Company conducts credit evaluations of its customers' financial condition and limits the amount of trade credit extended when necessary.

Research and Development: Research and development costs are charged to expense as incurred.

Advertising Expense: Advertising costs are charged to expense as incurred. Advertising expense was approximately \$14,000, \$156,000 and \$102,000 during the years ended December 31, 2004, 2003 and 2002, respectively.

Foreign Currency Translation: Assets and liabilities of the Company's French subsidiary, whose functional currency is other than the U.S. Dollar, are translated at year-end rates of exchange, and revenues and expenses are translated at average exchange rates prevailing during the year. Foreign currency transaction gains and losses are recognized in income as incurred.

The Company accounts for unrealized gains or losses on its foreign currency translation adjustments in accordance with Statement of Financial Accounting Standards No. 130, "Reporting Comprehensive Income," which requires the adjustments be accumulated in shareholders' equity as part of other comprehensive income.

Income Taxes: The Company determines its deferred taxes using the liability method. Deferred tax assets and liabilities are based on the estimated future tax effects of differences between the financial statement and tax basis of assets and liabilities given the provisions of enacted tax law. The Company's consolidated financial statements include deferred income taxes arising from the recognition of revenues and expenses in different periods for income tax and financial reporting purposes.

The Company records a valuation allowance to reduce its deferred income tax assets to the amount that is believed to be realizable under the guidance of Statement of Financial Accounting Standards No. 109 "Accounting for Income Taxes." The Company considers recent historical losses, future taxable income and ongoing prudent and feasible tax planning strategies in assessing the need for a valuation allowance. Management is required to make a continuous assessment as to the realizability of the deferred tax assets.

Other Comprehensive Income (Loss): Other comprehensive income (loss) is recorded directly to a separate section of shareholders' equity in cumulative other comprehensive loss and includes unrealized gains and losses excluded from the consolidated Statements of Operations. These unrealized gains and losses consist of holding period gains and losses related to marketable securities, net of income taxes, and foreign currency translation, which are not adjusted for income taxes since they relate to indefinite investments in a non-U.S. subsidiary.

Stock-Based Compensation: The Company has elected to follow Accounting Principles Board Opinion No. 25, “Accounting for Stock Issued to Employees,” (“APB 25”) and related interpretations in accounting for its employee stock options. Under APB 25, compensation expense is recorded when the exercise price of employee stock options is less than the fair value of the underlying stock on the date of grant. The Company has implemented the disclosure-only provisions of Statement of Financial Accounting Standards Board No. (“SFAS”) 123, “Accounting for Stock-Based Compensation,” and SFAS 148, “Accounting for Stock-Based Compensation Transition and Disclosure.” Had the Company elected to adopt the expense recognition provisions of SFAS 123, the pro forma impact on net income and earnings per share would have been as follows (in thousands, except per share data):

	Years ended December 31,		
	2004	2003	2002
Net income (loss) as reported	1,718	(769)	(8,401)
Add: APB 25 expense	-	-	-
Less: Total stock based employee compensation expense determined under fair value methods for all awards	(1,863)	(2,084)	(4,192)
Pro forma net (loss)	(145)	(2,853)	(12,593)
Income (loss) per common share:			
As reported - basic	\$ 0.30	\$ (0.14)	\$ (1.51)
Pro forma - basic	\$ (0.03)	\$ (0.53)	\$ (2.88)
As reported - diluted	\$ 0.27	\$ (0.14)	\$ (1.51)
Pro forma - diluted	\$ (0.03)	\$ (0.53)	\$ (2.88)

Certain Reclassifications: Certain reclassifications have been made for consistent presentation among periods presented.

Use of Estimates: The preparation of financial statements, in conformity with accounting principles generally accepted in the United States of America, requires Company management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Areas involving estimates are the allowance for doubtful accounts and returns, warranty and inventory reserves and income tax accounts.

2. MARKETABLE SECURITIES

Marketable securities primarily consist of investments in debt securities. As of December 31, 2004 the fair market value of marketable securities was \$15.6 million, of which \$9.3 million matures in one year or less, \$6.3 million matures in five years or less. As of December 31, 2003 the fair market value of marketable securities was \$5.0 million, of which \$1.2 million matures in one year or less, \$3.8 million matures in five years or less. The Company recorded charges due to the other than temporary impairment of certain marketable securities received in the sale of the Company’s VOIP business of \$20,000 in 2002. Gains and losses on marketable securities sold are recognized on a specific identification basis. The Company recorded an unrealized loss with respect to certain available-for-

sale securities of \$186,000 and \$121,000 in 2004 and 2003 respectively and an unrealized gain of \$50,000 in 2002.

3. ACCRUED LIABILITIES

Accrued liabilities consisted of the following (in thousands):

	2004	2003
Accrued audit fees	\$ 170	\$ 125
Loss contingency	225	-
Accrued outside commissions	15	191
Accrued property tax	56	185
Accrued other	957	1,183
	<u>\$ 1,423</u>	<u>\$ 1,684</u>

4. CREDIT FACILITY

The Company maintains a \$5.0 million revolving bank credit facility with a maturity date of July 31, 2007 and interest rate of LIBOR plus 1.0% (3.5% at December 31, 2004). All borrowings under this facility are secured by marketable securities. The borrowings of \$3.5 million are classified as long-term debt on the accompanying balance sheet.

5. INCOME TAXES

The provision for income taxes applicable to continuing operations for each period presented was as follows (in thousands):

	Year ended December 31,		
	2004	2003	2002
Current benefit	\$ (122)	\$ (212)	\$ (1,486)
Deferred provision	-	-	4,009
Income tax (benefit) expense	<u>\$ (122)</u>	<u>\$ (212)</u>	<u>\$ 2,523</u>

Tax effect of temporary differences that give rise to significant components of the deferred tax assets as of December 31, 2004 and 2003, are presented as follows (in thousands):

	Year ended December 31,	
	2004	2003
Current deferred tax assets:		
Inventory	\$ 1,249	\$ 1,278
Accounts receivable	14	34
Deferred revenue	34	46
Other accruals	610	510
Total current deferred tax assets	<u>\$ 1,907</u>	<u>\$ 1,868</u>
Noncurrent deferred tax assets, net:		
Assets:		
Depreciation	\$ 4	\$ 191
Amortization	433	496
Net operating loss	4,169	3,844
Total noncurrent deferred tax assets, net	<u>\$ 4,606</u>	<u>\$ 4,531</u>
Valuation allowance for deferred tax assets	(6,513)	(6,399)
Deferred tax assets, net of valuation allowance	<u>\$ -</u>	<u>\$ -</u>

SFAS 109, "Accounting for Income Taxes," requires that a valuation allowance be established when it is "more likely than not" that all or a portion of a deferred tax asset will not be realized. A review of all available positive and negative evidence needs to be considered, including a company's current and past performance, the market environment in which the company operates, the utilization of past tax credits, length of carry back and carry forward periods, existing contracts or sales backlog that will result in future profits, as well as other factors.

Forming a conclusion that a valuation allowance is not needed is difficult when there is negative evidence such as cumulative losses in recent years. Cumulative losses weigh heavily in the overall assessment. As a result of a review undertaken at December 31, 2002, the Company concluded that it was appropriate to establish a full valuation allowance for its net deferred tax assets. The Company continues to maintain a valuation allowance on all of the net deferred tax assets. Until an appropriate level of profitability is sustained, the Company expects to continue to maintain a valuation allowance on substantially all of the future tax benefits and does not expect to recognize any significant tax benefits in future results of operations. At December 31, 2004, the amount of valuation allowance is approximately \$6.5 million. Approximately \$500,000 of this total, if reversed, would be allocated directly to additional paid-in capital as it relates to non-qualified stock option deductions.

During the first quarter of 2004, after conducting a thorough review of the Company's IRS transcripts, the Company discovered that the IRS had not paid allowable interest on the refund from the IRS audit described below. As a result, the Company recognized a tax benefit of approximately \$100,000 in 2004.

During the third quarter of 2003, the Internal Revenue Service concluded a federal income tax audit of the Company related to the tax years 1996 through 2001. In addition, the French tax administration also concluded a tax audit of the Company's French subsidiary covering the same periods resulting in a

finding of no tax due. Due to the finalization of both tax audits, the Company recognized a tax benefit of approximately \$245,000. This benefit was partially offset by taxes on foreign income.

The differences between the provision for income taxes computed on income before income taxes at the U.S. federal statutory income tax rate (34%) and the amount shown in the Consolidated Statements of Operations are presented below (in thousands):

	Year ended December 31,		
	2004	2003	2002
Income taxes at statutory rate	\$ 543	\$ (334)	\$ (1,999)
Benefit of foreign tax loss carry-forward	-	-	(383)
Benefit for French research and development tax credit	(144)	-	-
Benefit recorded for favorable outcome of tax audits	(102)	(245)	-
French permanent items	(133)	(292)	-
Extraterritorial income exclusion benefit	(389)	(386)	-
Other	(11)	-	39
Change in valuation allowance	114	1,045	4,866
(Benefit) provision for income taxes	<u>\$ (122)</u>	<u>\$ (212)</u>	<u>\$ 2,523</u>

At December 31, 2004, the Company had net operating loss carryforwards for federal income tax purposes of approximately \$11.7 million, \$1.6 million of which are related to non-qualified stock option deductions. These net operating loss carryforwards will begin to expire in 2022. A valuation allowance against the entire net operating loss carryforward has been established as the realizability of this asset is uncertain.

The earnings of the Company's foreign subsidiary are considered to be indefinitely reinvested and, accordingly, no provision for U.S. federal and state income taxes have been provided thereon. Upon distribution of those earnings in the form of dividends or otherwise, the Company would be subject to both U.S. income taxes (subject to foreign tax credits) and withholding taxes payable to foreign countries.

6. EXIT ACTIVITIES

During the second quarter of 2003, the Company committed to an exit plan regarding one of its leased facilities, the lease was scheduled to expire during the first quarter of 2005. The Company had previously held this facility open for storage, overflow use, and anticipated growth. However, it was determined that the facility would not be needed for such uses and the Company began pursuing subleasing opportunities. As a result of this exit plan, the Company recorded a charge of approximately \$109,000 during the second quarter of 2003, classified as operating expenses, related to net termination costs associated with the lease of the facility. In May 2004, the Company entered into a sublease termination agreement with the landlord of the leased facility resulting in an additional charge of approximately \$42,000. A reconciliation showing the changes to the liability account during 2004 is as follows (in thousands):

Liability at December 31, 2002	\$ -
Exit plan net termination costs	109
Rent payments	(78)
Cost of not subleasing	45
Liability at December 31, 2003	<u>\$ 76</u>
Exit plan net termination costs	(178)
Rent payments	60
Cost of not subleasing	42
Liability at December 31, 2004	<u><u>\$ -</u></u>
Total costs to date	<u><u>\$ 256</u></u>

7. EARNINGS PER SHARE

Basic earnings per share are computed by dividing reported earnings available to common shareholders by weighted average common shares outstanding. Diluted earnings per share give effect to dilutive potential common shares. Earnings per share are calculated as follows (in thousands, except per share data):

	Years ended December 31,		
	2004	2003	2002
<u>Basic income (loss) per share:</u>			
Net income (loss)	\$ 1,718	\$ (769)	\$ (8,401)
Weighted average common shares outstanding	5,719	5,544	5,551
Basic income (loss) per share	\$ 0.30	\$ (0.14)	\$ (1.51)
<u>Diluted income (loss) per share:</u>			
Net income (loss)	\$ 1,718	\$ (769)	\$ (8,401)
Weighted average common shares outstanding	5,719	5,544	5,551
Dilutive stock options	593	-	-
Weighted average common shares outstanding – assuming dilution	6,312	5,544	5,551
Diluted income (loss) per share	\$ 0.27	\$ (0.14)	\$ (1.51)
Outstanding stock options that were not included in the diluted calculation because their effect would be anti-dilutive	808	1,199	2,091

8. COMMON STOCK

2004 Long-Term Stock Incentive Plan: The Interphase Corporation Amended and Restated Stock Option Plan and the Interphase Corporation Directors Stock Option Plan have been collectively amended and restated as the “Interphase Corporation 2004 Long-Term Stock Incentive Plan”, effective May 5, 2004. Options granted under the separate plans prior to the effective date shall be subject to the terms and conditions of the separate plans in effect with respect to such options prior to the effective date and awards granted after the effective date shall be subject to the terms and conditions of the 2004 Long-Term Stock Incentive Plan. Awards granted under this plan may be (a) incentive stock options, (b) non-qualified stock options, (c) bonus stock awards, (d) stock appreciation rights, (e) performance share awards and performance unit awards, (f) phantom stock awards, and (g) any other type of award established by the committee which is consistent with the Plan’s purposes, as designated at the time of grant. The total amount of Common Stock with respect to which awards may be granted under the Plan is 5,250,000 shares.

Amended and Restated Stock Option Plan: The exercise price of the incentive stock options must be at least equal to the fair market value of the Company’s common stock on the date of the grant, while the exercise price of nonqualified stock options may be less than fair market value on the date of grant, as determined by the Board of Directors. The Board of Directors may provide for the exercise of options in installments and upon such terms, conditions and restrictions as it may determine. Options granted prior to January 1, 1999 generally vest ratably over a five-year period from the date of grant. Options granted since January 1, 1999 generally vest ratably over a three-year period from the date of grant. The term of option grants may be up to ten years. Options are canceled upon the lapse of three months following termination of employment except in the event of death or disability, as defined.

France Stock Option Sub-Plan: This plan was adopted in 2000 for the benefit of the Company’s employees located in France. This plan authorizes the issuance of options to purchase common stock of the Company at prices at least equal to the fair market value of the common stock on the date of the grant. Unless otherwise decided at the sole discretion of the Board, the options vest (i) 75% after the expiration of a two-year period from the date of grant and (ii) 25% after the expiration of a three-year

period from the date of grant. Except for the events provided under the French tax code, the shares cannot be sold or otherwise disposed of for a period of four years from the date of grant. The term of option grants may be up to ten years. Options are canceled upon the lapse of three months following termination of employment except in the event of death or disability, as defined.

Amended and Restated Director Stock Option Plan: Stock option grants pursuant to the directors' plan will vest in one year and have a term of ten years. The exercise prices related to these options are equal to the market value of the Company's stock on the date of grant.

The following table summarizes the combined transactions under the all of the plans (in thousands, except option prices):

	<u>Number of Options</u>	<u>Weighted Average Option Price</u>
Balance, December 31, 2001	<u>2,095</u>	\$ 10.38
Granted	402	4.71
Exercised	-	-
Canceled	<u>(82)</u>	8.78
Balance, December 31, 2002	<u>2,415</u>	9.49
Granted	413	6.25
Exercised	(166)	5.61
Canceled	<u>(84)</u>	10.66
Balance, December 31, 2003	<u>2,578</u>	9.18
Granted	226	10.84
Exercised	(71)	5.97
Canceled	<u>(79)</u>	10.92
Balance, December 31, 2004	<u>2,654</u>	9.35
Exercisable at December 31, 2004	<u>2,095</u>	\$ 9.75

The following table summarizes information about options granted under the plans that were outstanding at December 31, 2004 (in thousands, except option prices):

Options Outstanding

Options Exercisable

Range of Exercise Prices	Number Outstanding at 12/31/04	Weighted-Average Remaining Contractual Life (years)	Weighted Average Exercise Price	Number Exercisable at 12/31/04	Weighted Average Exercise Price
\$3.09-\$4.60	323	6.94	\$ 4.21	304	\$ 4.24
\$4.65-\$6.50	718	7.17	5.59	421	5.57
\$7.20-\$10.63	786	5.42	8.19	739	8.18
\$11.25-\$16.44	498	6.97	12.86	303	13.69
\$17.25-\$24.06	318	4.96	19.75	317	19.76
\$25.88-\$31.00	11	4.93	30.53	11	30.53
Total	2,654	6.31	\$ 9.35	2,095	\$ 9.75

Rights Agreement: The Board of Directors has adopted a Shareholder Rights Plan whereby each holder of record as of December 29, 2000 received a right to purchase from the Company one share of common stock of the Company at a price of \$93 per share for each share held. These rights can only be exercised after certain events occur, such as if a person or entity acquires, or makes a tender or exchange offer to acquire, 15% or more of the Company's common stock and the rights expire ten years from the record date. Upon acquisition of 15% or more of the Company's common stock, each right not owned by the acquiring person or group will be adjusted to allow the purchase for \$93 of a number of shares having a then market value of \$186. These rights are intended to provide the Company certain antitakeover protections. The Board of Directors may terminate the Rights Plan, or redeem the rights for \$0.01 per right, at any time until the tenth business day following a public announcement of a 15% or more stock acquisition. The Company had reserved 7,000,000 shares of common stock for this plan.

The rights were distributed to shareholders as of the record date as a nontaxable dividend. The rights are attached to and trade with Interphase common stock until the occurrence of one of the triggering events, at which time the rights would become detached from the Company's common stock.

Pro Forma Net Income (Loss): The Black-Scholes model was not developed for use in valuing employee stock options, but was developed for use in estimating the fair value of traded options that have no vesting restrictions and are fully transferable. In addition, it requires the use of subjective assumptions including expectations of future dividends and stock price volatility. Such assumptions are only used for making the required fair value estimate and should not be considered as indicators of future dividend policy or stock price appreciation. Because changes in the subjective assumptions can materially affect the fair value estimate, and because employee stock options have characteristics significantly different from those of traded options, the use of the Black-Scholes option-pricing model may not provide a reliable estimate of the fair value of employee stock options.

The fair value of each option grant is estimated on the date of grant using the Black-Scholes option pricing model with the following weighted-average assumptions used for options granted in 2004, 2003 and 2002:

	2004	2003	2002
Weighted average risk free interest rates	2.39%	2.36%	3.51%
Weighted average life (in years)	4.10	3.87	6.81
Volatility	88%	130%	160%
Expected dividend yield	-	-	-
Weighted average grant-date fair value per share of options granted	\$ 6.99	\$ 5.02	\$ 4.54

9. RELATED PARTY TRANSACTIONS

The Company paid approximately \$104,000, \$68,000 and \$146,000 for the years ended December 31, 2004, 2003 and 2002, respectively to certain outside directors of the Company or their firms for professional services. The Company believes the terms were equivalent to those of unrelated parties.

10. EMPLOYEE BENEFIT PLAN

The Company maintains a defined contribution plan for those employees who meet the plan's length of service requirements. Under the defined contribution plan, employees may make voluntary contributions to the plan, subject to certain limitations, and the Company matches 50% of the first 6% of the employee's contributions up to a maximum of \$6,150 per employee for the year ended December 31, 2004. The total expense under this plan was \$295,000, \$270,000 and \$261,000 for the years ended December 31, 2004, 2003 and 2002, respectively. The Company offers no post-retirement or post-employment benefits.

11. OTHER FINANCIAL INFORMATION

Major Customers: During 2004, sales to Lucent Technologies and Hewlett Packard accounted for \$12.6 million or 36% and \$9.6 million or 27% of the Company's consolidated revenues, respectively. During 2003, sales to Lucent Technologies and Hewlett Packard accounted for \$13.5 million or 42% and \$9.7 million or 30% of the Company's consolidated revenues, respectively. During 2002, sales to Hewlett Packard and Lucent Technologies accounted for \$8.7 million or 35% and \$7.2 million or 29% of the Company's consolidated revenues, respectively. No other customers accounted for more than 10% of the Company's consolidated revenues in the periods presented.

Included in accounts receivable at December 31, 2004, was approximately \$1.4 million due from Hewlett Packard, approximately \$710,000 due from Lucent Technologies and approximately \$660,000 due from Macnica Networks Corporation. Included in accounts receivable at December 31, 2003, was approximately \$2.5 million due from Lucent Technologies and approximately \$1.2 million due from Hewlett Packard. No other customers accounted for more than 10% of the Company's accounts receivable at the balance sheet dates presented.

Commitments: The Company leases its facilities under noncancelable operating leases with the longest terms extending to December of 2008. Rent expense related to these leases is recorded on a straight-line basis. As of December 31, 2004, operating lease commitments having noncancelable terms of more than one year are as follows (in thousands):

Commitments

Year ending December 31:

2005	\$ 604
2006	\$ 410
2007	\$ 403
2008	\$ 411

Total rent expense for operating leases was as follows (in thousands):

Year ending December 31:

2004	\$ 791
2003	\$ 932
2002	\$ 1,336

Contingencies: The Company has agreed to perform a minor repair, at no cost to a customer, of approximately 1,800 units that were shipped between December 2003 and April 2004. The actual cost to repair the units is insignificant. However, the Company has estimated that other costs including shipping related charges and installation related charges could be more significant. The Company has estimated that the range of the potential liability is between approximately \$225,000 and \$650,000 but cannot determine an amount within that range which is more likely than another. Therefore, in accordance with Financial Accounting Standards Board Interpretation No. 14 “Reasonable Estimation of the Amount of a Loss - an Interpretation of FASB Statement No. 5”, the Company has recorded, in accrued liabilities, the minimum liability amount of approximately \$225,000 at December 31, 2004.

The Company is involved in various legal actions and claims arising in the ordinary course of business. Management believes that such litigation and claims will be resolved without material effect on the Company’s financial position or results of operations.

12. RECENTLY ISSUED ACCOUNTING PRONOUNCEMENTS

In October 2004, the American Jobs Creation Act of 2000 was enacted into law. The new law provides for a special 85% deduction for certain dividends received in 2005 from controlled foreign corporations. Because certain details in the new law lack clarification, and the impact of the special dividend received deduction to the Company is dependent, in part, on the Company’s 2005 foreign and domestic taxable income, the Company has not yet determined whether it will benefit from the new law. In 2005, the Company plans to evaluate both clarifying guidance on the new law from the Internal Revenue Service and its year-to-date taxable income activity to determine the level of benefit, if any, the Company will derive from the special dividend received deduction.

Beginning in 2005, the new law also provides for a special deduction from U.S. taxable income equal to a stipulated percentage of a U.S. company’s qualified income from domestic manufacturing activities (as defined). Although the Company believes that the majority of its operations meet the definition of qualified domestic manufacturing activities, the Company does not expect to benefit from the special manufacturing deduction in 2005, primarily because the Company projects its U.S. taxable income in 2005 will be fully offset by its existing U.S. NOL carryforwards.

In December 2004, the FASB issued SFAS No. 123 (R), “Share Based Payments”, which replaces SFAS No. 123, “Accounting for Stock-Based Compensation”, and supersedes APB Opinion No. 25,

“Accounting for Stock Issued to Employees” and amends SFAS No. 95, “Statement of Cash Flows”. SFAS No. 123 (R) requires all share-based payments to employees, including grants of employee stock options, to be recognized in the income statement based on their fair values. As such, pro forma disclosure in lieu of expensing is no longer an alternative. The new standard is effective in the first interim or annual reporting period beginning after June 15, 2005. The Company is currently assessing the impact that the statement may have on its financial statements.

In December 2004, the FASB issued SFAS No. 151 “Inventory Costs, an Amendment of ARB No. 43, Chapter 4”. SFAS No. 151 clarifies the accounting for abnormal amounts of idle facility expense, freight, handling costs and wasted material and requires that these items be recognized as current period charges. SFAS No. 151 applies only to inventory costs incurred during periods beginning after the effective date and also requires that the allocation of fixed production overhead to conversion costs be based on the normal capacity of the production facilities. SFAS No. 151 is effective for the Company’s fiscal year beginning January 1, 2006. The Company is currently assessing the impact, if any, of the adoption of the provisions of SFAS No. 151.

In December 2004, the FASB issued SFAS 153, Exchanges of Nonmonetary Assets, which amends APB Opinion No. 29. The guidance in APB 29, Accounting for Nonmonetary Transactions, is based on the principle that exchanges of nonmonetary assets should be measured based on the fair value of the assets exchanged. The amendment made by SFAS 153 eliminates the exception for exchanges of similar productive assets and replaces it with a broader exception for exchanges of nonmonetary assets that do not have commercial substance. The provisions of the statement are effective for exchanges taking place in fiscal periods beginning after June 15, 2005. The Company does not believe the adoption of this statement will have a material impact on our financial statements.

13. SEGMENT DATA

The Company is principally engaged in the design, development, and manufacturing of high-performance connectivity products utilizing advanced technologies being used in next generation telecommunication networks and enterprise data/storage networks. Except for revenue performance, which is monitored by product line, the chief operating decision-makers review financial information presented on a consolidated basis for purposes of making operating decisions and assessing financial performance. Accordingly, the Company considers itself to be in a single industry segment.

Geographic long lived assets and revenue related to North America and foreign countries as of December 31, 2004 and 2003 and for the years ended December 31, 2004, 2003 and 2002 is as follows (in thousands):

Long Lived Assets	2004	2003
North America	\$ 1,321	\$ 1,639
Europe	379	276
Total	<u>\$ 1,700</u>	<u>\$ 1,915</u>

Revenues	2004	2003	2002
North America	\$ 21,049	\$ 23,037	\$ 18,525
Europe	8,528	4,312	4,011
Pacific Rim	5,438	5,141	2,587
Total	<u>\$ 35,015</u>	<u>\$ 32,490</u>	<u>\$ 25,123</u>

Additional information regarding revenue by product-line is as follows (in thousands):

Product Revenue	2004	2003	2002
Broadband telecom	\$ 20,151	\$ 17,773	\$ 11,767
SlotOptimizer	10,713	11,422	8,589
LAN	1,088	1,368	2,027
Storage	814	522	1,505
WAN	188	152	167
Other	2,061	1,253	1,068
Total	<u>\$ 35,015</u>	<u>\$ 32,490</u>	<u>\$ 25,123</u>

14. QUARTERLY FINANCIAL DATA (Unaudited)

Quarterly results of operations for 2004 (unaudited)
(In thousands, except per share amounts)

	Quarter Ended			
	March 31	June 30	September 30	December 31
Revenues	\$ 9,198	\$ 10,129	\$ 8,294	\$ 7,394
Gross margin	4,903	5,613	4,666	3,989
Income (loss) before income taxes	218	1,134	525	(281)
Net income (loss)	275	1,095	500	(152)
Earnings per share: (loss)				
Basic EPS	\$ 0.05	\$ 0.19	\$ 0.09	\$ (0.03)
Diluted EPS	\$ 0.04	\$ 0.18	\$ 0.08	\$ (0.03)

Quarterly results of operations for 2003 (unaudited)
(In thousands, except per share amounts)

	Quarter Ended			
	March 31	June 30	September 30	December 31
Revenues	\$ 7,513	\$ 7,357	\$ 8,571	\$ 9,049
Gross margin	3,791	3,696	4,479	4,943
(Loss) income before income taxes	(769)	(578)	146	220
Net (loss) income	(826)	(521)	366	212
Earnings per share: (loss)				
Basic EPS	\$ (0.15)	\$ (0.09)	\$ 0.07	\$ 0.04
Diluted EPS	\$ (0.15)	\$ (0.09)	\$ 0.06	\$ 0.03

Due to changes in the weighted average common shares outstanding per quarter, the sum of basic and diluted earnings per common share per quarter may not equal the basic and diluted earnings (loss) per common share for the applicable year.

INDEX TO EXHIBITS

Exhibits

- 2 (a) Stock Purchase Agreement, dated as of June 29, 1996, among Interphase Corporation, Synaptel and Philippe Oros, Xavier Sutter, Francois Lecerf, Schroder Ventures French Enterprise Fund LPI (USA), Schroder ventures French Enterprise Fund UKLP (UK) and Schroder Ventures Holding Limited (UK). (7)
- 3 (a) Certificate of Incorporation of the registrant. (1)
- 3 (b) Amendment to Articles of Incorporation of the registrant. (10)
- 3 (c) Amended and Restated Bylaws of the registrant adopted on December 5, 1995 and amended on January 19, 1999. (12)
- 4 (a) Rights Agreement dated as of December 7, 2000 by and between the Company and Computershare Investor Services, LLC as Rights Agent. (11)
- 10 (a) Registrant's Amended and Restated Stock Option Plan and Amendment No. 1 and 2 thereto. (9)
- 10 (b) Registrant's Amended and Restated Stock Option Plan Amendment No. 4. (10)
- 10 (c) Registrant's United Kingdom Incentive Stock Option Sub-Plan. (3)
- 10 (d) Stock Purchase Warrant issued to Motorola, Inc. (4)
- 10 (e) Lease on Dallas facility. (5)
- 10 (f) Directors Stock Option Plan and Amendment No. 1 thereto. (6)
- 10 (g) Directors Stock Option Plan Amendment No. 2. (10)
- 10 (h) Loan Agreement between Interphase Corporation and BankOne Texas, N.A. (8)
- 10 (i) Purchase Agreement between Interphase Corporation and Cisco Systems Inc. (9)
- 10 (j) Motorola Stock Repurchase Agreement. (2)
- 10 (k) Registrant's France Incentive Stock Option Sub-Plan. (12)
- 10 (l) Sublease on Plano facility. (12)
- 10 (m) Credit Agreement between Interphase Corporation and Bank One, NA. (12)
- 10 (n) Lease on Facility at Parkway Center, Phase I, Plano, Texas. (13)
- 10 (o) Lease on Facility at 2105 Luna Road, Carrollton, Texas. (13)
- 10 (p) Note and Credit Agreement between Interphase Corporation and Comerica Bank, including Amendment dated November 5, 2004. (16)
- 16 (a) Letter regarding change in certifying accountant. (15)
- 21 (a) Subsidiaries of the Registrant. (14)
- 23 (a) Consent of Independent Registered Public Accounting Firm. (16)
- 23 (b) Consent of Independent Registered Public Accounting Firm. (16)
- 31 (a) Rule 13a-14(a)/15d-14(a) Certification. (16)
- 31 (b) Rule 13a-14(a)/15d-14(a) Certification. (16)
- 32 (a) Section 1350 Certification. (16)
- 32 (b) Section 1350 Certification. (16)

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- (1) Filed as an exhibit to Registration Statement No. 2-86523 on Form S-1 and incorporated herein by reference.
 - (2) Filed as an exhibit to Report on Form 8-K on October 15, 1998, and incorporated herein by reference.
 - (3) Filed as an exhibit to Report on Form 10-K for the year ended October 31, 1988, and incorporated herein by reference.
 - (4) Filed as an exhibit to Report on Form 10-Q for the quarter ended April 30, 1989, and incorporated herein by reference.
 - (5) Filed as an exhibit to Report on Form 10-K for the year ended October 31, 1994, and incorporated herein by reference.
 - (6) Filed as an exhibit to Report on Form 10-K for the year ended October 31, 1995, and incorporated herein by reference.
 - (7) Filed as an exhibit to Report on Form 8-K on August 6, 1996, and incorporated herein by reference.
 - (8) Filed as an exhibit to Report on Form 8-K on October 4, 1996, and incorporated herein by reference.
 - (9) Filed as an exhibit to Report on Form 10-K for the year ended December 31, 1996, and incorporated herein by reference.
 - (10) Filed as an exhibit to Report on Form 10-K for the year ended December 31, 1999, and incorporated herein by reference.
 - (11) Filed as an exhibit to Form 8-K on January 9, 2001, and incorporated herein by reference.
 - (12) Filed as an exhibit to Report on Form 10-K for the year ended December 31, 2001, and incorporated herein by reference.
 - (13) Filed as an exhibit to Report on Form 10-Q for the quarter ended September 30, 2002, and incorporated herein by reference.
 - (14) Filed as an exhibit to Report on Form 10-K for the year ended December 31, 2002, and incorporated herein by reference.
 - (15) Filed as an exhibit to Form 8-K on September 13, 2004, and incorporated herein by reference.
 - (16) Filed herein.

Management and Corporate Information

Annual Meeting

The annual meeting of shareholders will be held at 10 a.m. CDT on May 4, 2005 at the:
Sockwell Center
6301 Chapel Hill Blvd.
Plano, Texas 75093

General Counsel

Gardere Wynne Sewell LLP
Dallas, Texas

Independent Public Accountants

Grant Thornton LLP
Dallas, Texas

Transfer Agent

Computershare Trust Co., Inc
Golden, Colorado

Officers and Executive Management

Gregory B. Kalush
Chairman of the Board,
Chief Executive Officer and President

Steven P. Kovac
Chief Financial Officer,
Treasurer and Vice President of Finance

Felix V. Diaz
Chief Technical Officer and Vice President of
Engineering

Randall E. McComas
Vice President of Global Sales and Marketing

Deborah A. Shute
Vice President of Human Resources and Administration

James W. Gragg
Vice President of Operations and Fulfillment

Directors

Gregory B. Kalush ³
Chairman of the Board,
Chief Executive Officer and President

Paul N. Hug ^{1,2,4}
Director
Owner, Paul Hug & Co., CPAs

Randall D. Ledford ^{1,4}
Director
Senior Vice President and Chief Technology Officer
Emerson Electric Co.

Michael J. Myers ^{1,2,4}
Director
President and Chief Executive Officer
CopperCom

Kenneth V. Spenser ^{2,4}
Director
Chief Executive Officer
Entivity Holdings

S. Thomas Thawley ⁴
Vice Chairman
Director and Secretary

¹ Member of the Compensation Committee

² Member of the Audit Committee

³ Member of the New Employee and Retention Stock
Option Committee

⁴ Nominating and Governance Committee

Stock Information

The Company's common stock is traded on the Nasdaq National Market under the symbol INPH. The following table sets forth the high and low prices for the periods indicated:

2004	High	Low
First Quarter	19.17	11.30
Second Quarter	12.67	8.36
Third Quarter	12.65	9.21
Fourth Quarter	10.22	6.70
2003	High	Low
First Quarter	4.25	3.17
Second Quarter	7.69	3.97
Third Quarter	10.58	6.50
Fourth Quarter	18.05	8.77

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