As filed with the Securities and Exchange Commission on March 15, 2000 Registration No. 333-

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-1 REGISTRATION STATEMENT

Under

The Securities Act of 1933

PCTEL, INC.

(Exact name of Registrant as specified in its charter)

Delaware

3661

77-0364943

(State or other jurisdiction of incorporation or organization) (Primary Standard Industrial Classification Code Number)

(I.R.S. Employed Identification Number)

1331 California Circle Milpitas, CA 95035 (408) 965-2100

(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)

Peter Chen

Chief Executive Officer 1331 California Circle Milpitas, CA 95035 (408) 965-2100

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Douglas H. Collom, Esq. Deborah M. Chang, Esq. Sheldon J. Quan, Esq. Lia R. Alioto, Esq. Wilson Sonsini Goodrich & Rosati Professional Corporation 650 Page Mill Road Palo Alto, California 94304 (650) 493-9300

Nora L. Gibson, Esq. Allen Z. Sussman, Esq. Ryan S. Hong, Esq. Dorothy Vinski, Esq. Brobeck, Phleger & Harrison LLP Spear Street Tower One Market Plaza San Francisco, California 94105 (415) 442-0900

Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this Registration Statement.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. []

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. []

If this Form is a post-effective amendment filed pursuant to Rule 462(c)under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. [_]

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. [_]

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box. [_]

CALCULATION OF REGISTRATION FEE

Proposed Maximum Proposed Maximum Title of Each Class of Securities Amount to be Offering Price Aggregate Registration to be Registered (1) Per Share(2) Offering Price(2) Fee

3,910,000 Common Stock \$0.001 par value..... shares \$74.8125 \$292,516,875 \$77,224.46

⁽¹⁾ Includes 510,000 shares issuable upon exercise of the underwriters' overallotment option.

⁽²⁾ Estimated solely for the purpose of calculating the registration fee pursuant to rule 457(c) of the Securities Act of 1933, as amended, and

based on the average high and low sales price on March 14, 2000, as reported on the Nasdaq National Market.

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section $8 \, (a)$ of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the Commission acting pursuant to said Section $8 \, (a)$ may determine.

3,400,000 Shares

PCTEL, Inc.

Common Stock

We are offering 800,000 of the shares to be sold in the offering. The selling stockholders identified in this prospectus are offering an additional 2,600,000 shares

Our common stock is quoted on the Nasdaq National Market under the symbol "PCTI." The last reported sale price of the common stock on March 14, 2000 was \$69.25 per share.

Investing in the common stock involves a high degree of risk. See "Risk Factors" beginning on page 6.

	Per	Share	Total
Public offering price	\$;	\$
Discounts and commissions to underwriters	\$;	\$
Proceeds, before expenses, to PCTEL, Inc	\$;	\$
Proceeds, before expenses, to the selling stockholders	\$;	\$

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

We have granted the underwriters the right to purchase up to an additional 510,000 shares from PCTEL to cover over-allotments. The underwriters can exercise this right at anytime within thirty days of the offering. Banc of America Securities LLC expects to deliver the common stock to investors on or about , 2000.

Banc of America Securities LLC

Warburg Dillon Read LLC

PaineWebber Incorporated

Needham & Company, Inc

Inside Front Cover

Background of space shot photograph of planet earth and graphic images of telephone, laptop computer, desktop computer, wireless modem, personal digital assistant and set-top box. Text caption "High-Speed Personal Connectivity Communications Solutions."

You should only rely on the information contained in this prospectus. We have not authorized anyone to provide you with information different from that contained in this prospectus. We are offering to sell, and seeking offers to buy, shares of common stock only in jurisdictions where offers and sales are permitted. The information contained in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or of any sale of our common stock.

TABLE OF CONTENTS

	Page
Prospectus Summary	3
Risk Factors	6
Special Note Regarding Forward Looking Statements	15
Use of Proceeds	16
Price Range of Common Stock	16
Dividend Policy	16
Capitalization	17
Selected Consolidated Financial Data	18
Management's Discussion and Analysis of Financial Condition and Results	
of Operations	19
Business	28
Management	46
Transactions With Related Parties and Insiders	56
Principal and Selling Stockholders	58
Description of Capital Stock	60
Shares Eligible for Future Sale	62
Underwriting	64
Legal Matters	66
Experts	66
Where You Can Find Additional Information	66
Index to the Consolidated Financial Statements	F-1

PCTEL, the PCTEL logo, HSP Modem, MicroModem, HIDRA and LiteSpeed are trademarks of PCTEL. Other service marks, trademarks and trade names referred to in this prospectus are the property of their respective owners.

PROSPECTUS SUMMARY

This summary highlights selected information contained elsewhere in this prospectus. You should read the entire prospectus carefully before making an investment decision.

This prospectus contains forward looking statements, which involve risks and uncertainties. PCTEL's actual results could differ materially from those anticipated in these forward looking statements as a result of the factors described under "Risk Factors" and elsewhere in this prospectus.

PCTEL

We are a leading developer and supplier of cost-effective, software-based connectivity solutions for data transmission in a wide range of communications environments. Our solutions enable high speed internet access and other communications applications through emerging digital subscriber line, wireless and other broadband networks as well as existing analog networks. Broadband networks enhance voice and data capabilities beyond that which is offered by the existing analog networks. Connectivity solutions refer to any method for connecting one circuit, network or computer to another. We have developed a proprietary software architecture that is easily upgradeable, minimizing the risk of technological obsolescence and enables widespread internet access and other communications applications through PCs and alternative internet access devices.

We are one of the pioneers in developing host signal processing technology, a proprietary set of algorithms that enables cost-effective, software-based digital signal processing solutions. Host signal processing technology and the software architecture on which it is based utilize the computational and processing resources of a host central processor rather than requiring additional special-purpose hardware. Based on our own research and testing, the reduction of hardware components in our host signal processing architecture can reduce space requirements by up to 50% and power requirements by up to 70% compared to conventional hardware-based solutions.

We believe our 1999 soft modem shipments represented 85% of the worldwide soft modem market based on projections from Cahners In-Stat Group. Various original equipment manufacturers, including Acer, Compaq, Dell, emachines, Fujitsu and Sharp, have integrated our soft modems into their products.

In recent years, dramatic increases in business and consumer demand for multimedia information, entertainment and voice and data communication have resulted in a corresponding increase in demand for high speed remote access. The accelerated growth of content-rich applications, which demand high bandwidth, has changed the nature of information networks. High-speed connectivity is now a commonplace requirement for business, government, academic and home environments. These market trends have resulted in a significant increase in the demand for connectivity devices. International Data Corporation estimates that by 2003, the number of internet connectivity devices in use will grow to over 722 million.

Our host signal processing architecture, which involves running software on a host computer rather than using dedicated processing hardware, allows us to quickly and cost-effectively capitalize on this rapid growth in demand for connectivity devices. We believe that we can use our intellectual property portfolio to readily adapt to the speed and design requirements of emerging connectivity technologies. For example, we have developed LiteSpeed, a host signal processing architecture solution, in response to growing market acceptance of G.Lite, a digital subscriber line technology that enables downstream data transmission speeds of up to 1.5 Mbps and upstream data transmission speeds of up to 512 Kbps over existing copper telephone lines. Downstream transmission refers to the transmission of data from the central office to the customer premise, and upstream transmission of data refers to the reverse. By providing connectivity solutions that can be easily adapted to new standards and protocols, we simplify purchasing decisions and accelerate deployment times for original equipment manufacturers.

We are also developing a G.DMT standard version of asymmetric digital subscriber line customer premise equipment which will allow for full-rate data transmission. Full-rate solutions can accommodate eight megabits per second downstream and one megabit per second upstream.

In February 2000, we acquired Voyager Technologies, a pioneer of short-range wireless technology. We believe Voyager Technologies provides us with the core wireless technology and the resources to allow us to accelerate our penetration into emerging growth markets for wireless data networking, high speed internet access through cellular handsets, shared broadband internet access through home networks (commonly referred to as residential gateway solutions) and cordless handsets.

Our principal executive offices are located at 1331 California Circle, Milpitas, California 95035. Our telephone number is (408) 965-2100.

The Offering

The number of shares of common stock to be outstanding after this offering is based on the number of shares outstanding as of December 31, 1999 and does not include the following:

- . 4,494,578 shares of common stock that will be issued upon the exercise of outstanding stock options under our 1995 stock plan and 1997 stock plan, which includes 49,056 shares of common stock underlying options granted in connection with the acquisition of Voyager Technologies on February 24, 2000,
- . 201,063 shares of common stock that will be issued upon the exercise of outstanding warrants, and
- . 267,687 shares of common stock issued in connection with the acquisition of Voyager Technologies on February $24,\ 2000$.

Please also note that, except where otherwise indicated:

- . the information in this prospectus relating to our outstanding shares of common stock or options or warrants to purchase our common stock is based upon information as of December 31, 1999,
- . the information in this prospectus assumes no exercise of the underwriters' over-allotment option, and
- . in this prospectus, "PCTEL," "we," "us" and "our" refer to PCTEL, Inc. and its subsidiaries.

Summary Consolidated Financial Information

You should read the following summary consolidated financial information together with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and related notes included elsewhere in this prospectus. The following tables present our summary consolidated statement of operations data for fiscal years 1995 through 1999 and our summary balance sheet data as of December 31, 1999. Summary balance sheet data is presented on an actual basis and pro forma as adjusted to reflect the sale of 800,000 shares of common stock offered by us in this offering at an assumed price of \$ per share and after deducting the estimated underwriting discounts and offering expenses and giving effect to the application of the net proceeds. Pro forma basic and diluted earnings per share below excludes non-cash charges for amortization of deferred compensation related to stock option grants. For the year ended December 31, 1999 pro forma basic and diluted earnings per share also excludes non-cash charges related to amortization of goodwill and an extraordinary loss of \$1.6 million related to the early extinguishment of debt.

	Year Ended December 31,									
								1996		
	(i:	n thou	ısa	inds,	exc	ept pe	er	share	da	 ta)
Statement of Operations Data:										
Revenues	\$7	6,293	\$3	3,004	\$2	24,009	\$1	16,573	\$	191
Gross profit	3	6,865	1	9,126	1	1,085		7,391		85
Income (loss) from operations		9,776		228		2,957		3,882	(1	,127)
Net income (loss)		5,422		495		2,301		3,004	(1	,093)
Basic earnings per share	\$	1.03	\$	0.21	\$	1.13	\$	4.79	\$	
Diluted earnings per share	\$	0.37	\$	0.04	\$	0.20	\$	0.29	\$	
Pro forma basic earnings per share	\$	1.72	\$	0.22	\$	1.13	\$	4.84	\$	
Pro forma diluted earnings per share	\$	0.62	\$	0.04	\$	0.20	\$	0.30	\$	
Shares used in computing basic										
earnings per share		5,287		2.355		2,032		627		
Shares used in computed diluted		-,		_,		-,				
earnings per share	1	4,666	1	2,325	1	1,645	1	10,280		

December 31, 1999
-----Pro Forma
Actual as Adjusted
----(in thousands)

Balance Sheet Data:

See Note 2 of Notes to the Consolidated Financial Statements for an explanation of the shares used in computing basic earnings per share and diluted earnings per share in the above table.

RISK FACTORS

Before you invest in our common stock, you should carefully consider the various risks, including those described below, together with all of the other information included in this prospectus. Risks and uncertainties not presently known to us or that we currently consider to be immaterial may also impair our business operations. If any of these risks actually occur, our business, financial condition or operating results could be adversely affected. In that case, the trading price of our common stock could decline and you could lose all or part of your investment.

Risks Related to Our Business

Our sales are concentrated among a limited number of customers and the loss of one or more of these customers could cause our revenues to decrease.

Our sales are concentrated among a limited number of customers. If we were to lose one or more of these customers, or if one or more of these customers were to delay or reduce purchases of our products, our revenues may decrease. For the year ended December 31, 1999, approximately 79% of our revenues were generated by five of our customers. Talent Trade Asia and Askey accounted for 47% and 13% of our revenues for the year ended December 31, 1999, respectively. These customers may in the future decide not to purchase our products at all, purchase fewer products than they did in the past or alter their purchasing patterns, because:

- . we do not have any long-term purchase arrangements or contracts with these or any of our other customers,
- . our product sales to date have been made primarily on a purchase order basis, which permit our customers to cancel, change or delay product purchase commitments with little or no notice and without penalty, and
- many of our customers also have pre-existing relationships with current or potential competitors which may affect our customers' purchasing decisions.

We expect that a small number of customers will continue to account for a substantial portion of our revenues for at least the next 12 to 18 months and that a significant portion of our sales will continue to be made on the basis of purchase orders.

We have significant sales and operations concentrated in Asia. Political and economic instability in Asia and difficulty in collecting accounts receivable may make it difficult for us to maintain or increase market demand for our products.

Our sales to customers located in Asia accounted for 99%, 76% and 77% of our total revenues for the years ended December 31, 1999, 1998 and 1997, respectively. The predominance of our sales are in Asia, mostly in Taiwan and China, because our customers are primarily motherboard or modem board manufacturers that are located there. In many cases, our indirect original equipment manufacturer customers specify that our products be included on the modem boards or motherboards, the main printed circuit board containing the central processing unit of a computer system, that they purchase from board manufacturers, and we sell our products directly to the board manufacturers for resale to our indirect original equipment manufacturer customers, both in the United States and internationally. Due to the industry wide concentration of modem manufacturers in Asia, we believe that a high percentage of our future sales will continue to be concentrated with Asian customers. As a result, our future operating results could be uniquely affected by a variety of factors outside of our control, including:

- . political and economic instability in $\ensuremath{\mathsf{Asia}}\xspace,$
- changes in tariffs, quotas, import restrictions and other trade barriers which may make our products more expensive than our competitors' products,
- . delays in collecting accounts receivable, which we have experienced from time to time, and

. fluctuations in the value of Asian currencies relative to the U.S. dollar, which may make it more costly for us to do business in Asia which may in turn make it difficult for us to maintain or increase our revenues

To successfully expand our sales internationally, we must strengthen foreign operations, hire additional personnel and recruit additional international distributors and resellers. This will require significant management attention and financial resources. To the extent that we are unable to effect these additions in a timely manner, we may not be able to maintain or increase market demand for our products in Asia and internationally, and our operating results could be hurt.

Continuing decreases in the average selling prices of our products could result in decreased revenues.

Product sales in the connectivity industry have been characterized by continuing erosion of average selling prices. Price erosion experienced by any company can cause revenues and gross margins to decline. The average selling price of our products has decreased by approximately 46% from October 1995 to December 1999. We expect this trend to continue.

In addition, we believe that the widespread adoption of industry standards in the soft modem industry is likely to further erode average selling prices, particularly for analog modems. Adoption of industry standards is driven by the market requirement to have interoperable modems. End users need this interoperability to ensure modems from different manufacturers communicate with each other without problems. Historically, users have deferred purchasing modems until these industry standards are adopted. However, once these standards are accepted, it lowers the barriers to entry and price erosion results. Decreasing average selling prices in our products could result in decreased revenues even if the number of units that we sell increases. Therefore, we must continue to develop and introduce next generation products with enhanced functionalities that can be sold at higher gross margins. Our failure to do this could cause our revenues and gross margins to decline.

Our gross margins may vary based on the \min of sales of our products and services, and these variations \max hurt our net income.

We derive a significant portion of our sales from our software-based connectivity products. We expect margins on newly introduced products generally to be higher than for our existing products. However, due in part to the competitive pricing pressures that affect our products and in part to increasing component and manufacturing costs, we expect margins from both existing and future products to decrease over time. In addition, licensing revenues from our products historically have provided higher margins than our product sales. Changes in the mix of products sold and the percentage of our sales in any quarter attributable to products as compared to licensing revenues will cause our quarterly results to vary and could result in a decrease in net income.

Our future success depends on our ability to develop and successfully introduce new and enhanced products that meet the needs of our customers.

Our future success depends on our ability to anticipate our customers' needs and develop products that address those needs. Introduction of new products and product enhancements will require that we coordinate our efforts with those of our suppliers to rapidly achieve volume production. If we fail to coordinate these efforts, develop product enhancements or introduce new products that meet the needs of our customers as scheduled, our revenues may be reduced and our business may be harmed. We cannot assure you that product introductions will meet the anticipated release schedules.

Our revenues may fluctuate each quarter due to both domestic and international seasonal trends.

We have experienced and expect to continue to experience seasonality in sales of our connectivity products. These seasonal trends materially affect our quarter-to-quarter operating results. Our revenues are

typically higher in the third and fourth quarters due to the back-to-school and holiday seasons as well as purchasers of PCs making purchase decisions based on their calendar year-end budgeting requirements. As a result, we generally expect revenue levels for the first quarter to be less than those for the preceding quarter.

We are currently expanding our sales in international markets, particularly in Asia, Europe and South America. To the extent that our revenues in Asia, Europe or other parts of the world increase in future periods, we expect our period-to-period revenues to reflect seasonal buying patterns in these markets.

Any delays in our normally lengthy sales cycles could result in customers canceling purchases of our products.

Sales cycles for our products with major customers are lengthy, often lasting six months or longer. In addition, it can take an additional six months or more before a customer commences volume production of equipment that incorporates our products. Sales cycles with our major customers are lengthy for a number of reasons:

- our original equipment manufacturer customers usually complete a lengthy technical evaluation of our products, over which we have no control, before placing a purchase order,
- the commercial integration of our products by an original equipment manufacturer is typically limited during the initial release to evaluate product performance, and
- . the development and commercial introduction of products incorporating new technologies frequently are delayed.

A significant portion of our operating expenses is relatively fixed and is based in large part on our forecasts of volume and timing of orders. The lengthy sales cycles make forecasting the volume and timing of product orders difficult. In addition, the delays inherent in lengthy sales cycles raise additional risks of customer decisions to cancel or change product phases. If customer cancellations or product changes occur, this could result in the loss of anticipated sales without sufficient time for us to reduce our operating expenses.

We expect that our operating expenses will increase substantially in the future and these increased expenses may diminish our ability to remain profitable.

Although we have been profitable in recent years, we may not remain profitable on a quarterly or annual basis in the future. We anticipate that our expenses will increase substantially over at least the next three years as we:

- further develop and introduce new applications and functionality for our host signal processing technology,
- conduct research and development and explore emerging product opportunities in digital technologies and wireless and cable communications,
- . expand our distribution channels, both domestically and in our international markets, and
- . pursue strategic relationships and acquisitions.

In order to maintain profitability we will be required to increase our revenues to meet these additional expenses. Any failure to significantly increase our revenues as we implement our product, service, distribution and strategic relationship strategies would result in a decrease in our overall profitability.

To date, we have principally relied upon our distributor sales organization for product sales to smaller accounts. Our direct sales efforts have focused principally on board manufacturers and smaller PC original equipment manufacturers. To increase penetration of our target customer base, including large, tier-one original equipment manufacturers, we must significantly increase the size of our direct sales force and organize and

deploy sales teams targeted at specific domestic tier-one original equipment manufacturer accounts. If we are unable to expand our sales to additional original equipment manufacturers, our revenues may not meet analysts' expectations which could cause our stock price to drop.

We must accurately forecast customer demand for our products. If there is an unexpected fluctuation in demand for our products, we may incur excessive operating costs or lose product revenues.

We must forecast and place purchase orders for specialized semiconductor chips, such as the application specific integrated circuit, $\operatorname{coder}/\operatorname{decoder}$ and discrete access array, or data access arrangement, components of our modem products, several months before we receive purchase orders from our own customers. This forecasting and order lead time requirement limits our ability to react to unexpected fluctuations in demand for our products. These fluctuations can be unexpected and may cause us to have excess inventory, or a shortage, of a particular product. In the event that our forecasts are inaccurate, we may need to write down excess inventory. For example, we were required to write down inventory in the second quarter of 1996 in connection with a product transition within our 14.4 Kbps product family. Similarly, if we fail to purchase sufficient supplies on a timely basis, we may incur additional rush charges or we may lose product revenues if we are not able to meet a purchase order. These failures could also adversely affect our customer relations. Significant write-downs of excess inventory or declines in inventory value in the future could cause our net income and gross margin to decrease.

We rely heavily on our intellectual property rights which offer only limited protection against potential infringers. Unauthorized use of our technology may result in development of products that compete with our products which could cause our market share and our revenues to be reduced.

Our success is heavily dependent upon our proprietary technology. We rely primarily on a combination of patent, copyright and trademark laws, trade secrets, confidentiality procedures and contractual provisions to protect our proprietary rights. These means of protecting our proprietary rights may not be adequate. We hold a total of 40 patents, a number of which cover technology that is considered essential for International Telecommunications Union standard communications solutions, and also have 29 additional patent applications pending or filed. These patents may never be issued. These patents, both issued and pending, may not provide sufficiently broad protection against third party infringement lawsuits or they may not prove enforceable in actions against alleged infringers.

Despite precautions that we take, it may be possible for unauthorized third parties to copy aspects of our current or future products or to obtain and use information that we regard as proprietary. We may provide our licensees with access to our proprietary information underlying our licensed applications. Additionally, our competitors may independently develop similar or superior technology. Finally, policing unauthorized use of software is difficult, and some foreign laws, including those of various countries in Asia, do not protect our proprietary rights to the same extent as United States laws. Litigation may be necessary in the future to enforce our intellectual property rights, to protect our trade secrets or to determine the validity and scope of the proprietary rights of others. Litigation could result in substantial costs and diversion of resources.

We have received, and may receive in the future, communications from third parties asserting that our products infringe on their intellectual property rights, that our patents are unenforceable or that we have inappropriately licensed our intellectual property to third parties. These claims could affect our relationships with existing customers and may prevent potential future customers from purchasing our products or licensing our technology. Because we depend upon a limited number of products, any claims of this kind, whether they are with or without merit, could be time consuming, result in costly litigation, cause product shipment delays or require us to enter into royalty or licensing agreements. In the event that we do not prevail in litigation, we could be prevented from selling our products or be required to enter into royalty or licensing agreements on terms which may not be acceptable to us. We could also be prevented from selling our products or be required to pay substantial monetary damages. Should we cross license our intellectual property in order to obtain licenses, we may no longer be able to offer a unique product. Other than the ESS Technology lawsuit described elsewhere in this prospectus, no material lawsuits relating to intellectual property are currently filed against us.

New patent applications may be currently pending or filed in the future by third parties covering technology that we use currently or may use in the future. Pending U.S. patent applications are confidential until patents are issued, and thus it is impossible to ascertain all possible patent infringement claims against us. We believe that several of our competitors, including Lucent, Motorola and Texas Instruments, may have a strategy of protecting their market share by filing intellectual property claims against their competitors and may assert claims against us in the future. The legal and other expenses and diversion of resources associated with any such litigation could result in a decrease in our revenues.

In addition, some of our customer agreements include an indemnity clause that obligates us to defend and pay all damages and costs finally awarded by a court should third parties assert patent and/or copyright claims against our customers. As a result, we may be held responsible for infringement claims asserted against our customers. If our financial reserves for potential future license fees are less than any actual fees that we are required to pay, our net income would be reduced.

If our financial reserves for potential future license fees are less than any actual fees that we are required to pay, our net income would be reduced.

We have established and recorded on a monthly basis a reserve for payment of future license fees based upon our estimate as to the likely amount of the licensing fees that we may be required to pay in the event that licenses are obtained. We believe that it is typical for participants in the modem industry to obtain licenses in exchange for grants of cross licenses rather than for payment of fees and we have based our estimates on our understanding of the license fee practices of other segments of our industry. Our reserves may not be adequate because of factors outside of our control and because these license fee practices in the modem industry may not be applicable to our experience.

Competition in the connectivity market is intense, and if we are unable to compete effectively, the demand for, or the prices of, our products may be reduced.

The connectivity device market is intensely competitive. We may not be able to compete successfully against current or potential competitors. Our current competitors include 3Com, Conexant, ESS Technology, Lucent Technologies, Motorola and SmartLink. We expect competition to increase in the future as current competitors enhance their product offerings, new suppliers enter the connectivity device market, new communication technologies are introduced and additional networks are deployed.

We may in the future also face competition from other suppliers of products based on host signal processing technology or on new or emerging communication technologies, which may render our existing or future products obsolete or otherwise unmarketable. We believe that these competitors may include Alcatel, Analog Devices, Aware, Broadcom, Efficient Networks, ITeX, Terayon Communications, Texas Instruments and Virata.

As a result of our February 2000 acquisition of Voyager Technologies, we anticipate that we will enter the markets for wireless Internet connectivity and wireless home networking. These markets are intensely competitive. We believe that our future competitors in these markets may include Aironet, Breezecom, Conexant, Lucent, Intersil, Motorola, Proxim and Symbol Technologies.

We believe that the principal competitive factors required by users and customers in the connectivity product market include compatibility with industry standards, price, functionality, ease of use and customer service and support. Although we believe that our products currently compete favorably with respect to these factors, we may not be able to maintain our competitive position against current and potential competitors.

In order for us to maintain our profitability and continue to introduce and develop new products for emerging markets, we must attract and retain our executive officers and qualified technical, sales, support and other administrative personnel.

Our past performance has been and our future performance is substantially dependent on the performance of our current executive officers and certain key engineering, sales, marketing, financial, technical and customer

support personnel. If we lose the services of one or more of our executives or key employees, a replacement could be difficult to recruit and we may not be able to grow our business.

We maintain "key person" life insurance policies on Peter Chen, our Chairman and Chief Executive Officer, William Wen-Liang Hsu, our Vice President, Engineering, and Han Yeh, our Vice President, Technology, in the face amount of \$1 million for each individual. However, these insurance policies may not adequately compensate us for the loss of services of any of these individuals.

We intend to hire a significant number of additional engineering, sales, support, marketing and finance personnel in the future. Competition for personnel, especially engineers and marketing and sales personnel in Silicon Valley, is intense. We are particularly dependent on our ability to identify, attract, motivate and retain qualified engineers with the requisite education, background and industry experience. As of December 31, 1999, we employed a total of 65 people in our engineering department, over half of whom have advanced degrees. In the past we have experienced difficulty in recruiting qualified engineering personnel, especially developers, on a timely basis. If we are not able to hire at the levels that we plan, our ability to continue to develop products and technologies responsive to our markets will be impaired.

Our acquisition of Voyager Technologies and any future acquisitions may be difficult to integrate, disrupt our business, dilute stockholder value or divert management attention.

We acquired Voyager Technologies on February 24, 2000. We are in the initial stages of integrating Voyager Technologies into PCTEL. We may encounter problems associated with the integration of Voyager Technologies including:

- difficulties in assimilation of acquired personnel, operations, technologies or products,
- . unanticipated costs associated with the acquisition,
- . diversion of management's attention from other business concerns,
- . adverse effects on our existing business relationships with our and Voyager Technologies' customers, and
- . inability to retain employees of Voyager Technologies.

As part of our business strategy, we may in the future seek to acquire or invest in additional businesses, products or technologies that we believe could complement or expand our business, augment our market coverage, enhance our technical capabilities or that may otherwise offer growth opportunities. These future acquisitions could pose the same risks to our business posed by the acquisition described above. In addition, we could use substantial portions of our available cash to pay for future acquisitions. We could also issue additional securities as consideration for these acquisitions, which could cause our stockholders to suffer significant dilution.

We have experienced significant growth in our business in recent periods and failure to manage our growth could strain our management, financial and administrative resources.

Our ability to successfully sell our products and implement our business plan in rapidly evolving markets requires an effective management planning process. Future expansion efforts could be expensive and put a strain on our management by significantly increasing the scope of their responsibilities and our resources by increasing the number of people using them. We have increased, and plan to continue to increase, the scope of our operations at a rapid rate. Our headcount has grown and will continue to grow substantially. Our headcount increased from 95 at December 31, 1998 to 144 at December 31, 1999. In addition, we expect to continue to hire a significant number of new employees. To effectively manage our growth, we must maintain and enhance our financial and accounting systems and controls, integrate new personnel and manage expanded operations.

We rely on independent companies to manufacture, assemble and test our products. If these companies do not meet their commitments to us, our ability to sell products to our customers would be impaired.

We do not have our own manufacturing, assembling or testing operations. Instead, we rely on independent companies to manufacture, assemble and test the semiconductor chips which are integral components of our products. Most of these companies are located outside of the United States. There are many risks associated with our relationships with these independent companies, including reduced control over:

- . delivery schedules,
- . quality assurance,
- . manufacturing costs,
- . capacity during periods of excess demand, and
- . access to process technologies.

In addition, the location of these independent parties outside of the United States creates additional risks resulting from the foreign regulatory, political and economic environments in which each of these companies exists. Further, some of these companies are located near earthquake fault lines. While we have not experienced any material problems to date, failures or delays by our manufacturers to provide the semiconductor chips that we require for our products, or any material change in the financial arrangements we have with these companies, could have an adverse impact on our ability to meet our customer product requirements.

We design, market and sell application specific integrated circuits and outsource the manufacturing and assembly of the integrated circuits to third party fabricators. The majority of our products and related components are manufactured by five principal companies: Taiwan Semiconductor Manufacturing Corporation, ST Microelectronics, Kawasaki/LSI, Silicon Labs and Delta Integration. We expect to continue to rely upon these third parties for these services. Currently, the data access arrangement chips used in our soft modem products are provided by a sole source, Silicon Labs, on a purchase order basis, and we have only a limited guaranteed supply arrangement under a contract with our supplier. We are currently in the process of qualifying a second source for our data access arrangement chips. Although we believe that we would be able to qualify an alternative manufacturing source for data access arrangement chips within a relatively short period of time, this transition, if necessary, could result in loss of purchase orders or customer relationships, which could result in decreased revenues.

Undetected software errors or failures found in new products may result in loss of customers or delay in market acceptance of our products.

Our products may contain undetected software errors or failures when first introduced or as new versions are released. To date, we have not been made aware of any significant software errors or failures in our products. However, despite testing by us and by current and potential customers, errors may be found in new products after commencement of commercial shipments, resulting in loss of customers or delay in market acceptance.

Risks Related to Our Industry

If the market for applications using our host signal processing technology does not grow as we anticipate, or if our products are not accepted in this market, our revenues may stagnate or decrease.

Our success depends on the growth of the market for applications using our host signal processing technology. Market demand for host signal processing technology depends primarily upon the cost and performance benefits relative to other competing solutions. This market has only recently begun to develop and may not develop at the growth rates that have been suggested by industry estimates. Although we have shipped a significant number of soft modems since we began commercial sales of these products in October 1995, the

current level of demand for soft modems may not be sustained or may not grow. If customers do not accept soft modems or the market for soft modems does not grow, our revenues will decrease.

Further, we are in the process of developing next generation products and applications which improve and extend upon our host signal processing technology, such as a G.Lite modem solution and a remote access solution. If these products are not accepted in our markets when they are introduced, our revenues and profitability will be negatively affected.

Our industry is characterized by rapidly changing technologies. If we do not adapt to these technologies, our products will become obsolete.

The connectivity product market is characterized by rapidly changing technologies, limited product life cycles and frequent new product introductions. To remain competitive in this market, we have been required to introduce many products over a limited period of time. For example, we introduced a 14.4 Kbps product in 1995, a 28.8 Kbps product in 1996, a 33.6 Kbps product in late 1996, a non-International Telecommunications Union standard 56 Kbps modem in the second half of 1997 and a v.90 International Telecommunications Union standard 56 Kbps modem in early 1998. The market for high speed data transmission is also characterized by several competing technologies that offer alternative broadband solutions which allow for higher modem speeds and faster internet access. These competing broadband technologies include digital subscriber line, wireless and cable. However, substantially all of our current product revenue is derived from sales of analog modems, which use a more conventional technology. We must continue to develop and introduce technologically advanced products that support one or more of these competing broadband technologies. If we are not successful in our response, our products will become obsolete and we will not be able to compete effectively.

Changes in laws or regulations, in particular, future FCC regulations affecting the broadband market, internet service providers, or the communications industry could negatively affect our ability to develop new technologies or sell new products and therefore, reduce our profitability.

The jurisdiction of the Federal Communications Commission, or FCC, extends to the entire communications industry, including our customers and their products and services that incorporate our products. Future FCC regulations affecting the broadband access services industry, our customers or our products may harm our business. For example, future FCC regulatory policies that affect the availability of data and internet services may impede our customers' penetration into their markets or affect the prices that they are able to charge. In addition, international regulatory bodies are beginning to adopt standards for the communications industry. Although our business has not been hurt by any regulations to date, in the future, delays caused by our compliance with regulatory requirements may result in order cancellations or postponements of product purchases by our customers, which would reduce our profitability.

Risks Related to our Common Stock

Substantial future sales of our common stock in the public market may depress our stock price.

Our current stockholders hold a substantial number of shares, which they will be able to sell in the public market in the near future. Sales of a substantial number of shares of our common stock could cause our stock price to fall.

Provisions in our charter documents may inhibit a change of control or a change of management which may cause the market price for our common stock to fall and may inhibit a takeover or change in our control that a stockholder may consider favorable.

Provisions in our charter documents could discourage potential acquisition proposals and could delay or prevent a change in control transaction that our stockholders may favor. These provisions could have the effect of discouraging others from making tender offers for our shares, and as a result, these provisions may prevent

the market price of our common stock from reflecting the effects of actual or rumored takeover attempts and may prevent stockholders from reselling their shares at or above the price at which they purchased their shares. These provisions may also prevent changes in our management that our stockholders may favor. Our charter documents do not permit stockholders to act by written consent, do not permit stockholders to call a stockholders meeting and provide for a classified board of directors, which means stockholders can only elect, or remove, a limited number of our directors in any given year.

Our board of directors has the authority to issue up to 5,000,000 shares of preferred stock in one or more series. The board of directors can fix the price, rights, preferences, privileges and restrictions of this preferred stock without any further vote or action by our stockholders. The rights of the holders of our common stock will be affected by, and may be adversely affected by, the rights of the holders of any preferred stock that may be issued in the future. Further, the issuance of shares of preferred stock may delay or prevent a change in control transaction without further action by our stockholders. As a result, the market price of our common stock may drop. The board of directors has not elected to issue additional shares of preferred stock since the initial public offering on October 19, 1999.

Our stock price may be volatile based on a number of factors, some of which are not in our control.

The trading price of our common stock has been highly volatile. Our stock price could be subject to wide fluctuations in response to a variety of factors, many of which are out of our control, including:

- . actual or anticipated variations in quarterly operating results,
- . announcements of technological innovations,
- . new products or services offered by us or our competitors,
- . changes in financial estimates by securities analysts,
- . conditions or trends in our industry,
- our announcement of significant acquisitions, strategic partnerships, joint ventures or capital commitments,
- . additions or departures of key personnel, and
- . sales of common stock by us or our stockholders.

In addition, the Nasdaq National Market, where many publicly held telecommunications companies, including our company, are traded, often experiences extreme price and volume fluctuations. These fluctuations often have been unrelated or disproportionate to the operating performance of these companies. The trading prices of many technology companies continue to trade at multiples of earnings or revenues which are substantially above historic levels. These trading prices and multiples may not be sustainable. These broad market and industry factors may seriously harm the market price of our common stock, regardless of our actual operating performance. In the past, following periods of volatility in the market price of an individual company's securities, securities class action litigation often has been instituted against that company. This type of litigation, if instituted, could result in substantial costs and a diversion of management's attention and resources.

SPECIAL NOTE REGARDING FORWARD LOOKING STATEMENTS

This prospectus, including the sections entitled "Prospectus Summary," "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations," and "Business," contains forward looking statements. These statements relate to future events or our future financial performance, and involve known and unknown risks and uncertainties that may cause our actual results, levels of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied by these forward looking statements. These risks include those listed under "Risk Factors" and elsewhere in this prospectus. In some cases, you can identify forward looking statements by terminology such as "may," "will," "should," "expects," "intends," "plans," "anticipates," "believes," "estimates," "predicts," "potential," "continue," or the negative of these terms or other comparable terminology. These statements are only predictions. Actual events or results may differ materially. In evaluating these statements, you should specifically consider various factors, including the risks outlined under "Risk Factors." These factors may cause our actual results to differ materially from any forward looking statement.

USE OF PROCEEDS

We estimate that we will receive net proceeds of \$ from the sale of 800,000 shares of common stock based on an assumed offering price of \$ per share (or \$ assuming the underwriters' over-allotment option of 510,000 shares is exercised in full) after deducting estimated offering expenses and underwriting discounts and commissions. We will not receive any proceeds from the sale of the 2,600,000 shares being sold by the selling stockholders.

We anticipate using the remaining net proceeds from this offering for general corporate purposes, including working capital. We also may use a portion of the net proceeds to acquire complementary products, technologies or businesses. However, we currently have no commitments or agreements and are not involved in any negotiations for any of these transactions. Pending use of the net proceeds from this offering, we intend to invest the net proceeds in short-term, interest-bearing securities.

PRICE RANGE OF COMMON STOCK

Our common stock has been traded on the Nasdaq National Market under the symbol "PCTI" since our initial public offering on October 19, 1999. The following table shows the high and low sale prices of our common stock as reported by the Nasdaq National Market for the periods indicated.

	High	Low
Fiscal 1999		
Fourth Quarter (from October 19, 1999)	\$54.00	\$21.63
Fiscal 2000	,	,
First Quarter (through March 14, 2000)	\$98.00	\$42.44

The closing sale price of our common stock as reported on the Nasdaq National Market on March 14, 2000 was \$69.25 per share. As of that date there were 188 holders of record of our common stock.

DIVIDEND POLICY

We have never declared or paid cash dividends on our capital stock. We currently intend to retain all of our earnings, if any, for use in our business and do not anticipate paying any cash dividends.

CAPITALIZATION

The following table presents our capitalization as of December 31, 1999:

- . on an actual basis, and
- . on a pro forma as adjusted basis to give effect to the receipt by us of the net proceeds from the sale of 800,000 shares of common stock in this offering at an assumed offering price of \$ per share after deducting underwriting discounts and commissions and estimated offering expenses.

The number of shares of common stock to be outstanding after this offering is based on the number of shares outstanding as of December 31, 1999 and does not include the following:

- . 4,494,578 shares of common stock that will be issued upon the exercise of outstanding stock options under our 1995 stock plan and 1997 stock plan, which includes 49,056 shares of common stock underlying options granted in connection with the acquisition of Voyager Technologies on February 24, 2000,
- . 201,063 shares of common stock that will be issued upon the exercise of outstanding warrants, and
- . 267,687 shares of common stock issued in connection with the acquisition of Voyager Technologies on February 24, 2000.

December 31, 1999

	Actual	Pro Forma As Adjusted
	(in the	ousands)
Stockholders' equity:		
Preferred stock: par value \$0.001 per share, 5,000,000 shares authorized, zero shares issued and outstanding Common stock: par value \$0.001 per share, 50,000,000	\$	\$
shares authorized, 16,560,335 shares issued and outstanding, actual; 17,360,335 shares issued and		
outstanding, pro forma as adjusted	17	17
Additional paid-in capital	99,334	
Deferred compensation	(4,856)	(4,856)
Retained earnings	9,849	9,849
Accumulated other comprehensive income	(66)	(66)
Total stockholders' equity and capitalization	\$104,278	\$
	=======	======

SELECTED CONSOLIDATED FINANCIAL DATA

The following selected consolidated financial data should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations," our Consolidated Financial Statements and related notes and other financial information appearing elsewhere in this prospectus. The statement of operations data for the years ended December 31, 1999, 1998 and 1997 and the balance sheet data as of December 31, 1999 and 1998 are derived from audited financial statements included elsewhere in this prospectus. The statement of operations data for the years ended December 31, 1996 and 1995 and the balance sheet data as of December 31, 1997, 1996 and 1995 are derived from audited financial statements not included in this prospectus. There was no common stock outstanding for the year ended December 31, 1995. The operating results for the year ended December 31, 1998 includes the \$6.1million write-off of in-process research and development costs related to our acquisition of Communications Systems Division in December 1998. Pro forma basic and diluted earnings per share below excludes non-cash charges for amortization of deferred compensation related to stock option grants. For the year ended December 31, 1999 pro forma basic and diluted earnings per share also excludes non-cash charges related to amortization of goodwill and an extraordinary loss of \$1.6 million related to the early extinguishment of debt.

Year Ended December 31,							
		1998		1996	1995		
Consolidated Statement of Operations Data:	(in tho	usands,					
Revenues Cost of revenues		\$33,004 13,878		9,182	106		
Gross profit		19,126		7,391	85		
Operating expenses: Research and development	10,523 5,459	4,932 5,624 2,169 6,130	3,168 1,612	477	275 115		
Amortization of deferred compensation		43		41			
Total operating expenses	27,089	18,898	8,128				
<pre>Income (loss) from operations Other income, net</pre>	9,776	228 479	2,957	3,882 127	(1,127) 35		
<pre>Income (loss) before provision for income taxes and extraordinary loss Provision for income taxes</pre>	10.047	707 212	3.256	4,009 1,005	(1,092) 1		
Net income (loss) before extraordinary loss	7,033 (1,611)		2,301		(1,093)		
Net income (loss)				\$ 3,004	\$(1,093)		
Basic earnings per share Diluted earnings per share Pro forma basic earnings per share Pro forma diluted earnings per share Shares used in computing basic earnings per share Shares used in computed diluted earnings per share	\$ 0.37 \$ 1.72 \$ 0.62 5,287	\$ 0.21 \$ 0.04 \$ 0.22 \$ 0.04 2,355	\$ 0.20 \$ 1.13 \$ 0.20 2,032	\$ 0.29 \$ 4.84 \$ 0.30	\$ \$ \$		
		Dece	ember 31	,			
	1999	1998	1997	1996	1995		
Consolidated Balance Sheet Data:			thousand				
Cash, cash equivalents and short-term investments	\$98,290 89,892 130,605	14,011	\$ 6,685 12,840 23,148	6,236	3,068		
portion Total stockholders' equity	 104,278	14,709 15,139		5 6 , 689	3 3 , 228		

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

You should read the following discussion in conjunction with our Consolidated Financial Statements and related notes appearing elsewhere in this prospectus. Except for historical information, the following discussion contains forward looking statements that involve risks and uncertainties, including statements regarding our anticipated revenues, profits, costs and expenses and revenue mix. These forward looking statements include, among others, those statements including the words, "may," "will," "plans," "seeks," "expects," "anticipates," "intends," "believes" and similar language. Our actual results may differ significantly from those discussed in the forward looking statements. Factors that might cause future results to differ materially from those discussed in the forward looking statements include, but are not limited to, those discussed in "Risk Factors" and elsewhere in this prospectus.

Overview

We provide cost-effective software-based communications solutions that address high speed internet connectivity requirements for existing and emerging technologies. Our communications products enable internet access through PCs and alternative internet access devices. From our inception in February 1994 through the end of 1995, we were a development stage company primarily engaged in product development, product testing and the establishment of strategic relationships with customers and suppliers. From December 31, 1995 to December 31, 1999, our total headcount increased from 18 to 144. We first recognized revenue on product sales in the fourth quarter of 1995, and became profitable in 1996, our first full year of product shipments. Revenues increased from \$16.6 million in 1996 to \$24.0 million in 1997, \$33.0 million in 1998 and \$76.3 million in 1999.

We sell soft modems to manufacturers and distributors principally in Asia through our sales personnel, independent sales representatives and distributors. Our sales to manufacturers and distributors in Asia were 99%, 76% and 77% of our total sales for the years ended 1999, 1998 and 1997, respectively. The predominance of our sales is in Asia because our customers are primarily motherboard and modem manufacturers, and the majority of these manufacturers are located in Asia. In many cases, our indirect original equipment manufacturer customers specify that our products be included on the modem boards or motherboards that they purchase from the board manufacturers, and we sell our products directly to the board manufacturers for resale to our indirect original equipment manufacturer customers, both in the United States and internationally. Industry statistics indicate that approximately two-thirds of modems manufactured in Asia are sold in North America.

We recognize revenues from product sales to customers upon shipment. We provide for estimated sales returns, allowances and discounts related to such sales at the time of shipment. We recognize revenues from product sales to distributors only when the distributors have sold the product to the end user. We recognize revenues from non-recurring engineering contracts as contract milestones are achieved.

In the fourth quarter of 1998, we acquired substantially all of the assets and selected liabilities of Communications Systems Division of General DataComm, Inc., for a total purchase price of \$17.0 million. We began to recognize revenues in the three months ended June 30, 1999 from licensing the patent portfolio that we acquired in this acquisition. These revenues are recognized based on confirmation from licensees of the royalty payments due to us.

The following table presents the results of our operations expressed as a percentage of total revenues:

	Year Ended December 31,			
	1999		1997	
Revenues	100.0 %	100.0 %		
Gross profit	48.3			
Operating expenses: Research and development	13.8 7.2 		13.2	
Total operating expenses		57.2		
Income from operations	12.8	0.8	12.4	
Income before provision for income taxes and extraordinary loss				
Net income before extraordinary loss Extraordinary loss, net of income taxes	9.2	1.6	9.6	
Net income	7.1 %	1.6 %	9.6% =====	

Years ended December 31, 1999, 1998 and 1997 (All amounts in tables, other than percentages, are in thousands)

Revenues

	1999	1998	1997
Revenues% change from prior period			

Our revenues primarily consist of product sales of soft modems to board manufacturers and distributors in Asia. Revenues increased \$43.3 million for 1999 compared to 1998. The revenue increase was attributable to unit growth following the implementation of a new sales channel partners program and to the general acceptance of our products in the sub-\$1,000 PC marketplace. The increase in sales volume was partly offset by downward pressure on average selling prices and sales discounts to customers. Our average selling prices decreased 42% from 1998 to 1999, mainly due to the elimination of one out of three chips in the hardware component of the MicroModem product. We believe that this 33% hardware reduction combined with the downward pricing pressure commonly seen in the industry resulted in the decreases in the average selling price of our MicroModem product. However, we believe this decrease has generated the increase in our market share.

Revenues increased \$9.0 million for 1998 compared to 1997 due to an increase in unit sales. This unit increase was due principally to acceptance of our products in the marketplace following the certification by Microsoft of its Windows 95 and 98 logos for our products and the launch of our v.90 soft modem products early in 1998. The benefit of increased sales volume was partly offset by downward pressure on prices throughout the industry, which caused our average selling prices to experience an overall decrease of 28.5%.

 -			
Gross profit\$3	36 , 865	\$19 , 126	\$11,085
Percentage of revenues	48.3%	58.0%	46.2%
% change from prior period	92.7%	72.5%	N/A

Cost of revenues consists primarily of chipsets we purchase from third party manufacturers and include amortization of intangibles related to the Communications Systems Division acquisition, accrued intellectual property royalties, cost of operations, reserves for inventory obsolescence, and distribution costs. The royalties accrued are our estimate based on royalty agreements already signed, or potential new agreements, advice from patent counsel and the royalty rates we charge for use of our own patents.

Gross profit increased \$17.7 million for 1999 compared to 1998. The increase in gross profit was the direct result of increased revenues, inventory cost reduction and economies of scale. Gross profit as a percentage of revenue decreased from 58% for the year ended December 31, 1998 to 48.3% for the year ended December 31, 1999 as a result of a reversal of royalty reserves. Excluding this reversal, gross profit would have been 48.9% in 1998. This \$3.0 million reversal of royalty reserves is a result of the acquisition of the CSD patent portfolio. The reduction in royalty reserves in 1998 is based upon our belief that some third party technology licenses could be obtained by exchanging cross licenses of our expanded patent portfolio rather than by the payment of license fees or royalties. Nonrecurring engineering and licensing revenues, which are characterized by high gross margins, were a reduced percentage of total sales in 1999 compared to 1998. This reduction adversely impacted our profit margins.

Gross profit increased \$8.0 million from 1997 to 1998 and increased as a percentage of revenues to 58.0% in 1998 from 46.2% in 1997. The increase in gross profit was due to the increase in revenues and lower unit costs obtained through volume discounts from our semiconductor vendors, which were partly offset by declining selling prices throughout the industry. The increase was also due in part to a \$3.0 million reversal in royalty reserves in the fourth quarter of 1998 explained previously.

Research and Development

	1999	1998	1997
Research and development	13.5%	14.9%	13.9%

Research and development expenses include compensation costs for software and hardware development, prototyping, certification and pre-production costs. We expense all research and development costs as incurred.

Research and development expenses increased \$5.4 million for 1999 compared to 1998 due to the addition of personnel to develop new products related to the G.Lite, Modem Riser card and HIDRA projects as well as engineering work related to v.90 modems. Research and development headcount increased from 49 to 65 from December 31, 1998 to December 31, 1999. HIDRA is one of our product names and is also an acronym for High Density Remote Access. As a percentage of revenues, research and development decreased in 1999 because revenue growth was proportionally greater than the increase in research and development expenses. Approximately 68% of all research and development expenses were payroll related. We expect that our research and development expenses will increase in absolute dollars because we intend to hire additional personnel and continue to develop new products.

Research and development expenses increased \$1.6 million for 1998 compared to 1997. The increase was due to the addition of research and development personnel to facilitate new product development for our v.90, G.Lite and Modem Riser products.

_ ______

	1999	1998	1997
Sales and marketing Percentage of revenues % change from prior period	13.8%	17.0%	13.2%

Sales and marketing expenses consist primarily of personnel costs, sales commissions and marketing costs. Sales commissions payable to our distributors are recognized when our products are "sold through" from the distributors to end users so that the commission expense is matched with the related revenues.. Marketing costs include promotional goods, trade shows, press tours and advertisements in trade magazines.

Sales and marketing expenses increased \$4.9 million for 1999 compared to 1998. The increase reflects the addition of sales and marketing personnel to develop new accounts, support customers, and to drive new product development and product launches. We also expanded our sales regions geographically to include Japan and Korea. Sales and marketing headcount increased from 31 to 55 from December 31, 1998 to December 31, 1999. The production of collateral sales materials, travel costs, trade shows, sales programs and press tours also resulted in the increase in our sales and marketing expenses. In addition, we implemented a new sales force automation system in the third quarter of 1999 to more efficiently manage our increased sales volume.

Sales and marketing expenses increased \$2.5 million for 1998 compared to 1997. We continued to develop our sales organization in 1998 to expand into different distribution channels, particularly the original equipment manufacturer channel, to develop new accounts, support customers and drive new product development and product launches. Consequently, sales and marketing personnel grew by 14 people, or approximately 74%. Sales and marketing expenses in 1998 also reflected higher sales commissions and increased promotional activity including increased spending in trade shows and press tours.

General and Administrative

_ ______

	1999	1998	1997
General and administrative Percentage of revenues % change from prior period	7.2%	6.6%	6.7%

General and administrative expenses include costs associated with our general management, human resources and finance functions as well as professional service charges, such as legal, tax and accounting fees. Other general expenses include rent, insurance, utilities, travel and other operating expenses to the extent not allocated to other functions.

General and administrative expenses increased \$3.3 million for 1999 compared to 1998. This increase reflected additional legal costs related to an increased number of contract negotiations and patent submissions, additional tax planning, and litigation expenses related to the recently settled Motorola lawsuit. We also incurred additional expenses related to an increase in personnel. General and administrative headcount increased from 15 to 24 from December 31, 1998 to December 31, 1999.

General and administrative expenses increased \$557,000 for 1998 compared to 1997. This increase reflected additional legal costs related to the negotiation and review of an increased number of contracts, an increase in patent submissions, tax planning and litigation expenses related to the Motorola lawsuit.

_ -----

	1999	1998	1997
Acquired in-process research and development			

Upon completion of our acquisition of the Communications Systems Division in December 1998, we immediately expensed \$6.1 million, representing purchased inprocess technology that had not yet reached technological feasibility and had no alternative future use. The value assigned to purchased in-process technology, based on a percentage of completion discounted cash flow method, was determined by identifying research projects in areas for which technological feasibility had not been established. Approximately 69% of the in-process research and development was attributed to the HIDRA project, a high density remote access system that will significantly increase the number of modems within the remote access server by creating multiple ports on each digital signal processor. Approximately 28% was attributed to the x-digital subscriber line project, which will allow more than one digital subscriber line modem per digital signal processing chip. Approximately 3% was attributed to the industrial modem project, a modem design targeted at the industrial market for use in transmitting updated information to and from remote sites.

The value was determined by estimating the costs to develop the purchased in-process technology into commercially viable products, estimating the resulting net cash flows from the projects, and discounting the net flows back to their present value. The discount rate included a risk-adjusted discount rate to take into account the uncertainty surrounding the successful development of the in-process technology. The valuation included cash inflows from the in-process technology through 2002 with revenues commencing in 1999 and increasing significantly in 2000 before declining in 2002. A royalty payment of 3% was assumed from in-process technology to existing technology, based on management's estimate of a patent license rate. At the date of the acquisition, management expected to complete the majority of these projects and commence generating initial revenues in mid-to-late 1999 at an additional research and development cost of approximately \$1.0 million. \$8.67 million, 53% of the purchase price, was attributed to core technology and existing patented technology, related to the portfolio of patents that address the v.34 (33.6 Kbs) and v.90 (56 Kbs) international modem standards set by the International Telecommunications Union. The risk-adjusted discount rate applied to the projects' cash flows was 18% for existing technology and 24% for in-process technology. The HIDRA and industrial modem projects were approximately 56% complete at the time of the valuation and the expected timeframe for achieving these product releases was in the second half of 1999. The x-digital subscriber line project was approximately 56% complete at the time of the valuation and the expected timeframe for achieving this product release was assumed to be in 2000. Significant remaining development efforts must be completed in the next six to 18 months in order for the projects of the Communications Systems Division to become implemented in a commercially viable timeframe. Management's cash flow and other assumptions utilized at the time of acquisition have not materially changed as of December 31, 1999.

Amortization of Deferred Compensation

_ _____

	1999	1998	1997
Amortization of deferred compensation Percentage of revenues			\$

In connection with the grant of stock options to employees, we have recorded deferred compensation representing the difference between the exercise price and deemed fair market value of our common stock on the dates these stock options were issued.

The amortization of deferred compensation increased \$747,000 for 1999 compared to 1998 primarily due to a higher deemed fair market value of our stock and additional stock options granted to new employees. We expect that the amortization of deferred compensation will increase to approximately \$340,000 per quarter

through the third quarter of 2003, based on option grant activity through December 31, 1999. The amount of deferred compensation expense recorded for the grant of stock options to employees in 1999 was \$5.4 million, which is being amortized over the vesting periods of the options.

Other Income, Net

- ------

	1999	1998	1997
Other income, net Percentage of revenues % change from prior period	0.4%	1.4%	1.2%

Other income, net, consists of interest income, net of any interest expense. Interest income is expected to fluctuate over time. Interest expense consists primarily of interest on capital leases and the \$16.3 million loan issued to acquire Communications Systems Division. Interest expense will decrease in the future as we paid the remaining balance on this loan in October 1999 with a portion of the proceeds from our initial public offering.

Other income, net, decreased \$208,000 for 1999 compared to 1998 primarily due to the interest expense related to the loan that we used to acquire Communications Systems Division, offset by interest income generated by cash balances.

Other income, net, increased \$180,000 for 1998 compared to 1997 due to interest earned on higher average cash balances.

Provision for Income Taxes

	1999	1998	1997
Provision for income taxes			

Provision for income taxes increased \$2.8 million for 1999 compared to 1998 due to higher taxable income, while the effective tax rate remained at approximately 30%.

Provision for income taxes decreased \$743,000 for 1998 compared to 1997 due to lower taxable income, while the effective tax rate remained at approximately 30%

We have \$5.6 million in deferred tax assets as of December 31, 1999. We believe that our effective tax rate will be below the statutory tax rate at 35% due to international sales and profits through our wholly owned subsidiaries, which are taxed at rates below the statutory tax rate in the U.S.

Extraordinary Loss

_ ______

	1999	1998 1997
Income before extraordinary loss Extraordinary loss on extinguishment of debt, net of	\$ 7,033	\$495 \$2,301
income taxes of \$135,000	(1,611)	
Net income after extraordinary loss	\$ 5,422	\$495 \$2,301

On October 25, 1999, we retired \$15.0 million of notes payable with proceeds from the initial public offering. In connection with the early retirement of debt, we incurred a \$1.6 million extraordinary loss, net of taxes, for the write-off of deferred debt charges and prepayment penalties.

Quarterly Results of Operations

The following table presents our operating results for each of the eight quarters up to and including the period ended December 31, 1999. The information for each of these quarters is unaudited and has been prepared on the same basis as the audited financial statements appearing elsewhere in this prospectus. In the opinion of management, all necessary adjustments consisting only of normal recurring adjustments, have been included to present fairly the unaudited quarterly results when read in conjunction with our audited Consolidated Financial Statements and the related notes appearing elsewhere in this prospectus. These operating results are not necessarily indicative of the results of any future period.

	Quarter Ended (in thousands)								
	Dec. 31, 1999	_	June 30, 1999	Mar. 31, 1999	Dec. 31, 1998	1998		1998	
Revenues Cost of revenues		10,440	\$17,890 9,071	\$15,156 7,926	\$11,598 3,028	\$9,063 4,902	\$6,828 3,415	\$5,515 2,533	
Gross profit	11,066	9,750	8,819	7,230	8,570	4,161	3,413	2,982	
Operating expenses: Research and development Sales and marketing General and	3,162 2,969	2,732	2,380 2,647		1,194 1,504	1,283 1,713	-	1,129 1,068	
administrative Acquired in-process research and	1,825	1,571	1,248	815	955	423	407	384	
development Amortization of deferred					6,130				
compensation	339	287	148	16	16	17	10		
Total operating expenses	8,295 	7 , 199	6,423	5 , 172	9 , 799	3,436	3,082	2,581	
Income (loss) from operations	2 , 771		2,396	2,058	(1,229)	725	331	401	
Other income (expense), net:									
Interest income Interest expense	1,154 (136)	263 (418)		116 (453)	110 (8)	140 (6)	148 (6)	106 (5)	
Total other income (expense), net	1,018	(155)		(337)	102	134	142	101	
<pre>Income (loss) before provision for income taxes and extraordinary loss</pre>	3,789	2,396	2,141	1,721	(1,127)	859	473	502	
Provision (benefit) for income taxes	1,139	717		516	(338)	258	141	151	
Net income (loss) before extraordinary loss	2,650	1,679	1,499	1,205	(789)	601	332	351	
Extraordinary loss, net of income taxes	(1,611)								
Net income (loss)	\$ 1,039		\$ 1,499	\$ 1,205	\$ (789) ======	\$ 601 =====	\$ 332	\$ 351 =====	
	Quarter Ended								
	Dec. 31, 1999	Sept. 30, 1999		Mar. 31, 1999		Sept. 30, 1998	June 30, 1998	Mar. 31, 1998	
Revenues Cost of revenues	100.0% 52.0	100.0% 51.7	100.0% 50.7	100.0% 52.3	100.0 % 26.1	100.0% 54.1	100.0% 50.0	100.0% 45.9	
Gross profit	48.0	48.3	49.3	47.7	73.9	45.9	50.0	54.1	
Operating expenses: Research and									
development Sales and marketing General and	13.7 12.9	13.5 12.9	13.3 14.8	13.5 15.1	10.3 13.0	14.2 18.9	19.4 19.6	20.5 19.4	
administrative Acquired in-process	7.9	7.8	7.0	5.4	8.2	4.7	6.0	7.0	

research and developmentAmortization of					52.9			
deferred compensation	1.5	1.4			0.1	0.1	0.1	
Total operating expenses	36.0	35.6		34.1	84.5	37.9	45.1	46.9
Income (loss) from operations	12.0				(10.6)	8.0	4.9	7.2
Other income (expense), net:								
Interest income		1.3 (2.1)	(2.5)			1.5	2.2 (0.1)	1.9 (0.1)
Total other income (expense), net	4.4	(0.8)	(1.4)			1.5	2.1	1.8
Income (loss) before provision for income taxes and extraordinary								
loss Provision (benefit) for	16.4	11.9	12.0	11.4	(9.7)	9.5	7.0	9.0
income taxes	4.9	3.6		3.4	(2.9)	2.8	2.1	2.7
Net income (loss) before extraordinary loss Extraordinary loss, net	11.5	8.3			(6.8)	6.7	4.9	6.3
of income taxes	(7.0)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net income (loss)	4.5%	8.3%	8.4%	8.0%	(6.8)%	6.7%	4.9%	6.3% ======

Our quarterly operating results have varied significantly in the past and may vary significantly in the future depending on a number of factors, many of which are beyond our control. Our revenues have been negatively affected by market-wide delays in purchasing activities associated with the anticipated announcement by the International Telecommunications Union of the v.90 standard whereas our revenues have been positively affected by the market acceptance of our soft modems. We have also experienced seasonality in our quarterly operating results. A detailed discussion of these factors is described under "Risk Factors" elsewhere in this prospectus.

Liquidity and Capital Resources

	1999	1998	1997
Net cash provided by operating activities Net cash provided by (used in) investing	\$ 21,541	\$ 2,719	\$ 917
activities	(56,380)	(17,344)	576
activities	66,556	20,928	(393)
at the end of year Working capital at the end of year		12,988 14,011	. ,

On October 19, 1999, we completed our initial public offering of common stock. A total of 5,290,000 shares were sold at a price of \$17.00 per share (including the exercise of the underwriters' over-allotment option of 690,000 shares). The initial public offering resulted in net proceeds of approximately \$82.5 million, net of an underwriting discount of \$6.3 million and offering expenses of \$1.1 million.

On October 25, 1999, we used \$15.5 million of the proceeds from the initial public offering to repay bank debt. The debt bore interest at the bank's prime interest rate plus 0.5% and included a 3% prepayment penalty. The total payment of \$15.5 million included \$15.0 million of principal, \$74,000 of accrued interest and a prepayment penalty of \$450,000.

The increase in net cash provided by operating activities for 1999 compared to 1998 was primarily due to improved collection in accounts receivable due to the use of letters of credit and higher net income in 1999. Net cash used in investing activities for 1999 reflected the purchases of short-term investments, property and equipment. Net cash provided by financing activities for 1999 consisted of proceeds from the initial public offering and the repayment of the notes payable associated with the Communications Systems Division acquisition.

The increase in net cash provided by operating activities for 1998 compared to 1997 was primarily due to higher net income before considering the write-off of acquired in-process research and development and also increased accruals. Net cash used in investing activities for 1998 represented the Communications Systems Division acquisition and purchases of property and equipment.

As of December 31, 1999, we had cash, cash equivalents and short-term investments of \$98.3 million and working capital of \$89.9 million.

We believe that the net proceeds from this offering, together with existing sources of liquidity, will be sufficient to meet our working capital and anticipated capital expenditure requirements for at least the next 12 months. Thereafter, we may require additional funds to support our working capital requirements or for other purposes, and may seek, even before that time, to raise additional funds through public or private equity or debt financing or from other sources. Additional financing may not be available at all, and if it is available, the financing may not be obtainable on terms acceptable to us or that are not dilutive to our stockholders.

Year 2000 Compliance

To date, we have not experienced any year 2000 issues with any of our internal systems or our products, key suppliers, vendors or customers nor do we expect to experience any in the future. Costs associated with remediating our internal systems have not been material to date.

Quantitative and Qualitative Disclosures About Market Risk

We are exposed to minimal market risks. We manage the sensitivity of our results of operations to these risks by maintaining a conservative investment portfolio, which is comprised solely of high-grade securities. We do not hold or issue derivative, derivative commodity instruments or other financial instruments for trading purposes. We are exposed to currency fluctuations, as we sell our products internationally. We manage the sensitivity of our international sales by denominating all transactions in U.S. dollars.

We may be exposed to interest rate risks, as we may use additional financing to fund additional acquisitions and fund other capital expenditures. The interest rate that we may be able to obtain on financings will depend on market conditions at that time and may differ from the rates we have secured in the past.

Recent Accounting Pronouncements

Refer to the Notes to Consolidated Financial Statements for recent accounting pronouncements.

Overview

We are a leading developer and supplier of cost-effective, software-based connectivity solutions. Our solutions enable high speed internet access and other communications applications through emerging digital subscriber line, wireless and other broadband networks as well as existing analog networks. We have developed a proprietary software architecture that substantially reduces the hardware, space and power requirements of conventional hardware-based connectivity devices. Our software architecture is easily upgradeable, minimizing the risk of technological obsolescence and enables broadband, wireless and analog communications for PCs and alternative internet access devices.

We are one of the pioneers in developing host signal processing technology, a proprietary set of algorithms that enables cost-effective software-based digital signal processing solutions. Host signal processing technology utilizes the computational and processing resources of a host central processing unit rather than requiring additional special-purpose hardware. Based on our own research and testing, the reduction of hardware components in our architecture can reduce space requirements by 50% and power requirements by 70% compared to conventional hardware-based solutions. The first implementation of our host signal processing technology was in a software modem, or soft modem, in 1995. In 1999, we shipped 13.8 million soft modems. We believe our 1999 soft modem shipments represented 85% of the worldwide soft modem market based on projections from Cahners In-Stat Group. Various original equipment manufacturers, including Acer, Compaq, Dell, emachines, Fujitsu and Sharp, have integrated our soft modems into their products.

We continue to innovate and expand upon our successful host signal processing architecture so that we can provide high speed connectivity solutions for broadband communications, including digital subscriber line, wireless and cable. Broadband communications generally refers to all communications that have more available communications frequencies than traditional voice band. The range of frequencies in which each communications technology operates is called a "band." All data communications on voice band is banded by 300 Hz on the low end and 3,000 Hz on the high end. Communications taking place at higher frequencies, with broader bands would be a broadband communications technology. For example, asymmetric digital subscriber line uses the same copper wire as voice band, or analog, modems but operates in a frequency band between 30 Khz and 1.1 Mhz. Not only are the frequencies higher, but the operating band is much wider (over 1 Mhz compared to 2700 Hz for voice band). These emerging opportunities include connectivity solutions for clientside applications, enterprise servers, service providers and industrial markets. We have extended our host signal processing architecture and have developed a G.Lite solution, LiteSpeed, that enables downstream broadband data transmission speeds of up to 1.5 Mbps and upstream broadband data transmission speeds of 512 Kbps over existing copper telephone lines. Downstream broadband data transmission involves high speed data transmissions from the central office to the customer's premises. Upstream broadband data transmission involves high speed data transmissions from the customer's premises to the central office. We expect to begin shipments of this product in 2000.

We have successfully verified the interoperability of our LiteSpeed family of customer premise equipment products with industry standards and with leading vendors of industry standard central office asymmetric digital subscriber line equipment. Interoperability testing is specified by industry organizations such as the International Telecommunications Union and cooperative working groups such as the ADSL Forum. We have successfully confirmed interoperability of our LiteSpeed products with suppliers of central office equipment such as Analog Devices, Alcatel (Pulsecomm DSLAM), Centillium, Cisco GlobeSpan, Lucent, Orckit and Pairgain.

We are also pioneering a distribution concept designed to accelerate the residential and small office mass market adoption of asymmetric digital subscriber line based data communications. We believe that the current means of deploying asymmetric digital subscriber line modems, which requires a technician to visit the customers' home, is unsuited for mass-market adoption. Current deployment procedures involve a complicated,

time consuming, expensive process severely limiting the potential adoption of broadband technology. We believe that in order to reach volumes estimated by industry analysts to be three to five million subscriber installations per year, the industry may need to change its distribution model. We believe that a logical solution for accelerating the mass market deployment of digital subscriber line technology is to evolve today's complicated and expensive digital subscriber line provisioning model to resemble the 56k/v.90 modem distribution model wherein the modem is bundled inside of personal computers or alternative internet access devices. The solution we are pioneering addresses deployment problems by bundling digital subscriber line technology inside the personal computer or alternative internet access device. This allows the end user and the telephone company to initiate the digital subscriber line communications services without requiring a technician to visit the home or additional equipment to be installed. Furthermore, we believe that the bundling of digital subscriber line modems with personal computers and alternative internet access devices will accelerate adoption of broadband services by reducing upfront deployment costs incurred by telephone service companies.

We also have developed an embedded solution for alternative internet access devices that either do not use a central processing unit or lack the excess processing capacity necessary to support our host signal processing solution. These devices include internet appliances, such as set-top boxes and webphones, video game consoles and remote monitoring devices. By offering reductions in size, cost and power consumption, we believe that our embedded solution is also ideal for service providers and server-side applications such as single and multi-port remote access servers and concentrators. Server-side applications and devices involve communication systems or components which affect data transmission services from the internet service provider or central office.

We are also developing the G.DMT standard version of asymmetric digital subscriber line customer premise equipment which will allow for full-rate data transmission. Full-rate solutions can accommodate eight megabits per second downstream and one megabit per second upstream.

In February 2000, we acquired Voyager Technologies, a pioneer of short-range wireless technology. We believe Voyager Technologies provides us with the core wireless technology and the resources to allow us to accelerate our penetration into emerging growth markets for wireless data networking, high speed internet access through cellular handsets, shared broadband internet access through home networks (commonly referred to as residential gateway solutions), and cordless handsets.

We continue to expand our patent portfolio, including the area of wireless intellectual property through our recent acquisition of Voyager Technologies. We now hold 40 patents, a number of which cover technology that is considered essential for International Telecommunications Union standard communication solutions. We also have 29 patent applications pending or filed relating to soft modem, digital subscriber line and wireless technology.

Industry Overview

In recent years, dramatic increases in business and consumer demand for multimedia information, entertainment and voice and data communication have resulted in a corresponding increase in demand for high speed remote access. The accelerated growth of content-rich applications, which require high bandwidth, has changed the nature of information networks. High-speed connectivity is now a requirement for business, government, academic and home environments. Businesses, ranging from large and small corporate enterprises to home offices, are increasingly dependent upon data networks, not only for communication within the office, but also to exchange information among corporate sites, remote locations, telecommuters, business partners, suppliers and customers. Consumers are also increasingly accessing data networks such as the internet to communicate, collect and publish information and conduct retail purchases.

These market trends have resulted in a significant increase in the demand for connectivity devices. International Data Corporation estimates that by 2003, the number of internet connectivity devices will grow to over 722 million.

Analog Connectivity Solutions

Although there has been significant publicity given to broadband connectivity, the majority of internet access is still through dial-up, or analog, connections. Analog technology converts digital data into an analog signal for transmission over telephone networks, and executes the reverse analog-to-digital signal conversion to enable the host device to receive the transmitted data. Analog modems, which, according to Dataquest, comprised 90% of the modem market in 1998, are primarily utilized by PC devices. Cahners In-Stat Group estimates that 78.2 million analog modems were sold in 1999, and expects this number to reach 103.2 million units in 2001. Although the number of analog modems is expected to grow in the near future, new technologies have emerged to address the volume of bandwidth intensive data and demand for enhanced multimedia capabilities.

Broadband Connectivity Solutions

The data transmission constraints of copper telephone wires have led the communications industry to focus on broadband communications. In order to address the demand for high-speed connectivity, telecommunications service providers have developed and deployed cost-effective technologies in their backbone networks. However, the lack of ubiquitous low-cost, high-bandwidth connectivity from the backbone network to the customer premises has been the underlying issue preventing the majority of the market from taking advantage of the array of high-bandwidth network services. Although the broadband access market is underdeveloped, its potential size has attracted a high level of attention. Telephone, cable and satellite companies each have different strategies and capabilities for providing this broadband connectivity to the internet. Each has its advantages based on price, performance and availability.

Digital Subscriber Line. Digital subscriber lines utilize the ubiquitous, existing public switched telephone network infrastructure, without the need for expensive additions and upgrades. Digital subscriber line technologies dramatically increase the data transmission capacity of standard telephone lines and are expected to enable a wide range of new services including high speed internet access and digital television. Most businesses and homes today are connected to the public telephone network by twisted-pair copper wire. It is estimated that there are nearly 700 million copper wire access lines in existence today worldwide, and that more than 95% consist of a single twistedpair copper wire. Demand for high speed internet access, driven by media rich content, telecommuting and ecommerce, continues to grow. The broadband data access market is projected by International Data Corporation to represent over 35% of the overall connectivity market by 2002. To date, cable modem technology has been a leading factor behind this demand. However, asymmetric digital subscriber line provisioning, driven by the regional bell operating companies, incumbent local exchange carriers and competitive local exchange carriers, is now leading the growth in high speed data access. Cahners In-Stat Group predicts that digital subscriber line subscribers will exceed cable modem subscribers by 2001.

A wide array of digital subscriber line technologies known as x-digital subscriber line products are rapidly emerging. The "x" in x-digital subscriber line represents the various kinds of digital subscriber line technologies. Each type of digital subscriber line technology has distinguishing advantages and disadvantages, depending on a variety of bandwidth and deployment features suitable for different applications. Digital subscriber line technologies are either symmetric, which deliver the same data rate both downstream and upstream, or asymmetric, which deliver faster data rates downstream than upstream. The other distinguishing feature is the data rate itself. Digital subscriber line technologies allow for the transmission of data at speeds ranging from 128 Kbps to 52 Mbps depending on the distance between the central office and the subscriber. Common types of digital subscriber line technologies include:

. Asymmetric Digital Subscriber Line. Asymmetric digital subscriber line allows more bandwidth downstream than upstream. This asymmetry, combined with "always-on" access, makes asymmetric digital subscriber line ideal for internet surfing, video-on-demand and remote local area network access. Users of these applications typically download much more information than they send. In order to implement an asymmetric digital subscriber line solution, a splitter, which is a

device that separates the voice signal from the data signal, must be installed both at the head-end and at the customer's premises. This process of installing splitters for each subscriber means a service truck needs to be sent to each customer site in order to initiate service. This process is expensive and time consuming and ultimately slows the overall service deployment. Asymmetric digital subscriber line provides speeds up to 8 Mbps downstream and up to 1 Mbps upstream, depending on the line conditions and the length of the loop.

- . G.Lite. G.Lite is a lower-speed version of asymmetric digital subscriber line that will eliminate the need for the service provider to install a splitter at the customer's premises. G.Lite allows for a downstream data transmission rate of up to 1.5 Mbps and an upstream data transmission rate of up to 512 Kbps, and is expected to be as simple as the "plug-and-play" nature of traditional, analog dial-up modems.
- . Single-Pair High Speed Digital Subscriber Line. Single-pair high speed digital subscriber line, or symmetric high speed digital subscriber line, requires only a single copper twisted-pair and has a maximum loop length of 10,000 feet from the telephone company's central office. Symmetric high speed digital subscriber line can offer symmetrical data transmission rates of up to 1.544 Mbps. Since symmetric high speed digital subscriber line uses only one copper twisted-pair, the capacity of existing infrastructure is greatly increased.
- . Very-High-Bit-Rate Digital Subscriber Line. Very-high-bit-rate digital subscriber line, or very high speed digital subscriber line, technology is the fastest digital subscriber line technology, supporting a maximum downstream rate of 52 Mbps and an upstream rate of 10 Mbps over a single copper twisted-pair wire. The one limitation of very high speed digital subscriber line is that the maximum loop length is only between 1,000 and 4,500 feet from the telephone company's central office.

Wireless. The primary benefits of wireless broadband access over wireline are speed and ease of installation. The strength of wireless is that it can quickly provide high-speed internet access within a wide radius depending on the frequency band used. In the next several years, wireless is expected to help unlock broadband competition, thereby enabling new operators to bypass existing wireline networks and deliver local and long distance telephone service and internet access services. In addition, the expansion of cellular networks to include new high speed data transmission standards will allow for consumer access to high speed internet access through cellular handsets. As upgrades to the cellular infrastructure deliver improved data transmission speeds over cellular networks, cellular handsets will likely be among the most common means of providing high-speed access to the internet. Mobile computers and alternative mobile internet access devices will provide wireless connections to bandwidth enhanced cellular phones through industry standards such as Bluetooth. This new class of cellular handset will likely act as a wireless broadband modem for the mobile data access market.

Cable Modems. Designed to provide broadband internet access, cable modems are targeted primarily at the consumer market. Cable lines pass by more than 100 million North American homes, but only 20% of those homes can now get cable modem service. Cable lines offer downstream transmission speeds of up to 36 Mbps and upstream transmission speeds of up to 10 Mbps. In order to fully realize the benefits of two way communications, cable operators must upgrade their networks to improve the provisioning of existing cable services and to support high-speed data and other new services.

Non-PC Connectivity

While existing internet connectivity devices are primarily PC-based, development of enabling technologies and the growth in consumer dependence are spurring the deployment of alternative internet access devices. These devices include internet appliances such as set-top boxes and webphones, video game consoles and remote monitoring devices.

International Data Corporation predicts that as many as 42% of all internet access devices will be in the form of alternative internet access devices by 2001. However, it is difficult to integrate modem functionality into these compact devices due to the limited availability of power and space.

Server-Side

As the number of connectivity devices increases, service providers will be required to increase the number of server-side access ports to ensure reliability and quality service for their customers. Currently, communications equipment providers are limited to using either expensive multiport chips or a single modem port per chip. Internet service providers and other service providers who locate their server-side equipment at the telephone companies' central offices do not have the space or power available to accommodate the expected growth in demand for client-side access. Service providers are demanding connectivity solutions that increase the density of modem ports per chip while reducing cost, space and power requirements.

Evolution from Hardware to Software-based Connectivity Solutions

The rapid development of emerging technologies for broadband access combined with changing industry standards and protocols is driving manufacturers to turn towards software-based connectivity solutions as opposed to conventional hardware connectivity solutions. Further, trends such as the acceptance of alternative internet access devices, the significant increase in available processing power, cost reduction pressures and space and power constraints have permitted software-based products to emerge as viable and cost-effective alternatives.

One of the primary reasons that PC manufacturers have been better able to utilize software-based solutions has been the dramatic increase in central processing unit processing power. Prior to the introduction of Intel's 266 MHz Pentium II processor, most PCs lacked the processing power required to effectively utilize software-based connectivity solutions. By 1999, a majority of the PCs shipped were equipped with CPUs equivalent to or exceeding the processing power of Intel's 500 MHz Pentium III. This significant increase in processing power is expected to continue into the future as demonstrated by both Intel and AMD announcing their intention to deliver 1.0 GHz processors this year. With microprocessor performance continuing to rapidly increase, technologies that support software algorithms running off the central processing unit, rather than on extraneous hardware, will become more valuable and feasible.

Another significant trend driving the growth of software-based solutions is the increasing pressure on original equipment manufacturers to reduce costs. With the market acceptance of sub-\$1,000 PCs and a general decline in PC selling prices, original equipment manufacturers are demanding further price reductions from suppliers of central processing units and motherboard manufacturers. As a result, central processing unit suppliers and motherboard manufacturers are increasingly employing software-based solutions as a cost-effective way to meet these demands. This response eliminates additional, special purpose hardware and replaces it with integrated software. As a result, Cahners In-Stat Group estimates analog soft modem sales will grow from 16.1 million units in 1999 to 40.1 million units by 2001.

Software-based solutions are also increasingly utilized to address the power and space requirements of alternative internet access devices. The limited availability of power and space in these devices has hindered the successful integration of hardware-based modem functionality. Because soft modems shift processing capacity into software and, thus, significantly reduce power and space constraints, they are increasingly integrated as a critical part in the development of non-PC devices.

PCTEL Solution

We are a leading developer and supplier of cost-effective, software-based connectivity solutions that address internet access and other communications through emerging broadband and existing analog networks. These solutions are based on our proprietary software algorithms which enable the movement of core signal processing capabilities out of hardware and into software. Our host signal processing architecture allows us to

develop connectivity solutions that provide significant benefits over traditional hardware-based solutions, including:

Extensibility and Scalability. Our host signal processing architecture allows us to quickly and cost-effectively develop new products to capitalize on rapidly growing market segments. We believe that we can use our intellectual property portfolio to readily adapt to the speed and design requirements of additional emerging connectivity technologies. For example, in response to growing market acceptance, we have developed a host signal processing architecture solution for G.Lite, which we call LiteSpeed, that enables downstream data transmission speeds of up to 1.5 Mbps and upstream data transmission speeds of up to 512 Kbps over existing copper telephone lines. As the broadband market develops, we believe we can capitalize on our proprietary technology to continue the cost-effective migration from hardware into software. Additionally, we intend to continue to extend the benefits of our patented software based communication technology into the wireless data networking and wireless high speed internet access markets. We believe the same cost elimination benefits and improved flexibility that we have pioneered in the wireline market will help accelerate the adoption of short range wireless data networking in the home and small office as well as facilitate high speed internet access through cellular handsets.

Cost Effectiveness. By shifting the composition of connectivity devices from hardware into software, we are able to significantly reduce the hardware required in conventional connectivity solutions. Our proprietary software-based solution eliminates extraneous hardware and reduces our customers' manufacturing costs, while still offering superior or comparable performance. For example, our host signal processing technology eliminates as much as 40% of the hardware used in conventional connectivity solutions. By implementing our software architecture, our customers can provide designs which contain:

- . fewer parts, resulting in a lower bill of material cost,
- . a smaller footprint solution, resulting in lower cost boards, and
- . a lower overhead cost, resulting from our customers' need to manage fewer parts, smaller inventories and the reduced cost of manufacture.

Upgradeability, Adaptability and Flexibility. The software component of our architecture is upgradeable, minimizing the risk of technological obsolescence. By embedding core functionality in software, performance upgrades and the adaptation to new standards and protocols can be accomplished quickly and easily through software downloads rather than through costly replacements of existing hardware. For example, customers who purchased our 33.6K modems are able to easily upgrade the product to an International Telecommunications Union-compliant 56K modem through a simple software download. Ease of upgradeability is of considerable value in the rapidly changing communications marketplace and a substantial competitive advantage over conventional connectivity solutions. In addition, our LiteSpeed digital subscriber line technology will provide a similar capability in offering an end-user the ability to easily upgrade to higher bandwidth services. Further, our G.Lite technology is completely compatible with analog transmission networks, offering the user complete flexibility in choosing access technology and transmission speed. By providing connectivity solutions that can be easily adapted to new standards and protocols, we reduce interoperability obstacles, which simplifies purchasing decisions and accelerates deployment times for original equipment manufacturers. Interoperability obstacles exist because different manufacturers use different protocols and interfaces for their products. This variance among manufacturer protocols and interfaces prevents different manufacturers' products from talking to one another which creates obstacles to interoperability.

Reduced Space and Power Requirements. Based on our own research and testing, we believe that the reduction of hardware components enabled by our host signal processing architecture can provide the dual benefits of 50% reduced space and 70% lower power requirements compared to conventional hardware solutions. These benefits enable connectivity capabilities in alternative internet access devices that are difficult to implement with conventional hardware-based solutions. In addition, the efficiency of our proprietary algorithms increases the modem port density per chip in server-side devices, reducing power requirements and

heat generation. Modem port density per chip is the number of distinct modem processes which can be managed on a single integrated circuit.

PCTEL Strategy

PCTEL's goal is to be the leading provider of cost-effective software-based connectivity solutions that enable high speed internet access and other communication applications through emerging broadband and existing analog networks. Key elements of our strategy include:

Target Emerging High-Growth Communications Technologies. We identify emerging high-growth communications technologies and develop innovative software-based connectivity solutions to capitalize on these new market opportunities as they gain acceptance. Our software-based technology is extensible, allowing us to quickly and cost-effectively develop new applications. We have recently leveraged our core technologies to design and develop a fully functional software-based G.Lite solution, LiteSpeed. In addition, we are currently developing implementation options for extending host signal processing technology into the emerging wireless data network market, which includes devices that offer high speed access to internet connections as well as wireless connections to computing on internet devices within homes and businesses. In addition to targeting opportunities for broadband data communications, we intend to aggressively pursue new markets for short range wireless market opportunities within the unlicensed FCC frequency ranges where many opportunities and few barriers to entry exist. These markets include cordless telephony as well as many local area and personal area networking through new wireless industry standards such as HomeRF and Bluetooth. We can also address the market for industrial, scientific and medical embedded wireless applications. We believe that our communications technology will enable us to develop significant applications in the broadband modem and short range wireless markets.

Continue To Enhance Software-Based Solutions. We are committed to enhancing the scope of our host signal processing technology to further reduce the number of hardware components in our software-based solutions. We believe that our success in minimizing the hardware content of our soft modems will continue to enhance our ability to address emerging markets in alternative internet access devices that require smaller designs and reduced power consumption. This reduction of hardware content provides numerous benefits for our original equipment manufacturer customers, including:

- . reducing costs,
- . decreasing board space,
- . decreasing inventory,
- . minimizing technological obsolescence,
- . accelerating time to market, and
- . streamlining production flow.

In addition, because of the software-based functionality of our products, we have developed a core expertise in ensuring the compatibility of our host signal processing products with multiple operating systems including Windows 3.1, 95, 98, 2000, NT and CE, and BeOS, Linux, OS/2 and VXWorks.

Enable Migration to Emerging Communications Technologies. We are developing innovative products based on our host signal processing architecture that enable existing platforms to migrate to emerging broadband communications technologies. The processing power available in some PCs and alternative internet access devices may not support the amount of signal processing calculations required for higher speed broadband applications without overloading the central processing unit. For these applications, we have developed an accelerated host signal processing architecture that adds low-cost, application-specific hardware to efficiently handle a portion of the signal processing load. Accelerated host signal processing architecture enables us to deliver an ideal platform from which to migrate to a full host signal processing solution for next generation devices.

Extend Our Intellectual Property Leadership Position and Establish Industry Standards. We are actively extending our intellectual property position through rapid internal development, strategic acquisitions and licensing of innovative communications technology. We are actively pursuing the filing of additional patent applications to cover our intellectual property advancements. We believe that these intellectual property advancements will optimize the performance, efficiency and cost of our software-based connectivity solutions. Our intellectual property leadership position allows us to establish industry standards so that we can be well positioned to implement leading-edge second generation connectivity solutions in technologies in advance of our competitors. We hold 40 patents, with an additional 29 patents pending.

Pursue Strategic Relationships. We intend to pursue strategic relationships that provide technological building blocks, human resources, and enhanced access to customers and distribution channels. We intend to identify acquisition opportunities that improve our ability to remain a leader in our chosen fields and accelerate our access to emerging, high growth segments of the broader communications and connectivity market.

License Proprietary Digital Signal Processing Solutions and Wireless Technology. We are developing and intend to license reference designs for digital signal processing and wireless technology communications applications. By using low cost digital signal processing chips coupled with our software-based technology, we are providing enhanced throughput and capacity per chip. Because our digital signal processing algorithms are highly efficient, we can enable cost savings by reducing space requirements, lowering power consumption and port density for remote access. In addition, we develop and license wireless spread spectrum designs and other intellectual property related to wireless technology.

Products

Current Products

In the fourth quarter of 1998, we began shipping our MicroModem product. This product integrates our host signal processing technology with a micro form-factor data access arrangement. Our patented MicroModem reduces power and size requirements and replaces approximately 90 discrete hardware components with two mini data access arrangement chips. The MicroModem has recently been certified as being compatible with the telecommunications standards of most industrialized countries, allowing original equipment manufacturers to accomplish seamless global interoperability.

As illustrated in Figure 1, in contrast to the conventional hardware modem, our host signal processing soft architecture replaces the memory chip, digital signal processing chip, universal asynchronous receiver and transmitter, and controller chip with customized software that draws upon the excess capacity of the host central processing unit. The universal asynchronous receiver and transmitter is a device that provides control logic and program registers required to implement a serial interface to a computer system. A single proprietary application specific integrated circuit acts as interface between the analog and digital data. We have further reduced the cost, size and design effort required for standardized worldwide PC modem use by using an integrated data access arrangement and a coder/decoder. This integration reduces the number of components in a conventional data access arrangement by approximately 40%.

We have also developed and formally released our first external modem solution. This solution connects to systems through the widely pervasive Universal Serial Bus interface. The Universal Serial Bus interface is an open specification developed to advance the use of peripheral devices with personal computers, internet gaming devices and new alternative access devices. Major PC manufacturers now ship machines with Universal Serial Bus interface enabled modems predominantly in Europe due to differing telephony standards in that geography. We believe that our Universal Serial Bus compatible external modem will allow us to capture additional revenue opportunities in the connectivity market.

Schematic with two boxes. Caption is "Modem Evolution". First box describes a traditional hardware modem, second box describes PCtel's soft modem. Bottom text caption "CODEC--performs analog-to-digital and digital-to-analog signal conversions", "DAA--Data Access Arrangement interfaces and protects the modem with the telecommunications network.", "CONTROLLER--controls data and error compression function.", "DATAPUMP--performs modulation and demodulation calculations.", "Memory--handles the data buffering.", "UART--Universal Asynchronous Receive Transmit synchronizes incoming and outgoing data.", "INTEGRATED SILICON DAA and CODEC--Direct Access Arrangement interfaces and protects the modem with the telecommunications network while the coder/decoder performs analog-to-digital and digital-to-analog conversion."

We are currently focusing our design and development efforts in the following application areas:

Next	Generation
Τe	echnology

Product Description

We have developed a G.Lite solution, LiteSpeed, to address the demand for digital subscriber line connectivity. LiteSpeed uses less space and costs less than conventional solutions for G.Lite. We expect to commercially release this product in 2000.

ADSL (G.DMT)

We are currently developing modems based on International Telecommunications Union standards for asymmetric digital subscriber line using discrete multitone which will provide downstream transmission speeds of up to 8 Mbps and upstream transmission speeds of up to 1 Mbps. The International Telecommunications Union standard for asymmetric digital subscriber line using discrete multitone, known as DMT, is a full-rate asymmetric digital subscriber line standard.

Data Networking

Wireline and Wireless We believe that the adoption of broadband internet access and the increased availability of data and media rich content will create an increased desire to share improved bandwidth among a multitude of access devices with residences and small offices. This emerging demand for "home networking" will create a new demand for devices which will combine high speed internet access with local and personal area networking technologies. These new devices will be commonly referred to as home or residential gateways. We are currently developing wireless networking technology that will be integrated into our high-speed remote access technology. We anticipate that this combination of technologies will offer solutions to end users who wish to share high-speed data access among multiple devices in a home or small office environment. We expect to demonstrate this new combined technology before the end of this year.

Cordless Telephony

We believe that advances in short-range wireless technology are contributing to a broadening market for high quality, low cost cordless telephones with enhanced range of operation, longer battery life and improved features. We are using wireless technology we acquired in our Voyager Technologies acquisition to develop core technology used in cordless telephone handsets.

Industrial Modem

We are developing a small hardware platform for the non-PC market. This platform uses one low cost digital signal processor, and our software performs both the controller and the digital signal processing functions. The v.90 version of our industrial modem is currently being tested.

Remote Access Solution We are developing a reference design to deliver the functionality of six modem ports per digital signal processing chip in a server-side modem solution. Our innovative design would reduce power, cost and space requirements to nearly one-sixth of those used today by providing alternatives to expensive chips or a single modem port per chip. We intend to license our design to two leading companies in the growing remote access solution marketplace. The first version of this solution will support three modems per digital signal processor and is currently being tested.

37

In addition to our products currently under development, we continue to explore emerging opportunities in the area of broadband communications.

_ _________

Emerging Opportunities

Product Description

High Speed Wireless Internet Access We believe that cellular handsets

combined with dedicated high speed wireless modems will be used with mobile internet devices to access critical data at high speed. A new class of cellular handsets currently being developed by third parties will include industry standard high speed data wireless interfaces such as Bluetooth. Bluetooth will accommodate cordless connection to multi-featured mobile access devices such as laptop and handheld personal computers. We have identified opportunities to leverage our technology in order to provide wireless connections between mobile computers and alternative internet access devices with wireless connections to cellular handsets.

xDST.

The proposed International G.SHDSL

> Telecommunications Union standard for synchronous high speed, digital subscriber line modems will offer both downstream and upstream transmission speeds of up to 1.5 Mbps. We have initiated design and simulation studies for this product. These efforts will position us to pursue the proposed International Telecommunications Union standard for synchronous high speed, digital subscriber line opportunity as it

becomes widely adopted.

VDSL

We intend to develop a very high speed digital subscriber line modem once very high speed digital subscriber line technologies become more fully deployed. We expect that this technology will provide downstream transmission speeds of up to 52 Mbps and upstream transmission

speeds of up to 10 Mbps.

Cable modems connect PCs to the cable

Cable Modem

network and offer downstream transmission speeds of up to 36 Mbps and upstream transmission speeds of up to 10 Mbps. We are researching cable technology to follow advancements and will undertake host signal processing cable modem development if and when our studies show a significant advantage over existing technologies.

Intellectual Property Licensing

We also offer our software-based solutions through intellectual property licensing and product royalty arrangements. Current licensees of our intellectual property, principally International Telecommunications Unionstandard technology, include modem and semiconductor manufacturers, such as Conexant, Texas Instruments and U.S. Robotics, and RISC processor manufacturers including Hitachi, Intel and NEC.

In addition, PCTEL develops and licenses wireless spread spectrum designs and other intellectual property related to wireless technologies. There are four general types of technologies we may license: digital wireless controller designs, multiple cordless handset protocol technology, wireless products for custom embedded applications and commodity standards based wireless processing cores typically licensed to semiconductor manufacturers. Each of these wireless licensing models provides revenue opportunities through non-recurring engineering fees, license fees and ongoing royalties.

Customers

We sell our products directly and indirectly to a number of distributors and customers. The following is a list of our principal distributors and our representative customers, all of which have either purchased more than \$100,000 of our products during fiscal year 1999 or are currently incorporating our modem products into their product lines. The companies listed in the table other than those identified as distributors are representative of the various distribution channels in which we sell our products.

_ ______

Distributors	Modem Board Manufacturers	Motherboard Manufacturers	PC OEM Companies	Systems Integrators	Embedded System Integrator
Array Golden Way InnoMicro Silicon	Amigo Askey Computer Aztech	Asus FIC Talent Trade Asia	Acer* Compaq* Dell*	Everex* MicroCenter* Mitsuba*	Casio Intel NEC
Application Corporation	BTC E-Tech* Zoltrix		emachines* Fujitsu* Mitac* Samsung Sharp* TriGem TwinHead*	Tiny*	Yamaha

For the year ended December 31, 1999, revenues derived from sales to Talent Trade Asia and Askey accounted for approximately 47% and 13%, respectively, of product sales. For the year ended December 31, 1998, revenues derived from sales to Silicon Application Corporation, BTC, Askey Computer and Zoltrix accounted for 15%, 13%, 12% and 12%, respectively, of our product sales. No other customers represented more than 10% of our product sales for these periods.

Sales, Marketing and Support

We sell our products directly to modem board and motherboard manufacturers who assemble and distribute the end product both directly to original equipment manufacturers and systems integrators and indirectly through distributors. In many cases, modems are manufactured by third parties on behalf of the final brand name original equipment manufacturer. We focus on developing long-term customer relationships with our direct and indirect customers. In many cases, our indirect original equipment manufacturer customers specify that our products be included on the modem boards or motherboards that they purchase from board manufacturers.

We employ a direct sales force with a thorough level of technical expertise, product background and industry knowledge. Our sales force includes a highly trained team of application engineers to assist customers in designing, testing and qualifying system designs that incorporate our products. Our sales force also supports the sales efforts of our distributors. We believe the depth and quality of our sales support team is critical to:

- . achieving design wins,
- . improving customers' time to market,
- . maintaining a high level of customer satisfaction, and
- . engendering customer loyalty for our next generation of products.

^{*} Each of these companies is an indirect customer of ours.

Our marketing strategy is focused on further building market awareness and acceptance of our new products. We market our products directly to both prospective and existing customers. Additionally, we undertake broad scale marketing programs in conjunction with key local and global partners. Our marketing organization also provides a wide range of programs, materials and events to support the sales organization.

As of December 31, 1999, we employed 55 individuals in sales, marketing and support and maintained regional sales support operations in Tokyo, Japan, Taipei, Taiwan, Seoul, Korea and Paris, France.

Research and Development

We recognize that a strong technical base is essential to our long term success and have made a substantial investment in research and development. We will continue to devote substantial resources to product development and patent submissions. We monitor changing customer needs and work closely with our customers, partners and market research organizations to track changes in the marketplace, including emerging industry standards. As an example of our commitment to technical leadership, we have developed expertise in the following major areas:

- . Digital Signal Processing Algorithms. This expertise enables us to eliminate the digital signal processor chip in our reference designs, as well as further optimize our software digital signal processing implementations.
- . Software Digital Signal Processing. This expertise has allowed us to provide the modem data pump functionality in the form of software. An expensive and power consuming digital signal processing chip is no longer needed.
- . Modem Protocol. This expertise has enabled us to develop software containing the necessary error correction and data compression protocols such as v.42, v.42bis, MNP 2-5, Soft ATM and SAR.
- . Telecommunications Infrastructure Interface. This expertise has allowed us to develop the software connection to the public telephone network through relays and the data access arrangement. This portion of the software also performs the functionality of the universal asynchronous receiver, transmitter, controller and memory while eliminating significant amounts of hardware.
- . Microsoft Windows Device Drivers. We have developed software expertise in working within the Windows environment. The interrupt-driven architecture of Windows operating systems presents many difficulties for software-based connectivity solutions, including latency and other technical issues. We have patented these solutions.
- . Central Processing Units and Operating Systems. We have demonstrated our expertise in porting our soft modem solution to all Windows operating systems, including Windows 3.1, 95, 98, 2000 NT and CE, in addition to other operating systems, such as BeOS, Linux, OS/2 and VXWorks. We have also ported our technology to various high performance processor platforms, such as those from Advanced Micro Devices, ARM, Cyrix, Intel/StrongARM and MIPS. Expertise in these systems, which are utilized in embedded systems applications, allows us to integrate our technology into devices such as internet appliances.
- . Host Signal Processing Architecture. We have leveraged our leadership in host signal processing and extended the architecture to include innovations such as accelerated host signal processing, which will be used in our future G.Lite product. This modification delivers maximum software content along with any required application-specific hardware to deliver the most cost-effective solution in the market.
- . Wireless Digital Baseband Processing. This expertise allows us to develop the time-critical, processing functions of wireless spread spectrum products into Application Specific Integrated Circuits, or ASICs. These ASICs are used in wireless home networking products such as Bluetooth and HomeRF based transceivers as well as cordless telephone handsets.

- . Wireless Protocols. This expertise allows us to develop software stacks for both PC based and embedded wireless products including wireless internet appliances and cordless telephones. These protocol stacks will complete the offerings of our wireless enabled products.
- . Wireless Analog Front End Design. This expertise allows us to provide our customers with complete product reference designs for wireless data solutions. These designs can be comprised of off the shelf components or single chip wireless front-end implementations.
- . Cordless Telephony System, ASIC and Protocol Design. This expertise allows us to enter the cordless telephony semiconductor market. This capability will allow the company to continue to supply intellectual property, offer semiconductor solutions, and provide design services to cordless telephony manufacturers.

These multiple areas of expertise represent distinct disciplines which are combined in one unique cross-functional development team. Communications Systems Division, which we acquired in December 1998, provides us with additional areas of expertise, including the experience of successfully introducing intellectual property for inclusion into International Telecommunications Union standards. We believe these technical and organizational skills provide us significant competitive advantages. As of December 31, 1999, we employed 65 employees in research and development, 37 of whom have advanced degrees, including ten who have earned PhDs.

Manufacturing

We outsource the manufacturing of our application specific integrated circuit, coder/decoder and data access arrangement chips to independent foundries in order to avoid significant fixed overhead, staffing and capital requirements associated with semiconductor fabrication.

Our primary chipset suppliers are Delta Integration, Kawasaki/LSI, ST Microelectronics, Silicon Labs and Taiwan Semiconductor Manufacturing Corporation. The major operations of each of these manufacturers meet ISO-9001 international manufacturing standards. Our data access arrangement chips are currently purchased from Silicon Labs on a purchase order basis. We have a limited guaranteed supply of data access arrangement chips through a long-term contract arrangement with Silicon Labs. We have no guaranteed supply or long-term contract agreements with any other of our suppliers.

Licenses, Patents and Trademarks

We seek to protect our technology through a combination of patents, copyrights, trade secret laws, trademark registrations, confidentiality procedures and licensing arrangements. We hold a total of 40 patents and also have 29 additional patent applications pending or filed. The following table describes our material patents and their expiration dates.

_	Patent No.	Expiration Date	Effect
	5,931,950	6/17/2017	This patent relates to circuits and methods for allowing a computer to enter a power conserving mode while executing a host signal processing modem.
-	5,787,305	7/28/2015	This patent relates to a software emulation of a universal asynchronous receiver transmitter.
-	5,721,830	9/12/2015	This patent relates to circuits and methods for maintaining a communication link.
_	5,822,371	10/13/2017	This patent relates to a type of mapper known as a PAM mapper used in a modem which is compliant with the v.90 modem standard.
-	5,048,056	6/8/2000	This patent relates to a particular mapping technique used by a modem which is compliant with the v.34 modem standard.
_	5,291,520	1/13/2002	This patent relates to apparatus and methods for modem equalization which are used in a modem compliant with the v.34 modem standard.
_	5,465,273	6/24/2004	This patent relates to a type of encoder known as a trellis encoder which is used in a modem compliant with the v.34 modem standard.
-	5,265,151	7/26/2001	This patent relates to methods and apparatus for improving the performance of a modem which is compliant with the v.34 modem standard.
_	5,260,971	2/6/2011	This patent relates to apparatus and methods for modem equalization which are used in a modem compliant with the v.34 modem standard.

We believe that our patent portfolio is one of the largest in the analog modem market. To supplement our proprietary technology, we have licensed rights to use patents held by third parties.

Our industry is characterized by frequent litigation regarding patent and other intellectual property rights. We have been sued by ESS Technology on patent related claims. See "Business--Legal and Administrative Proceedings." In addition, in September 1998, Motorola filed a patent infringement lawsuit against us and another modem manufacturer in the U.S. District Court for the District of Massachusetts, which suit was subsequently refiled in Delaware. We answered Motorola's complaint by denying infringement of Motorola's patents. We also made several counterclaims against Motorola. In addition, we filed a patent infringement lawsuit against Motorola in the U.S. District Court for the District of Delaware. In September 1999, we reached a settlement with Motorola as to all claims raised by both parties. The settlement provides for the cross-licensing of patented technologies between us and Motorola, a royalty payment by us to Motorola based on sales of some of our soft modem products and limitations on the ability of either company to sue the other. We

believe the settlement agreement that we reached with Motorola will have no material effect on our financial performance or on our competitive position in our industry.

We have received communications from third parties, including Lucent and Dr. Brent Townshend, claiming to own patent rights in technologies that are part of communications standards adopted by the International Telecommunications Union, such as v.90, v.34, v.42bis and v.32bis, and other common communications standards. These third parties claim that our products utilize these patented technologies and have requested that we enter into license agreements with them. At various times we have engaged in negotiations with, and are continuing to negotiate with, Lucent to obtain licenses under its patents. To date, we have not obtained any licenses from Lucent or Dr. Townshend, because we believe that Lucent and Dr. Townshend have requested license fees or cross licenses of our portfolio of intellectual property on terms that are not fair, reasonable and nondiscriminatory as required by the International Telecommunications Union.

In addition, there are numerous risks that result from our reliance on our proprietary technology in the conduct of our business. See "Risk Factors--We rely heavily on our intellectual property rights which offer only limited protection against potential infringers. Unauthorized use of our technology may result in development of products that compete with our products which could cause our market share and our revenues to be reduced."

Competition

The connectivity device market is intensely competitive. Our current competitors include 3Com, Conexant, ESS Technology, Lucent Technologies, Motorola and SmartLink. We expect competition to increase in the future as current competitors enhance their product offerings, new suppliers enter the connectivity device market, new communication technologies are introduced and additional networks are deployed.

We may in the future also face competition from other suppliers of products based on host signal processing technology or new or emerging communication technologies, which may render our existing or future products obsolete or otherwise unmarketable. We believe that these competitors may include Alcatel, Analog Devices, Aware, Broadcom, Efficient Networks, ITeX, Terayon Communications, Texas Instruments, and Virata.

As a result of our acquisition of Voyager Technologies, we anticipate that we will enter the markets for wireless internet connectivity and wireless home networking. These markets are intensely competitive. We believe that our future competitors in these markets could include Aironet, Breezecom, Conexant, Lucent, Intersil, Motorola, Proxim and Symbol Technologies.

Compared to us, some of our competitors, including those described above, may have:

- longer operating histories with more experience in designing and selling connectivity device products and services,
- greater presence in our connectivity device markets, which can provide an immediate advantage in marketing new product introductions,
- greater name recognition, which can facilitate customer acceptance of new products and technologies,
- . access to a larger customer base, $% \left(1\right) =\left(1\right) \left(1\right) \left($
- substantially greater financial resources, which could enable a competitor to significantly reduce the price of new products below prevailing market rates to capture market share,
- . significantly greater research and development and other technical resources, which may enable a competitor to respond more quickly to new or emerging technologies and changes in customer requirements, or to introduce new products that are superior to our products, and

. significantly greater sales and marketing resources to devote to the promotion, sale and support of competitive products which could be deployed to overcome business challenges.

We believe that the principal competitive factors required by users and customers in the connectivity device market include compatibility with industry standards, price, functionality, ease of use and customer service and support. We believe that our products currently compete favorably in these areas.

Employees

As of December 31, 1999, we employed 144 people full time, including 55 in sales and marketing, 65 in research and development, and 24 in general and administrative functions. Over 50% of our employees have advanced degrees, with 11 having earned doctoral level degrees. None of our employees are represented by a labor union. We consider our employee relations to be good.

Properties

In September 1999, we entered into an operating lease for our new headquarter facilities in Milpitas, California. This office building comprises 100,026 square feet and the lease expires in February 2003. Our Communications System Division is located in Waterbury, Connecticut, where we currently lease approximately 6,000 square feet under a lease that expires in 2001. We have a sales support office in Taipei, Taiwan, where we lease approximately 9,200 square feet under a lease which expires in 2002. We also have a sales support office in Tokyo, Japan, where we lease approximately 700 square feet under a lease on a month to month basis. During fiscal 1999, we opened a new sales support office in Seoul, Korea, where we currently lease approximately 540 square feet under a six-month lease. We believe that we have adequate space for our current needs.

Legal and Administrative Proceedings

In April 1999, ESS Technology Inc. filed a complaint against us in the U.S. District Court for the Northern District of California, alleging that we failed to grant licenses for some of our International Telecommunications Union-related patents to ESS on fair, reasonable and non-discriminatory terms. ESS's complaint includes claims based on antitrust law, patent misuse, breach of contract and unfair competition. In its complaint, ESS also seeks a declaration that some of our International Telecommunications Union-related patents are unenforceable and that we should be ordered by the court to grant a license to ESS on fair, reasonable and non-discriminatory terms.

We filed an answer to ESS's complaint by moving to dismiss on the basis that ESS had not alleged facts sufficient to state a legal claim. ESS responded by amending its complaint to include additional factual and legal allegations and filing an opposition to the motion to dismiss. On August 2, 1999, the Court denied our motion to dismiss as moot in view of ESS's amended complaint.

On August 12, 1999, we filed a motion to dismiss ESS's amended complaint. On November 4, 1999, the United States District Court in San Jose granted a dismissal of the antitrust and state unfair competition claims, ruling that ESS had failed to allege injury to competition in the market for modems. The Court allowed the specific performance of contract claim to stand, ruling that the license terms granted to other market participants would provide a sufficient basis for defining contractual terms that could be applied to ESS. The Court also denied the Motion with respect to dismissal of the declaratory relief claims, holding that they were sufficiently ripe for adjudication. The Court granted ESS leave to again amend its complaint, which it did on November 24, 1999, by filing a second amended complaint. On January 14, 2000, we filed a motion to dismiss the second amended complaint. ESS filed its opposition to the motion on January 21, 2000 and we filed our reply on January 28, 2000. On February 11, 2000, the Court heard oral argument on our motion to dismiss the second amended complaint. On February 14, 2000, the Court dismissed ESS's complaint and gave ESS twenty days to amend its complaint. In particular, the Court stated that ESS must allege the relevant geographic market and product market in the complaint. In response to the court's February 14, 2000 order, ESS filed its third amended complaint on March 6, 2000.

Due to the nature of litigation generally and because the lawsuit brought ESS is still in the pleading stage, we cannot ascertain the outcome of the final resolution of the lawsuit, the availability of injunctive relief or other equitable remedies, or estimate the total expenses, possible damages or settlement value, if any, that we may ultimately incur in connection with ESS's suit. This litigation could be time consuming and costly, and we will not necessarily prevail given the inherent uncertainties of litigation. However, we believe that we have valid defenses to this litigation, including the fact that other companies license these International Telecommunications Union-related patents from us on the same terms that are being challenged by ESS. We believe that it is unlikely this litigation will have a material adverse effect on our financial position or results of operations. We are vigorously contesting, and intend to continue to vigorously contest, all of ESS's claims.

MANAGEMENT

Executive Officers and Directors

The following table sets forth information with respect to the executive officers and directors of PCTEL as of December 31, 1999:

Name	Age Position
Peter Chen	45 Chief Executive Officer, Chairman of the Board
William F. Roach	56 President, Chief Operating Officer Vice President, Finance, Chief
Andrew D. Wahl	· · · · · · · · · · · · · · · · · · ·
Steven J. Manuel	35 Vice President, Marketing
Frank V. Reo(1)	54 Vice President, Business Development
	Vice President, Engineering,
William Wen-Liang Hsu	44 Secretary, Director
Han-Chung Yeh	46 Vice President, Technology, Director
Derek S. Obata	41 Vice President, Sales
Thomas A. Capizzi	41 Vice President, Human Resources
Richard C. Alberding(2)(3)	69 Director
Martin H. Singer(3)	48 Director
Wen-Chang Ko	50 Director
Giacomo Marini(2)	48 Director
Mike Min-Chu Chen(2)	

- -----
- (1) Passed away on January 7, 2000
- (2) Member of audit committee
- (3) Member of compensation committee

Mr. Peter Chen co-founded PCTEL in March 1994 and has served as Chief Executive Officer and Chairman of the Board since PCTEL's inception. Mr. Chen is also the cousin of one of our directors, Dr. Mike Min-Chu Chen. Mr. Chen has over 14 years experience in data communications and modem development at Digicom Systems, Inc. (a company which he co-founded), Cermetek, Inc. and Anderson-Jacobson, Inc., all data communications companies. Mr. Chen has a Bachelor of Science in Control Engineering from National Chiao-Tung University, Taiwan, and holds a Master of Science in Electrical Engineering from Arizona State University.

Mr. William F. Roach has been the President and the Chief Operating Officer of PCTEL since August 1999. From January 1997 until joining PCTEL, Mr. Roach served as a Senior Vice President, Worldwide Sales and Marketing for Maxtor Corporation, a data storage company, from November 1996 to January 1997 as Executive Vice President for Worldwide Marketing for Wyle Electronics, an electronic component distribution company, and from 1989 to November 1996, as Executive Vice President, Worldwide Sales, for Quantum Corporation, a data storage company. Mr. Roach received a Bachelor of Science in Industrial Economics from Purdue University.

Mr. Andrew D. Wahl has been the Vice President of Finance and Chief Financial Officer of PCTEL since January 1997. From March 1995 to April 1996, Mr. Wahl served as Chief Financial Officer and, from April 1996 to January 1997, as President and Chief Executive Officer for Designs for Education, Inc., an apparel company. From 1993 to March 1995, Mr. Wahl served as Chief Financial and Operations Officer for StarBase Corporation, an object-oriented database developer. Prior to that, Mr. Wahl held various senior positions in general management, finance and management consulting. Mr. Wahl received a Bachelor of Arts in Political Science from Villanova University and a Master in Business Administration in Accounting from Rutgers University.

Mr. Steven J. Manuel has been Vice President of Marketing of PCTEL since September 1997. Prior to that, Mr. Manuel served as Vice President of Sales between January 1997 and September 1997. From March 1992 to January 1997 he worked at Logitech, Inc., a computer input devices company, where he served as the Strategic OEM Account Development Manager and the Director of OEM Sales and Marketing for the Imaging Division from June 1995 to January 1997. At Logitech, Inc., Mr. Manuel was initially responsible for worldwide account management for numerous OEM customers, and later worldwide sales and sales strategy development and implementation. Mr. Manuel received an Associate of Science from Control Data Institute.

Mr. Frank V. Reo had been PCTEL's Vice President of Business Development from February 1998 to January 7, 2000. From February 1993 to February 1998, Mr. Reo served initially as Manager and later as Director of Business Development for the modem group at Cirrus Logic, a semiconductor company. In this position, he was responsible for product marketing, business development and applications engineering. Mr. Reo is a graduate in electronic engineering from Philco Technical Institute, Philadelphia.

Mr. William Wen-Liang Hsu co-founded PCTEL and has served as the Vice President of Engineering and a director since its inception in March 1994. From August 1988 to March 1994, Mr. Hsu served in various positions with Sierra Semiconductor, a semiconductor company, including Engineering Director. At Sierra Semiconductor, Mr. Hsu managed a development group, and was responsible for digital signal processing firmware development for modem products with data, fax and voice features. Mr. Hsu received a Bachelor of Science in Communication Engineering from National Chiao-Tung University, Taiwan, and a Master of Science in Computer Engineering from Oregon State University.

Mr. Han-Chung Yeh co-founded PCTEL and has served as the Vice President of Technology and a director since its inception in March 1994. Mr. Yeh was a staff engineer at Sierra Semiconductor, a semiconductor company, from September 1993 to March 1994. Mr. Yeh holds a Bachelor of Science in Control Engineering from National Chiao-Tung University, Taiwan, and a Master of Science in Electrical Engineering from New York State University at Stony Brook.

Mr. Derek S. Obata has been Vice President of Sales for PCTEL since April 1998. From 1997 until joining PCTEL, Mr. Obata was an independent consultant providing strategic planning, business development, marketing and sales support to emerging high technology companies. Mr. Obata served from 1996 to 1998 as Vice President, Worldwide Sales for Network Peripherals Incorporated, a networking company, and from 1992 to 1995 as Vice President, Worldwide Sales at Ministor Peripherals Corporation, a data storage company. Prior to this period, Mr. Obata served in a number of sales and sales management positions with Conner Peripherals and Seagate Technologies, which are data storage companies. Mr. Obata holds a Bachelor of Science in Engineering Sciences from the University of California, Berkeley.

Mr. Thomas A. Capizzi has been Vice President of Human Resources and Chief Administrative Officer for PCTEL since January 2000. From July 1997 until joining PCTEL, Mr. Capizzi served as Vice President, Corporate Human Resources for McKessonHBOC, a pharmaceutical supply and information company. From August 1995 to July 1997, Mr. Capizzi served as Senior Director, Human Resources, Worldwide Sales and International for Quantum Corporation, a data storage company. Mr. Capizzi holds a Bachelor of Arts in Psychology from Cathedral College and St. John's University in New York.

Mr. Richard C. Alberding has been a director of PCTEL since August 1999. Mr. Alberding retired from the Hewlett-Packard Company, a computer, peripherals and measurement products company, in June 1991, serving at that time as an Executive Vice President with responsibility for worldwide company sales, support and administration activities for measurement and computation products, as well as all corporate level marketing activities. Mr. Alberding is a director of Kennametal, Inc., Digital Microwave Corporation (which included a nine-month period as interim Chairman/CEO), JLK Direct Distribution Inc., Paging Network, Inc., Quickturn Design Systems, Inc., Sybase Inc. and Walker Interactive Systems. Mr. Alberding holds a B.A. degree in Business Administration/Marketing from Augusta College in Rock Island, Illinois, and an Associate of Science degree in Electrical Engineering from DeVry Technical Institute in Chicago.

Dr. Martin H. Singer has been a director of PCTEL since August 1999. Since December 1997, Dr. Singer has been President and CEO of SAFCO Technologies, Inc., a wireless communications company. From September 1994 to December 1997, Dr. Singer served as Vice-President and General Manger of the Wireless Access Business Development Division for Motorola, Inc., a communications equipment company. Prior to this period, Dr. Singer held senior management and technical positions in Motorola, Inc., Tellabs, Inc., AT&T and Bell Labs. Dr. Singer holds a Bachelor of Arts in Psychology from the University of Michigan, and a Master of Arts and a Ph.D. in Experimental Psychology from Vanderbilt University.

Mr. Wen-Chang Ko has been a director for PCTEL since May 1999. Since 1990, Mr. Ko has served as Chairman of seven WK Investment Funds, which are high-tech venture capital investment companies, and during 1992 to 1995 as Chairman of Taipei Venture Capital Association. Prior to this, Mr. Ko served in a number of positions including Chairman and President and Computer Country Manager at Hewlett Packard Taiwan Ltd., a computation and communication system manufacturer and Research & Development Manager at International Business Machines, an information system technology company. Mr. Ko is a director of Clarent Corp. He holds a Bachelor of Science in Electrical Engineering from National Cheng Kung University, Taiwan, and a Master of Science in System Science from Michigan State University.

Mr. Giacomo Marini has been a director of PCTEL since October 1996. Since March 1995 Mr. Marini has served as President of MK Group LLC, a private investment and management consulting business that invests in and advises high technology companies, and from February 1998 to February 1999 as Interim Chief Executive Officer at FutureTel, Inc., a digital video capture company. From August 1993 to February 1995, Mr. Marini served as President and Chief Executive Officer of Common Ground Software, Inc. (formerly No Hands Software, Inc.), an electronic publishing software company. Prior to this, Mr. Marini was a co-founder, Executive Vice President and Chief Operating Officer of Logitech, a computer peripherals company, and he held technical and management positions with Olivetti and International Business Machines. Mr. Marini is currently on the board of various private companies. He holds a Computer Science Laureate Degree from the University of Pisa, Italy.

Dr. Mike Min-Chu Chen has been a director of PCTEL since February 1994 and is the cousin of our Chief Executive Officer and Chairman of the Board, Peter Chen. Since August 1998, Dr. Chen has been the Chairman and co-founder of 3iNet, a Linux-based internet appliances and seamless internet enabled communications services provider. From May 1985 to August 1998, Dr. Chen served as the Executive Vice President, Chief Executive Officer and Director of C & C International Services, Inc., an engineering and procurement service company. From March 1987 to August 1998, Dr. Chen served as Executive Vice President, Chief Executive Officer and Director of Act Engineering, Inc., an engineering design and trading company. From December 1996 to February 1997, Dr. Chen served as director of ERT Holding, Inc., a company engaged in the environmental rubber recycling manufacturing business, and served as President of International Operations from December 1996 to February 1997 and then as Chairman from February 1997 to October 1997. He is currently on the board of various private companies. Dr. Chen holds a Bachelor of Science in Naval Architecture from National Taiwan Ocean University, a Master in Science in Mechanical Engineering and Naval Architecture from National Taiwan University, Taiwan, and a Doctorate in Ocean Engineering from Oregon State University.

Board Composition

Our board of directors currently consists of eight members. Our bylaws provide for a classified board of directors consisting of three classes of directors, each serving staggered three-year terms. As a result, a portion of our board of directors will be elected each year. Class I directors' terms will expire at the annual meeting of stockholders to be held in 2000, Class II directors' terms will expire at the annual meeting of stockholders to be held in 2001 and Class III directors' terms will expire at the annual meeting of stockholders to be held in 2002. The Class I directors will be Peter Chen and Han-Chung Yeh, the Class III directors will be Wen-Chang Ko, Richard C. Alberding and William Wen-Liang Hsu, and the Class III directors will be Mike Min-Chu Chen, Giacomo Marini and Martin H. Singer. At each annual meeting of stockholders held after the initial classification, the successors to directors whose terms will then expire will be elected to serve from the time of

election and qualification until the third annual meeting following election. In addition, our bylaws provide that the authorized number of directors may be changed by an amendment to the bylaws, duly adopted by the board of directors or by the stockholders or by a duly adopted amendment to the certificate of incorporation. Any additional directorships resulting from an increase in the number of directors will be distributed among the three classes so that, as nearly as possible, each class will consist of one-third of the total number of directors. This classification of the board of directors may delay or prevent a change in control of our company or in our management.

Executive officers are appointed by the board of directors under our bylaws, and the rights, if any, of an officer under any contract of employment.

Board Committees

We established an audit committee and a compensation committee in August 1999. The audit committee consists of Giacomo Marini, Richard C. Alberding and Mike Min-Chu Chen. The audit committee reviews our internal accounting procedures and consults with and reviews the services provided by our independent public accountants. The compensation committee consists of Richard C. Alberding and Martin H. Singer. The compensation committee reviews and recommends to the board of directors the compensation and benefits of all our officers and directors, including stock compensation and loans, and establishes and reviews general policies relating to the compensation and benefits of our employees.

Compensation Committee Interlocks and Insider Participation

The members of our compensation committee are Messrs. Alberding and Singer. None of the members of the compensation committee are currently or have been, at any time since our formation, one of our officers or employees. None of our executive officers currently serves or in the past has served as a member of the board of directors or compensation committee of any entity that has one or more executive officers serving on our board or compensation committee. Prior to the formation of the compensation committee, compensation decisions were made by our entire board of directors.

Director Compensation

Our directors currently receive a yearly retainer of \$5,000 for serving as directors and receive \$2,000 per board meeting attended and \$500 per committee meeting attended. Our directors are also reimbursed for expenses in connection with attendance at board and committee meetings. Under our 1998 director option plan, non-employee directors automatically receive stock option grants.

Limitations On Directors' Liability And Indemnification

Our certificate of incorporation limits the liability of directors to the maximum extent permitted by Delaware law. Delaware law provides that directors of a corporation will not be personally liable for monetary damages for breach of their fiduciary duties as directors, except liability for:

- . any breach of their duty of loyalty to the corporation or its stockholders,
- acts of omissions not in good faith or which involve intentional misconduct or a knowing violation of law,
- unlawful payments of dividends or unlawful stock repurchases or redemptions, or
- . any transaction from which the director derived an improper personal benefit.

The limitations of liability do not apply to liabilities arising under the federal securities laws and do not affect the availability of equitable remedies such as injunctive relief or rescission.

Our certificate of incorporation and bylaws provide that we will indemnify our directors and officers and may indemnify our employees and other agents to the fullest extent permitted by law. We believe that indemnification under our bylaws covers at least negligence and gross negligence on the part of indemnified parties. Our bylaws also permit us to secure insurance on behalf of any officer, director, employee or other

agent for any liability arising out of his or her actions in their capacity as an officer, director, employee or other agent, regardless of whether the bylaws would permit indemnification.

We have entered into agreements to indemnify our directors and executive officers, in addition to the indemnification provided for in our bylaws. These agreements primarily provide for indemnification of our directors and executive officers for judgment, fines, settlement amounts and expenses, including attorneys' fees incurred by the director, executive officer or controller in any action or proceeding, including any action by or in the right of PCTEL, arising out of the person's services as a director, executive officer or controller of us, any of our subsidiaries or any other company or enterprise to which the person provides services at our request. We believe that these provisions and agreements are necessary to attract and retain qualified persons as directors and executive officers.

The limited liability and indemnification provisions in our certificate of incorporation and bylaws may discourage stockholders from bringing a lawsuit against our directors for breach of their fiduciary duty and may reduce the likelihood of derivative litigation against our directors and officers, even though a derivative action, if successful, might otherwise benefit us and our stockholders. A stockholder's investment in us may be adversely affected to the extent we pay the costs of settlement or damage awards against our directors and officers under these indemnification provisions.

At present, there is no pending litigation or proceeding involving any of our directors, officers or employees in which indemnification is sought, nor are we aware of any threatened litigation that may result in claims for indemnification.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of us under the foregoing provisions or otherwise, we have been advised that in the opinion of the Securities and Exchange Commission this indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable.

Executive Compensation

The following table presents the compensation earned, awarded or paid for services rendered to us in all capacities for the fiscal year ended December 31, 1999, by our Chief Executive Officer and our four next most highly compensated executive officers who earned more than \$100,000 in salary and bonus during the fiscal year ended December 31, 1999 whom we refer to in this prospectus collectively as the named executive officers:

Summary Compensation Table

Long-Term

	Compens	sation	Compensation Awards		
	Salary	Bonus	Securities	Compensation (\$)(1)	
Peter Chen Chief Executive Officer	\$199,167	\$101,112	60,000	\$132	
Derek Obata Vice President, Sales	160,000	132,824	30,000	81	
Andrew D. Wahl Vice President, Finance and Chief Financial Officer	156,333	73,115	70,000	213	
Han-Chung Yeh Vice President, Technology	155,833	59 , 657	30,000	132	
Frank V. Reo(2) Vice President, Business Development	149,500	65,235	20,000	213	

⁽¹⁾ Consists of premiums paid by us for term life insurance.

⁽²⁾ Passed away on January 7, 2000.

The following table shows information regarding stock options granted to the named executive officers during the fiscal year ended December 31, 1999. The potential realizable value is based on the assumption that our common stock appreciates at the annual rate shown, compounded annually, from the date of grant until the expiration of the ten-year term. These numbers are calculated based on Securities and Exchange Commission requirements and do not reflect projections or estimates of future stock price growth. Potential realizable values are computed by:

- . Multiplying the number of shares of common stock underlying each option by the exercise price,
- . Assuming that the total stock value derived from that calculation compounds at the annual 5% or 10% rate shown in the table for the entire ten-year term of the option, and
- . Subtracting from that result the total option exercise price.

Actual gains, if any, on stock option exercises will be dependent on the future performance of the common stock. The percentage of total options is based on an aggregate of 1,818,492 options granted by us during the fiscal year ended December 31, 1999, to our employees, directors and consultants, including the named executive officers. Options were granted with an exercise price equal to the fair market value of our common stock, as determined in good faith by our board of directors.

Unless otherwise noted, the per share exercise price of stock option grants is the fair market value of our common stock on the date of grant. In determining the fair market value of our common stock for the purpose of establishing the exercise price of stock option grants, the board of directors in each case took into consideration a number of factors, including principally our operating results and financial condition at the time of stock option grant, key developments affecting our business and, where relevant, the most recent price of our preferred stock in connection with financing transactions with independent investors.

Potential
Realizable Value at
Assumed Annual
Rates of Stock
Appreciation for
Option Term

Individual Grants

Name 	Number of Securities Underlying Options Granted (#)	% of Total Options Granted to Employees During Period	Exercise Price Per Share	Expiration Date	5% 	10%
Peter Chen	60,000(1) 30,000(2)	3.30% 1.65%	\$10.25+ 10.25+	4/30/09 5/28/09	\$714,178 357,089	\$1,501,494
Derek S. Obata Andrew D. Wahl	30,000(2)	1.65%	9.75	2/26/09	183,952	750,747 466,170
Han-Chung Yeh Frank V. Reo	40,000(4) 30,000(5) 20,000(6)	2.20% 1.65% 1.10%	16.00 10.25 10.25	10/18/09 3/31/09 3/31/09	402,493 193,385 128,923	, ,

⁺ The fair market value of our common stock on the date of grant was \$13.60; however, our board of directors granted these options with an exercise price per share of \$10.25. We have taken a compensation charge for the difference between the fair market value and the exercise price per share for these options which will be expensed ratably over the vesting period.

⁽¹⁾ As of December 31, 1999, no shares of this option to purchase 60,000 shares of common stock have vested. This option to purchase our common stock vests as to one fourth of the shares on April 1, 2000 with the remaining shares vesting ratably on a monthly basis thereafter.

⁽²⁾ As of December 31, 1999, no shares of this option to purchase 30,000 shares of common stock have vested. This option to purchase our common stock vests as to one fourth of the shares on May 1, 2000 with the remaining shares vesting ratably on a monthly basis thereafter.

- (3) As of December 31, 1999, no shares of this option to purchase 30,000 shares of common stock have vested. This option to purchase our common stock vests as to one fourth of the shares on February 1, 2000 with the remaining shares vesting ratably on a monthly basis thereafter.
- (4) As of December 31, 1999, no shares of this option to purchase 40,000 shares of common stock have vested. This option to purchase our common stock vests as to one fourth of the shares on October 14, 2000 with the remaining shares vesting ratably on a monthly basis thereafter.
- (5) As of December 31, 1999, no shares of this option to purchase 30,000 shares of common stock have vested. This option to purchase our common stock vests as to one fourth of the shares on March 16, 2000 with the remaining shares vesting ratably on a monthly basis thereafter.
- (6) On January 7, 2000 Frank Reo passed away. None of his 20,000 shares had vested at the time of his death.

Aggregate Option Exercises During Last Fiscal Year And Fiscal Year-End Option Values

The following table presents information regarding the named executive officers concerning option exercises for the year ended December 31, 1999 and exercisable and unexercisable options held as of December 31, 1999. The value of unexercised in-the-money options is based on a price of \$52.50 per share, the fair market value of our stock on December 31, 1999 as reported on the Nasdaq National Market, minus the per share exercise price, multiplied by the number of shares underlying the option.

	Shares Acquired	Shares cquired		Number of Securities Underlying Options at December 31, 1999		Value of Unexercised In-the-Money Options at December 31, 1999	
			Exercisable	Unexercisable	Exercisable	Unexercisable	
Peter Chen	87 , 502	\$1,358,469	84,895	137,603	\$3,998,888	\$6,118,196	
Derek S. Obata	23,021	256 , 684	58,229	143,750	2,633,778	6,490,522	
Andrew D. Wahl	95 , 625	1,463,791	6,042	113,333	305 , 778	4,912,941	
Han-Chung Yeh			110,625	99 , 375	5,454,469	4,549,781	
Frank V. Reo(2)			40,000	70,000	1,785,750	3,074,750	

⁽¹⁾ Based on the estimated fair market value of our common stock at the time of exercise less the exercise price, multiplied by the number of shares purchased.

(2) Passed away on January 7, 2000.

Incentive Stock Plans

1995 Stock Plan

Our 1995 stock plan provides for the granting to employees of incentive stock options under Section 422 of the most recent Internal Revenue Code of 1986, or the Code, and for the granting to employees and consultants of nonstatutory stock options. The maximum aggregate number of shares which may be optioned and sold under the 1995 stock plan is 3,200,000 shares of common stock. As of December 31, 1999, options to purchase an aggregate of 494,225 shares of common stock were outstanding under the 1995 stock plan, with a weighted average exercise price of \$0.23. The 1995 stock plan provides that in the event of a merger of our company with or into another corporation, or the sale of substantially all of our assets, each outstanding option will be assumed or substituted for by the successor corporation. If the successor corporation refuses to assume or substitute for the options, the options will terminate as of the closing of the merger or sale of assets.

1997 Stock Plan

Our 1997 stock plan, which we amended and restated on August 3, 1999, provides for the granting to employees of incentive stock options under Section 422 of the Code, and for the granting to employees and consultants of nonstatutory stock options and stock purchase rights. The 1997 stock plan was originally

approved by the board of directors and stockholders in November 1996 and was amended by our board of directors and stockholders in August 1999. As of December 31, 1999, options to purchase an aggregate of 3,951,297 shares of common stock were outstanding under the 1997 stock plan with a weighted price of \$8.677. Unless terminated sooner, the 1997 stock plan will terminate automatically in 2007. A total of 5,500,000 shares of common stock are currently reserved for issuance under the 1997 stock plan, plus annual increases equal of the lesser of:

- . 700,000 shares,
- . 4% of the outstanding shares on such date, or
- . a lesser amount determined by the board.

The 1997 stock plan may be administered by the board of directors or a committee of the board. The board of directors or committee of the board has the power to determine the terms of the options or stock purchase rights granted, including the exercise price, the number of shares for each option or stock purchase right, the exercisability of the options or stock purchase rights granted, and the form of consideration payable upon the exercise. In addition, the board of directors or committee of the board has the authority to amend, suspend or terminate the 1997 stock plan, provided that this action may not affect any share of common stock previously issued and sold or any option previously granted under the 1997 stock plan.

Options and stock purchase rights granted under the 1997 stock plan are not generally transferable by the optionee, and each option and stock purchase right is exercisable during the lifetime of the optionee only by the optionee. Options granted under the 1997 stock plan must generally be exercised within three months of the end of optionee's status as an employee or consultant of our company, or within twelve months after the optionee's termination by death or disability, but in no event later than the expiration of the option's ten year term. The exercise price of all incentive stock options granted under the 1997 stock plan must be at least equal to 100% of the fair market value of the common stock on the date of grant. The exercise price of nonstatutory stock options and stock purchase rights granted under the 1997 stock plan is determined by the board of directors or a committee of the board, but with respect to nonstatutory stock options intended to qualify as "performance based compensation" under Section 162(m) of the Code, the exercise price must at least be equal to 100% of the fair market value of the common stock on the date of grant. For any participant who owns stock possessing more than 10% of the voting power of all classes of our outstanding capital stock, the exercise price of any incentive stock option granted must equal at least 110% of the fair market value on the grant date and the term of the incentive stock option must not exceed five years. The term of all other options granted under the 1997 stock plan may not exceed ten years.

The 1997 stock plan provides that in the event of a merger of our company with or into another corporation, a sale of substantially all of our assets, each option or right shall be assumed or an equivalent option or right substituted by the successor corporation. If the outstanding options or rights are not assumed or substituted as described in the preceding sentence, the board of directors or a committee of the board shall provide for the optionee to have the right to exercise the option or stock purchase right as to all of the optioned stock, including shares which would not otherwise be exercisable for a period of fifteen days from the date of the notice, and the option or stock purchase right will terminate upon the expiration of the period.

1998 Employee Stock Purchase Plan

Our 1998 employee stock purchase plan became effective on October 19, 1999, the closing of our initial public offering. A total of 800,000 shares of common stock has been reserved for issuance under the 1998 employee stock purchase plan, plus annual increases equal to the lesser of:

- . 350,000 shares,
- . 2% of the outstanding stock on such date, or
- . a lesser amount determined by the board of directors.

As of December 31, 1999, a total of 800,000 shares of common stock are available under the 1998 employee stock purchase plan.

The 1998 employee stock purchase plan, which is intended to qualify under Section 423 of the Code, contains successive six-month offering periods. The offering periods generally start on the first trading day on or after February 15 and August 15 of each year.

Employees are eligible to participate if they are customarily employed by us or any participating subsidiary for at least 20 hours per week and more than five months in any calendar year. However any employee who:

- . immediately after grant owns stock possessing 5% or more of the total combined voting power or value of all classes of our capital stock, or
- . whose rights to purchase stock under all employee stock purchase plans of our company accrues at a rate which exceeds \$25,000 worth of stock for each calendar year may not be granted an option to purchase stock under the 1998 employee stock purchase plan.

The 1998 employee stock purchase plan permits participants to purchase common stock through payroll deductions of up to 15% of the participant's compensation. The maximum number of shares a participant may purchase during a single offering period is 2,000 shares.

Amounts deducted and accumulated by the participant are used to purchase shares of common stock at the end of each offering period. The price of stock purchased under the 1998 employee stock purchase plan is 85% of either the fair market value of the common stock at the beginning or end of the offering period whichever is lower. Participants may end their participation at any time during an offering period, and their ESPP payroll contributions to date will be fully returned. Participation ends automatically upon termination of employment with us.

Rights granted under the 1998 employee stock purchase plan are not transferable by a participant other than by will, the laws governing transfer upon a participant's death, or as otherwise provided under the 1998 employee stock purchase plan. The 1998 employee stock purchase plan provides that, in the event of a merger of our company with or into another corporation or a sale of substantially all of our assets, each outstanding option may be assumed or substituted for by the successor corporation. If the successor corporation refuses to assume or substitute for the outstanding options, the offering period then in progress will be shortened and a new exercise date, before the date of the proposed sale or merger, will be set. The 1998 employee stock purchase plan will terminate in 2008. The board of directors has the authority to amend or terminate the 1998 employee stock purchase plan, except that this action may not adversely affect any outstanding rights to purchase stock under the 1998 employee stock purchase plan.

1998 Director Option Plan

Non-employee directors are entitled to participate in the 1998 director option plan. The 1998 director option plan was adopted by the board of directors in May 1998 and became effective on October 19, 1999, the closing of our initial public offering. The 1998 director option plan has a term of ten years, unless terminated sooner by the board of directors. A total of 200,000 shares of common stock have been reserved for issuance under the 1998 director option plan. As of December 31, 1999, options to purchase an aggregate of 200,000 shares of common stock were outstanding under the 1998 director option plan.

The 1998 director option plan provides for the automatic grant of options to purchase 15,000 shares of common stock to each new non employee director upon election to the board of directors. Options to purchase 15,000 shares will vest one-third on each anniversary of its date of grant until the option is fully vested, provided that the optionee continues to serve as a director on these dates. After the initial 15,000 share option is granted to the non employee director, he or she shall automatically be granted an option to purchase 7,500 shares on January 1 of each year, if on this date he or she shall have served on the board of directors for at

least six months. The 7,500 share options shall vest completely on the anniversary of their date of grant, provided that the optionee continues to serve as a director on these dates. All of the options granted under the 1998 director option plan shall have a term of 10 years. The exercise price of all options shall be 100% of the fair market value per share of the common stock, generally determined with reference to the closing price of the common stock as reported on the Nasdaq National Market on the date of grant.

The 1998 director option plan provides that in the event of a merger of our company with or into another corporation, a sale of substantially all of our assets, each option or right shall be assumed or an equivalent option or right substituted by the successor corporation. If the outstanding options or rights are not assumed or substituted as described in the preceding sentence, the board of directors or a committee of the board shall provide for the optionee to have the right to exercise the option or stock purchase right as to all of the optioned stock, including shares which would not otherwise be exercisable for a period of thirty days from the date of the notice, and the option or stock purchase right will terminate upon the expiration of the period. Options granted under the 1998 director option plan must be exercised within three months of the end of the optionee's tenure as a director of our company, or within twelve months after the director's termination by death or disability, but in no event later than the expiration of the option's ten year term. No option granted under the 1998 director option plan is transferable by the optionee other than by will or the laws of descent and distribution, and each option is exercisable, during the lifetime of the optionee, only by the optionee.

401(k) Plan

Our 401(k) plan covers all of our employees beginning the first of the month following the month of their employment. Under this plan, employees may elect to contribute up to 15% of their current compensation to the 401(k) plan up to the statutorily prescribed annual limit (\$10,500 in 2000). Contributions by employees to the 401(k) plan, and income earned on plan contributions, are not taxable to employees until withdrawn. Further, contributions by PCTEL, if any, will be deductible by PCTEL, when made. Participating employees vest in employer contributions over five years at a rate of 20% for each year of service. There have been no employer contributions to the 401(k) plan through December 31, 1999.

Employment Agreements and Change of Control Arrangements

We require each of our employees to enter into confidentiality agreements prohibiting the employee from disclosing any of our confidential or proprietary information. In addition, the agreements generally provide that upon termination the employee will not solicit our employees. At the time of commencement of employment, our employees also generally sign offer letters specifying basic terms and conditions of employment. In general, our employees do not have any written employment agreements with us.

We entered into an agreement on March 31, 1998 with Derek S. Obata which provides that his employment is at-will, he will receive an annual salary of \$150,000, plus commissions, and that in the event of a change in control of our company, he will be entitled to one year severance pay.

We entered into an agreement on July 20, 1999 with William F. Roach. The agreement provides that his employment will be at-will and his annual salary will be initially set at \$250,000 per year with an annual bonus of \$150,000 payable upon our achieving quarterly net income targets.

In addition, the agreement provides for Mr. Roach to be granted an option to purchase 400,000 shares of our common stock which vests according to the following schedule: 30% at the end of his first year of employment, 25% in years two and three and 20% in year four. Vesting after the first twelve months of employment is on a monthly basis. His agreement also included a provision which provided that 50% of his first year's options vested on the date of the initial public offering (October 19, 1999), and the remaining 50% of his first year's options will vest upon reaching the completion of his twelfth month of employment. In addition, if his employment is terminated for any reason, other than for cause, he will be entitled to one year of severance. If the termination occurs within the first year of employment, he will be entitled to exercise his entire first year stock options.

TRANSACTIONS WITH RELATED PARTIES AND INSIDERS

Since January 1, 1995, there has not been, nor is there currently proposed, any transaction or series of similar transactions to which we were or are to be a party in which the amount exceeds \$60,000, and in which any director, executive officer, holder of more than 5% of our common stock or any member of the immediate family of any of the foregoing persons had or will have a direct or indirect material interest other than compensation agreements and other agreements, which are described under "Management," and the transactions described below.

Transactions with Directors, Executive Officers and 5% Stockholders

Common stock. In 1999, the following directors and executive officers exercised the following stock options on the dates and at the prices set forth below:

		Price	
		per	Common
Purchaser	Date of Purchase	Share	Stock
Derek S. Obata	October 14, 1999	\$4.85	23,021
Andrew D. Wahl	October 10, 1999	7.45	6,250
	November 22, 1999	1.25	2,708
	October 10, 1999	1.25	18,667
	September 17, 1999	1.25	68,000

Series A preferred stock. Between February 10, 1994 and March 14, 1995, we sold 4,413,333 shares of our common stock at a price per share between \$0.10 and \$0.30. On May 9, 1995, we effected a recapitalization of our outstanding stock converting each share of common stock into one share of Series A preferred stock. On June 29, 1995, we sold 222,222 shares of our Series A preferred stock at a price per share of \$0.30. The following table lists the number of shares of Series A preferred stock sold to our directors, executive officers or 5% stockholders (and any members of the immediate family of these persons):

Purchaser	Shares of Series A Preferred Stock Purchased
ruchaser	Pulchased
Peter & Sophia Chen. Han-Chung Yeh. Mike Min-Chu Chen. William Wen-Liang Hsu. Steel Su.	280,000 666,666 200,000
Ming-Hsiung Michael Ho	•

Series B preferred stock. Between October 18, 1995 and January 10, 1996, we sold 3,250,000 shares of our Series B preferred stock at a price per share of \$1.20. The following table lists the number of shares of Series B preferred stock sold to our directors, executive officers or 5% stockholders (and any members of the immediate family of these persons):

	Shares of Series B Preferred Stock
Purchaser	Purchased
WK Technology Fund I WK Technology Fund II WK Technology Fund III	. 402,500

Series C preferred stock. On February 4, 1998, we sold 625,200 shares of our Series C preferred stock at a price per share of \$8.00. The sale of Series C preferred stock included the sale of 125,000 shares of Series C preferred stock to WK Technology Funds, which is a holder of more than 5% of our common stock. In addition, Wen C. Ko, one of our directors, is Chairman of WK Technology Fund, WK Technology Fund II and WK Technology Fund III.

On October 19, 1999, all 8,510,748 shares of the Series A, B and C preferred stock were converted into 8,510,748 shares of common stock.

Loans to Executive Officers

On August 3, 1999, we loaned William F. Roach, our President and Chief Operating Officer, pursuant to a full-recourse promissory note, \$54,000\$ with a per annum interest rate of 8%. The promissory note shall become immediately due and payable upon the earlier of:

- . one year from the date the promissory note is executed, or
- . the termination of Mr. Roach's employment with us.

The principal amount outstanding under Mr. Roach's loan on December 31, 1999 was \$54,000.

On December 29, 1999, we loaned Derek S. Obata, our Vice President of Sales, pursuant to a full-recourse unsecured promissory note, \$87,273 with a per annum interest rate of 8%. The promissory note shall become immediately due and payable upon the earlier of

- . one year from the date the promissory note is executed, or
- . the termination of Mr. Obata's employment with us.

The principal amount outstanding under Mr. Obata's loan on December 31, 1999 was \$87,273.

Other Transactions

Steel Su, a holder of more than 5% of our common stock and a member of our board of directors from March 1995 until November 1997, served as the President of BTC, a significant customer. For the years ended December 31, 1995, 1996, 1997, 1998 and 1999, the revenues generated from BTC were approximately \$99,000, \$1,660,000, \$2,153,000, \$4,953,000 and \$760,000, respectively.

Indemnification

We have entered into indemnification agreements with each of our directors and officers. These indemnification agreements will require us to indemnify our officers to the fullest extent permitted by Delaware law.

Future Transactions

All future transactions with our officers, directors, principal stockholders or affiliates, including any loans to such persons, will be approved by a majority of the board of directors or, if required by law, a majority of disinterested stockholders, and will be on terms no less favorable to us than could be obtained from unaffiliated third parties.

PRINCIPAL AND SELLING STOCKHOLDERS

The following table presents certain information regarding the beneficial ownership of our common stock as of December 31, 1999, and as adjusted to reflect the sale of our common stock offered by this prospectus, by:

- . each of the individuals listed on the "Summary Compensation Table" above,
- . each of our directors,
- each person (or group of affiliated persons) who is known by us to own beneficially 5% or more of our common stock,
- . all current directors and executive officers as a group, and
- . other selling stockholders.

Beneficial ownership is determined according to the rules of the Securities and Exchange Commission. In computing the number of shares beneficially owned by a person and the percentage ownership of that person, shares of common stock underlying options held by that person that are currently exercisable or exercisable within 60 days of December 31, 1999 are considered outstanding. These shares, however, are not considered outstanding for the purposes of computing the percentage ownership of each other person.

Except as indicated in the footnotes to this table, each stockholder named in the table has sole voting and investment power regarding the shares shown as beneficially owned by them. This table also includes shares owned by a spouse as community property. Percentage of ownership is based on 17,360,335 shares of common stock outstanding after completion of this offering. This table assumes no exercise of the underwriters' over-allotment option. Unless otherwise indicated, the address of each of the individuals named below is: c/o PCTEL, Inc., 1331 California Circle, Milpitas, California 95035.

		Ownership Prior to Efering		Shares Beneficially Owned After Offering		
Name and Address of Beneficial Owner	Beneficially Owned Before Offering	Options and Warrants Exercisable within 60 days of	Shares to be Sold Pursuant to This Offering	Number		
5% Stockholders Entities affiliated with the WK Technology Funds	1,916,666(1)	19,271(2)				
Directors and Named Executive Officers Peter Chen	1,916,666(1) 26,000 216,666(6)	66,355 19,583 118,125 40,000 118,125 19,271 3,271 19,271				
(14 persons)	4,002,145	625,771				

Other Selling Stockholders

 $[\]mbox{\scriptsize \star}$ Less than 1% of the outstanding shares of common stock.

- (1) Includes 555,800 shares held by WK Technology Fund, 402,500 shares held by WK Technology Fund II, and 958,366 shares held by WK Technology Fund III. Wen C. Ko is one of our directors and is Chairman of the WK Technology Funds. Mr. Ko disclaims beneficial ownership of the shares held by WK Technology Fund, WK Technology Fund II, and WK Technology Fund III, except to the extent of his pecuniary interest therein.
- (2) Issuable pursuant to an option to purchase 25,000 shares of common stock granted to WK Associates on January $31,\ 1997.$
- (3) Includes 236,916 shares held by Mr. Chen with his wife as community property, 420,835 shares owned by himself individually, 9,250 shares, 9,250 shares and 1,250 shares held by Robert Chen, Michael Chen and Jacqueline Chen, respectively, Mr. Chen's minor children living at home. Mr. Chen disclaims beneficial ownership of the shares held by his children, except to the extent of his pecuniary interest therein.
- (4) Includes 577,333 shares owned by Mr. Yeh individually. Additionally includes 16,000 shares held by Emily C. Yeh, a minor daughter who lives in Mr. Yeh's home. Mr. Yeh disclaims beneficial ownership of the shares held by Emily C. Yeh, except to the extent of his pecuniary interest therein.
- (5) Includes 408,000 shares held by the William Wen-Liang Hsu and Rai-Yun Lee Family Trust, a revocable trust, over which shares Mr. Hsu has joint dispositive power, 20,830 shares held by each of his children living at home, Frederick and Joanne Hsu and 3,673 shares held by Hui-Ju Wang, Mr. Hsu's mother. Mr. Hsu disclaims the beneficial ownership of the shares held by his children and mother, except to the extent of his pecuniary interest therein.
- (6) Includes 193,966 shares owned by Mr. Chen individually. Additionally includes 11,350 shares held by Thomas L. Chen and Willis F. Chen, Mr. Chen's children living at home. Mr. Chen disclaims beneficial ownership of the shares held by his children, except to the extent of his pecuniary interest therein.

General

The Board of Directors is authorized to issue 50,000,000 shares of common stock, \$0.001 par value, and 5,000,000 shares of undesignated preferred stock, \$0.001 par value. The following is a summary description of our capital stock.

Common Stock

As of December 31, 1999, there were 16,560,335 shares of common stock outstanding which were held of record by 188 stockholders, as adjusted to reflect the conversion of all outstanding shares of preferred stock upon closing of this offering.

The holders of common stock are entitled to one vote per share on all matters to be voted upon by the stockholders. The holders of common stock are entitled to receive their proportionate share of the dividends, if any, as may be declared from time to time by the board of directors out of funds legally available for that purpose. See "Dividend Policy." In the event of a liquidation, dissolution or winding up of PCTEL, the holders of common stock are entitled to their proportionate share of all assets remaining after payment of liabilities, after taking into consideration the prior distribution rights of preferred stock, if any, then outstanding. The common stock has no preemptive or conversion rights or other subscription rights. There are no redemption or sinking fund provisions applicable to the common stock. All outstanding shares of common stock are fully paid and nonassessable, and the shares of common stock to be issued upon the closing of this offering will be fully paid and nonassessable.

Preferred Stock

The board of directors is authorized, without stockholder approval, from time to time to issue up to an aggregate of 5,000,000 shares of preferred stock, \$0.001 par value per share, in one or more series, each of the series to have such rights and preferences, including voting rights, dividend rights, conversion rights, redemption privileges and liquidation preferences, as shall be determined by the board of directors. The rights of the holders of common stock will be affected by, and may be adversely affected by, the rights of holders of any preferred stock that may be issued in the future. Issuance of preferred stock, while providing desirable flexibility in connection with possible acquisitions and other corporate purposes, could have the effect of making it more difficult for others to acquire, or of discouraging others from attempting to acquire, a majority of the outstanding voting stock of PCTEL. We have no present plans to issue any shares of preferred stock.

Warrants

At December 31, 1999, there were warrants outstanding to purchase a total of 201,063 shares of common stock. Warrants to purchase an aggregate of 200,000 shares of common stock will expire on December 31, 2008, unless exercised earlier. The warrants to purchase 1,063 shares of common stock will expire on February 4, 2001, unless exercised earlier. All warrants may be exercised on a "net" basis. If a warrant is exercisable on a "net" basis, instead of paying the exercise price in cash, the holder may instruct us to retain a number of shares that has a fair market value at the time of exercise equal to the aggregate exercise price.

Registration Rights

As of December 31, 1999, the holders of 3,875,200 shares of common stock and the holders of warrants to purchase 200,000 shares of common stock or their permitted transferees are entitled to rights to register their shares under the Securities Act. These rights are provided under the terms of an agreement between us and the holders of registrable securities. The holders of at least 30% of the registrable securities then outstanding may require, on two occasions beginning after the closing of the initial public offering on October 19, 1999, that we

use our best efforts to register the registrable securities for public resale. If we register any of our securities either for our own account or for the account of other security holders, the holders of registrable securities are entitled to include their shares of common stock in the registration, depending on the ability of the underwriters to limit the number of shares included in the offering. The holders of registrable securities may also require us to register all or a portion of their registrable securities on Form S-3 when use of the form becomes available to us, provided that the proposed aggregate selling price (net of any underwriters' discounts and expenses of sale) is at least \$1.0 million. All registration expenses must be borne by us and all selling expenses relating to registrable securities must be borne by the holders of the securities being registered.

In addition, pursuant to the Registration Rights Agreement by and between us and Raymond R. Shook and Ronald H. Fraser dated February 24, 2000, if, prior to October 19, 2000, we register any securities on our own account or the account of a security holder or holders, PCTEL is obligated to register up to 77,426 shares of common stock held by Mr. Shook and up to 28,009 shares of common stock held by Mr. Fraser. This obligation terminates upon the earlier to occur of (i) October 19, 2000 or (ii) the date we complete one registration where Mr. Shook and Mr. Fraser have the opportunity to register their shares. In addition, Mr. Shook and Mr. Fraser may request that we register all or a portion of their registrable securities on Form S-3 when use of the form becomes available to us, provided that the proposed aggregate selling price (net of any underwriters' discounts and expenses of sale) is at least \$1.0 million.

Delaware Anti-Takeover Law and Charter and Bylaw Provisions

Provisions of Delaware law and our certificate of incorporation and bylaws could make it more difficult to acquire us by means of a tender offer, a proxy contest or otherwise and the removal of incumbent officers and directors. These provisions, summarized below, are expected to discourage types of coercive takeover practices and inadequate takeover bids and to encourage persons seeking to acquire control of us to first negotiate with us. We believe that the benefits of increased protection of our potential ability to negotiate with the proponent of an unfriendly or unsolicited proposed to acquire or restructure us outweigh the disadvantages of discouraging takeover or acquisition proposals because negotiation of these proposals could result in an improvement of their terms.

We must comply with Section 203 of the Delaware General Corporation Law, an anti-takeover law. In general, Section 203 prohibits a publicly held Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a period of three years following the date the person became an interested stockholder, unless the "business combination" or the transaction in which the person became an interested stockholder is permitted under Section 203. Generally, a "business combination" would include a merger, asset or stock sale, or other transaction resulting in a financial benefit to the interested stockholder. An "interested stockholder" would include a person who, together with affiliates and associates, owns (or within three years prior to the determination of interested stockholder status, did own) 15% or more of a corporation's voting stock. The existence of this provision would be expected to have an anti-takeover effect for transactions not approved in advance by the board of directors, including discouraging attempts that might result in a premium over the market price for the shares of common stock held by stockholders.

Our certificate of incorporation and bylaws require that any action required or permitted to be taken by our stockholders must be effected at a duly called annual or special meeting of the stockholders and may not be effected by a consent in writing. In addition, special meetings of our stockholders may be called only by the board of directors or some of our officers. Our certificate of incorporation and bylaws also provide that our board of directors will be divided into three classes, with each class serving staggered three-year terms. These provisions may have the effect of deterring hostile takeovers or delaying changes in control or management of PCTEL.

Transfer Agent and Registrar

The transfer agent and registrar for the common stock is Norwest Bank Minnesota, N.A. Its address is 161 North Concord Exchange, St. Paul, Minnesota, 55075 and its telephone number at this location is (615) 450-4189.

SHARES ELIGIBLE FOR FUTURE SALE

A significant public market for the common stock may not develop or be sustained after this offering. Future sales of substantial amounts of common stock (including shares issued upon exercise of outstanding options and warrants) in the public market following this offering could adversely affect market prices prevailing from time to time and could impair our ability to raise capital through sale of our equity securities. As described below, no shares currently outstanding will be available for sale immediately after this offering because of contractual restrictions on resale. Sales of substantial amounts of our common stock in the public market after the restrictions lapse could adversely affect the prevailing market price and our ability to raise equity capital in the future.

Upon completion of this offering, we will have outstanding 17,360,335 shares of common stock, based on shares outstanding as of December 31, 1999, assuming no exercise of the underwriters' over-allotment option and no exercise of outstanding options or warrants prior to completion of this offering. Of these shares, the 3,400,000 shares to be sold by us and the selling stockholders in this offering and the 5,290,000 shares sold in our initial public offering will be freely tradable in the public market without restriction under the Securities Act, unless the shares are held by "affiliates" of PCTEL, as that term is defined in Rule 144 under the Securities Act.

The remaining 8,670,335 shares outstanding upon completion of this offering will be "restricted securities" as that term is defined under Rule 144. We issued and sold these restricted securities in private transactions in reliance on exemptions from registration under the Securities Act. Restricted securities may be sold in the public market only if they are registered or if they qualify for an exemption from registration under Rule 144 or Rule 701 under the Securities Act. as summarized below.

Pursuant to "lock-up" agreements entered into in connection with our initial public offering in October 1999, all the executive officers, directors and certain stockholders of PCTEL agreed not to dispose of their shares for a period of 180 days following the initial public offering, which period expires on April 17, 2000; provided, however, that Banc of America Securities LLC has the right, in its sole discretion, to release all or any portion of the shares subject to the lock-up agreements at any time and without notice. Most of the executive officers, and all of the directors, 5% stockholders and selling stockholders participating in this offering have entered into additional lock-up agreements under which they have agreed not to offer, sell, contract to sell, grant any option to purchase or otherwise dispose of any shares of our common stock, other than the shares to be sold by these stockholders in this offering, for a period of 90 days from the date of this prospectus. Banc of America Securities LLC may in its sole discretion, at any time without notice, release all or any portion of the shares subject to these lock-up agreements.

Taking into account the lock-up agreements, and assuming Banc of America Securities LLC does not release stockholders from these agreements, the following shares will be eligible for sale in the public market at the following times based on shares outstanding as of December 31, 1999.

- . Prior to this offering, the 5,290,000 shares sold in our initial public offering are eligible for resale in the public market.
- . Upon completion of this offering, the 3,400,000 shares sold in the offering, as well as approximately shares outstanding prior to the offering, will be immediately available for sale in the public market, subject, in certain cases, to volume, manner of sale and other limitations under Rule 144.
- . On April 17, 2000, shares will be eligible for sale upon the expiration of the 180-day lock-up period from the initial public offering, subject in some cases, to volume, manner of sale and other limitations under Rule 144.
- . Approximately shares will be eligible for sale after the completion of this offering and before the 90-day lock-up period expires pursuant to Rule 144, upon satisfaction of the Rule 144 one year holding period.
- . shares will be eligible for sale upon the expiration of the 90-day lock-up period following this offering, subject, in certain cases, to volume, manner of sale and other limitations under Rule 144.
- . After the 90-day lock-up period, approximately shares will be eligible for sale pursuant to Rule 144, upon satisfaction of the Rule 144 one year holding period.

Except as indicated, amounts shown above assume no exercise of outstanding options or warrants.

Following the expiration of the lock-up periods, shares issued upon exercise of options we granted prior to the date of this prospectus will also be available for sale in the public market pursuant to Rule 701 under the Securities Act.

R1110 144

In general, under Rule 144, an affiliate of PCTEL, or person (or persons whose shares are aggregated) who has beneficially owned restricted shares for at least one year, will be entitled to sell in any three-month period a number of shares that does not exceed the greater of:

- . 1% of the then outstanding shares of common stock, or
- . the average weekly trading volume during the four calendar weeks preceding the date on which notice of the sale is filed with the SEC.

Rule 144 also restricts the manner in which securities can be sold. Sales under Rule 144 must also comply with notice requirements and to the availability of current public information about PCTEL.

Rule 144(k)

Under Rule $144\,(k)$, a person who is not considered to have been one of our "affiliates" at any time during the 90 days preceding a sale, and who has beneficially owned the shares proposed to be sold for at least two years, including the holding period of any prior owner other than an "affiliate," is entitled to sell these shares without complying with the manner of sale, notice filing, volume limitation or notice provisions of Rule 144. Therefore, unless otherwise restricted, "144(k) shares" may be sold immediately upon the completion of this offering.

Rule 701

Rule 701 permits resale of shares in reliance upon Rule 144 but without compliance with the holding period requirement, of Rule 144. Any employee, officer or director of or consultant to PCTEL who purchased shares by a written compensatory plan or contract may be entitled to rely on the resale provision of Rule 701. Rule 701 permits affiliates to sell their Rule 701 shares under Rule 144 without complying with the holding period requirements of Rule 144. Rule 701 further provides that non-affiliates may sell these shares in reliance on Rule 144 without having to comply with the holding period, public information, volume limitation or notice provisions of Rule 144.

We are unable to estimate the number of shares that will be sold under Rule 144, as this will depend on the market price for the common stock and the personal circumstances of the sellers.

We intend to file a registration statement on Form S-8 under the Securities Act covering shares of common stock covered by outstanding options under the 1995 stock plan, the 1997 stock plan, the 1998 director option plan and the 1998 employee stock purchase plan on or about April 17, 2000. Based on the number of shares covered by outstanding options as of December 31, 1999 and currently reserved for issuance under the incentive plans, the registration statement would cover approximately 10,693,620 shares. The registration statement will automatically become effective upon filing. Accordingly, shares registered under the registration statement will, after complying with Rule 144 volume limitations applicable to affiliates of PCTEL, be available for sale in the open market immediately after April 17, 2000, 180 days following the initial public offering, or for a period of 90 days from the date of this prospectus if shares are registered under this prospectus.

Registration Rights

Holders of 3,875,200 shares of common stock, as converted, and the holders of warrants to purchase 200,000 shares of common stock, as converted, or their permitted transferees will be entitled to specific rights to register these shares for sale in the public market. See "Description of Capital Stock--Registration Rights." Registration of these shares under the Securities Act would result in these shares becoming freely tradable without restriction under the Securities Act (except for shares purchase by affiliates) immediately upon the effectiveness of the registration.

UNDERWRITING

We are offering the shares of common stock described in this prospectus through a number of underwriters. Banc of America Securities LLC, Warburg Dillon Read LLC, PaineWebber Incorporated and Needham & Company, Inc., are the representatives of the underwriters. We will enter into an underwriting agreement with the representatives. According to the terms and conditions of the underwriting agreement, we have agreed to sell to the underwriters, and each of the underwriters has agreed to purchase, the number of shares of common stock listed next to its name in the following table:

Underwriter	Number of Shares
Banc of America Securities LLC	
Total	
	===

The underwriters initially will offer shares to the public at the price specified on the cover page of this prospectus. The underwriters may allow to some dealers a concession of not more than \$ per share. The underwriters also may allow, and any other dealers may reallow, a concession of not more than \$ per share to some other dealers. If all the shares are not sold at the initial public offering price, the underwriters may change the offering price and the other selling terms. The common stock is offered under a number of conditions, including:

- . receipt and acceptance of our common stock by the underwriters, and
- . the right to reject orders in whole or in part.

We have granted an option to the underwriters to buy up to 510,000 additional shares of common stock. These additional shares would cover sales of shares by the underwriters which exceed the number of shares specified in the table above. The underwriters have 30 days to exercise this option. If the underwriters exercise this option, they will each purchase additional shares approximately in proportion to the amounts specified in the table above.

We, the selling stockholders, our stockholders who beneficially own more than 5% of our common stock and the majority of our officers and directors have entered into lock-up agreements with the underwriters. Under those agreements, we and those holders of stock and options may not dispose of or hedge any common stock or securities convertible into or exchangeable for shares of common stock. These restrictions will be in effect for a period of 90 days after the date of this prospectus. At any time and without notice, Banc of America Securities LLC may, in its sole discretion, release all or some of the securities from these lock-up agreements.

We will indemnify the underwriters against some liabilities, including some liabilities under the Securities Act and the selling stockholders. If we are unable to provide this indemnification, we will contribute to payments the underwriters may be required to make in respect of those liabilities.

The shares of common stock are listed on the Nasdaq National Market under the symbol "PCTI."

In connection with this offering, the underwriters may purchase and sell shares of common stock in the open market. These transactions may include:

- . short sales,
- . stabilizing transactions, and $% \left(1\right) =\left(1\right) \left(1\right)$
- . purchase to cover positions created by short sales.

Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in this offering. Stabilizing transactions consist of bids or purchases made for the purpose of preventing or retarding a decline in the market price of the common stock while this offering is in progress.

The underwriters also may impose a penalty bid. This means that if the representatives purchase shares in the open market in stabilizing transactions or to cover short sales, the representatives can require the underwriters that sold those shares as part of this offering to repay the underwriting discount received by them.

The underwriters may engage in activities that stabilize, maintain or otherwise affect the price of the common stock, including:

- . over-allotment,
- . stabilization,
- . syndicate covering transactions, and
- . imposition of penalty bids.

As a result of these activities, the price of the common stock may be higher than the price that otherwise might exist in the open market. If the underwriters commence these activities, they may discontinue them at any time. The underwriters may carry out these transactions on the Nasdaq National Market, in the over-the-counter market or otherwise.

LEGAL MATTERS

The validity of the common stock offered will be passed upon for us by Wilson Sonsini Goodrich & Rosati, Professional Corporation, Palo Alto, California. Certain legal matters will be passed upon for the underwriters by Brobeck, Phleger & Harrison LLP, San Francisco, California. As of December 31, 1999, members and employees of Wilson Sonsini Goodrich and Rosati, Professional Corporation, beneficially owned an aggregate of 500 shares of our common stock.

EXPERTS

The consolidated financial statements and schedules of PCTEL, Inc. included in this prospectus and elsewhere in the registration statement have been audited by Arthur Andersen LLP, independent public accountants, as indicated in their reports, and are included in reliance upon the authority of said firm as experts in giving said reports.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We filed with the Securities and Exchange Commission, Washington, D.C., a registration statement on Form S-1 under the Securities Act regarding the shares of common stock sold in this offering. This prospectus does not contain all the information in the registration statement and the exhibits and schedules. For further information regarding PCTEL and our common stock, we refer you to the registration statement and to the exhibits and schedules that were filed with the registration statement. Statements contained in this prospectus as to the contents of any contract or other document that is filed as an exhibit to the registration statement are not necessarily complete, and we refer you to the full text of the contract or other document filed as an exhibit to the registration statement. A copy of the registration statement may be inspected by anyone without charge at the Public Reference Section of the Securities and Exchange Commission at Room 1024, Judiciary Plaza, 450 Fifth Street, N.W., Washington, D.C. 0549. Copies of all or any portion of the registration statement may be obtained from the Public Reference Section of the Securities and Exchange Commission, 450 Fifth Street, N.W., Washington, D.C. 20549, upon payment of prescribed fees. The Securities and Exchange Commission maintains a World Wide Web site that contains reports, proxy and information statements and other information regarding registrants that file electronically with the Securities and Exchange Commission. The address of the site is http://www.sec.gov.

PCTEL must comply with the information and periodic reporting requirements of the Securities Exchange Act of 1934, and, according to the requirements of the Securities Exchange Act of 1934, will file periodic reports, proxy statements and other information with the Securities and Exchange Commission. These periodic reports, proxy statements and other information will be available for inspection and copying at the regional offices, public reference facilities and web site of the Securities and Exchange Commission referred to above.

PCTEL, INC.

INDEX TO THE CONSOLIDATED FINANCIAL STATEMENTS

Report of Independent Public Accountants	F-2
Consolidated Balance Sheets as of December 31, 1999 and December 31,	
1998	F-3
Consolidated Statements of Operations for the years ended December 31,	
1999, 1998 and 1997	F-4
Consolidated Statements of Stockholders' Equity for the years ended	
December 31, 1999, 1998 and 1997	F-5
Consolidated Statements of Cash Flows for the years ended December 31,	
1999, 1998 and 1997	
Notes to the Consolidated Financial Statements	F/

REPORT OF INDEPENDENT PUBLIC ACCOUNTANTS

To PCTEL, Inc.:

We have audited the accompanying consolidated balance sheets of PCTEL, Inc. (a Delaware corporation) and subsidiaries (the "Company") as of December 31, 1999 and 1998 and the related consolidated statements of operations, stockholders' equity and cash flows for each of the three years in the period ended December 31, 1999. 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 in accordance with auditing standards generally accepted in the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of PCTEL, Inc. and subsidiaries as of December 31, 1999 and 1998, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 1999 in conformity with accounting principles generally accepted in the United States.

/s/ ARTHUR ANDERSEN LLP

San Jose, California January 24, 2000

PCTEL, INC.

CONSOLIDATED BALANCE SHEETS (in thousands, except share and per share data)

	Decembe	r 31,
	1999	
ASSETS CURRENT ASSETS:		
Cash and cash equivalents		\$12 , 988
of \$2,213 and \$748, respectively	6,555	12,931
Inventories	5,741	2,073
Prepaid expenses and other assets	2,422	264
Deferred tax asset	3,211	1,903
Total current assets	116,219	30,159
PROPERTY AND EQUIPMENT, net	3,099	1,042
GOODWILL AND OTHER INTANGIBLE ASSETS, net	8,649	10,812
DEFERRED TAX ASSET	2,365	2,302
OTHER ASSETS	273	1,681
TOTAL ASSETS	\$130,605	\$45,996
	======	======
LIABILITIES AND STOCKHOLDERS' EQUITY		
CURRENT LIABILITIES:		
Current portion of long-term debt	\$	\$ 1,640
Accounts payable	7,140	5,155
Accrued royalties	7,868	5,144
Income taxes payable	3,290	1,207
Accrued liabilities	.,	3,002
Motal gurrent lighilities	26 227	16 140
Total current liabilities	20,321	
LONG-TERM DEBT, net of current portion		14,709
COMMITMENTS AND CONTINGENCIES (Notes 8 and 9)		
STOCKHOLDERS' EQUITY: Preferred stock, \$0.001 par value, 5,000,000 shares authorized, 0 and 8,510,748 shares issued and outstanding as of December 31, 1999 and 1998, respectively		9
Common stock, \$0.001 par value, 50,000,000 shares		
authorized, 16,560,335 and 2,412,247 shares issued and		
outstanding at December 31, 1999 and 1998, respectively	17	2
Additional paid-in capital	99,334	
Deferred compensation	(4,856)	
Retained earnings	9,849	4,427
Accumulated other comprehensive loss	(66)	
Total stockholders' equity		15 , 139
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	\$130,605	\$45,996

CONSOLIDATED STATEMENTS OF OPERATIONS (in thousands, except per share data)

	Year Ended December 31,			
		1998		
REVENUESCOST OF REVENUES	\$76,293 39,428	13,878	\$24,009 12,924	
GROSS PROFIT		19,126	11,085	
OPERATING EXPENSES: Research and development	10,317 10,523 5,459 790	4,932 5,624 2,169 6,130 43	3,348 3,168 1,612 	
Total operating expenses	27 , 089		8,128	
INCOME FROM OPERATIONS		228	2 , 957	
OTHER INCOME (EXPENSE), NET: Interest expense	(1,449) 1,720	504	299	
Total other income (expense), net		479	299	
INCOME BEFORE PROVISION FOR INCOME TAXES AND EXTRAORDINARY LOSS	10,047	707		
PROVISION FOR INCOME TAXES	3,014	212	955	
NET INCOME BEFORE EXTRAORDINARY LOSS Extraordinary loss, net of income taxes (Note 4)	7,033 (1,611)		2,301	
NET INCOME	\$ 5,422 ======	\$ 495 =====	\$ 2,301 ======	
Basic earnings per share before extraordinary loss Basic earnings per share after extraordinary loss Shares used in computing basic earnings per share Diluted earnings per share before extraordinary	\$ 1.33 \$ 1.03 5,287	\$ 0.21 2,355	\$ 1.13 2,032	
lossDiluted earnings per share after extraordinary	\$ 0.48	\$ 0.04	\$ 0.20	
lossShares used in computing diluted earnings per share	\$ 0.37 14,666	12,325	11,645	

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

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY (in thousands, except share and per share amounts)

	Preferred		Common S		Additional Paid-In		Retained	Accumulated Other Comprehensive	
	Shares	Amount			Capital	Compensation			Total
BALANCE, DECEMBER 31,									
1996	7,885,548	\$ 8	1,454,999	\$ 1	\$ 5,049	\$	\$1,631	\$	\$ 6,689
\$406 Issuance of common stock on exercise of	625,200	1			4,595				4,596
stock options			753 , 991 	1	23 		 2,301		24 2,301
BALANCE, DECEMBER 31,									
1997	8,510,748	9	2,208,990	2	9,667		3,932		13,610
preferred stock Deferred compensation for stock option					(44)				(44)
grantsAmortization of					257	(257)			
deferred compensation Issuance of common stock on exercise of						43			43
stock options Issuance of Series C convertible stock			203,257		34				34
warrants in conjunction with notes payable Cost incurred related to initial public					1,350				1,350
offering					(349)				(349)
Net income							495		495
BALANCE, DECEMBER 31,									
1998 Deferred compensation for stock option	8,510,748	9	2,412,247	2	10,915	(214)	4,427		15 , 139
grants of					5,432	(5,432)			
deferred compensation Issuance of common						790			790
stock from initial public offering, net Issuance of common			5,290,000	6	82,489				82,495
stock on exercise of stock options			345,986		399				399
Conversion of preferred stock to common stock Issuance of common	(8,510,748)	(9)	8,510,748	9					
stock from warrant exercises			1,354		11				11
Grant of stock options to non-employees Net income					88		 5,422		88 5,422
Change in unrealized loss on available-for-							0,122		
sale securities								(66) 	(66)
BALANCE, DECEMBER 31, 1999		\$ ===	16,560,335		\$99 , 334	\$(4,856) ======	\$9,849 =====	\$ (66) ====	\$104 , 278
	=								

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

$\begin{array}{c} {\tt CONSOLIDATED} \ {\tt STATEMENTS} \ {\tt OF} \ {\tt CASH} \ {\tt FLOWS} \\ {\tt (in thousands)} \end{array}$

		ded Decemb	er 31,
	1999	1998	1997
CASH FLOWS FROM OPERATING ACTIVITIES: Net income			
provided by operating activities: Acquired in-process research and development Depreciation and amortization Amortization of deferred charge	2,835 1,550	303	193
Provision for allowance for doubtful accounts Provision for excess and obsolete inventories Increase in deferred tax asset Amortization of deferred compensation Grant of stock options to non-employee Changes in operating assets and liabilities, net	1,674 1,121 (1,371) 790 88	330 (1,525 43	488 5) (191) 3
of acquisitions: (Increase) decrease in accounts receivable (Increase) decrease in inventories (Increase) decrease in prepaid expenses and	4,702 (4,789)		(4,263) (2) 869
other assets	1,985 2,724	3,578 (1,361	(975) (30) (3) (3,974) (2,532) (49)
Net cash provided by operating activities	21,541	2,719	917
CASH FLOWS FROM INVESTING ACTIVITIES: Capital expenditures for property and equipment Purchase of Communications Systems Division, net of cash acquired	(2,729)) (512	
Proceeds from sale of available-for-sale investments Purchase of available-for-sale investments			1,003
Net cash provided by (used in) investing activities	(56,380)	(17,344	576
CASH FLOWS FROM FINANCING ACTIVITIES: Principal payments on capital lease obligations Proceeds from notes payable Principal payments on notes payable Proceeds from issuance of preferred stock Costs incurred related to issuance of preferred	(36) (16,313)) (28 16,313	(11) 3
stock Proceeds from issuance of common stock Costs incurred related to initial public	 84,045	34	
offering Net cash provided by (used in) financing			9)
activities		20,928	(393)
Net increase in cash and cash equivalents CASH AND CASH EQUIVALENTS, beginning of year	12 , 988	6 , 685	1,100 5,585
CASH AND CASH EQUIVALENTS, end of year	\$ 44,705	\$ 12,988	
SUPPLEMENTAL CASH FLOW INFORMATION: Cash paid for interest Cash paid for income taxes Property and equipment acquired under capital	\$ 1,449		5 \$
leases Issuance of warrants for preferred and common	\$	\$	- \$ 67
stock Increases to deferred compensation	\$ \$ 5,432		

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

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

DECEMBER 31, 1999

1. ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES:

Organization and Operations of the Company

PCTEL was originally incorporated in California in February 1994. In July 1998, the Company reincorporated in Delaware and this reincorporation has been reflected retroactively in the accompanying consolidated financial statements. We are a leading provider of software based high speed connectivity solutions to individuals and businesses worldwide. We design, develop, produce and market advanced software-based high performance, low cost modems that are flexible and upgradable, with functionality that can include data/fax transmission at various speeds, and telephony features. Our host signal processing software architecture utilizes the host PC's central processing unit to perform digital signal processing and other operations typically handled by dedicated hardware found in conventional hardware-based modems. Our host signal processing technology allows the elimination of this dedicated hardware, lowering costs and enhancing capabilities.

Use of Estimates

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

Consolidation and Foreign Currency Translation

PCTEL uses the United States dollar for all its financial statements, even for our subsidiaries in foreign countries. In formal terms we refer to this use of the US dollar as the functional currency, and accordingly, all gains and losses resulting from transactions originally in foreign currencies and then translated into US dollars are included in net income. As of December 31, 1999, PCTEL had subsidiaries in the Cayman Islands and Japan. These consolidated financial statements include the accounts of PCTEL and our subsidiaries after eliminating intercompany accounts and transactions.

Cash Equivalents and Short-Term Investments

We divide our financial instruments into two different classifications:

Cash equivalents:

are debt instruments that mature within three months after we purchase them. $\,$

Short-term investments:

are marketable debt instruments that generally mature between three months and two years from the date we purchase them. All of our short-term investments are classified as current assets and available-for-sale because they are marketable and we have the option to sell them before they mature.

As of December 31, 1999, short-term investments consisted of high-grade corporate securities with maturity dates of approximately five months to two years.

These investments are recorded at market price and any unrealized holding gains and losses (based on the difference between market price and book value) are reflected as other comprehensive income/loss in the stockholders' equity section of the balance sheet. We recorded a \$66,000 unrealized holding loss in

1999. Realized gains and losses and declines in value of securities judged to be other than temporary are included in interest income and have not been significant to date. Interest and dividends of all securities are included in interest income.

Concentrations of Credit Risk

We have potential credit risk primarily in two areas, our short-term investments and trade receivables.

Our investment policy is to preserve the value of our capital and generate interest income from these investments without undue exposure to risk. Market risk is the potential loss due to the change in value of a financial instrument due to interest rates or equity prices. The Company tries to moderate this risk in two ways. First, the Company's investment portfolio is divided between Banc of America Securities and Salomon Smith Barney. By using two independent investment banking firms the Company believes it has improved market visibility. Secondly, the Company independently reviews market pricing on a periodic basis based upon directly managing a limited amount of funds it uses for operations which are not managed by its funds' managers.

For trade receivables, credit risk is the potential for a loss due to a customer not meeting its payment obligations. We have established an allowance for amounts which we may not be able to collect based on industry standards and actual payment history. We moderate this risk by establishing and reviewing credit limits, monitoring those limits and making updates as required. See note 10 for industry segment, customer and geographic information.

Inventories

Inventories are stated at the lower of cost or market and include material, labor and overhead costs. Inventories for 1999 and 1998 were composed of finished goods only. Based on our current estimated requirements, it was determined that there was excess inventory and those excess amounts were fully reserved as of December 31, 1999 and 1998. Due to competitive pressures and technological innovation, it is possible that these estimates could change in the near term.

Property and Equipment

Property and equipment are stated at cost and are depreciated using the straight-line method over the estimated useful lives (three to seven years) of the assets. Leasehold improvements are amortized over the corresponding lease term.

Property and equipment consists of the following (in thousands):

	Decembe	- ,
	1999	1998
Computer and office equipment	391	\$1,296 264 55
Total property and equipment		
Property and equipment, net	\$ 3,099	\$1,042 =====

Software Development Costs

We account for software development costs in accordance with Statement of Financial Accounting Standards ("SFAS") No. 86, "Accounting for the Costs of Computer Software to be Sold, Leased or Otherwise Marketed." Our products include a software component. To date, we have expensed all software development costs because these costs were incurred prior to the products reaching technological feasibility.

Revenue Recognition

Revenues consist primarily of sales of products to original equipment manufacturers ("OEMs") and distributors. Revenues from sales to OEMs are recognized upon shipment. We provide for estimated sales returns and allowances related to sales to OEMs at the time of shipment. Revenues from sales to distributors are made under agreements allowing price protection and rights of return on unsold products. In the fourth quarter of 1998, we began to record revenue relating to sales to distributors only when the distributors have sold the product to the end user. Prior to this change, PCTEL recognized revenues upon shipment to distributors net of reserves for estimated returns and price protection arrangements. While our previous method of accounting was in accordance with generally accepted accounting principles, we believe that the new method is preferable. In the opinion of management, the new revenue recognition method better reflects the economics of the transaction and provides a better measure of operating results. In accordance with Accounting Principles Board Opinion ("APB") No. 20, "Accounting Changes", the cumulative effect of changing our revenue recognition policies related to sales to distributors was not material to our financial statements.

We also generate revenues from engineering contracts. Revenues from engineering contracts are recognized as contract milestones are achieved. Royalty revenue is recognized when confirmation of royalties due to PCTEL is received from licensees.

Stock-Based Compensation

We account for stock-based awards to employees in accordance with APB No. 25, "Accounting for Stock Issued to Employees". We have adopted the disclosure-only alternative of SFAS No. 123, "Accounting for Stock-Based Compensation". Under APB No. 25, if the exercise price of our employee stock options equals or exceeds the fair value of the underlying stock on the date of grant, no compensation expense is recognized. However, if the stock option price is less than fair market value a stock based compensation charge is required. We recorded a deferred compensation charge for options granted below fair market value before our Initial Public Offering ("IPO") and have also included the proforma disclosures required under SFAS No. 123 in Note 7.

Earnings Per Share

We compute earnings per share in accordance with SFAS No. 128, "Earnings Per Share". SFAS No. 128 requires companies to compute net income per share under two different methods, basic and diluted, and present per share data for all periods in which a statement of operations is presented. Basic earnings per share is computed by dividing net income by the weighted average number of shares of common stock outstanding. Diluted earnings per share is computed by dividing net income by the weighted average number of common stock and common stock equivalents outstanding. Common stock equivalents consist of preferred stock using the "if converted" method and stock options and warrants using the treasury stock method. Preferred stock, common stock options and warrants are excluded from the computation of diluted earnings per share if their effect is anti-dilutive.

Based on SEC Staff Accounting Bulletin No. 98, preferred and common stock issued or granted for below fair market value (nominal consideration) prior to the IPO must be included in the earnings per share calculation as if they had been outstanding the entire period. We have never issued or granted this type of stock.

The following table provides a reconciliation of the numerators and denominators used in calculating basic and diluted earnings per share for the years ended December 31, 1999, 1998, and 1997, respectively (in thousands, except per share data):

	Year Ended December 31,		
		1998	
Net income		\$ 495	•
Basic earnings per share:			
Weighted average common shares outstanding		2,355	
Basic earnings per share	\$ 1.03	\$ 0.21	\$ 1.13
Diluted earnings per share:	=====	=====	=====
Weighted average common shares outstanding Weighted average common stock option grants and	5 , 287	2,355	2,032
outstanding warrants			
Weighted average preferred stock outstanding		8,452	
Weighted average common shares and common stock			
equivalents outstanding	-	12,325	-
Diluted earnings per share			
	=====	=====	=====

Accounting for Impairment of Long-Lived Assets

We assess the need to record impairment losses on long-lived assets used in operations when indicators of impairment are present. On an on-going basis, we review the value and period of amortization or depreciation of long-lived assets, including costs in excess of net assets of businesses acquired. During this review, the significant assumptions used in determining the original cost of long-lived assets are reevaluated. Although the assumptions may vary from transaction to transaction, they generally include revenue growth, operating results, cash flows and other indicators of value. We then determine whether there has been a permanent impairment of the value of long-lived assets by comparing future estimated undiscounted cash flows to the asset's carrying value. If the estimated future undiscounted cash flows exceed the carrying value of the asset, a loss is recorded as the excess of the asset's carrying value over fair value. To date, we have not needed to record any impairment losses on long-lived assets.

Comprehensive Income

Effective January 1, 1998, we adopted SFAS No. 130 "Reporting Comprehensive Income." Comprehensive income is to include amounts that have been previously excluded from net income and reflected instead in stockholders' equity. For the year ended December 31, 1999, comprehensive income is \$5.4 million which includes an unrealized holding loss of \$66,000 related to available-for-sale investments. For the years ended December 31, 1998 and 1997, comprehensive income is the same as reported net income.

Recent Accounting Pronouncements

In March 1998, the American Institute of Certified Public Accountants issued Statement of Position ("SOP") No. 98-1 "Accounting for the Costs of Computer Software Developed or Obtained for Internal use," which we adopted in fiscal 1999. SOP No. 98-1 requires entities to capitalize certain costs related to internal-use software once certain criteria has been met. The adoption did not have a material impact on PCTEL's financial position or results of operations.

In April 1998, the American Institute of Certified Public Accountants issued SOP No. 98-5 "Reporting on the Costs of Start-Up Activities," which we adopted in 1999. It requires that all start-up costs related to new operations must be expensed as incurred. In addition, all start-up costs that we previously capitalized must be written off when SOP No. 98-5 is adopted. The adoption did not have a material impact on our financial position or results of operations.

In June 1998, the Financial Accounting Standards Board issued SFAS No. 133 "Accounting for Derivative Instruments and Hedging Activities," which requires certain accounting and reporting standards for derivative financial instruments and hedging activities. It applies for the first quarter beginning January 1, 2001. Because we do not currently hold any derivative instruments and do not engage in hedging activities, we do not believe that the adoption of SFAS No. 133, as amended, will have a material effect on our financial position or results of operations.

In December 1999, the Securities and Exchange Commission issued Staff Accounting Bulletin ("SAB") No. 101, "Revenue Recognition". SAB 101 summarizes certain areas of the Staff's views in applying generally accepted accounting principles to revenue recognition in financial statements. PCTEL believes that its current revenue recognition policies comply with SAB 101.

Risks and Uncertainties

For the years ended December 31, 1999 and 1998, we purchased integrated circuits from a limited number of vendors. If these vendors are unable to provide integrated circuits in a timely manner and we are unable to find alternative vendors, our business, operating results and financial condition could be adversely affected.

The majority of PCTEL's revenues are derived from a limited number of products utilizing host signal processing technology. The market for these products is characterized by frequent transitions in which products rapidly incorporate new features and performance standards. A failure to develop products with required feature sets or performance standards or a delay in bringing a new product to market could adversely affect our operating results.

Reclassifications

Certain amounts in prior years have been reclassified to conform with the current year presentation.

2. SHORT-TERM INVESTMENTS:

We invest in high quality, short-term investments, which we classify as available-for-sale. There were no significant differences between amortized cost and estimated fair value at December 31, 1999 and 1998. The following table presents the estimated fair value breakdown of investment securities by major security type (in thousands):

	December	r 31,
	1999	
Commercial paper		
U.S. Government obligations		
Total short-term investments	\$53,585	\$

As of December 31, 1999, \$29.9 million have maturity dates of less than one year and \$23.7 million have maturity dates of one to five years.

3. ACQUISITIONS:

Communications Systems Division

On December 22, 1998, we acquired substantially all of the assets and assumed certain of the liabilities of Communications Systems Division ("CSD"), a division of General DataComm, Inc., for a total purchase price of approximately \$17 million. We borrowed \$16.3 million (Note 4) from a bank to pay for the entity and recorded the transaction under the purchase method of accounting. Under this method, if the purchase price exceeds the net tangible assets acquired, the difference is recorded as excess purchase price. In this circumstance, that amount was \$16.8 million. We attributed \$6.1 million of the excess purchase price to in-process research and development, which we expensed immediately and the balance of \$10.7 was attributed to patents and intellectual property (\$8.7 million), work force (\$1.3 million) and goodwill (\$0.7 million). We have classified this balance of \$10.7 million as Goodwill and Other Intangible Assets, net in the accompanying consolidated balance sheets and are amortizing it over useful lives of five years on a weighted average basis. We have included the results of CSD from the date of acquisition to December 31, 1999 in these financial statements.

Upon completion of the CSD acquisition, the Company immediately expensed \$6.1 million representing purchased in-process technology that had not yet reached technological feasibility and had no alternative future use. The \$6.1 million expensed as in-process research and development represented 37% of the purchase price and was attributed and supported by a discounted probable cash flow analysis that identified revenue on a project by project basis. The following three in-process projects existed at CSD as of the acquisition date: HIDRA (High Density Remote Access System), Industrial Modems, and xDSL (Digital Subscriber Line) project. The value assigned to purchased in-process technology, based on a percentage of completion discounted cash flow method, was determined by identifying research projects in areas for which technological feasibility has not been established.

Approximately \$8.7 million, 53% of the purchase price, was attributed to core technology and existing patented technology, related to the portfolio of patents that address the v.34 (33.6 Kbs) and v.90 (56 Kbs) international modem standards set by the International Telecommunications Union ("ITU"). The portfolio is comprised of over 36 patents and filings, including four v.34 patents and two v.90 patents, which are required by the ITU standard, and three v.90 patents considered very important in the manufacture of the v.90 modem.

The value was determined by estimating the costs to develop the purchased in-process technology into commercially viable products, estimating the resulting net cash flows from such projects and discounting the net cash flows back to their present value. Approximately 69% of the in-process research and development value was attributed to the HIDRA project, which is focused on increasing the number of modems within the RAS (Remote Access Server). This technology will represent a migration of the single and dual DSP (Digital Signal Processing) platforms to enable higher density modems for central site applications. Specifically, CSD is working to create three modem ports on each DSP through the use of software. The xDSL (digital subscriber line), which represents 28% of the in-process research and development value, will encompass a variety of DSL systems covering speeds from 53 Mbps down to 128 Kbps. Similar to the HIDRA concept, CSD was working on an xDSL product technology that will allow more than one DSL modem per DSP chip, thus attempting to optimize transmission speeds. Industrial Modems, which represents approximately 3% of the in-process research and development value, is an offshoot of the HIDRA project. Based on the same architectural foundation as the HIDRA, Industrial Modems are targeted at the industrial market for use in transmitting updated information to and from remote sites.

The discount rate includes a risk adjusted discount rate to take into account the uncertainty surrounding the successful development of the purchased in-process technology. The risk-adjusted discount rate applied to

the projects' cash flows was 18% for existing technology and 24% for the inprocess technology. Based upon assessment of each in-process project's development stage, including relative difficulty of remaining development milestones, it was determined that application of a 24% discount rate was appropriate for all three acquired in-process projects. The valuation includes cash inflows from in-process technology through 2002 with revenues commencing in 1999 and increasing significantly in 2000 before declining in 2002. A royalty payment of 3% was assumed from in-process technology to existing technology, based on management's estimate of a patent license rate. The High Density Remote Access System and industrial modem projects were approximately 56% complete at the time of the valuation and the expected timeframe for achieving these product releases was assumed to be in the second half of 1999. The DSL project was approximately 56% complete at the time of the valuation and the expected time frame for achieving this product release is assumed to be in 2000. The percentage complete calculations for all projects were estimated based on research and development expenses incurred to date and management estimates of remaining development costs. Significant remaining development efforts were to be completed in the next 6 to 18 months in order for CSD's projects to become implemented in a commercially viable timeframe. Management's cash flow and other assumptions utilized at the time of acquisition do not materially differ from historical pricing/licensing, margin, and expense levels of the CSD group prior to acquisition.

If these projects are not successfully developed, the Company's future revenue and profitability may be adversely affected. Additionally, the value of other intangible assets acquired may become impaired.

The unaudited pro forma financial information for the years ended December 31, 1998 and 1997 is presented below (in thousands except per share data) as if CSD had been acquired on January 1, 1997. Pro forma net income excludes the write-off of acquired in-process research and development of \$6.1 million.

	Year Ended	
	1998	1997
Revenues Net income Diluted net income per share	\$ 2,978	\$ 2,272

4. NOTES PAYABLE:

On December 22, 1998, in conjunction with the CSD acquisition, PCTEL and one of its wholly owned subsidiaries each entered into a note payable arrangement ("the Notes") with a bank. The two Notes were for a total of \$16.3 million. These Notes bore interest at the bank's prime interest rate plus 0.5% and were subject to certain financial and non-financial covenants and a prepayment penalty during the first 3 years of their terms. We were required to provide the bank with a primary security interest in all of our assets and we issued a warrant to the bank to purchase 200,000 shares of Series C preferred stock at \$8.00 per share which was converted to a warrant to purchase common stock at the time of the IPO. This warrant expires December 2008.

The warrant was immediately exercisable and expired ten years from the date of issuance. The warrant's fair value as of the date issued was approximately \$1.4 million using the Black-Scholes option pricing model. We recorded that amount as a deferred charge to be amortized over the term of the Notes.

On October 25, 1999, following the Company's IPO, we used \$15.5 million of the offering proceeds to repay the Notes. The total payment of \$15.5 million included \$15.0 million of principal, \$74,000 of accrued

interest and a \$450,000 prepayment penalty. As a result of the early extinguishment of debt, we recorded the unamortized portion of the deferred charge relating to the issuance of the warrants discussed above and the prepayment penalty as an extraordinary loss, net of taxes.

5. PREFERRED STOCK:

Our Series A convertible preferred stock ("Series A"), Series B convertible preferred stock ("Series B") and Series C convertible preferred stock ("Series C") consist of the following, net of issuance costs (dollars in thousands):

December

	31	
	1999	1998
Series A: \$0.001 par value; Authorized4,635,548 Outstanding0, 4,635,548 and 4,635,548, shares, respectively; liquidation preference of \$1,113	\$	\$ 5
Series B: \$0.001 par value; Authorized3,250,000 Outstanding0, 3,250,000 and 3,250,000 shares, respectively; liquidation preference of \$3,900		3
Series C: \$0.001 par value; Authorized1,500,000 Outstanding or Subscribed0, 625,200 and 625,200 shares,		_
respectively; liquidation preference of \$5,002	 \$ ====	1 \$ 9 ===

Following the closing of our IPO in October 1999, all 8,510,748 shares of the Series A, B, and C convertible preferred stock were automatically converted into 8,510,748 shares of common stock. As of December 31, 1999, our board of directors has the authority to issue up to 5,000,000 shares of preferred stock in one or more series. The board of directors can fix the price, rights, preferences, privileges and restrictions of this preferred stock.

6. INCOME TAXES:

We utilize the liability method of accounting for income taxes in accordance with SFAS No. 109 "Accounting for Income Taxes". Under this method, deferred taxes are determined based on the differences between the financial statement and tax bases of assets and liabilities using enacted tax rates.

The domestic and foreign components of our income before provision for income taxes were as follows (in thousands):

	Year Ended December 31,		
	1999	1998	1997
Domestic			
	\$10,047	\$ 707 =====	\$3,256 =====

Our provision for income taxes consisted of the following (in thousands):

	Year Ended December 31,		
		1998 	1997
Current:			
Federal	\$4,039	\$1,188	\$ 827
State			
Other			82
	4,385	1,737	1,146
Deferred (Benefit):			
Federal	(1,213)	(942)	(240)
State	(158)	(583)	49
	(1,371)	(1,525)	(191)
	\$3,014	\$ 212	\$ 955
	=====	=====	=====

A reconciliation of the provision for income taxes at the Federal statutory rate compared to our effective tax rate is as follows (in thousands):

	Year Ended December 31,		
	1999	1998	1997
	*0 546	40.45	** ***
Provision at Federal statutory rate	-		\$1 , 140 95
Foreign taxes in excess of statutory rate			82 (224)
Other	(/	183	(138)
	\$3,014	\$212	\$ 955
	======	====	=====

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Our net deferred tax asset consists of the following (in thousands):

	December 31,	
	1999	1998
Accrued royalties	\$ 990	\$1,152
Inventory reserve	206	262
Other cumulative temporary differences	1,964	489
Deferred amortization of purchased assets	2,416	2,302
	\$5 , 576	\$4,205
	======	=====

Other cumulative temporary differences consist of items currently deductible for financial reporting purposes, but not for tax purposes. These items are primarily estimated reserves and accruals. The realization of the deferred tax asset is dependent on generating sufficient taxable income in future years. Although realization is not assured, we believe it is more likely than not that all of the deferred tax asset will be realized. The amount of the deferred tax asset considered realizable, however, could be reduced in the near term if estimates of future taxable income during future years are reduced.

7. COMMON STOCK:

Initial Public Offering

On October 19,1999, PCTEL completed its IPO of common stock. A total of 5,290,000 shares were sold at a price of \$17.00 per share (including the exercise of the underwriters' over-allotment option of 690,000 shares). We received net proceeds of approximately \$82.5 million. Upon closing of the offering, all outstanding shares of convertible preferred stock were automatically converted into 8,510,748 shares of common stock.

Common Stock Reserved for Future Issuance

As of December 31, 1999, we had reserved shares of common stock for future issuance as follows:

Stock options under 1995 and 1997 Stock Option Plans	5,941,767
Director Option Plan and Employee Stock Purchase Plan	1,000,000
Common stock warrants	201,063
Total shares reserved	7,142,830
	========

Stock Option Plans

We have two stock option plans, the 1995 Stock Option Plan ("1995 Plan") and the 1997 Stock Option Plan ("1997 Plan"). Under both Plans, the Board of Directors may grant to employees and consultants options and/or purchase rights to purchase our common stock at terms and prices determined by the Board of Directors. We have under the 1995 Plan 3,200,000 of authorized shares that we can issue. As of December 31, 1999, of the total 3,200,000 shares authorized for issuance, we have remaining 152,673 shares that we can grant under the 1995 Plan. We have under the 1997 Plan 5,500,000 of authorized shares that we can issue. As of December 31, 1999, of the total 5,500,000 shares authorized for issuance, we have remaining 1,343,572 shares that we can grant under the 1997 Plan.

In August 1999, the Board of Directors and our stockholders approved an amendment and restatement of the 1997 Plan and approved an additional increase in the number of authorized shares we can issue under the 1997 Plan to 5,500,000 shares of common stock. We will further increase annually the number of authorized shares we can issue under the 1997 Plan by an amount equal to the lesser of (i) 700,000 shares, (ii) 4% of the outstanding shares on such date or (iii) a lesser amount determined by the Board of Directors. The exercise price and vesting of all grants are to be determined by the Board of Directors. The exercise price of incentive stock options cannot be less than the fair market value of the common stock on the grant date. The Stock Plan Committee, a committee within the Board of Directors, determined the fair market value of our common stock prior to our IPO. In determining the fair market value of our common stock, the Stock Plan Committee in each case took into consideration a number of factors, including our operating results and financial condition at the time of each stock option grant, key developments affecting our business and, where relevant, the most recent price of our preferred stock in connection with financing transactions with independent investors. Options granted under the 1997 Plan expire 10 years from the date of grant. The 1997 Plan will terminate in 2007.

Nonqualified options granted under the 1995 Plan and 1997 Plan must be issued at a price equal to at least 85% of the fair market value of our common stock at the date of grant. The options may be exercised at any time within ten years of the date of grant or within ninety days of termination of employment, or such shorter time as may be provided in the stock option agreement, and vest over a vesting schedule determined by the Board of Directors.

1998 Director Option Plan ("Directors Plan")

Our Directors Plan became effective following our IPO in October 1999. We have reserved a total of 200,000 shares of common stock that we can issue under our Directors Plan. Under our 1998 Directors Plan any new non-employee director elected to the Board of Directors automatically receives a grant of 15,000 shares of common stock. The 15,000 share options will vest one-third as of each anniversary of its date of grant until the option is fully vested, provided that the optionee continues to serve as a director on such dates. After the initial 15,000 share option is granted to the non-employee director, he or she shall automatically be granted an option to purchase 7,500 shares each year on January 1, if on such date he or she shall have served on the Board of Directors for at least six months. The 7,500 share options shall vest completely on the anniversary of their date of grant, provided that the optionee continues to serve as a director on such dates. All of the options granted under our 1998 Directors Plan have a term of 10 years. The exercise price of all options is 100% of the fair market value per share of the common stock, generally determined with reference to the closing price of the common stock as reported on the Nasdaq National Market on the date of grant.

Employee Stock Purchase Plan ("Purchase Plan")

In May 1998, we reserved a total of 800,000 shares of common stock for future issuance under our Purchase Plan, plus annual increases equal to the lesser of (i) 350,000 shares (ii) 2% of the outstanding shares on such date or (iii) a lesser amount determined by the Board of Directors. Our Purchase Plan will enable eligible employees to purchase common stock at the lower of 85% of the fair market value of our common stock on the first or last day of each sixmonth offering period. The first offering period began on October 19, 1999 following the initial public offering. The Purchase Plan will terminate in 2008.

Deferred Compensation

In connection with the grant of certain stock options to employees during the years ended December 31, 1999 and December 31, 1998, we recorded deferred compensation of \$5.4 million and \$257,000, respectively, representing the difference between the estimated fair value of the common stock for accounting purposes and the option exercise price of such options at the date of grant. Such amount is presented as a reduction of stockholders' equity and is amortized ratably over the four year vesting period of the applicable options. The amortization expense relates to options awarded to employees in all operating expense categories. However, the amortization of deferred compensation has not been separately allocated to these categories. The amount of deferred compensation expense to be recorded in future periods could decrease if options for which accrued but unvested compensation has been recorded are forfeited.

Valuation of Stock Options

Under SFAS No. 123 we are required to present pro forma information regarding net income and net income per share as if we had accounted for our stock options under the fair value method. The fair value for the stock options was estimated at the date of grant using the Black-Scholes option pricing model with the following assumptions for fiscal years 1999, 1998 and 1997: risk-free interest rates in the range of 4.7% to 6.5%; dividend yields of zero; an estimated volatility factor of the market price of the Company's common stock in the range of 40% to 75%; and an expected life between three to six months after vest date. The weighted-average estimated fair value of options granted during fiscal 1999, 1998 and 1997 was \$6.88, \$3.43 and \$2.32 per share, respectively.

The Black-Scholes option valuation model was developed for use in estimating the fair value of traded options, which have no vesting restrictions and are fully transferable. In addition, option valuation models require the input of highly subjective assumptions including the expected stock price volatility and expected

PCTEL, INC.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS -- (Continued)

option life. Because our employee stock options have characteristics significantly different from those of traded options, and because changes in the subjective input assumptions can materially affect the fair value estimate, in our opinion, the existing models do not necessarily provide a reliable single measure of the fair value of our employee stock options.

For purposes of pro forma disclosures, the estimated fair value of the options is amortized to expense over the option vesting periods. Our pro forma net income (loss) would have been approximately \$1.6 million, \$(984,000) and \$2.0 million for fiscal years 1999, 1998 and 1997, respectively. Pro forma diluted net income (loss) per share would have been \$0.11, \$(0.42) and \$0.17 for fiscal years 1999, 1998 and 1997, respectively. The following table summarizes stock option activity under the 1995 Plan and 1997 Plan:

		Options Outstanding	
	Options Available		Weighted Average Exercise Price
Balance, December 31, 1996 Authorized	1,500,000 (1,172,830) 	1,172,830 (753,991)	\$ 2.32 \$ 0.03
Balance, December 31, 1997	2,000,000 (1,393,900) 	 1,393,900 (203,257)	\$ 1.36 \$ 8.13 \$ 0.17
Balance, December 31, 1998 Authorized Granted Exercised Forfeited	2,000,000 (1,818,492)	 1,818,492 (345,986)	\$12.11 \$ 1.15
Balance, December 31, 1999	1,496,245	4,445,522	

		Options Out	tstanding	Options Exe	rcisable
Range of Exercise Prices	Number Outstanding at December 31, 1999	Weighted-Average Remaining Contractual Life	Average	Number Exercisable December 31, 1999	Weighted- Average Exercise Price
\$0.02-\$0.48	738,047	6.54	\$ 0.31	588,110	\$ 0.29
\$1.25-\$7.00	652 , 979	7.56	\$ 2.99	352 , 572	\$ 2.29
\$7.45-\$7.45	737,604	8.09	\$ 7.45	347,690	\$ 7.45
\$8.75-\$9.75	827 , 900	8.68	\$ 9.30	183,444	\$ 9.12
\$10.25-\$10.25	1,133,583	9.25	\$10.25	60,000	\$10.25
\$16.00-\$52.50	355,409	9.57	\$20.83		
	4,445,522		\$ 7.74	1,531,816	
	=======				

Warrants

In February 1998, in connection with the issuance of Series C preferred stock, we issued warrants to purchase 2,417 shares of common stock at \$8.00 per share. In 1999, a portion of these warrants were exercised to purchase 1,354 shares of common stock. The remaining warrants expire in February 2001 and the fair value

at the date of issuance was not material. In December 1998, in connection with the notes payable referred to in note 4, we issued a warrant to purchase 200,000 shares of Series C preferred stock at \$8.00 per share which was converted to a warrant to purchase common stock at the time of the IPO. This warrant expires December 2008. As of December 31, 1999, this warrant had not been exercised.

8. LEASE ARRANGEMENTS:

We entered into an operating lease for our new facilities in Milpitas, California in September 1999. The lease expires in February 2003. Additionally, we have facilities in Waterbury, Connecticut, Japan, Taiwan and Korea.

We have non-cancelable operating leases for office facilities through 2003 and operating leases for equipment through 2004. Our future minimum rental commitments under these leases at December 31, 1999, are as follows (in thousands):

2000	
2001	1,094
2002	•
2003	204
2004	22
Future minimum lease payments	\$3,448

Our rent expense under operating leases for the years ended December 31, 1999, 1998 and 1997 was approximately \$985,000, \$364,000 and \$248,000, respectively.

9. CONTINGENCIES:

As of December 31, 1999 and 1998, we accrued royalties of approximately \$7.9 million and \$5.1 million, respectively. We entered into royalty agreements in fiscal 1999 and 1998 and continue to negotiate royalty agreements with several other third parties. Accordingly, we have accrued our best estimate of the amount of royalties payable based on royalty agreements already signed or in negotiation, as well as advice from patent counsel. Should the final agreements result in royalty rates significantly different from these assumptions, our business, operating results and financial condition could be materially and adversely affected. During 1998, we reversed \$3.0 million of accrued royalties. Upon consummation of the Communications Systems Division acquisition in December 1998, we reduced our royalty reserves because we believe that in some instances we can obtain necessary licenses of third party technologies in exchange for grants of cross licenses of our patent portfolio rather than the payment of license fees or royalties.

During 1998, Motorola, Inc. ("Motorola") filed an action for patent infringement against us (and one other defendant) of seven Motorola patents. In its complaint, Motorola was seeking damages for our alleged infringement, including treble damages for our alleged willful infringement and an injunction against us. Motorola was also seeking attorney's fees and costs.

We filed an answer to Motorola's complaint denying infringement of the seven asserted Motorola patents and asserted that each patent is invalid or unenforceable. In addition, we asserted counterclaims and declaratory relief for invalidity and/or unenforceability and noninfringements of each of the seven asserted Motorola patents. By our counterclaims, we were seeking compensatory and punitive damages, an injunction against Motorola, and an award of treble damages for Motorola's violation of the Federal and state antitrust laws, and for violation

of Massachusetts General Law. We were also seeking our costs and attorney's fees in this action. In September 1999, we reached a settlement with Motorola as to all claims raised by both parties. The settlement requires us to make royalty payments to Motorola based on unit volume. As part of the settlement, we granted a cross-license to Motorola to utilize portions of our technology and Motorola granted us a cross-license to utilize portions of their technology. This settlement did not have a material effect on our financial position or operating results.

On April 9, 1999, ESS Technology Inc. filed a complaint against us in the U.S. District Court for the Northern District of California, alleging that we failed to grant licenses for some of our International Telecommunications Union-related patents to ESS on fair, reasonable and non-discriminatory terms. ESS's complaint includes claims based on antitrust law, patent misuse, breach of contract and unfair competition. In its complaint, ESS also seeks a declaration that some of our International Telecommunications Union-related patents are unenforceable and that we should be ordered by the court to grant a license to ESS on fair, reasonable and non-discriminatory terms.

We filed an answer to ESS's complaint by moving to dismiss on the basis that ESS had not alleged facts sufficient to state a legal claim. ESS responded by amending its complaint to include additional factual and legal allegations and filing an opposition to the motion to dismiss. On August 2, 1999, the Court denied our motion to dismiss as moot in view of ESS's amended complaint.

On August 12, 1999, we filed a motion to dismiss ESS's amended complaint. On November 4, 1999, the United States District Court in San Jose granted a dismissal of the antitrust and state unfair competition claims, ruling that ESS had failed to allege injury to competition in the market for modems. The Court allowed the specific performance of contract claim to stand, ruling that the license terms granted to other market participants would provide a sufficient basis for defining contractual terms that could be applied to ESS. The Court also denied the Motion with respect to dismissal of the declaratory relief claims, holding that they were sufficiently ripe for adjudication. The Court granted ESS leave to again amend its complaint, which it did on November 24, 1999, by filing a second amended complaint. On January 14, 2000, we filed a motion to dismiss the second amended complaint. ESS filed its opposition to the motion on January 21, 2000 and we filed our reply on January 28, 2000. On February 11, 2000, the Court heard oral argument on our motion to dismiss the second amended complaint. On February 14, 2000, the Court dismissed ESS's complaint and gave ESS twenty days to amend its complaint. In particular, the Court stated that ESS must allege the relevant geographic market and product market in the complaint. In response to the Court's February 14, 2000 order, ESS filed its third amended complaint on March 6, 2000.

Due to the nature of litigation generally and because the lawsuit brought by ESS is still in the pleading stage, we cannot ascertain the outcome of the final resolution of the lawsuit, the availability of injunctive relief or other equitable remedies, or estimate the total expenses, possible damages or settlement value, if any, that we may ultimately incur in connection with ESS's suit. This litigation could be time consuming and costly, and we will not necessarily prevail given the inherent uncertainties of litigation. However, we believe that we have valid defenses to this litigation, including the fact that other companies license these International Telecommunications Union-related patents from us on the same terms that are being challenged by ESS. We believe that it is unlikely this litigation will have a material adverse effect on our financial position or results of operations. We are vigorously contesting, and intend to continue to vigorously contest, all of ESS's claims.

10. INDUSTRY SEGMENT, CUSTOMER AND GEOGRAPHIC INFORMATION:

We are organized based upon the nature of the products we offer. Under this organizational structure, we operate in one segment, that segment being software-based modems using host signal processing technology. We market our products worldwide through our sales personnel, independent sales representatives and distributors.

Our sales to customers outside of the United States, as a percent of total revenues, are as follows:

	Year	Ended	December	31,	
	1999)	1998	1997	
Taiwan		35%	48%	469	010
China (Hong Kong)		47%		209	5
Singapore		1%		99	5
Rest of Asia		16%	28%	29	0.0
Other			1%	29	010
		99%	77%	799	200
	=====				

Sales to our major customers representing greater than 10% of total revenues are as follows:

	Year Ende	d December	31,
Customer	1999	1998	1997
A	13%	12%	4%
В	7%	15%	6%
C	3%	12%	18%
D	9%	8%	
E	47%	3%	
F	2%	4%	20%
Notes)	1%	13%	9%
	82%	67%	57%

Our customers are concentrated in the personal computer industry and modem board manufacturer industry segment and in certain geographic locations. We actively market and sell products in Asia. We perform ongoing evaluations of our customers' financial condition and generally require no collateral. As of December 31, 1999, approximately 60% of gross accounts receivable were concentrated with three customers. As of December 31, 1998, approximately 54% of gross accounts receivable were concentrated with three customers.

As of December 31, 1997, our long-lived assets were primarily located in the United States. Our long-lived assets, comprising primarily intangible assets, by geographic region as of December 31, 1999 and December 31, 1998 are as follows:

	Year I	
	1999	1998
United States		

11. RELATED PARTIES:

The President of a significant customer of ours was a member of our Board of Directors from inception to November 1, 1997. For the years ended December 31, 1999, 1998 and 1997, revenues generated from sales to this related party customer were approximately \$0.8 million, \$5.0 million and \$2.2 million, respectively. Sales to this related party were generally made on the same terms and conditions as sales to unrelated customers.

Included in prepaid expenses and other assets as of December 31, 1999 are amounts due from management. These promissory notes are due within a year and bear interest at 8.0% per annum. The balance receivable as of December 31, 1999 is \$141,273.

12. 401(K) PLAN:

Our 401(k) plan covers all of our employees beginning the first of the month following the month of their employment. Under this plan, employees may elect to contribute up to 15% of their current compensation to the 401(k) plan up to the statutorily prescribed annual limit. PCTEL may make discretionary contributions to the 401(k). There have been no employer contributions to the 401(k) plan through December 31, 1999.

13. SUBSEQUENT EVENT (unaudited):

On February 24, 2000, PCTEL completed its acquisition of Voyager Technologies, Inc., ("Voyager"), a provider of personal connectivity and internet access technology Under the terms of the Agreement and Plan of Reorganization (the "Merger Agreement"), the former shareholders of Voyager received 267,687 shares of PCTEL common stock and \$2,065,331 of cash in exchange for all shares of Voyager common stock. In addition, 645,157 vested and unvested options to purchase shares of Voyager common stock were converted into options to purchase PCTEL common stock at the exchange ratio of 0.07604.

The acquisition was structured as a tax-free reorganization and is being accounted for as a purchase. We are in the process of determining the allocation of the purchase price and anticipate that a portion of the purchase price will be allocated to in-process research and development which will be expensed in three months ended March 31, 2000.

Inside Back Cover

Background of space shot of planet. Text captions "PCTEL Technology for Connectivity." "Broadband," "Wireless," "Remote Access," "Analog," and "Solutions."

3,400,000 Shares
[PCtel Logo appears here]
Prospectus
, 2000
Banc of America Securities LLC
Warburg Dillon Read LLC
PaineWebber Incorporated
Needham & Company, Inc.

_ ------

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution

The following table presents the costs and expenses, other than underwriting discounts and commissions, payable by PCTEL in connection with the sale of common stock being registered. All amounts are estimates except the SEC registration fee and the NASD filing fee.

SEC registration fee	\$ 77,224
NASD filing fee	30,500
Nasdaq National Market listing fee	17,500
Printing and engraving costs	150,000
Legal fees and expenses	150,000
Accounting fees and expenses	125,000
Blue sky fees and expenses	5,000
Transfer agent and registrar fees	5,000
Directors and officers insurance	75,000
Miscellaneous expenses	164,776
Total	\$800,000

Item 14. Indemnification of Directors and Officers

Section 145 of the Delaware General Corporation Law permits a corporation to include in its charter documents, and in agreements between the corporation and its directors, officers and controller provisions expanding the scope of indemnification beyond that specifically provided by the current law.

Article Ninth of our amended and restated certificate of incorporation provides for the indemnification of directors and officers to the fullest extent permissible under Delaware law.

Article VI of our bylaws provides for the indemnification of officers, directors and third parties acting on behalf of PCTEL if the person acted in good faith and in a manner reasonably believed to be in and not opposed to our best interest, and, with regard to any criminal action or proceeding, the indemnified party had no reason to believe his or her conduct was unlawful.

We have entered into indemnification agreements with our directors and executive officers, in addition to indemnification provided for in our bylaws, and intended to enter into indemnification agreements with any new directors and executive officers in the future. The indemnification agreements may require us to indemnify our directors and officers against certain liability that may arise by reason of their status or service as directors and officers (other than liabilities arising from willful misconduct of culpable nature), to advance their expenses incurred as a result of any proceeding against them as to which they could be indemnified, and to obtain directors and officers' insurance, if available on reasonable terms.

Reference is also made to Section 8 of the Underwriting Agreement contained in Exhibit 1.1 hereto, indemnifying officers and directors of PCTEL against certain liabilities.

Item 15. Recent Sales of Unregistered Securities

Since inception, we have issued unregistered securities to a limited number of persons, as described below. None of these transactions involved any underwriters, underwriting discounts or commissions, or any public offering, and we believe that each transaction was exempt from the registration requirements of the Securities Act by virtue of Section 4(2) of the Securities Act, Regulation D promulgated under the Securities Act or

Rule 701 under compensatory benefit plans and contracts relating to compensation as provided under Rule 701. The recipients of securities in each transaction represented their intention to acquire the securities for investment only and not with a view to or for sale in connection with any distribution thereof, and appropriate legends were affixed to the share certificates and instruments issued in the transactions. All recipients had adequate access, through their relationships with us, to information about us.

- 1. On or about February 10, 1994, we issued 2,800,000 shares of our common stock at a per share price of \$0.15 for an aggregate purchase price of \$420,000 to our founders and certain individuals with whom we had a pre-existing business or personal relationship.
- 2. On or about November 4, 1994, we issued 1,613,333 shares of our common stock at a per share price of 0.375 for an aggregate purchase price of 0.375 for a purchase price of 0.375 for a purchase price of 0.375 for a purchase price
- 3. On May 9, 1995, we effected a recapitalization of our outstanding stock with our then current stockholders by which each share of our common stock was converted into one (1) share of Series A preferred stock and through which we received no consideration.
- 4. On June 29, 1995, we sold 222,222 shares of our Series A preferred stock at a per share price of \$0.45 for an aggregate purchase price of \$100,000 to certain individuals with whom we had a pre-existing business or personal relationship.
- 5. Between October 18, 1995 and on or about January 10th of 1996, we sold 3,250,000 shares of our Series B preferred stock at a per share price of \$1.20 to certain individuals with whom we had a pre-existing business or personal relationship.
- 6. On October 4, 1995, we effected, by amendment to our articles of incorporation, a 3 for 2 reverse stock split of our then outstanding capital stock.
- 7. On February 4, 1998 we sold 625,200 shares of our Series C preferred stock at a per share price of \$8.00 for an aggregate purchase price of \$5,001,600 to certain accredited investors, as that term is defined under Rule 501 of the Securities Act. State Street Securities, Needham & Company, Inc. and Beckman White & Reed acted as placement agents for us and, as partial consideration for services performed, Beckman White & Reed received a one-year warrant to purchase 31,260 shares of our common stock at an exercise price of \$6.96 per share and State Street Securities, Edward Gibstein, Mitchell Segal, and Irving Minnaker each received three-year warrants to purchase an aggregate of 2,417 shares of our common stock at an exercise price of \$8.00.
- 8. On December 31, 1998 we issued ten (10) year warrants to purchase an aggregate of 200,000 shares of our Series C preferred stock at an exercise price of \$8.00 to Pentech Financial Services, Inc. and PFF Bank & Trust, Inc. in connection with the Communications Systems Division acquisition from General DataComm, Inc.
- 9. From inception to January 31, 2000, we issued and sold an aggregate of 2,873,529 shares of our common stock to employees, consultants, and directors for an aggregate consideration of \$569,150 pursuant to exercise of options granted under our 1995 stock plan, 1997 stock plan, and our 1997 stock plan as amended August 3, 1999. From January 1, 1999 to December 31, 1999, we granted a total of 1,818,492 shares of common stock under our 1997 stock plan.
- 10. On February 24, 2000, we issued 267,687 shares of our common stock to the former shareholders of Voyager Technologies, Inc. in connection with the acquisition of Voyager. All outstanding options to purchase shares of Voyager common stock were cancelled and converted into options to purchase an aggregate of 49,056 shares of our common stock.
- 11. Pursuant to our Employee Stock Purchase Plan on February 14, 2000, we issued 14,370 shares of our common stock to our employees for an aggregate consideration of \$287,032.

(a) Exhibits

Exhibit Number Description

- +1.1 Form of Underwriting Agreement.
- **2.1 Agreement and Plan of Reorganization dated as of February 23, 2000 by and among PCTEL, Inc., Voyager Technologies, Inc., VT Acquisition Corp. and certain shareholders of Voyager Technologies, Inc.
- *3.1 Amended and Restated Certificate of Incorporation of the Registrant, as currently in effect.
- *3.1.1 Certificate of Amendment to the Certificate of Incorporation of the Registrant, as currently in effect.
- *3.2 Form of Amended and Restated Certificate of Incorporation of the Registrant to be filed after the closing of the offering made under this Registration Statement.
- *3.3 Amended and Restated Bylaws of the Registrant.
- *4.1 Specimen common stock certificate.
- *4.2 Warrant to purchase shares of Series C preferred stock of the Registrant issued to Pentech Financial Services, Inc.
- *4.3 Warrant to purchase shares of Series C preferred stock of the Registrant issued to PFF Bank and Trust, Inc.
- *4.4 Warrant to purchase shares of common stock of the Registrant issued to Edward Gibstein.
- *4.5 Warrant to purchase shares of common stock of the Registrant issued to Irving Minnaker.
- *4.6 Warrant to purchase shares of common stock of the Registrant issued to Mitchell Segal.
- *4.7 Warrant to purchase shares of common stock of the Registrant issued to State Street Securities, Inc.
- *4.8 Amended and Restated Rights Agreement dated December 31, 1997.
- *4.9 Addendum to the Amended and Restated Rights Agreement by and between the Registrant and PFF Bank and Trust, Inc. dated February 1, 1999.
- *4.10 Addendum to the Amended and Restated Rights Agreement by and between the Registrant and Pentech Financial Services, Inc. dated February 1, 1999.
- 4.11 Registration Rights Agreement, dated as of February 24, 2000, made by and among PCTEL and the shareholders of Voyager Technologies, Inc.
- 5.1 Form of Opinion of Wilson Sonsini Goodrich & Rosati, Professional Corporation.
- $\star 10.1$ Form of Indemnification Agreement between PCTEL and each of its directors and officers.
- *10.2 1995 Stock Option Plan and form of agreements thereunder.
- *10.3 1997 Stock Option Plan, as amended and restated, August 3, 1999, and form of agreements thereunder.

- *10.4 1998 director option plan and form of agreements thereunder.
- *10.5 1998 employee stock purchase plan and form of agreements thereunder.
- *10.6 Employment offer letter between Derek S. Obata and the Registrant dated March 31, 1998.
- $^{\star}10.7$ Employment offer letter between William F. Roach and the Registrant dated July 19, 1999.
- $^{\star}10.8$ Commercial Security Agreement by and between the Registrant and PPF Bank and Trust and related documents.
- *10.9 Asset Purchase Agreement by and among PCTEL, Inc., PCTEL Global Technologies, Ltd. And General Datacomm, Inc. dated as of December 22, 1998.
- *10.10 Escrow Agreement by and between the Registrant and General DataComm, Inc. dated December 22, 1998.
- *10.11 Bonus Pool Disbursement Agreement by and between the Registrant and General DataComm, Inc. dated December 22, 1998.
- *10.12 Form of Acquisition Bonus Agreement by and between the Registrant and General DataComm, Inc. dated on December 22, 1998.

Exhibit Number Description

- *10.13 Direct Sales Agreement by and between PCTEL Global Technologies, Ltd. and Kawasaki LSI U.S.A. dated December 4, 1998.
- *10.14 Volume Purchase Agreement dated June 1, 1998 by and between Silicon
- Laboratories, Inc. and the Registrant.

 ***10.15 Sublease agreement dated September 17, 1999 between PCTEL, Inc. And Sun Microsystems, Inc. for an office building located at 1331 California Circle, Milpitas, CA 95035
- *21.1 List of Subsidiaries of the Registrant.
- 23.1 Consent of Arthur Andersen LLP, Independent Public Accountants.
- 23.2 Consent of Wilson Sonsini Goodrich & Rosati, Professional Corporation (included in Exhibit 5.1).
- 24.1 Power of Attorney (see Pages II-5 and II-6).
- 27.1 Financial Data Schedule.

- To be filed by amendment.
- Incorporated by reference herein to the Registration Statement of Form S-1 and all amendments thereto filed with the Securities and Exchange Commission on August 6, 1999 and declared effective October 19, 1999.
- ** Incorporated by reference herein to the Current Report on Form 8-K filed with the Securities and Exchange Commission on March 10, 2000.
- *** Incorporated by reference herein to the Quarterly Report on Form 10-Q for the period ended September 30, 1999.
 - (b) Financial Statement Schedules

Schedule II Valuation and Qualifying Accounts and Reserves (included on pages S-1 and S-2 of this registration statement).

Schedules not listed above have been omitted because the information required to be presented is not applicable or is shown in the financial statements or related notes.

Item 17. Undertakings

We hereby undertake to provide to the Underwriters at the closing specified in the Underwriting Agreement certificates in the denominations and registered in the names as required by the Underwriters to permit prompt delivery to each purchaser.

Insofar as indemnification by the Registrant for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant according to the provisions referenced in Item 14 of this Registration Statement or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission this indemnification is against public policy as expressed in the Securities Act, and is, therefore, unenforceable. In the event that a claim for indemnification against these liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer, or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by director, officer or controlling person in connection with the securities being registered hereunder, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether the indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of the issue.

We hereby undertake that:

- (1) For purposes of determining any liability under the Securities Act, the information omitted from the form of Prospectus filed as part of this Registration Statement in reliance upon Rule 430A and contained in a form of Prospectus filed by the Registrant under Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this Registration Statement as of the time it was declared effective.
- (2) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of Prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of the securities at that time shall be deemed to be the initial bona fide offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Milpitas, State of California, on this 15th day of March, 2000.

PC-Tel, Inc.

/s/ Peter Chen

By:

Peter Chen, Chief Executive Officer and Chairman

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each such person whose signature appears below constitutes and appoints, jointly and severally, Peter Chen and Andrew D. Wahl their attorneys-in-fact, each with the power of substitution, for him in any and all capacities, to sign any amendments to this registration statement on Form S-1 (including post-effective amendments), to sign any registration statement for the same offering covered by this registration statement that is to be effective upon filing pursuant to Rule 462(b) promulgated under the Securities Act of 1933, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, thereby ratifying and confirming all that each of said attorneys-in-fact, or his substitute or substitutions, may do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement has been signed by the following persons in the capacities and on the dates indicated:

Signature 	Title 	Date
/s/ Peter Chen (Peter Chen)	Chief Executive Officer and Chairman of the Board of Directors (Principal Executive Officer)	March 15, 2000
/s/ William F. Roach (William F. Roach)	President and Chief Operating Officer	March 15, 2000
/s/ Andrew D. Wahl (Andrew D. Wahl)	Vice President, Finance and Chief Financial Officer (Principal Financial and Accounting Officer)	March 15, 2000
/s/ William Wen-Liang Hsu (William Wen-Liang Hsu)	Vice President, Engineering, Secretary and Director	March 15, 2000
/s/ Han-Chung Yeh (Han-Chung Yeh)	Vice President, Technology and Director	March 15, 2000

Signature	Title	Date
/s/ Richard C. Alberding	Director	March 15, 2000
(Dichard C. Albardina)	_	
(Richard C. Alberding)		
/s/ Martin H. Singer	Director	March 15, 2000
(Martin H. Singer)	_	
(Martin H. Singer)		
/s/ Wen C. Ko	Director	March 15, 2000
(Wen C. Ko)	-	
(Well 6: No)		
/s/ Giacomo Marini	Director	March 15, 2000
(Giacomo Marini)	_	
,		
/s/ Mike Min-Chu Chen	Director	March 15, 2000
(Mike Min-Chu Chen)	_	

REPORT OF INDEPENDENT PUBLIC ACCOUNTANTS ON SCHEDULE

To PCTEL, Inc.:

We have audited, in accordance with auditing standards generally accepted in the United States, the financial statements of PCTEL, Inc. (a Delaware corporation) included in this Registration Statement and have issued our report thereon dated January 24, 2000. Our audits were made for the purpose of forming an opinion on the basic financial statements taken as a whole. The accompanying schedule is the responsibility of the Company's management and is presented for the purpose of complying with the Securities and Exchange Commission's rules and is not part of the basic financial statements. This schedule has been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, fairly states in all material respects the financial data required to be set forth herein in relation to the basic financial statements taken as a whole.

/s/ Arthur Andersen LLP

San Jose, California January 24, 2000

PCTEL, INC.

SCHEDULE II--VALUATION AND QUALIFYING ACCOUNTS

Description	Balance at Beginning of Year	Costs and Expenses	against Revenues	Deductions	Balance at End of Year
Year Ended December 31, 1997: Allowance for doubtful accounts			\$	(196) \$ \$	
Year Ended December 31, 1998: Allowance for doubtful accounts	\$ 308			\$ (25)	
Inventory reserves Accrued royalties Year Ended December 31, 1999: Allowance for doubtful	\$2,002 \$6,505	\$ 330 \$1,639		\$ \$(3,000)(a)	
accounts Inventory reserves Accrued royalties	\$ 748 \$2,332 \$5,144	\$ \$1,121 \$3,861	\$	\$ (209) \$(1,832) \$(1,137)	·

^{- -----}

⁽a) Represents a reversal of \$3.0 million in accrued royalties in the fourth quarter of 1998, upon consummation of the acquisition of Communications Systems Division. PCTEL believes that in some instances they can obtain necessary licenses of third party technologies in exchange for grants of cross licenses of their patent portfolio rather than payment of license fees or royalties.

Exhibit Number	Description
+1.1	Form of Underwriting Agreement.
**2.1	Agreement and Plan of Reorganization dated as of February 23, 2000 by and among PCTEL, Inc., Voyager Technologies, Inc., VT Acquisition Corp. and certain shareholders of Voyager Technologies, Inc. Amended and Restated Certificate of Incorporation of the Registrant, as currently in effect.
*3.1.1	Certificate of Amendment to the Certificate of Incorporation of the Registrant, as currently in effect.
*3.2 *3.3	Form of Amended and Restated Certificate of Incorporation of the Registrant to be filed after the closing of the offering made under this Registration Statement. Amended and Restated Bylaws of the Registrant.
*4.1	Specimen common stock certificate.
*4.2	Warrant to purchase shares of Series C preferred stock of the Registrant issued to Pentech Financial Services, Inc.
*4.3	Warrant to purchase shares of Series C preferred stock of the Registrant issued to PFF Bank and Trust, Inc.
*4.4	Warrant to purchase shares of common stock of the Registrant issued to Edward Gibstein.
*4.5	Warrant to purchase shares of common stock of the Registrant issued to Irving Minnaker.
*4.6	Warrant to purchase shares of common stock of the Registrant issued to Mitchell Segal.
*4.7	Warrant to purchase shares of common stock of the Registrant issued to State Street Securities, Inc.
*4.8	Amended and Restated Rights Agreement dated December 31, 1997.
*4.9	Addendum to the Amended and Restated Rights Agreement by and between the Registrant and PFF Bank and Trust, Inc. dated February 1, 1999.
*4.10	Addendum to the Amended and Restated Rights Agreement by and between the Registrant and Pentech Financial Services, Inc. dated February 1, 1999.
4.11	Registration Rights Agreement, dated as of February 24, 2000, made by and among PCTEL and the shareholders of Voyager Technologies, Inc.
5.1	Form of Opinion of Wilson Sonsini Goodrich & Rosati, Professional Corporation.
10.1	Form of Indemnification Agreement between PCTEL and each of its directors and officers.
10.2	1995 Stock Option Plan and form of agreements thereunder.
10.3	1997 Stock Option Plan, as amended and restated, August 3, 1999, and form of agreements thereunder.

*10.4 1998 director option plan and form of agreements thereunder.

- *10.5 1998 employee stock purchase plan and form of agreements thereunder.
- *10.6 Employment offer letter between Derek S. Obata and the Registrant dated March 31, 1998.
- *10.7 Employment offer letter between William F. Roach and the Registrant dated July 19, 1999.
- *10.8 Commercial Security Agreement by and between the Registrant and PPF Bank and Trust and related documents.
- *10.9 Asset Purchase Agreement by and among PCTEL, Inc., PCTEL Global Technologies, Ltd. And General Datacomm, Inc. dated as of December 22, 1998.
- *10.10 Escrow Agreement by and between the Registrant and General DataComm, Inc. dated December 22, 1998.

Exhibit		
Number		

Description

- *10.11 Bonus Pool Disbursement Agreement by and between the Registrant and General DataComm, Inc. dated December 22, 1998.
- *10.12 Form of Acquisition Bonus Agreement by and between the Registrant and General DataComm, Inc. dated on December 22, 1998.
- *10.13 Direct Sales Agreement by and between PCTEL Global Technologies, Ltd. and Kawasaki LSI U.S.A. dated December 4, 1998.
- $\star 10.14$ Volume Purchase Agreement dated June 1, 1998 by and between Silicon Laboratories, Inc. and the Registrant.
- ***10.15 Lease agreement dated September 17, 1999 between PCTEL, Inc. And Sun Microsystems, Inc. for an office building located at 1331 California Circle, Milpitas, CA 95035
 - *21.1 List of Subsidiaries of the Registrant.
 - 23.1 Consent of Arthur Andersen LLP, Independent Public Accountants.
 - 23.2 Consent of Wilson Sonsini Goodrich & Rosati, Professional Corporation (included in Exhibit 5.1).
 - 24.1 Power of Attorney (see Pages II-5 and II-6).
 - 27.1 Financial Data Schedule.

- -----

+ To be filed by amendment.

- * Incorporated by reference herein to the Registration Statement of Form S-1 and all amendments thereto filed with the Securities and Exchange Commission on August 6, 1999 and declared effective October 19, 1999.
- ** Incorporated by reference herein to the Current Report on Form 8-K filed with the Securities and Exchange Commission on March 10, 2000.
- *** Incorporated by reference herein to the quarterly report on Form 10-Q for the period ended September 30, 1999.

REGISTRATION RIGHTS AGREEMENT

This Registration Rights Agreement (this "Agreement") is made and entered into as of February 24, 2000 by and among PC-Tel, Inc., a Delaware corporation (the "Company"), Raymond R. Shook, an individual, and Ronald H. Fraser, an individual, (collectively, the "Stockholders").

RECITALS

WHEREAS, the Company, the Stockholders, Voyager Technologies, Inc., a California corporation and VT Acquisition Corp., a Delaware corporation and wholly-owned subsidiary of the Company, are parties to that certain Agreement and Plan of Reorganization (the "Reorganization Agreement") dated as of February 23, 2000;

WHEREAS, in order to induce the Company to enter into the Reorganization Agreement, and to induce the Stockholders to accept the Company's Common Stock pursuant to the Reorganization Agreement, the Stockholders and the Company hereby agree that this Agreement shall govern the rights of the Stockholders to cause the Company to register shares of Common Stock held by the Stockholders, and certain other matters contained herein.

NOW, THEREFORE, in consideration of the premises, covenants, and conditions set forth herein, the parties hereto hereby agree as follows:

- 1. REGISTRATION RIGHTS. The Company covenants and agrees as, follows:

shall have the following respective meanings:

- (a) "Commission" shall mean the Securities and Exchange Commission or -----any successor agency.
- (b) "Exchange Act" shall mean the Securities Exchange Act of 1934, as amended.
 - (c) "Form S-3" shall mean such form under the Securities Act as in

effect on the date hereof or any registration form under the Securities Act subsequently adopted by the Commission that permits inclusion or incorporation of substantial information by reference to other documents filed by the Company with the Commission.

(d) "Holder" shall mean any Stockholder who holds Registrable

Securities and any holder of Registrable Securities to whom the registration rights conferred by this Agreement have been transferred in compliance with Section 1.8 hereof.

(e) "Restricted Securities" shall mean the securities of the Company

required to bear or bearing a legend restricting transfer of such securities in compliance with the Securities $\mathsf{Act}.$

(f) "Registrable Securities" shall mean (i) 124,438 shares of the

Company's Common Stock held by Mr. Shook and issued pursuant to the Reorganization Agreement, $\,$

(ii) 28,209 shares of the Company's Common Stock held by Mr. Fraser and issued pursuant to the Reorganization Agreement, and (iii) any Company Common Stock issued as a dividend or other distribution with respect to or in exchange for or in replacement of the shares referenced in (i) and (ii); provided, however, that

any shares described in clauses (i) through (iii) above which have been resold to the public shall cease to be Registrable Securities upon such resale.

- (g) The terms "register," "registered" and "registration" shall refer to a registration effected by preparing and filing a registration statement in compliance with the Securities Act and the declaration or ordering of the effectiveness of such registration statement.
 - (h) "Rule 144" shall mean Rule 144 as promulgated by the Commission

under the Securities Act, as such rules may be amended from time to time, or any similar successor rule that may be promulgated by the Commission.

- (i) "Rule 145" shall mean Rule 145 as promulgated by the Commission
- under the Securities Act, as such rule may be amended from time to time, or any similar successor rule that may be promulgated by the commission.
 - (j) "Securities Act" shall mean the Securities Act of 1933, as

amended, or any similar successor federal statute and the rules and regulations thereunder, all as the same shall be in effect from time to time, corresponding to such act.

1.2 Company Registration.

- (a) If prior to October 19, 2000, the Company shall determine to register any of its securities either for its own account or the account of a security holder or holders, other than a registration relating solely to employee benefit plans, or a registration relating solely to a transaction pursuant to Rule 145 of the Commission, or a registration on any registration form which does not permit secondary sales, the Company will promptly give to each Holder written notice thereof and use its best efforts to include in such registration (and any related qualification under blue sky laws or other compliance), except as set forth in Section 1.2(b) below, and in any underwriting involved therein, all the Registrable Securities specified in a written request or requests, made by any Holder within 15 days after receipt of such written notice from the Company except as set forth in Section 1.2(b) below. Such written request may specify all or a part of the Registrable Securities owned by Mr. Fraser and up to 77,426 of the Registrable Securities owned by Mr. Shook; provided, however, that the Company's obligation under this
- Section 1.2 shall terminate upon the earlier to occur of (i) October 19, 2000, or (ii) after the Company has effected one (1) such registration pursuant to which the Holders have been provided with the opportunity to register their Registrable Securities under this Section 1.2, such registrations have been declared or ordered effective and the securities offered pursuant to such registrations have been sold.

(b) Underwriting. The right of any Holder of Registrable Securities to

include Registrable Securities in a registration pursuant to this Section 1.2 involving an underwritten public offering shall be conditioned upon the inclusion of such Registrable Securities in the underwriting to the extent provided herein. Notwithstanding any other provision of this Section 1, if the managing underwriter or underwriters conclude in their sole discretion that the total amount of securities which the Company and any holders of securities having registration rights

intends to include in such offering is such as to materially and adversely affect or jeopardize the offering, then the underwriter may (subject to the allocation priority set forth below) exclude from such registration and underwriting some or all of the Registrable Securities requested to be included. In such event, the Company shall so advise all Holders of Restricted Securities requesting registration, and the number of shares of Registrable Securities that may be included in the registration and underwriting shall be allocated among the Holders of Registrable Securities in proportion to the respective amounts of Registrable Securities held by them and, if a further limitation on the number of shares is required, the securities of the Company held by Holders of Registrable Securities shall be excluded from such registration. If any Holder of Registrable Securities requesting registration disapproves of the terms of any such underwriting, such Holder may elect to withdraw therefrom by written notice to the Company and the underwriter. Any Registrable Securities excluded or withdrawn from such underwriting shall be withdrawn from such registration. If by the withdrawal of such Registrable securities a greater number of shares of Registrable Securities held by other Holders of Registrable Securities may be included in such registration (up to the maximum of any limitation imposed by the underwriter), then the Company shall offer to all Holders of Registrable Securities who have included Registrable Securities in the registration the right to include additional Registrable securities in the same proportion used in determining the limitation imposed by the provisions of this Section 1.2(b).

(c) Expenses of Company Registration. All expenses incurred in

connection with any registrations, filings or qualifications pursuant to Section 1.2 hereof, including, without limitation, all registration, qualification and filing fees, printing expenses, escrow fees, fees and disbursements of counsel for the Company, blue sky fees and expenses, expenses of any regular or special audits incident to or required by any such registration shall be borne by the Company; provided, however, that the Company shall not be required to pay underwriting discounts and commissions applicable to the sale of Registrable Securities or fees and disbursements of counsel for any Holder (other than the fees and disbursements of counsel included above).

1.3 Form S-3 Registration. In case the Company shall receive from any

Holder or Holders a written request or request that the Company effect a registration on Form S-3 and any related qualification or compliance with respect to all or a part of the Registrable Securities owned by such Holder or Holders, the Company will:

- (a) promptly give written notice of the proposed registration, and any related qualification or compliance, to all other Holders;
- (b) as soon as practicable, effect such registration and all such qualifications and compliances as may be so requested and as would permit or facilitate the sale and distribution of all of such Holder's or Holders' Registrable Securities, together with all of the Registrable Securities of any other Holder or Holders joining in such request as are specified in a written request given within 15 days after receipt of such written notice from the Company; provided, however, that the Company shall not be obligated to effect any such registration, qualification or compliance, pursuant to this section 1.3: (i) if Form S-3 is not available for such offering by the Holders; (ii) if the Holders, together with the holders of any other securities of the Company entitled to inclusion in such registration, propose to sell Registrable Securities and such other securities (if any) at an aggregate price to the public (net of any underwriters' discounts or commissions) of less than \$1,000,000; (iii) if the Company shall furnish to the

Holders a certificate signed by the President of the Company stating that in the good faith judgment of the Board of Directors of the Company, it would be seriously detrimental to the Company and its stockholders for such Form S-3 Registration to be effected at such time, in which event the Company shall have the right to defer the filing of the Form S-3 registration statement for a period of not more than ninety (90) days after receipt of the request of the Holder or Holders under this Section 1.3; or (iv) in any particular jurisdiction in which the Company would be required to qualify to do business or to execute a general consent to service of process in effecting such registration, qualification or compliance; and

(c) file a registration statement covering the Registrable Securities and other securities so requested to be registered as soon as practicable after receipt of the request or requests of the Holders.

All expenses incurred in connection with a registration requested pursuant to Section 1.3, including (without limitation) all registration, filing, qualification, printer's and accounting fees and the reasonable fees and disbursements of one (1) counsel for the selling Holder or Holders not to exceed \$20,000 and counsel for the Company, but excluding any underwriters' discounts or commissions associated with Registrable Securities, shall be borne by the Company; provided, however, that the Company shall not be required to pay for any expenses of any registration proceeding begun pursuant to Section 1.3 if the registration request is subsequently withdrawn at the request of the Holders of a majority of the Registrable Securities to be registered (in which case all participating Holders shall bear such expenses), unless the Holders of a majority of the Registrable Securities agree to forfeit their right to the demand registration pursuant to this Section 1.3.

1.4 Obligations of the Company. In the case of each registration

effected by the Company pursuant to this Section 1, the Company will advise each Holder of Registrable Securities in writing as to the initiation of such registration and as to the completion thereof, and the company will as expeditiously as reasonably possible:

- (a) prepare and file with the Commission a registration statement with respect to such shares and use its best efforts to cause such registration statement to become effective, and, upon the request of the Holders of a majority of the Registrable Securities registered thereunder, keep such registration statement effective for up to ninety (90) days;
- (b) prepare and file with the Commission such amendments and supplements to such registration statement and the prospectus used in connection therewith as may be necessary to comply with the provisions of the Securities Act with respect to the disposition of all securities covered by such registration statement;
- (c) furnish such number of prospectuses and other documents incident thereto as any Holder of Registrable Securities included in such registration may from time to time reasonably request;
- (d) in the event of any underwritten public offering, enter into and perform its obligations under an underwriting agreement, in usual and customary form, with the managing underwriter of such offering. Each Holder participating in such underwriting shall also enter into and perform its obligations under such an agreement;

- (e) use its best efforts to register and qualify the securities covered by such registration statement under state securities or blue sky laws of such jurisdictions as such participating Holders of Registrable securities and underwriters may reasonably request, except in any jurisdiction in which the Company would be required to execute a general consent to service of process in effecting such registration, qualification or compliance, unless the Company is already subject to service in such jurisdiction;
- (f) notify the Holders of Registrable Securities participating in such registration, promptly after it shall receive notice thereof, of the date and time when such registration statement and each post-effective amendment thereto has become effective or a supplement to any prospectus forming a part of such registration statement has been filed; and
- (g) advise such Holders of Registrable securities promptly after it shall receive notice or obtain knowledge thereof, of the issuance of any stop order by the Commission suspending the effectiveness of such registration statement or the initiation or threatening of any proceeding for that purpose and promptly use its best efforts to prevent the issuance of any stop order or to obtain its withdrawal if such stop order should be issued.
 - 1.5 Indemnification. In the event any Registrable Securities are included

in a registration statement under this Section 1:.

- (a) To the extent permitted by law, the Company will indemnify and hold harmless each Holder of Registrable Securities participating in a registration pursuant to this Section 1, and any underwriter for such Holder and each person, if any, who controls such underwriter within the meaning of the Securities Act or the Exchange Act, against any losses, claims, damages, or liabilities (joint or several) to which they may become subject under the Securities Act, or the Exchange Act or other federal or state law, insofar as such losses, claims, damages, or liabilities (or actions in respect thereof) arise out of or are based upon any of the following statements, omissions or violations (collectively a "Violation"): (i) any untrue statement or alleged untrue statement of a material fact contained in such registration statement, including any preliminary prospectus or final prospectus contained therein or any amendments or supplements thereto, (ii) the omission or alleged omission to state therein a material fact required to be stated therein, or necessary to make the statements therein not misleading, or (iii) any violation or alleged violation by the Company of the Securities Act, the Exchange Act, any state securities law, or any rule or regulation promulgated under the Securities Act, the Exchange Act, or any state securities law; and the Company will pay to each such Holder, underwriter or controlling person, as incurred, any legal or other expenses reasonably incurred by them in connection with investigating or defending any such loss, claim, damage, liability or action; provided, however, that the indemnity agreement contained in this subsection 1.5(a) shall not apply to amounts paid in settlement of any such loss, claim, damage, liability, or action if such settlement is effected without the consent of the Company (which consent shall not be unreasonably withheld), nor shall the Company be liable in any such case for any such loss, claim, damage, liability, or action to the extent that it arises out of or is based upon a Violation that occurs in reliance upon and in conformity with written information furnished expressly for use in connection with such registration by any such Holder, underwriter or controlling person.
- (b) Each Holder of Registrable Securities participating in a registration pursuant to this Section 1 will indemnify and hold harmless the Company, each of the

Company's directors, officers, employees and agents, each person, if any, who controls the Company within the meaning of the Securities Act, any underwriter, any controlling person of any such underwriter and any other Holder selling securities in such registration statement, against any losses, claims, damages, or liabilities (joint or several) to which any of the foregoing persons may become subject, under the Securities Act, the Exchange Act, or other federal or state law, insofar as such losses, claims, damages, or liabilities (or actions in respect thereto) arise out of or are based upon any Violation, in each case to the extent (and only to the extent) that such Violation occurs in reliance upon and in conformity with written information furnished by such Holder expressly for use in connection with such registration; and each such Holder will pay, as incurred, any legal or other expenses reasonably incurred by any person intended to be indemnified pursuant to his subsection 1.5(b), in connection with investigating or defending any such loss, claim, damage, liability, or action; provided, however, that the indemnity agreement contained in this subsection 1.5(b) shall not apply to amounts paid in settlement of any such loss, claim, damage, liability or action if such settlement is effected without the consent of the Holder, which consent shall not be unreasonably withheld; provided, that, in no event shall any indemnity under this subsection 1.5(b) exceed the net proceeds from the offering received by such Holder.

- (c) Promptly after receipt by an indemnified party under this Section 1.5 of notice of the commencement of any action (including any governmental action), such indemnified party will, if a claim in respect thereof is to be made against any indemnifying party under this Section 1.5, deliver to the indemnifying party a written notice of the commencement thereof and the indemnifying party shall have the right to participate in, and, to the extent the indemnifying party so desires, jointly with any other indemnifying party similarly noticed, to assume the defense thereof with counsel mutually satisfactory to the parties; provided, however, that any indemnified party (together with all other indemnified parties that may be represented without conflict by one counsel) shall have the right to retain one separate counsel, with the fees and expenses to be paid by the indemnifying party, if representation of such indemnified party by the counsel retained by the indemnifying party would be inappropriate due to actual or potential differing interests between such indemnified party and any other party represented by such counsel in such proceeding. The failure to deliver written notice to the indemnifying party of the commencement of any such action, if materially prejudicial to its ability to defend such action, shall relieve such indemnifying party of any liability to the indemnified party under this Section 1.5, but the omission so to deliver written notice to the indemnifying party will not relieve it of any liability that it may have to any indemnified party otherwise than under this Section 1.5.
- (d) The obligations of the Company and Holders under this Section 1.5 shall survive the completion of any offering of Registrable Securities in a registration statement under this Section 1.
 - 1.6 Information by Holder. Each Holder of Registrable Securities shall

furnish to the Company such information regarding such Holder and the distribution proposed by such Holder as the Company may reasonably request in writing and as shall be reasonably required in connection with any registration, qualification or compliance referred to in this section 1.

1.7 Reports Under Securities Exchange Act of 1934. With a view to making available to the Holders the benefits of Rule 144 promulgated under the Act and any other rule

or regulation of the Commission that may at any time permit a Holder to sell securities of the Company to the public without registration or pursuant to a registration on Form S-3, the Company agrees to use its best efforts:

- (a) make and keep public information available, as those terms are understood and defined in Rule 144 promulgated under the Securities Act, at all times;
- (b) file with the Commission in a timely manner all reports and other documents required of the Company under the Securities Act and the Exchange Act; and
- (c) furnish to the Holders forthwith upon written request (i) a written statement by the Company as to its compliance with the reporting requirements of Commission Rule 144, the Securities Act and the Exchange Act, (ii) a copy of the most recent annual or quarterly report of the Company, and such other reports and documents so filed by the Company, and (iii) such other information as may be reasonably requested in availing any Holder of any rule or regulation of the Commission that permits the selling of any such securities without registration or pursuant to such form.
 - 1.8 Transfer or Assignment of Registration Rights. The rights to cause the

Company to register securities granted to a Holder by the Company under this Section 1 may be transferred or assigned by a Holder only to a transferee or assignee who acquires all of the Registrable Securities previously held by such Holder; provided that the company is given written notice at the time of or within a reasonable time after said transfer or assignment, stating the name and address of said transferee or assignee and identifying the securities with respect to which such registration rights are being transferred or assigned, and provided further that the transferee or assignee of such rights assumes the obligations of such Holder under this Section 1.

1.9 "Market Stand-Off" Agreement If requested by the Company and an

underwriter of common stock (or other securities) of the Company, a Holder shall not sell or otherwise transfer or dispose of any common stock (or other securities) of the Company held by such Holder (other than those included in the registration) during the one hundred eighty (180) day period, or such shorter period specified or agreed to by the representative of the underwriters and the Company, following the effective date of any registration statements of the Company filed under the Securities Act; provided, however, that all Holders and officers and directors of the Company enter into similar agreements. The Company may impose stop-transfer instructions with respect to the shares (or securities) subject to the foregoing restriction until the end of said one hundred eighty (180) day period or such other period as is agreed to by the representatives.

- 1.10 Delay of Registration. No Holder shall have any right to take any action to restrain, enjoin, or otherwise delay any registration as the result of any controversy that might arise with respect to the interpretation or
 - 1.11 Termination of Registration Rights. No Holder shall be entitled to

implementation of this Section 1.

exercise any right provided for in Section 1 above after the later of (a) February 24, 2001 or (b) at such time at which all Registrable Securities held by such Holder can be sold in any three month period without registration in compliance with Rule 144 of the Securities Act.

2. MISCELLANEOUS

2.1 Governing Law. This Agreement shall be governed in all respects by the

laws of the State of California, as if entered into by and between California residents exclusively for performance entirely within California.

2.2 Successors and Assigns. Except as otherwise expressly provided herein,

the provisions hereof shall inure to the benefit of, and be binding upon, the successors, assigns, heirs, executors and administrators of the parties hereto.

2.3 Entire Agreement; Amendment; Waiver. This Agreement (including the

Exhibits hereto) constitutes the full and entire understanding and agreement between the parties with regard to the subjects hereof and thereof. Neither this Agreement nor any term hereof may be amended, waived, discharged or terminated, except by a written instrument signed by the Company and the Holders.

2.4 Notices. All notices, requests, demands, claims, and other

communications hereunder will be in writing. Any notice, request, demand, claim, or other communication hereunder shall be deemed duly given (i) upon confirmation of facsimile, (ii) when sent by overnight delivery and (iii) when mailed by registered or certified mail return receipt requested and postage prepaid at the following address:

If to the Holders: Raymond R. Shook Ronald H. Fraser

c/o Voyager Technologies, Inc.

605 E. Tennant Avenue Morgan Hill, CA 95038 Tel: (408) 778-7335 Fax: (408) 779-5701

Copy to: Cohen & Ostler

----- 555 University Avenue, #410 Palo Alto, CA 94303

Tel: (650) 321-3835

Attention: Mark Ostler, Esq.

If to the Company: PC-Tel, Inc.

----- 1331 California Circle Milpitas, CA 95035

Milpitas, CA 95035 Tel: (408) 965-2100 Fax: (408) 941-0488

Attention: Chief Financial Officer

Copy to: Arter & Hadden LLP
----- Five Park Plaza
Suite 1000

Irvine, CA 92614 Tel: (949) 252-7500 Fax: (949) 833-9604

Attention: Stephen LaCount, Esq.

Any party may sent any notice, request, demand, claim, or other communication hereunder to the intended recipient at the address set forth above using any other means (including personal delivery, expedited courier, messenger service, telecopy, telex, ordinary mail, or electronic mail), but no such notice, request, demand, claim, or other communication shall be deemed to have been duly given unless and until it actually is received by the intended recipient. Any party may change the address to which notices, requests, demands, claims, and other communications hereunder are to be delivered by giving the other party notice in the manner herein set forth.

2.5 Delays or Omissions. No delay or omission to exercise any right, power

or remedy accruing to any Holder, upon any breach or default of the Company under this Agreement shall impair any such right, power or remedy of such Holder nor shall it be construed to be a waiver of any such breach or default, or an acquiescence therein, or of or in any similar breach or default thereafter occurring; nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. Any waiver, permit, consent or approval of any kind or character on the part of any Holder of any breach or default under this Agreement or any waiver on the part of any Holder of any provisions or conditions of this Agreement must be made in writing and shall be effective only to the extent specifically set forth in such writing. All remedies, either under this Agreement or by law or otherwise afforded to any Holder, shall be cumulative and not alternative.

- 2.8 Titles and Subtitles. The titles of the paragraphs and subparagraphs of
 ----this Agreement are for convenience of reference only and are not to be
 considered in construing this Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Registration Rights Agreement effective as of the day and year first above written.

PC-TEL, INC.

By: /s/ Peter Chen

Title: Chairman and CEO

STOCKHOLDERS:

/s/ Raymond R. Shook

Raymond R. Shook

/s/ Ronald H. Fraser

Ronald H. Fraser

S-1

[WILSON SONSINI GOODRICH & ROSATI LETTERHEAD]

April , 2000

PCTEL, Inc. 1331 California Circle Milpitas, CA 95035

RE: REGISTRATION STATEMENT ON FORM S-1

Ladies and Gentlemen:

We have examined the Registration Statement on Form S-1 filed by you with the Securities and Exchange Commission on March 15, 2000 (Registration No. 333-), as amended (the "Registration Statement"), in connection with the registration under the Securities Act of 1933, as amended, of up to 3,910,000 shares of your Common Stock, \$0.001 par value per share (the "Shares"). The Shares include an over-allotment option granted to the underwriters of the offering to purchase up to 510,000 shares. We understand that the Shares are to be sold to the underwriters of the offering for resale to the public as described in the Registration Statement. As your legal counsel, we have examined the proceedings taken, and are familiar with the proceedings proposed to be taken, by you in connection with the sale and issuance of the Shares to be sold by you.

It is our opinion that upon completion of the proceedings being taken or contemplated by us, as your counsel, to be taken prior to the issuance of the Shares, including the proceedings being taken in order to permit such transaction to be carried out in accordance with applicable state securities laws, the Shares, when issued and sold in the manner described in the Registration Statement, will be legally issued, fully paid and non-assessable.

We are members of the Bar of the State of California only and express no opinion as to any matter relating to the laws of any jurisdiction other than the laws of the State of California and the federal laws of the United States. Without limiting the foregoing, we express no opinion as to the securities laws of the State of Delaware.

We consent to the use of this opinion as an exhibit to the Registration Statement and further consent to the use of our name wherever appearing in the Registration Statement, including the Prospectus constituting a part thereof, and any amendments thereto.

Very truly yours,

WILSON SONSINI GOODRICH & ROSATI Professional Corporation

EXHIBIT 23.1

CONSENT OF INDEPENDENT PUBLIC ACCOUNTANTS

As independent public accountants, we hereby consent to the use of our reports and to all references to our firm included in or made a part of this registration statement.

/s/ Arthur Andersen LLP

San Jose, California March 14, 2000

THIS SCHEDULE CONTAINS SUMMARY FINANCIAL INFORMATION EXTRACTED FROM CONSOLIDATED FINANCIAL STATEMENTS AND IS QUALIFIED IN ITS ENTIRETY BY REFERENCE TO SUCH FINANCIAL STATEMENTS.

1,000

