

PC TEL INC

FORM 10-K (Annual Report)

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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

Form 10-K

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

For the fiscal year ended December 31, 2016

OR

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

For the transition period from _____ to _____

Commission File Number 000-27115

PCTEL, Inc.

(Exact Name of Registrant as Specified in Its Charter)

Delaware
(State or Other Jurisdiction of
Incorporation or Organization)

471 Brighton Drive,
Bloomington IL
(Address of Principal Executive Office)

77-0364943
(I.R.S. Employer
Identification Number)

60108
(Zip Code)

(630) 372-6800

(Registrant's Telephone Number, Including Area Code)

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

Title of each class

Common Stock, \$.001 Par Value Per Share

Name of each exchange on which registered

The NASDAQ Global Select Market

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

None

Indicate by check mark whether the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes No

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

Indicate by checkmark whether the registrant has submitted electronically and posted on the Company's website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See definition of "large accelerated filer", "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act:

Large accelerated filer Accelerated filer
Non-accelerated filer (Do not check if a smaller reporting company) Smaller reporting company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes No

As of June 30, 2016, the last business day of the registrant's most recently completed second fiscal quarter, there were 17,324,506 shares of the registrant's common stock outstanding, and the aggregate market value of such shares held by non-affiliates of the registrant (based upon the closing sale price of such shares on the NASDAQ Global Select Market on June 30, 2016) was approximately \$81,598,423. Shares of the registrant's common stock held by each executive officer and director and by each entity that owns 5% or more of the registrant's outstanding common stock have been excluded because such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for any other purposes.

17,332,602 shares of common stock were issued and outstanding as of March 10, 2017.

Documents Incorporated by Reference

Certain sections of the registrant's definitive proxy statement relating to its 2017 Annual Stockholders' Meeting to be held on June 21, 2017 are incorporated by reference into Part III of this Annual Report on Form 10-K. The Company intends to file its proxy statement within 120 days after the end of its fiscal year end to which this report relates.

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PART I

Item 1: Business

This Annual Report on Form 10-K contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the “Securities Act”) and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). These statements include, among other things, statements concerning our future operations, financial condition and prospects, and business strategies. The words “believe”, “expect”, “anticipate” and other similar expressions generally identify forward-looking statements. Investors in our common stock are cautioned not to place undue reliance on these forward-looking statements. These forward-looking statements are subject to substantial risks and uncertainties that could cause our future business, financial condition, or results of operations to differ materially from the historical results or currently anticipated results. Investors should carefully review the information contained in Item 1A. Risk Factors and elsewhere in, or incorporated by reference into, this Annual Report on Form 10-K. Other factors not currently anticipated may also materially and adversely affect our results of operations, cash flows and financial position. There can be no assurance that future results will meet expectations. While we believe that the forward-looking statements in this Annual Report on Form 10-K are reasonable, investors should not place undue reliance on any forward-looking statements. In addition, these statements speak only as of the date made. We do not undertake, and expressly disclaim any obligation to update or alter any statements whether as a result of new information, future events or otherwise, except as may be required by applicable law.

Overview

PCTEL, Inc. (“PCTEL”, the “Company”, “we”, “ours”, and “us”) delivers **P**erformance **C**ritical **TEL**ecom technology solutions to the wireless industry. We are a leading global supplier of wireless network antenna and testing solutions. PCTEL Connected Solutions designs and manufactures precision antennas. PCTEL antennas are deployed in small cells, enterprise Wi-Fi access points, fleet management and transit systems, and in network equipment and devices for the Industrial Internet of Things (“IIoT”). PCTEL RF Solutions provides test tools and engineering services that improve the performance of wireless networks globally. Mobile operators, neutral hosts, and equipment manufacturers rely on PCTEL to analyze, design, and optimize next generation wireless networks.

PCTEL was incorporated in California in 1994 and reincorporated in Delaware in 1998. Our principal executive offices are located at 471 Brighton Drive, Bloomingdale, Illinois 60108. Our telephone number at that address is (630) 372-6800 and our website is www.pctel.com. The information within, or that can be accessed through, our website, is not part of this report.

Segment Reporting

PCTEL operates in two segments for reporting purposes, Connected Solutions and RF Solutions. Our chief operating decision maker uses operating profits and identified assets for the Connected Solutions and RF Solutions segments to make operating decisions. Each segment has its own segment manager as well as its own engineering, sales and marketing, and operational general and administrative functions. All of our accounting and finance, human resources, IT and legal functions are provided on a centralized basis through the corporate function. We manage the balance sheet and cash flows centrally at the corporate level, with the exception of trade accounts receivable and inventory which is managed at the segment level. Each of the segment managers reports to and maintains regular contact with the chief operating decision maker to discuss operating activities, financial results, forecasts, or plans for the segment.

Connected Solutions Segment

PCTEL’s Connected Solutions segment designs and manufactures precision antennas. Our antennas are deployed primarily in small cells, enterprise Wi-Fi access points, fleet management and transit systems, and in equipment and devices for the Industrial Internet of Things (“IIoT”). Revenue growth in these markets is driven by the increased use of wireless communications and increased complexity trends occurring within them. Our antennas are primarily sold to original equipment manufacturer (“OEM”) providers where they are designed into the customer’s solution.

Competition in the antenna markets addressed by Connected Solutions is fragmented. Competitors include Amphenol, Comtelco, Laird, Mobile Mark, Pulse, and Radiall/Larsen. We seek out product applications that command a premium for product performance and customer service, and avoid commodity markets.

PCTEL maintains expertise in several technology areas in order to be competitive in the antenna market. These include radio frequency engineering, mobile antenna design and manufacturing, mechanical engineering, product quality and testing, and wireless network engineering.

RF Solutions Segment

PCTEL's RF Solutions segment provides test tools and engineering services that improve the performance of wireless networks globally. Mobile operators, neutral hosts, and equipment manufacturers rely on us to analyze, design, and optimize next generation wireless networks. Revenue growth is driven by the implementation and roll out of new wireless technology standards (i.e. 1G to 2G, 2G to 3G, 3G to 4G, 4G to 5G, etc...). Our test equipment is sold directly to wireless carriers or to OEM providers who integrate our products into their solution which is then sold to wireless carriers.

Competitors for our test tool products include OEMs such as Anritsu, Berkley Varitronics, Digital Receiver Technology, and Rohde and Schwarz.

PCTEL maintains expertise in several technology areas in order to be competitive in the test tool and related engineering services market. These include radio frequency engineering, digital signal process ("DSP") engineering, manufacturing, mechanical engineering, product quality and testing, and wireless network engineering.

Major Customers

Huawei Technologies Co., Ltd ("Huawei") accounted for approximately 11% of revenues during the year ended December 31, 2016 and accounted for approximately 17% of accounts receivable at December 31, 2016. No other customer accounted for 10% or greater of revenues during the year ended December 31, 2016 and no other customer accounted for 10% or greater of accounts receivable at December 31, 2016.

There were no customers that accounted for 10% or greater of revenues or accounts receivable during the fiscal years ended December 31, 2015, or 2014, respectively.

International Activities

The following table shows the percentage of revenues by geographic location during the last three fiscal years:

Region	Years Ended December 31,		
	2016	2015	2014
Asia Pacific	21%	9%	11%
Europe, Middle East, & Africa	8%	10%	11%
Other Americas	6%	6%	5%
Total Foreign sales	35%	25%	27%
Total Domestic sales	65%	75%	73%
	100%	100%	100%

See Note 11 of the consolidated financial statements for further geographical information.

Backlog

Sales of our products and services are generally made pursuant to standard purchase orders, which are officially acknowledged according to standard terms and conditions. The backlog is useful for scheduling production, but is not necessarily a meaningful indicator of future product revenues as the order to ship cycle is extremely short.

Research and Development

We recognize that a strong technology base is essential to our long-term success and we have made a substantial investment in engineering, research and development. We will continue to devote substantial resources to product development and patent submissions. The patent submissions are primarily for defensive purposes, rather than for potential license revenue generation. We monitor changing customer needs and work closely with our customers, consultants and market research organizations to track changes in the marketplace, including emerging industry standards.

Research and development expenses include costs for hardware and related software development, prototyping, certification and pre-production costs. We spent approximately \$10.2 million, \$11.2 million, and \$11.7 million in the fiscal years 2016, 2015, and 2014, respectively, in research and development.

Sales, Marketing and Support

We supply our products to public and private carriers, wireless infrastructure providers, wireless equipment distributors, value added resellers (“VARs”) and OEMs. PCTEL’s direct sales force is technologically sophisticated and sales executives have strong industry domain knowledge. Our direct sales force supports the sales efforts of our distributors and OEM resellers.

Our marketing strategy is focused on building market awareness and acceptance of our new products. The marketing organization also provides a wide range of programs, materials and events to support the sales organization. We spent approximately \$13.8 million, \$14.2 million, and \$13.0 million in fiscal years 2016, 2015, and 2014, respectively, for sales and marketing support.

Manufacturing

We do final assembly of most of our antenna products and all of our OEM receiver and interference management product lines. We also have arrangements with several contract manufacturers but are not dependent on any specific contract manufacturer. If any of our contract manufacturers are unable to provide satisfactory services for us, other contract manufacturers are available, although engaging a new contract manufacturer could cause delays and additional costs. We have no material guaranteed supply contracts or long-term agreements with any of our suppliers. We do have open purchase orders with our suppliers. See the contractual obligations and commercial commitments section of Item 7 for information on purchase commitments.

Employees

As of December 31, 2016, we had 503 full-time equivalent employees, consisting of 363 in operations, 56 in sales and marketing, 49 in research and development, and 35 in general and administrative functions. Total full-time equivalent employees were 491 and 465 at December 31, 2015 and 2014, respectively. Headcount increased by 12 at December 31, 2016 from December 31, 2015 primarily due to the employees added at our Tianjin, China facility. None of our employees are represented by a labor union. We consider employee relations to be good.

Available Information

Our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to such reports, are available free of charge through our website as soon as reasonably practicable after we electronically file such material with, or furnish it to, the United States Securities and Exchange Commission (the “SEC”). Our website is located at the following address: www.pctel.com. The information within, or that can be accessed through, our website, is not part of this Annual Report on Form 10-K. Further, any materials we file with the SEC may be read and copied by the public at the SEC’s Public Reference Room, located at 100 F Street, N.E., Room 1580, Washington D.C. 20549. Information regarding the operation of the Public Reference Room can be obtained by calling the SEC at 1(800) SEC-0330. The SEC maintains an Internet site that contains reports, proxy and information statements and other information regarding our filings at www.sec.gov.

Item 1A: Risk Factors

Factors That May Affect Our Business, Financial Condition and Future Operations

Risks Related to Our Business

Competition within the wireless product and services industry is intense and is expected to increase significantly. Failure to compete successfully could materially harm our prospects and financial results.

The market for our products and services is highly fragmented and is served by many local providers. We may not be able to displace established competitors from their customer base with our products and services.

Many of our present and potential competitors have substantially greater financial, marketing, technical and other resources with which to pursue engineering, manufacturing, marketing, and distribution of their products and delivery of their services. These competitors may succeed in establishing technology standards or strategic alliances in the connectivity products markets, obtain more rapid market acceptance for their products, or otherwise gain a competitive advantage. We can offer no assurance that we will succeed in developing product technologies and services that are more effective than those developed by our competitors. We can offer no assurance that we will be able to compete successfully against existing and new competitors as the connectivity wireless markets evolve and the level of competition increases.

Our wireless business is dependent upon the continued growth and evolution of the wireless industry.

Our future success is dependent upon the continued growth and evolution of the wireless industry. The growth in demand for wireless products and services may not continue at its current rate or at all. Any decrease in the growth of the wireless industry could have a material adverse effect on the results of our operations.

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

Our revenue depends on our ability to anticipate our existing and prospective customers' needs and develop products and services that address those needs. Our future success will depend on our ability to introduce new products and services for the wireless market, anticipate improvements and enhancements in wireless technology and wireless standards, and to develop products and services that are competitive in the rapidly changing wireless industry. Introduction of new products, product enhancements, and services will require coordination of our efforts with those of our customers, suppliers, and manufacturers 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 operating results will be materially and adversely affected and our business and prospects will be harmed. We cannot assure that product introductions will meet the anticipated release schedules or that our wireless products will be competitive in the market. Furthermore, given the evolving nature of the wireless market, there can be no assurance our products and technology will not be rendered obsolete by alternative or competing technologies.

We may experience integration or other problems with potential acquisitions, which could have an adverse effect on our business or results of operations. New acquisitions could dilute the interests of existing stockholders, and the announcement of new acquisitions could result in a decline in the price of our common stock.

We may in the future make acquisitions of, or large investments in, businesses that offer products, services, and technologies that we believe would complement our products or services, including wireless products and technology. We may also make acquisitions of or investments in, businesses that we believe could expand our distribution channels. Even if we were to announce an acquisition, we may not be able to complete it. Additionally, any future acquisition or substantial investment would present numerous risks, including:

- difficulty in integrating the technology, operations, internal accounting controls or work force of the acquired business with our existing business,
- disruption of our on-going business,
- difficulty in realizing the potential financial or strategic benefits of the transaction,
- difficulty in maintaining uniform standards, controls, procedures and policies,
- dealing with tax, employment, logistics, and other related issues unique to international organizations and assets we acquire,
- possible impairment of relationships with employees and customers as a result of integration of new businesses and management personnel, and
- impairment of assets related to resulting goodwill, and reductions in our future operating results from amortization of intangible assets.

We expect that future acquisitions could provide for consideration to be paid in cash, shares of our common stock, or a combination of cash and our common stock. If consideration for a transaction is paid in common stock, this would further dilute our existing stockholders. We may also incur debt to pay for an acquisition.

Our gross profit may vary based on the mix of sales of our products and services, and these variations may cause our net income to decline.

Depending on the mix of our products and services sold, our gross profit could vary significantly from quarter to quarter. Generally, antenna products and engineering services have a lower profit margin than scanning receiver products creating the variance in gross profits related to profit mix. A variance or decrease of our gross profit could have a negative impact on our financial results and cause our net income to decline.

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

Sales cycles for our products with major customers can be lengthy, often lasting nine months or longer. In addition, it can take an additional nine 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, including:

- our OEM customers and carriers usually complete a lengthy technical evaluation of our products, over which we have no control, before placing a purchase order,
- 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 largely based 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 were to occur, this could result in the loss of anticipated sales without sufficient time for us to reduce our operating expenses.

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

We have limited manufacturing capability. For some product lines we outsource the manufacturing, assembly, and testing of printed circuit board subsystems. For other product lines, we purchase completed hardware platforms and add our proprietary software. While there is no unique capability with these suppliers, any failure by these suppliers to meet delivery commitments would cause us to delay shipments and potentially be unable to accept new orders for product.

In addition, in the event that these suppliers discontinued the manufacture of materials used in our products, we would be forced to incur the time and expense of finding a new supplier or to modify our products in such a way that such materials were not necessary. Either of these alternatives could result in increased manufacturing costs and increased prices of our products.

We assemble our antenna products in our facilities located in Illinois and China and scanning receivers at our facility in Maryland. We may experience delays, disruptions, capacity constraints or quality control problems at our assembly facilities, which could result in lower yields or delays of product shipments to our customers. In addition, we are having a number of our antenna products manufactured in China via contract manufacturers. Any disruption of our own or contract manufacturers' operations could cause us to delay product shipments, which would negatively impact our sales, competitive reputation and position. In addition, if we do not accurately forecast demand for our products, we will have excess or insufficient parts to build our products, either of which could materially affect our operating results.

In order for us to operate at a profitable level and continue to introduce and develop new products for emerging markets, we must attract and retain our executive officers and qualified engineering, technical, sales, support and other administrative personnel.

Our 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 our executives or key employees, replacements could be difficult to recruit and, as a result, we may not be able to grow our business.

Competition for personnel, especially qualified engineering personnel, 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, 2016, we employed a total of 49 people in our research and development department. If we lose the services of one or more of our key engineering personnel, our ability to continue to develop products and technologies responsive to our markets may be impaired.

We may be subject to litigation regarding intellectual property associated with our business and this could be costly to defend and could prevent us from using or selling the challenged technology.

In recent years, there has been significant litigation in the United States involving intellectual property rights. We may be subject to claims in the future, including with respect to our wireless business. Intellectual property claims against us, and any resulting lawsuits, may result in significant expenses and could subject us to significant liability for damages and invalidate what we currently believe are our proprietary rights. These claims, regardless of their merits or outcome, would likely be time-consuming and expensive to resolve and could divert management's time and attention. This could have a material and adverse effect on our results of operations. Any intellectual property litigation disputes related to our business could also force us to do one or more of the following:

- cease selling, incorporating or using technology, products or services that incorporate the disputed intellectual property,
- obtain from the holder of the disputed intellectual property a license to sell or use the relevant technology, which license may not be available on acceptable terms, if at all, or
- redesign those products or services that incorporate the disputed intellectual property, which could result in substantial unanticipated development expenses.

If we are subject to a successful claim of infringement related to our wireless intellectual property and we fail to develop non-infringing intellectual property or license the infringed intellectual property on acceptable terms and on a timely basis, operating results could decline, and our ability to grow and sustain our wireless business could be materially and adversely affected. As a result, our results of operations could be impaired.

We may in the future initiate claims or litigation against third parties for infringement of our intellectual property rights or to determine the scope and validity of our proprietary rights or the proprietary rights of our competitors. These claims could also result in significant expense and the diversion of technical and management personnel's attention.

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

To date, we have not been made aware of any significant 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, which could result in loss of revenue, loss of customers or delay in market acceptance, any of which could adversely affect our business, operating results, and financial condition. We cannot assure that our efforts to monitor, develop, modify and implement appropriate test and manufacturing processes for our products will be sufficient to avoid failures in our products that result in delays in product shipment, replacement costs or potential damage to our reputation, any of which could harm our business, operating results and financial condition.

Conducting business in foreign countries involve additional risks.

A substantial portion of our manufacturing, research and development, and marketing activities is conducted outside the United States, including the United Kingdom, Hong Kong, and China. There are a number of risks inherent in doing business in foreign countries, including: unfavorable political or economic factors; unexpected legal or regulatory changes; lack of sufficient protection for intellectual property rights; difficulties in recruiting and retaining personnel and managing international operations; repatriation of earnings; and less developed infrastructure. If we are unable to manage successfully these and other risks pertaining to our international activities, our operating results, cash flows and financial position could be materially and adversely affected.

Our financial position and results of operations may be adversely affected if tax authorities challenge us and the tax challenges result in unfavorable outcomes.

We currently have international subsidiaries located in China, United Kingdom, and Israel as well as an international branch office located in Hong Kong. The complexities resulting from operating in several different tax jurisdictions increase our exposure to worldwide tax challenges. In the event a review of our tax filings results in unfavorable adjustments to our tax returns, our operating results, cash flows and financial position could be materially and adversely affected.

Conducting business in international markets involves foreign exchange rate exposure that may lead to reduced profitability.

We currently have operations in United Kingdom, Israel, Hong Kong, and China. Fluctuations in the value of the U.S. dollar relative to other currencies may impact our revenues, cost of revenues and operating margins and may result in foreign currency translation gains and losses.

Risks Related to Our Industry

Challenging economic conditions worldwide have from time to time contributed, and may continue to contribute, to slowdowns in the wireless industry at large, resulting in:

- reduced demand for our products as a result of continued constraints on corporate and government spending by our customers,
- increased price competition for our products,
- risk of excess and obsolete inventory,
- risk of supply constraints,
- risk of excess facilities and manufacturing capacity, and
- higher costs as a percentage of revenue and higher interest expense.

Our industry is characterized by rapidly changing technologies and rapidly changing competitive environments. If we are not successful in responding to these changes, our products may become obsolete and we may not be able to compete effectively.

We must continue to evaluate, develop and introduce technologically advanced products that will position us for possible growth in the wireless market. If we are not successful in doing so, our products may not be accepted in the market or may become obsolete and we may not be able to compete effectively.

Consolidation and vertical integration in our industry, and particularly integration of our customers with our competitors, may significantly reduce our ability to successfully market our products to long-standing customers and may adversely affect our vertically integrated customers' ability to choose our products even if our products are technologically superior.

Changes in laws or regulations, in particular future Federal Communications Commission ("FCC") regulations or international 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 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, FCC regulatory policies that affect the specifications of wireless data devices may impede certain of our customers' ability to manufacture their products profitably, which could, in turn, reduce demand for our products. Furthermore, 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

The trading price of our stock price may be volatile based on a number of factors, many of which are not under our control.

Our stock can experience significant changes in price on a percentage basis. The common stock price fluctuated between a high of \$6.00 and a low of \$4.36 in 2016. Our stock price can be subject to wide fluctuation in response to a variety of factors, many of which are out of our control, including:

- adverse change in domestic or global economic conditions,
- new products or services offered by us or our competitors,
- actual or anticipated variations in quarterly operating results,
- changes in financial estimates by securities analysts,
- announcements of technological innovations,
- our announcement of significant acquisitions, strategic partnerships, joint ventures or capital commitments,
- conditions or trends in our industry,

- additions or departures of key personnel,
- mergers and acquisitions, and
- sales of common stock by our stockholders or us or repurchases by us.

In addition, the NASDAQ Global Select Market, where many publicly held telecommunications companies, including PCTEL, are traded, often experiences extreme price and volume fluctuations. These fluctuations often have been unrelated or disproportionate to the operating performance of these companies.

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 decline 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. Specifically, 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. 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 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 decline.

If we are unable to successfully maintain processes and procedures required by the Sarbanes-Oxley Act of 2002 to achieve and maintain effective internal control over our financial reporting, our ability to provide reliable and timely financial reports could be harmed and our stock price could be adversely affected.

We must comply with the rules promulgated under Section 404 of the Sarbanes-Oxley Act of 2002. Section 404 requires an annual management report assessing the effectiveness of our internal control over financial reporting and a report by our independent registered public accounting firm addressing this assessment.

While we are expending significant resources in maintaining the necessary documentation and testing procedures required by Section 404, we cannot be certain that the actions we are taking to achieve and maintain our internal control over financial reporting will be adequate. If the processes and procedures that we implement for our internal control over financial reporting are inadequate, our ability to provide reliable and timely financial reports, and consequently our business and operating results, could be harmed. This in turn could result in an adverse reaction in the financial markets due to a loss of confidence in the reliability of our financial reports, which could cause the market price of our common stock to decline.

Item 1B: Unresolved Staff Comments

None.

Item 2: Properties

The following table lists our main facilities:

Location	Square feet	Owned/Leased	Lease Term		Segment
			Beginning	Ending	
Bloomington, Illinois	75,517	Owned	N/A	N/A	Connected Solutions and Corporate
Tianjin, China	44,289	Leased	2012	2020	Connected Solutions
Germantown, Maryland	20,704	Leased	2012	2020	RF Solutions
Lexington, North Carolina	5,630	Leased	2013	2019	Connected Solutions
Beijing, China	5,393	Leased	2016	2020	Connected Solutions
Englewood, Colorado	4,759	Leased	2015	2020	RF Solutions
Melbourne, Florida	3,600	Leased	2013	2018	RF Solutions

Facility Changes

Pursuant to the Asset Purchase Agreement dated February 27, 2015 with Nexgen, we assumed the lease for office space in Schaumburg, Illinois consisting of 6,652 square feet. The total lease obligation pursuant to this lease assumption was \$0.3 million. The lease contained a one-time option to elect an early termination of the lease by August 31, 2016. In March 2016, we exercised the early termination option and paid a fee of \$0.1 million.

In May 2015, we entered into a new five-year, five-month office lease in Englewood, Colorado consisting of 4,579 square feet of leased space for our engineering services business. The total lease obligation pursuant to this lease was \$0.6 million. The lease expires in October 2020; however, during the first quarter 2016, the Company vacated this facility and is marketing this property for sublease. During 2016 we recorded restructuring expenses based on the remaining lease payments for the Englewood facility, net of estimated sublease payments.

Effective October 31, 2015, our lease for our mobile tower assembly facility in Pryor, Oklahoma expired in accordance with its terms. This lease was not renewed because of the Company's exit from the mobile tower product line.

Due to recent growth in our China business for Connected Solutions and with the transfer of certain manufacturing activities to our Tianjin, China facility, in October 2015 we entered into a new five-year lease for additional manufacturing space in Tianjin consisting of 22,163 square feet which expands our footprint in Tianjin to 44,289 square feet. This lease expires October 2020. The total lease obligation pursuant to this lease is \$0.2 million. In January 2017, we signed a new lease for additional space of 5,877 square feet in our Beijing, China design center. The additional space will accommodate additional engineering capacity in support of the growth of our China business for Connected Solutions.

All properties are in good condition and are suitable for the purposes for which they are used. We believe that we have adequate space for our current needs.

Item 3: Legal Proceedings

Settlements with TelWorx Parties and Other Parties

On March 27, 2013, the Company and the TelWorx Parties (as defined below) entered into an Amendment (the "Amendment") to the Asset Purchase Agreement dated July 9, 2012 (the "Original Agreement"), among the Company, PCTelWorx, Ciao Enterprises, LLC f/k/a TelWorx Communications, LLC and certain of its affiliated entities (collectively, the "TelWorx Entities") and Tim and Brenda Scronce ("Sellers" and collectively with the TelWorx Entities, the "TelWorx Parties"), as part of a settlement arrangement relative to PCTelWorx's acquisition of substantially all of the assets and the assumption of certain specified liabilities of the TelWorx Entities on July 9, 2012 (the "Acquisition").

After completion of the Acquisition, we became aware of certain accounting irregularities with respect to the TelWorx Entities and our Board of Directors directed management to conduct an internal investigation. Based on the results of our investigation, our Board of Directors directed management to seek restitution from the TelWorx Parties, and after protracted negotiations and concurrent litigation, the parties entered into the Amendment and related settlement agreements to resolve their dispute. A legal settlement with an aggregate fair value of \$5.4 million was reached with the TelWorx Parties in March 2013.

We also engaged in efforts to seek restitution from two other parties used by the TelWorx Parties for professional services in the sale of the business to PCTEL. In 2014, we settled in cash with the two parties for \$0.1 million and \$0.8 million, respectively.

Item 4: Mine Safety Disclosures

Not applicable.

PART II**Item 5: Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities****Price Range of Common Stock and Dividends**

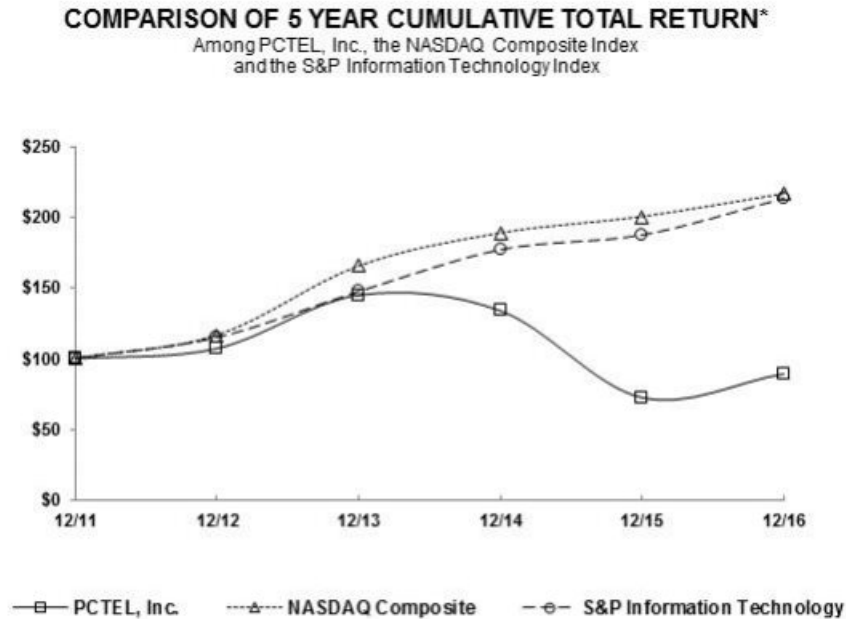
PCTEL's common stock has been traded on the NASDAQ Global Select Market under the symbol PCTI since our initial public offering on October 19, 1999. The following table shows the high and low sale prices of our common stock as reported by the NASDAQ Global Select Market for the periods indicated.

	2016				2015			
	Market Price		Dividends per Share	Market Price		Dividends per Share		
	High	Low		High	Low			
Fourth Quarter	\$ 5.68	\$ 4.86	\$ 0.05	\$ 6.01	\$ 4.38	\$ 0.05		
Third Quarter	\$ 5.62	\$ 4.62	\$ 0.05	\$ 7.24	\$ 5.27	\$ 0.05		
Second Quarter	\$ 4.95	\$ 4.36	\$ 0.05	\$ 8.24	\$ 7.01	\$ 0.05		
First Quarter	\$ 6.00	\$ 4.38	\$ 0.05	\$ 8.88	\$ 7.97	\$ 0.05		
			<u>\$ 0.20</u>			<u>\$ 0.20</u>		

The closing sale price of our common stock as reported on the NASDAQ Global Select Market on March 10, 2017 was \$5.81 per share. As of that date there were 36 holders of record of the common stock. A substantially greater number of holders of the common stock are in "street name" or beneficial holders, whose shares are held of record by banks, brokers, and other financial institutions.

Five-Year Cumulative Total Return Comparison

The following graph compares the annual percentage change in the cumulative return to our stockholders with the cumulative return of the NASDAQ Composite Index and the S&P Information Technology Index for the period beginning December 31, 2011 and ending December 31, 2016. Returns for the indices are weighted based on market capitalization at the beginning of each measurement point. Note that historic stock price performance is not necessarily indicative of future stock price performance.



*\$100 invested on 12/31/11 in stock or index, including reinvestment of dividends.
Fiscal year ending December 31.

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Sales of Unregistered Equity Securities

None.

Issuer Purchases of Equity Securities

All share repurchase programs are authorized by our Board of Directors and are announced publicly. On April 20, 2015, our Board of Directors authorized an additional 500,000 shares of stock under an existing share repurchase program. Additionally, on August 10, 2015, our Board of Directors authorized an additional 1,300,000 shares under the existing share repurchase programs, for a total of 2,726,000 shares. We repurchased 783,212 shares at an average price of \$5.23 during the year ended December 31, 2016. We repurchased 1,942,788 shares at an average price of \$6.22 during the year ended December 31, 2015. At December 31, 2016, the Company had no shares that could still be repurchased under previously approved programs.

Item 6: 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," the Consolidated Financial Statements and related notes and other financial information appearing elsewhere in this Annual Report on Form 10-K. The statement of operations data for the years ended December 31, 2016, 2015, and 2014 and the balance sheet data as of December 31, 2016 and 2015 are derived from audited financial statements included elsewhere in this Annual Report on Form 10-K. The statement of operations data for the years ended December

31, 2013 and 2012 and the balance sheet data as of December 31, 2014, 2013, and 2012 are derived from audited financial statements not included in this Annual Report on Form 10-K.

	2016	2015	2014	2013	2012
	(in thousands, except per share data)				
Consolidated Statement of Operations Data:					
Revenues	\$ 96,713	\$ 106,615	\$ 107,164	\$ 104,253	\$ 88,849
Cost of revenues	61,507	69,354	63,577	62,493	53,029
Gross profit	35,206	37,261	43,587	41,760	35,820
Operating expenses:					
Research and development	10,158	11,205	11,736	11,064	9,290
Sales and marketing	13,810	14,196	12,961	12,121	11,343
General and administrative	12,051	12,399	12,819	15,623	10,982
Amortization of intangible assets	1,651	3,426	1,967	2,400	2,359
Impairment of goodwill and other intangible assets	5,785	161	0	0	12,550
Restructuring charges	664	1,630	0	256	157
Total operating expenses	44,119	43,017	39,483	41,464	46,681
Operating (loss) income from continuing operations	(8,913)	(5,756)	4,104	296	(10,861)
Other income, net	112	3,287	1,666	5,378	100
(Loss) income before income taxes	(8,801)	(2,469)	5,770	5,674	(10,761)
Expense (benefit) for income taxes	8,880	(901)	1,158	2,332	(4,089)
Net (loss) income from continuing operations	(17,681)	(1,568)	4,612	3,342	(6,672)
Net (loss) from discontinued operations, net of tax benefit for income taxes	0	0	0	(91)	(2,587)
Net (loss) income	\$ (17,681)	\$ (1,568)	\$ 4,612	\$ 3,251	\$ (9,259)
(Loss) earnings per share from continuing operations:					
Basic	\$ (1.09)	\$ (0.09)	\$ 0.25	\$ 0.19	\$ (0.38)
Diluted	\$ (1.09)	\$ (0.09)	\$ 0.25	\$ 0.18	\$ (0.38)
Loss per share from discontinued operations:					
Basic	\$ 0.00	\$ 0.00	\$ 0.00	\$ (0.01)	\$ (0.15)
Diluted	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ (0.15)
(Loss) earnings per share :					
Basic	\$ (1.09)	\$ (0.09)	\$ 0.25	\$ 0.18	\$ (0.53)
Diluted	\$ (1.09)	\$ (0.09)	\$ 0.25	\$ 0.18	\$ (0.53)
Weighted average shares:					
Basic	16,151	17,737	18,159	17,797	17,402
Diluted	16,151	17,737	18,389	18,184	17,402
Dividends per common share	\$ 0.20	\$ 0.20	\$ 0.16	\$ 0.14	\$ 0.12
Consolidated Balance Sheet Data:					
Cash, cash equivalents and short-term investments	\$ 33,311	\$ 31,783	\$ 60,009	\$ 57,895	\$ 51,139
Working capital	\$ 55,152	\$ 59,041	\$ 88,573	\$ 83,585	\$ 74,486
Total assets	\$ 92,166	\$ 113,710	\$ 131,669	\$ 127,432	\$ 128,570
Total stockholders' equity	\$ 78,525	\$ 100,397	\$ 115,515	\$ 112,052	\$ 108,145

Item 7: Management's Discussion and Analysis of Financial Condition and Results of Operations

The following commentary presents a discussion and analysis of the Company's financial condition and results of operations by its management. The review highlights the principal factors affecting earnings and the significant changes in balance sheet items for the years 2016 and 2015. Financial information for prior years is presented when appropriate. The objective of this financial review is to enhance investor understanding of the accompanying tables and charts, the consolidated financial statements, notes to financial statements, and financial statistics appearing elsewhere in this Annual Report on Form 10-K. Where applicable, this discussion also reflects management's insights with respect to known events and trends that have or may reasonably be expected to have a material effect on the Company's operations and financial condition.

Our 2016 revenues decreased by \$9.9 million (9.3%), compared to 2015, due to lower revenues from services, site solutions, and scanning receivers. We recorded an operating loss of \$8.9 million in 2016, compared to an operating loss of \$5.8 million in 2015. The loss was the result of the negative gross margin impact of lower revenues and impairment expenses. Within operating expenses impairment charges of \$5.8 million offset lower cash-based operating expenses in 2016 compared to 2015. We impaired the customer relationships related to the services reporting unit. The 2016 net loss included adjustments of \$12.6 million related to the valuation allowance for deferred taxes.

Introduction

PCTEL operates in two segments for reporting purposes, Connected Solutions and RF Solutions. Our chief operating decision maker uses operating profits and identified assets for the Connected Solutions and RF Solutions segments to make operating decisions. Each segment has its own segment manager as well as its own engineering, sales and marketing, and operational general and administrative functions. All of our accounting and finance, human resources, IT and legal functions are provided on a centralized basis through the corporate function. We manage its balance sheet and cash flows centrally at the corporate level, with the exception of trade accounts receivable and inventory which is managed at the segment level. Each of the segment managers reports to and maintains regular contact with the chief operating decision maker to discuss operating activities, financial results, forecasts, or plans for the segment.

Connected Solutions Segment

PCTEL's Connected Solutions segment designs and manufactures precision antennas. PCTEL antennas are deployed primarily in small cells, enterprise Wi-Fi access points, fleet management and transit systems, and in equipment and devices for the Industrial Internet of Things ("IIoT"). Revenue growth in these markets is driven by the increased use of wireless communications and increased complexity trends occurring within them. PCTEL antennas are primarily sold to original equipment manufacturer ("OEM") providers where they are designed into the customer's solution.

Competition in the antenna markets addressed by Connected Solutions is fragmented. Competitors include Amphenol, Comtelco, Laird, Mobile Mark, Pulse, and Radiall/Larsen. We seek out product applications that command a premium for product performance and customer service, and avoids commodity markets.

PCTEL maintains expertise in several technology areas in order to be competitive in the antenna market. These include radio frequency engineering, mobile antenna design and manufacturing, mechanical engineering, product quality and testing, and wireless network engineering.

RF Solutions Segment

PCTEL's RF Solutions segment provides test tools and engineering services that improve the performance of wireless networks globally. Mobile operators, neutral hosts, and equipment manufacturers rely on PCTEL to analyze, design, and optimize next generation wireless networks. Revenue growth is driven by the implementation and roll out of new wireless technology standards (i.e. 1G to 2G, 2G to 3G, 3G to 4G, 4G to 5G, etc...). PCTEL test equipment is sold directly to wireless carriers or to OEM providers who integrate our products into their solution which is then sold to wireless carriers.

Competitors for PCTEL's test tool products include OEMs such as Anritsu, Berkley Varitronics, Digital Receiver Technology, and Rohde and Schwarz.

PCTEL maintains expertise in several technology areas in order to be competitive in the test tool and related engineering services market. These include radio frequency engineering, digital signal processing ("DSP") engineering, manufacturing, mechanical engineering, product quality and testing, and wireless network engineering.

Results of Operations for Continuing Operations

Years ended December 31, 2016, 2015, and 2014

(All amounts in tables, other than percentages, are in thousands)

REVENUES BY SEGMENT

	2016	2016 compared to 2015		2015	2015 compared to 2014		2014
		\$ Change	% Change		\$ Change	% Change	
Connected Solutions	\$ 65,763	\$ (3,816)	-5.5%	\$ 69,579	\$ (2,754)	-3.8%	\$ 72,333
RF Solutions	31,126	(6,129)	-16.5%	37,255	2,142	6.1%	35,113
Corporate	(176)	43	not meaningful	(219)	63	not meaningful	(282)
Total	\$ 96,713	\$ (9,902)	-9.3%	\$ 106,615	\$ (549)	-0.5%	\$ 107,164

Revenues were approximately \$96.7 million for the year ended December 31, 2016, a decrease of 9.3% from the prior year. Revenues declined by \$6.1 million (16.5%) for the RF Solutions segment due to lower revenues for both products and services. Approximately 71% of the decline in revenues in 2016 for the RF Solutions segment is due to the decline in service revenues. The service revenue decline was due to a downturn in North American cellular carrier spending and slower Distributed Communication System (“DAS”) deployments. Revenues for the Connected Solutions segment decreased \$3.8 million (5.5%) primarily due to lower kitting revenues and due to the exit from mobile towers. Approximately 42% of the revenue decline during 2016 was due to the exit from mobile towers.

Revenues were approximately \$106.6 million for the year ended December 31, 2015, a decrease of 0.5% from the prior year. Revenues for the RF Solutions segment increased by \$2.1 million (6.1%) due to the additional revenue generated from the business acquired from Nexgen, offset by lower revenues for scanning receivers. Revenues for the Connected Solutions segment decreased \$2.8 million (3.8%). Within Connected Solutions, revenues increased for antenna products, but decreased for cellular kitting products and mobile towers. We exited the mobile tower product line as of September 30, 2015. The decline in revenues from mobile towers contributed 2.6% of the 3.8% decrease in revenues for Connected Solutions for the year ended December 31, 2015 compared to the prior year.

GROSS PROFIT BY SEGMENT

	2016	% of Revenues	2015	% of Revenues	2014	% of Revenues
RF Solutions	14,485	46.5%	16,803	45.1%	20,743	59.1%
Corporate	15	not meaningful	32	not meaningful	26	not meaningful
Total	\$ 35,206	36.4%	\$ 37,261	34.9%	\$ 43,587	40.7%

Gross profit was 36.4% for the year ended December 31, 2016, an increase of 1.5% compared to 2015. The RF Solution’s segment gross profit increased 1.4% to 46.5% due to more favorable product mix with a higher proportion of scanning receivers versus services compared to 2015. The Connected Solutions segment’s gross profit was 31.5%, an increase of 2.1% compared to 2015. The margin improvement was primarily due to more favorable product mix with a higher proportion of antenna revenues, less kitting revenues and the exit from the mobile tower product line.

Gross profit was 34.9% for the year ended December 31, 2015, lower by 5.8% compared to 2014. The RF Solutions segment’s gross profit was 45.1%, a decrease of (14.0%). The decrease was due to less favorable product mix of lower revenues from scanning receivers and higher revenues from engineering services. The Connected Solutions segment’s gross profit was 29.4%, lower by 2.1% compared to 2014. The margin decline was primarily due to the fixed cost capacity variance created by the decline in mobile tower revenue and charges for excess inventories.

CONSOLIDATED OPERATING EXPENSES

	2016	2016 Change	2015	2015 Change	2014	% of Revenues		
						2016	2015	2014
Research and development	\$ 10,158	\$ (1,047)	\$ 11,205	\$ (531)	\$ 11,736	10.5%	10.5%	11.0%
Sales and marketing	13,810	(386)	14,196	1,235	12,961	14.3%	13.3%	12.1%
General and administrative	12,051	(348)	12,399	(420)	12,819	12.5%	11.6%	12.0%
Amortization of intangible assets	1,651	(1,775)	3,426	1,459	1,967	1.7%	3.2%	1.8%
Impairment of goodwill and other intangible assets	5,785	5,624	161	161	0	6.0%	0.2%	0.0%
Restructuring charges	664	(966)	1,630	1,630	0	0.7%	1.5%	0.0%
	<u>\$ 44,119</u>	<u>\$ 1,102</u>	<u>\$ 43,017</u>	<u>\$ 3,534</u>	<u>\$ 39,483</u>	<u>45.6%</u>	<u>40.3%</u>	<u>36.8%</u>

RESEARCH AND DEVELOPMENT

Research and development expenses decreased \$1.0 million from 2015 to 2016 due to reductions in expenses of \$0.9 million for RF Solutions and \$0.3 million for Connected Solutions, offset by an increase of \$0.2 million for stock compensation. The decrease in RF Solutions is due to headcount reductions in the third quarter 2015 for scanning receivers and in the first quarter 2016 for SeeHawk analytics.

Research and development expenses decreased \$0.5 million from 2014 to 2015. Development expenses for scanning receivers declined \$1.7 million and stock compensation expenses declined \$0.2 million, offsetting \$1.4 million of development expenses related to SeeHawk analytics. Development expenses declined for scanning receivers because the IB *flex*® scanning receiver was launched in 2014.

We had 49, 61, and 57 full-time equivalent employees in research and development at December 31, 2016, 2015, and 2014, respectively.

SALES AND MARKETING

Sales and marketing expenses include costs associated with the sales and marketing employees, sales representatives, product line management, and trade show expenses.

Sales and marketing expenses decreased \$0.4 million from 2015 to 2016 as expenses declined by \$0.7 million within Connected Solutions and declined by \$0.1 million within RF Solutions, offset by an increase of \$0.4 million for stock compensation. The decrease from Connected Solutions is primarily due to headcount reductions in marketing and site solution sales.

Sales and marketing expenses increased \$1.2 million from 2014 to 2015. The increase consisted of \$1.0 million related to the business acquired from Nexgen and \$0.6 million related to sales headcount and marketing expenses, offset by a \$0.4 million reduction in stock compensation expenses.

We had 56, 61, and 65 full-time equivalent employees in sales and marketing at December 31, 2016, 2015, and 2014, respectively.

GENERAL AND ADMINISTRATIVE

General and administrative expenses include costs associated with the general management, finance, human resources, information technology, legal, public company costs, and other operating expenses to the extent not otherwise allocated to other functions.

General and administrative expenses decreased \$0.3 million from 2015 to 2016 as decreases in Nexgen related expenses and other corporate expenses offset higher stock compensation expenses. In 2015, we incurred \$1.3 million in expenses related to the Nexgen acquisition and \$0.1 million in legal expenses related to the TelWorx SEC investigation that did not reoccur in 2016. Other corporate expenses were lower by \$0.4 million in 2016 compared to 2015 primarily due to lower employee costs. Stock compensation expense was \$1.5 million higher in 2016 compared to 2015 because of higher expense for service-based restricted stock of \$1.0 million, expense for stock bonuses of \$0.4 million, and because 2015 included a credit of \$0.1 million related to performance awards that did not vest.

General and administrative expenses decreased \$0.4 million from 2014 to 2015 due to declines of \$1.2 million for legal and professional fees associated with the TelWorx SEC investigation, \$0.7 million for stock compensation expenses, and \$0.2 million related to expenses for the short-term incentive plan, offsetting \$1.7 million of expenses related to the Nexgen acquisition.

We had 35, 40, and 43 full-time equivalent employees in general and administrative functions at December 31, 2016, 2015, and 2014, respectively.

AMORTIZATION OF INTANGIBLE ASSETS

Amortization expense within operating expenses was approximately \$1.7 million in 2016 compared to \$3.4 million in 2015. The decrease of \$1.7 million is attributable to certain assets being fully amortized in 2015 and the impact of the impairment of customer relationships at June 30, 2016. Amortization declined by \$0.7 million because of assets for Connected Solutions being fully amortized in 2015 and declined by \$0.6 million because of assets for RF Solutions being fully amortized in 2015. Amortization declined by \$0.4 million as a result of the asset impairment at June 30, 2016.

Amortization expense was approximately \$3.4 million in 2015 compared to \$2.0 million in 2014. The increase of \$1.4 million is due to amortization expense related to intangible assets acquired from Nexgen.

IMPAIRMENT OF INTANGIBLE ASSETS

During 2016, we recorded total impairment expense of \$5.8 million related to customer relationships for the services reporting unit within the RF Solutions segment, consisting of \$4.7 million at June 30, 2016 and \$1.1 million at December 31, 2016.

For the three months ended June 30, 2016, the revenue and contribution margin of the services reporting unit were below the forecasts. The results and revised forecast were reflective of a long-term slowdown in the DAS market which is the primary market addressed by our services offering. We considered the changes to our forecast and the industry and market trends as a triggering event to assess the intangible assets of the services reporting units for impairment. We reviewed our intangible assets for impairment by performing a test of recoverability. The cash flow forecast prepared by us included assumptions for revenues, gross margins, and operating expenses. The test of recoverability failed because the undiscounted cash flows were below the carrying value of the services reporting unit. We calculated the fair value of the services reporting unit with the assistance of a third-party valuation firm.

For the three months ended December 31, 2016, the revenues and contribution margin for the services reporting unit declined sequentially. Q4 2016 gross margins were negatively impacted by the lower volume and by lower average margin on individual projects. We lowered our profit forecast for 2017 compared to the forecast prepared for the 2017 operating plan. The new forecast was negatively impacted by a lower than normal sales backlog at December 31, 2016 as well as no known large projects in the sales funnel. Further, based on management's review of the market and industry as of year-end 2016, a long-term recovery is not expected. We determined that the revision to the forecast for services was a triggering event for its review of intangible assets for impairment. We reviewed our intangible assets for impairment by performing a test of recoverability. The cash flow forecast that we prepared included assumptions for revenues, gross margins, and operating expenses. The test of recoverability failed because the undiscounted cash flows were below the carrying value of the services reporting unit. The impairment charge of \$1.1 million represented the remaining value of the customer relationships as of December 31, 2016.

As part of our annual impairment test for goodwill as of October 31, 2015, we recorded a goodwill impairment charge of \$0.2 million related to our RF Services reporting unit because its fair value was below its carrying value. We recorded no goodwill impairments in 2014. See the discussion of this goodwill impairment within the critical accounting estimates section of this Item 7 and see Note 1 of the consolidated financial statements for information related to our evaluation of goodwill in the fourth quarter 2015.

RESTRUCTURING CHARGES

We incurred restructuring expense of \$0.7 million and \$1.6 million for the years ended December 31, 2016 and 2015, respectively. No restructuring expenses were recorded for the year ended December 31, 2014.

During the first quarter 2016, we reduced headcount in our RF Solutions segment related to services and SeeHawk analytics, and exited from our Colorado office in order to consolidate facility space. The restructuring expense incurred for lease terminations includes the remaining obligations under the lease, net of assumed proceeds for a sublease. As of December 31, 2016, the Colorado office has not been subleased. The restructuring expense in 2016 consisted of \$0.3 million in employee severance and payroll related costs, \$0.3 million for lease terminations, and \$0.1 million related to fixed asset disposals. The restructuring expense incurred for lease terminations includes the remaining obligations under the lease, net of assumed proceeds for a sublease. As of December 31, 2016, the Colorado office has not been subleased.

In June 2015, we committed to a restructuring program for reductions in U.S. headcount and the exit from the mobile towers product line. To lower operating and production costs, we reduced headcount in engineering related to scanning receivers, in U.S. operations for Connected Solutions, and related to the mobile tower product line. We terminated 51 employees between June and December 2015 and recorded severance and other employee benefits of \$1.2 million. Our mobile towers were primarily sold into the oil and gas

exploration market in North America. The mobile towers were used to primarily provide a communications link to an oil drilling site or lighting for a site under construction. The decline in oil prices caused a decline in related mobile tower sales. We made the decision to exit the mobile tower product line due to the anticipated long term effect on revenue from depressed oil prices, and one of our two tower suppliers filing for Chapter 7 bankruptcy in June 2015 as a result of the decline in sales. Mobile towers were not a key element of our kitting operation or antenna business within Connected Solutions. Our exit from the mobile tower product line did not meet the accounting guidance for discontinued operations. The exit from mobile towers did not constitute a strategic shift in our operations. We recorded a charge of \$0.4 million related to write-off of intangible assets related to the mobile towers product line.

OPERATING (LOSS) PROFIT BY SEGMENT

	<u>2016</u>	<u>% of Revenues</u>	<u>2015</u>	<u>% of Revenues</u>	<u>2014</u>	<u>% of Revenues</u>
Connected Solutions	\$ 7,804	11.9%	\$ 5,040	7.2%	\$ 7,357	10.2%
RF Solutions	(6,738)	-21.6%	(298)	-0.8%	7,333	20.9%
Corporate	(9,979)	not meaningful	(10,498)	not meaningful	(10,586)	not meaningful
Total	<u>\$ (8,913)</u>	<u>-9.2%</u>	<u>\$ (5,756)</u>	<u>-5.4%</u>	<u>\$ 4,104</u>	<u>3.8%</u>

Total operating loss declined \$3.2 million for the year ended December 31, 2016 compared to 2015. The decline is largely attributed to \$2.1 million in lower gross profit and \$5.8 million in impairment expenses related to intangible assets for our services reporting unit, offsetting lower restructuring charges and lower cash-based operating expenses.

Total operating profit declined \$9.9 million for the year ended December 31, 2015 compared to 2014. The decline is largely attributed to \$6.3 million lower gross profit previously discussed, \$1.6 million of restructuring costs, and a \$1.5 million increase in amortization of intangible assets from the Nexgen acquisition.

OTHER INCOME, NET

	<u>2016</u>	<u>2015</u>	<u>2014</u>
Settlement income	\$ 0	\$ 3,160	\$ 1,005
Insurance proceeds	5	102	639
Interest income	100	55	85
Foreign exchange gains (losses)	13	(33)	(49)
Other, net	(6)	3	(14)
	<u>\$ 112</u>	<u>\$ 3,287</u>	<u>\$ 1,666</u>
Percentage of revenues	0.1%	3.1%	1.6%

Other income, net consists of interest income, foreign exchange gains and losses, insurance proceeds, and income from legal settlements.

For the year ended December 31, 2016, we recorded interest income of \$100 and foreign exchange gains of \$13.

For the year ended December 31, 2015, an Amendment to the Nexgen APA resulted in settlement income of \$3.2 million consisting of \$2.3 million from the release of the Nexgen escrow fund, \$0.8 million from the collection of previously excluded accounts receivables, and \$0.1 million related to the reversal of the contingent liability for the earnout. We also received \$0.1 million in insurance proceeds related to claims for legal and professional expenses for the SEC investigation of the TelWorx Parties. The legal expenses and professional fees related to the insurance claim were recorded in general and administrative expenses. We recorded interest income of \$55 and foreign exchange losses of \$33 during the year ended December 31, 2015.

For the year ended December 31, 2014, settlement income includes \$0.9 million related to legal settlements with professional service firms that assisted the TelWorx parties with the sale of the business to PCTEL. We received \$0.6 million in insurance proceeds related to claims for legal and professional expenses for the SEC investigation of the TelWorx Parties. The legal expenses and professional fees related to the insurance claim were recorded in general and administrative expenses. We recorded interest income of \$85 and foreign exchange losses of \$49 during the year ended December 31, 2014.

EXPENSE (BENEFIT) FOR INCOME TAXES

	2016	2015	2014
Expense (benefit) for income taxes	\$ 8,880	\$ (901)	\$ 1,158
Effective tax rate	-101.0%	36.5%	20.1%

The effective tax rate differed from the statutory Federal rate of 34.0% by approximately 135% during 2016 primarily due to an adjustment to the valuation allowance for deferred taxes. Based on lower future projected U.S. tax income, we recorded adjustments of \$12.6 million to the valuation allowance.

The effective tax rate differed from the statutory Federal rate of 34.0% by approximately 2.5% during 2015 primarily due to research and development credits and incremental tax on repatriation of Israel funds. The effective tax rate differed from the statutory Federal rate of 34.0% by approximately 14.0% during 2014 primarily due to reversals of reserves for uncertain tax positions related to research credits and foreign withholding taxes.

At December 31, 2016, we had net deferred tax assets of \$4.5 million, which includes a valuation allowance of \$13.3 million. We maintain a valuation allowance due to uncertainties regarding realizability. On a regular basis, management evaluates the recoverability of deferred tax assets and the need for a valuation allowance. The valuation allowance at December 31, 2016 is primarily because the Company does not believe it will generate sufficient US taxable income to realize a significant portion of its deferred tax assets. The valuation allowance at December 31, 2015 related to credits and state operating losses that we do not expect to realize because they correspond to tax jurisdictions where we no longer have significant operations.

Liquidity and Capital Resources

	Years Ended December 31,		
	2016	2015	2014
Net (loss) income	\$ (17,681)	\$ (1,568)	\$ 4,612
Charges for depreciation, amortization, stock-based compensation, and other non-cash items	22,997	8,085	8,720
Changes in operating assets and liabilities	5,090	2,557	(5,356)
Net cash provided by operating activities	10,406	9,074	7,976
Net cash provided by (used in) investing activities	4,375	(7,689)	(6,014)
Net cash used in financing activities	(6,902)	(14,712)	(3,314)
Cash and cash equivalents at the end of the year	\$ 14,855	\$ 7,055	\$ 20,432
Short-term investments at the end of the year	18,456	24,728	39,577
Working capital at the end of the year	\$ 55,152	\$ 59,041	\$ 88,573

Liquidity and Capital Resources Overview

At December 31, 2016, our cash, cash equivalents, and investments were approximately \$33.3 million and we had working capital of approximately \$55.2 million. Our primary source of liquidity is cash provided by operations, with short term swings in liquidity supported by a significant balance of cash and short-term investments. The balance has fluctuated with cash from operations, acquisitions and divestitures, payment of dividends and the repurchase of our common shares.

Within operating activities, we are historically a net generator of operating funds from our income statement activities and a net user of operating funds for balance sheet expansion. We expect this historical trend to continue in the future.

Within investing activities, capital spending historically ranges between 2.0% and 5.0% of our revenues and the primary use of capital is for manufacturing and engineering development requirements. Our capital expenditures during the year ended December 31, 2016 was approximately 2.0% of revenues. We historically have significant transfers between investments and cash as we rotate our large cash balances and short-term investment balances between money market funds, which are accounted for as cash equivalents, and other investment vehicles. We have a history of supplementing our organic revenue growth with acquisitions of product lines or companies, resulting in significant uses of our cash and short-term investment balances from time to time. We expect the historical trend for capital spending and the variability caused by moving money between cash and investments and periodic merger and acquisition activity to continue in the future.

Within financing activities, we have historically generated funds from the exercise of stock options and proceeds from the issuance of common stock through the Employee Stock Purchase Plan ("ESPP") and have historically used funds to repurchase shares of our

common stock through our share repurchase programs and through quarterly dividends. Whether this activity results in our being a net user of funds versus a net generator of funds is largely dependent on our stock price during any given year.

Operating Activities:

We generated \$10.4 million of funds from operating activities during the year ended December 31, 2016. Adjustments related to non-cash items within net income were \$23.0 million for the year ended December 31, 2016 as the deferred tax provision was \$8.2 million, impairment expense was \$5.8 million, amortization and depreciation was \$5.5 million, and stock-based compensation was \$4.0 million. Within the balance sheet, we generated cash of \$2.9 million from the reduction of inventories and \$1.7 million from the reduction of accounts receivable. Inventories decreased \$2.9 million due to lower inventories for Connected Solutions as a result of improved processes for forecasting and reductions in minimum order quantities for purchases. Accounts receivable generated cash primarily due to more favorable timing of revenues with the fourth quarter 2016 compared to the fourth quarter 2015. We used \$0.4 million for payroll taxes related to stock-based compensation. The tax payments related to our stock issued for restricted stock awards.

We generated \$9.1 million of funds from operating activities during the year ended December 31, 2015. Adjustments related to non-cash items within net income were \$8.1 million for the year ended December 31, 2015 as amortization and depreciation was \$7.1 million and stock-based compensation was \$1.9 million. Within the balance sheet, we generated cash of \$8.3 million from accounts receivable, of which \$5.4 million related to the collection of opening balance sheet accounts receivable for Nexgen. We also generated cash from accounts receivable because revenues for the quarter ended December 31, 2015 were \$3.3 million lower than the quarter ended December 31, 2014. We used \$1.9 million for the payout of the executive deferred compensation plan, and we used \$1.5 million to pay annual 2014 accruals, including short-term incentive plan bonuses and sales commissions. Inventories increased \$1.4 million due to higher inventories for Connected Solutions. Inventories increased because of the transition of additional production to China from the U.S. and because of increased safety stock. We used \$0.4 million for payroll taxes related to stock-based compensation. The tax payments related to our stock issued for restricted stock awards.

We generated \$8.0 million of funds from operating activities during the year ended December 31, 2014. Cash from operations consisted of approximately \$13.3 million of cash generated from our income statement, offset by approximately \$5.3 million of cash used within our balance sheet. Within our income statement activities, we used \$1.0 million for payroll taxes related to stock-based compensation. The tax payments related to our stock issued for restricted stock awards. On the balance sheet, we used cash of \$5.3 million due to higher accounts receivable. Accounts receivable increased due to higher revenues during the quarter ended compared to quarter ended December 31, 2013 and due to the timing of revenues with the quarters. Revenues were \$3.4 million higher for the three months ended December 31, 2014 versus the comparable period in 2013. We used cash of \$1.9 million from the increase of inventories. Our inventories were higher for RF Solutions due to the introduction of new products, and our inventories were higher for Connected Solutions to meet the demand for shipments in the first quarter 2015. We generated cash of \$1.1 million within the balance sheet due to higher accounts payable. Accounts payable increased due to increases in inventories and due to the timing of vendor purchases during the year ended December 31, 2014 compared to the year ended December 31, 2013.

Investing Activities:

Our investing activities provided \$4.3 million of cash during the year ended December 31, 2016. Redemptions and maturities of our short-term investments during the year provided \$80.5 million in cash and we rotated \$74.3 million of cash into new short-term investments. We used \$1.9 million for capital expenditures during the year ended December 31, 2016.

Our investing activities used \$7.7 million of cash during the year ended December 31, 2015. We used \$20.5 million for the purchase of the Nexgen business in February 2015. We funded the acquisition from our cash and from investments that matured during January and February 2015. During the year ended December 31, 2015, redemptions and maturities of our short-term investments provided \$45.0 million in cash and we rotated \$30.1 million of cash into new short-term investments. We used \$2.1 million for capital expenditures during the year ended December 31, 2015.

Our investing activities used \$6.0 million of cash during the year ended December 31, 2014 as we used \$3.5 million of cash for investments and used \$2.5 million for capital expenditures. Redemptions and maturities of our investments in short-term bonds during the year ended December 31, 2014 provided \$55.1 million in funds. We rotated \$58.6 million of cash into new short-term bonds during the year ended December 31, 2014.

Financing Activities:

We used \$6.9 million in cash for financing activities during the year ended December 31, 2016. We used \$4.1 million to repurchase shares in the stock repurchase program and \$3.5 million for cash dividends paid quarterly during 2016. We received \$0.6 million in proceeds from the purchase of shares through our ESPP.

We used \$14.7 million in cash for financing activities during the year ended December 31, 2015. We used \$12.1 million to repurchase shares in the stock repurchase program and \$3.6 million for cash dividends paid quarterly during 2015. We received \$1.0 million in proceeds from the purchase of shares through our ESPP and the exercise of stock options.

We used \$3.3 million in cash for financing activities during the year ended December 31, 2014. We paid \$3.0 million for quarterly cash dividends and used \$1.6 million to repurchase shares in the stock repurchase program. We received \$1.3 million in proceeds from the purchase of shares through our ESPP and the exercise of stock options.

Contractual Obligations and Commercial Commitments

The following summarizes our contractual obligations at December 31, 2016 for office and product assembly facility leases, office equipment leases and purchase obligations, and the effect such obligations are expected to have on the liquidity and cash flows in future periods (in thousands):

		Payments Due by Period				
		Total	Less than 1 year	1-3 years	4-5 years	After 5 years
Operating leases:						
Facility	(a)	\$ 2,757	\$ 874	\$ 1,883	\$ 0	\$ 0
Equipment and equipment maintenance	(b)	\$ 217	\$ 62	\$ 127	\$ 28	\$ 0
Purchase obligations	(c)	\$ 5,346	\$ 5,346	\$ 0	\$ 0	\$ 0
Total		\$ 8,320	\$ 6,282	\$ 2,010	\$ 28	\$ 0

(a) Future payments for the lease of office and production facilities.

(b) Future payments for the lease of office equipment.

(c) Purchase orders or contracts for the purchase of inventory, as well as for other goods and services, in the ordinary course of business, and excludes the balances for purchases currently recognized as liabilities on the balance sheet.

As of December 31, 2016, we had obligations through 2021 for capital leases of \$241 related to office and manufacturing equipment. See Note 7 of the consolidated financial statements for more information on capital leases.

We have a liability related to uncertain positions for income taxes of \$0.9 million at December 31, 2016. We do not know when this obligation will be paid.

Off-Balance Sheet Arrangements

None.

Critical Accounting Policies and Estimates

The preparation of our consolidated financial statements in accordance with generally accepted accounting principles requires us to make estimates and judgments that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenue and expenses during the period reported. By their nature, these estimates and judgments are subject to an inherent degree of uncertainty. Management bases its estimates and judgments on historical experience, market trends, and other factors that are believed to be reasonable under the circumstances. Actual results may differ from these estimates under different assumptions or conditions.

Revenue Recognition - We recognize revenue when the following criteria are met: persuasive evidence of an arrangement exists, delivery has occurred or services have been rendered, price is fixed and determinable, and collectability is reasonably assured. We recognize revenue for sales of products when title transfers, which is predominantly upon shipment from the factory. For products shipped on consignment, we recognize revenue upon delivery from the consignment location. Revenue recognition is also based on estimates of product returns, allowances, discounts, and other factors. These estimates are based on historical data. We believe that the estimates used are appropriate, but differences in actual experience or changes in estimates may affect future results. We recognize revenue for our network engineering services under the completed performance method. Most services occur in one week or less, and revenue is generally recognized when the engineering reports are completed and issued to the customer.

Accounts Receivable and Allowance for Doubtful Accounts - Accounts receivable are recorded at invoiced amount. We extend credit to our customers based on an evaluation of a customer's financial condition and collateral is generally not required. We maintain an allowance for doubtful accounts for estimated uncollectible accounts receivable. The allowance is based on our assessment of known delinquent accounts, historical experience, and other currently available evidence of the collectability and the aging of accounts receivable. Although management believes the current allowance is sufficient to cover existing exposures, there can be no assurance against the deterioration of a major customer's creditworthiness, or against defaults that are higher than what has been experienced historically.

Excess and Obsolete Inventory - We maintain reserves to reduce the value of inventory to the lower of cost or market and reserves for excess and obsolete inventory. Reserves for excess inventory are calculated based on our estimate of inventory in excess of normal and planned usage. Obsolete reserves are based on our identification of inventory where carrying value is above net realizable value. We believe the accounting estimate related to excess and obsolete inventory is a critical accounting estimate because it requires us to make assumptions about future sales volumes and product mix, both of which are highly uncertain. Changes in these estimates can have a material impact on our financial statements.

Warranty Costs - We offer repair and replacement warranties of primarily five years for antenna products and scanning receiver products. Our warranty reserve is based on historical sales and costs of repair and replacement trends. We believe that the accounting estimate related to warranty costs is a critical accounting estimate because it requires us to make assumptions about matters that are highly uncertain, including future rates of product failure and repair costs. Changes in warranty reserves could be material to our financial statements.

Stock-based Compensation - We recognize stock-based compensation expense for all equity awards in accordance with fair value recognition provisions. Under the fair value provisions, we recognize stock-based compensation expense net of an estimated forfeiture rate, recognizing compensation cost only for those awards expected to vest over requisite service periods of the awards. Stock-based compensation expense and disclosures are dependent on assumptions used in calculating such amounts. These assumptions include risk-free interest rates, expected term of the stock-based compensation instrument granted, volatility of stock and option prices, expected time between grant date and date of exercise, attrition, performance, and other factors. These factors require us to use judgment. Our estimates of these assumptions typically are based on historical experience and currently available market place data. While management believes that the estimates used are appropriate, differences in actual experience or changes in assumptions may affect our future stock-based compensation expense and disclosures.

Income Taxes - Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date.

Our operations have international subsidiaries located in China, United Kingdom and Israel, as well as an international branch office located in Hong Kong. The complexities that arise from operating in several different tax jurisdictions inevitably lead to an increased exposure to worldwide taxes. Should review of the tax filings result in unfavorable adjustments to our tax returns, the operating results, cash flows, and financial position could be materially and adversely affected.

We are subject to the continuous examination of our income tax returns by the Internal Revenue Service and other tax authorities. A change in the assessment of the outcomes of such matters could materially impact our consolidated financial statements. The calculation of tax liabilities involves dealing with uncertainties in the application of complex tax regulations. We recognize liabilities for anticipated tax audit issues based on our estimate of whether, and the extent to which, additional taxes may be required. If we ultimately determine that payment of these amounts is unnecessary, then we reverse the liability and recognize a tax benefit during the period in which we determine that the liability is no longer necessary. We also recognize tax benefits to the extent that it is more likely than not that our positions will be sustained if challenged by the taxing authorities. To the extent we prevail in matters for which liabilities have been established, or are required to pay amounts in excess of our liabilities, our effective tax rate in a given period may be materially affected. An unfavorable tax settlement would require cash payments and may result in an increase in our effective tax rate in the year of resolution. A favorable tax settlement would be recognized as a reduction in our effective tax rate in the year of resolution.

Valuation Allowances for Deferred Tax Assets - We establish an income tax valuation allowance when available evidence indicates that it is more likely than not that all or a portion of a deferred tax asset will not be realized. In assessing the need for a valuation allowance, we consider the amounts and timing of expected future deductions or carryforwards and sources of taxable income that may enable utilization. We maintain an existing valuation allowance until sufficient positive evidence exists to support its reversal. Changes in the amount or timing of expected future deductions or taxable income may have a material impact on the level of income tax valuation allowances. Our assessment of the realizability of the deferred tax assets requires judgment about our future results. Inherent in this estimation is the requirement for us to estimate future book and taxable income and possible tax planning strategies. These estimates require us to exercise judgment about our future results, the prudence and feasibility of possible tax planning strategies, and the economic environment in which we do business. It is possible that the actual results will differ from the assumptions and require adjustments to the allowance. Adjustments to the allowance would affect future net income.

Impairment Reviews of Goodwill – We perform an annual impairment test of goodwill as of the end of the first month of the fiscal fourth quarter (October 31st), or at an interim date if an event occurs or if circumstances change that would indicate that an impairment loss may have been incurred. In performing our annual impairment test, we first perform a qualitative assessment to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying value, including goodwill. If our qualitative assessment is indicative of possible impairment, then a two-step quantitative fair value assessment is performed at the reporting unit level. In the first step, the fair value of each reporting unit is compared with its carrying value. If the fair value exceeds the carrying value, then goodwill is not impaired and no further testing is performed. The second step is performed if the carrying value exceeds the fair value. The implied fair value of goodwill is then compared against the carrying value of goodwill to determine the amount of impairment.

The process of evaluating the potential impairment of goodwill is subjective because it requires the use of estimates and assumptions in determining a reporting unit's fair value. We calculate the fair value of each reporting unit by using the income approach based on the present value of future discounted cash flows. The discounted cash flow method requires us to use estimates and judgments about the future cash flows of the reporting units. Although we base cash flow forecasts on assumptions that are consistent with plans and estimates we use to manage the underlying reporting units, there is significant judgment in determining the cash flows attributable to these reporting units, including markets and market share, sales volumes and mix, research and development expenses, tax rates, capital spending, discount rate and working capital changes. Cash flow forecasts are based on reporting unit operating plans for the early years and business projections in later years. We believe the accounting estimate related to the valuation of goodwill is a critical accounting estimate because it requires us to make assumptions that are highly uncertain about the future cash flows of our reporting units.

While the use of historical results and future projections can result in different valuations for a business, it is a generally accepted valuation practice to apply more than one valuation technique to establish a range of values for a business. Since each technique relies on different inputs and assumptions, it is unlikely that each technique would yield the same results. However, it is expected that the different techniques would establish a reasonable range. In determining the fair value, we weigh the two methods equally because we believe both methods have an equal probability of providing an appropriate fair value.

Impairment Reviews of Finite-Lived Intangible Assets - We evaluate the carrying value of finite-lived intangible assets and other long-lived assets for impairment whenever indicators of impairment exist. We test finite-lived intangible assets for recoverability using undiscounted cash flows. Although we base cash flow forecasts on assumptions that are consistent with plans and estimates we use to manage the underlying reporting units, there is significant judgment in determining the cash flows attributable to these reporting units, including markets and market share, sales volumes and mix, research and development expenses, capital spending and working capital changes. Cash flow forecasts are based on operating plans and business projections. We compare the tax-affected undiscounted cash flows to the carrying value of the asset group. If the carrying value exceeds the sum of the undiscounted cash flows of the asset group, we would assess the fair value of the intangible assets in the group to determine if an impairment charge should be recognized in the financial statements.

We believe the accounting estimate related to the valuation of intangible assets is a critical accounting estimate because it requires us to make assumptions about future sales prices and volumes for products that involve new technologies and applications where customer acceptance of new products or timely introduction of new technologies into their networks are uncertain. The recognition of impairment could be material to our financial statements.

Recent Accounting Pronouncements

In January 2017, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update (“ASU”) 2017-04, Intangibles – Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment (“ASU 2017-04”). ASU 2017-04 eliminates Step 2 as part of the goodwill impairment test. The amount of the impairment charge to be recognized would now be the amount by which the carrying value exceeds the reporting unit's fair value. The loss to be recognized cannot exceed the amount of

goodwill allocated to that reporting unit. The amendments in ASU 2017-04 are effective for annual or interim goodwill impairment tests in fiscal years beginning after December 15, 2019. Early adoption is permitted for interim and annual goodwill impairment tests performed on testing dates after January 1, 2017. We are evaluating the provisions of ASU 2017-04 and its impact on our consolidated financial statements and related disclosures.

In August 2016, the FASB issued ASU 2016-15, Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments. This ASU addresses the following eight specific cash flow issues: Debt prepayment or debt extinguishment costs; settlement of zero-coupon debt instruments or other debt instruments with coupon interest rates that are insignificant in relation to the effective interest rate of the borrowing; contingent consideration payments made after a business combination; proceeds from the settlement of insurance claims; proceeds from the settlement of corporate-owned life insurance policies (including bank-owned life insurance policies); distributions received from equity method investees; beneficial interests in securitization transactions; and separately identifiable cash flows and application of the predominance principle. This guidance will be effective for us on January 1, 2018. We do not expect the adoption of this ASU to have a material impact on our consolidated financial statements.

In June 2016, the FASB issued Accounting Standards Update No. 2016-13 ("ASU 2016-13") regarding ASC Topic 326, "Financial Instruments - Credit Losses," which modifies the measurement of expected credit losses of certain financial instruments. The amendments will be effective for us on January 1, 2020. We are currently evaluating this guidance and the impact it will have on our consolidated financial statements.

In March 2016, the FASB issued ASU No. 2016-09, Compensation - Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting. ASU No. 2016-09 affects all entities that issue share-based payment awards to their employees. ASU No. 2016-09 simplifies several aspects of the accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows, including recognizing all excess tax benefits and tax deficiencies as income tax expense or benefit in the income statement rather than in additional paid-in capital. ASU No. 2016-09 is effective for financial statements issued for annual reporting periods beginning after December 15, 2016 and interim periods within those years. Upon adoption, we anticipate recognizing deferred tax assets for all excess tax benefits that had not been previously recognized. This will be accomplished through a cumulative-effect adjustment to retained earnings of approximately \$0.6 million.

In February 2016, the FASB issued ASU 2016-02, Leases (Topic 842), which amends existing guidance to require lessees to recognize assets and liabilities on the balance sheet for the rights and obligations created by long-term leases and to disclose additional quantitative and qualitative information about leasing arrangements. This ASU also provides clarifications surrounding the presentation of the effects of leases in the income statement and statement of cash flows. This guidance will be effective for us on January 1, 2019. We are currently evaluating this guidance and the impact it will have on our consolidated financial statements and related disclosures.

In November 2015, the FASB issued ASU 2015-17, Balance Sheet Classification of Deferred Taxes, to simplify the presentation of deferred income taxes. The amendments in this update require that deferred tax assets and liabilities be entirely classified as noncurrent within the statement of financial position. Effective December 31, 2015, we early adopted the balance sheet classification of deferred taxes on a prospective basis. The guidance requires deferred tax assets and liabilities to be classified as noncurrent rather than split between current and noncurrent. Approximately \$1.8 million in current deferred tax assets was reclassified to long-term deferred tax assets at December 31, 2015.

In July 2015, the FASB issued ASU No. 2015-11, Simplifying the Measurement of Inventory. ASU 2015-11 simplifies the subsequent measurement of inventory by requiring inventory to be measured at the lower of cost and net realizable value. ASU 2015-11 applies only to inventories for which cost is determined by methods other than last-in first-out and the retail inventory method. ASU 2015-11 is effective for public companies for annual reporting periods beginning after December 15, 2016, and interim periods within those fiscal years. We are currently evaluating the impact of ASU 2015-11 and have preliminarily concluded that it will not have a significant impact on our consolidated financial statements.

In May 2014, the FASB issued ASU 2014-09, "Revenue from Contracts with Customers" which introduces a new revenue recognition model in which an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. ASU 2014-09 defines a five step process to achieve this core principle and, in doing so, more judgment and estimates may be required within the revenue recognition process than are required under existing U.S. GAAP. This ASU also requires disclosures sufficient to enable users to understand the nature, amount, timing, and uncertainty of revenue and cash flows arising from contracts with customers, including qualitative and quantitative disclosures about contracts with customers, significant judgments and changes in judgments, and assets recognized from the costs to obtain or fulfill a contract. This guidance will be effective for us on January 1, 2018. The FASB has also issued the following standards which clarify ASU 2014-09 and have the same effective date as the original standard: ASU 2016-20,

Technical Corrections and Improvements to Topic 606, ASU No. 2016-12, Narrow-Scope Improvements and Practical Expedients, ASU 2016-10, Identifying Performance Obligations and Licensing and ASU 2016-08, Principal versus Agent Considerations.

We will commence our assessment of ASU 2014-09 during the first quarter of 2017 and develop a project plan to guide the implementation. This project plan includes analyzing the standard's impact on our contract portfolio, comparing our historical accounting policies and practices to the requirements of the new standard and identifying potential differences from applying the requirements of the new standard to its contracts. We will draft an updated accounting policy, evaluate new disclosure requirements and identify and implement appropriate changes to our business processes, systems and controls to support recognition and disclosure under the new standard. We expect to adopt this new standard using the modified retrospective method that will result in a cumulative effect adjustment as of the date of adoption. We are currently evaluating this guidance and the impact it will have on the consolidated financial statements.

Item 7A: Quantitative and Qualitative Disclosures about Market Risk

We are exposed to market risk from changes in interest rates, foreign exchange rates, credit risk, and investment risk as follows:

Interest Rate Risk

We manage the sensitivity of our results of operations to interest rate risk on cash equivalents by maintaining a conservative investment portfolio. The primary objective of our investment activities is to preserve principal without significantly increasing risk. To achieve this objective, we maintain our portfolio of cash equivalents, short-term investments, and long-term investments, in pre-refunded municipal bonds, U.S. government agency bonds or money market funds invested exclusively in government agency bonds and AA or higher rated corporate bonds.

Due to changes in interest rates, our future investment income may fall short of expectations. A hypothetical increase or decrease of 10% in market interest rates would not result in a material decrease in interest income earned through maturity on investments held at December 31, 2016. We do not hold or issue derivatives, derivative commodity instruments or other financial instruments for trading purposes.

Foreign Currency Risk

We are exposed to currency fluctuations due to our foreign operations and because we sell our products internationally. We manage the sensitivity of our international sales by denominating the majority of transactions in U.S. dollars. However, the value of our billings in Chinese yuan is increasing due to the growth of the Connected Solutions business in China. We manage these operating activities at the local level and revenues, costs, assets and liabilities are generally denominated in local currencies, thereby mitigating the risk associated with changes in foreign exchange. However, our results of operations and assets and liabilities are reported in U.S. dollars and thus will fluctuate with changes in exchange rates between such local currencies and the U.S. dollar. As exchange rates vary, these results, when translated, may vary from expectations and adversely impact overall expected profitability.

We had \$1.3 million of cash in foreign bank accounts at December 31, 2016. We ceased ongoing operations of our Israel subsidiary during the third quarter 2016. We expect to liquidate the subsidiary and repatriate its remaining cash during 2017. We do not expect the foreign currency exchange related to the repatriation of these funds to have a material impact on the financial statements. As of December 31, 2016, we had no intention of repatriating the cash in our foreign bank accounts in China or the U.K. If we decide to repatriate the cash in these foreign bank accounts, we may experience difficulty in repatriating the cash in a timely manner. We may also be exposed to foreign currency fluctuations and taxes if we repatriate these funds.

Credit Risk

The financial instruments that potentially subject us to credit risk consist primarily of trade receivables. For trade receivables, credit risk is the potential for a loss due to a customer not meeting its payment obligations. Our customers are concentrated in the wireless communications industry. Estimates are used in determining an allowance for amounts which we may not be able to collect, based on current trends, the length of time receivables are past due and historical collection experience. Provisions for and recovery of bad debts are recorded as sales and marketing expense in the consolidated statements of operations. We perform ongoing evaluations of customers' credit limits and financial condition. Generally, we do not require collateral from customers. Huawei accounted for approximately 17% of accounts receivable at December 31, 2016. No other customer accounts receivable balance represented 10% or greater of gross accounts receivable at December 31, 2016 and no customer's accounts receivable balance represented 10% or greater of gross accounts receivable at December 31, 2015. Our allowances for potential credit losses have historically been adequate compared to actual losses.

One customer represented 10% or greater of our revenues for the years ended December 31, 2016, and no customers represented 10% or greater of our revenues for the years ended December 31, 2015 or 2014.

PCTEL, INC.
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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and Stockholders
PCTEL, Inc.

We have audited the accompanying consolidated balance sheets of PCTEL, Inc. (a Delaware corporation) and subsidiaries (the Company) as of December 31, 2016 and 2015, and the related consolidated statements of operations, comprehensive (loss) income, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2016. Our audits of the basic consolidated financial statements included the financial statement schedule listed in the index appearing under Item 15(a)(2). These financial statements and financial statement schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and financial statement schedule based on our audits.

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

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of PCTEL, Inc. and subsidiaries as of December 31, 2016 and 2015, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2016, in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the related financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, present fairly, in all material respects, the information set forth therein.

As discussed in note 1 to the consolidated financial statements, the Company adopted new accounting guidance in 2015 related to the presentation of deferred income taxes.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company's internal control over financial reporting as of December 31, 2016, based on criteria established in the 2013 *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and our report dated March 15, 2017 expressed an unqualified opinion thereon.

/s/ Grant Thornton LLP

Chicago, Illinois
March 15, 2017

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and Stockholders
PCTEL, Inc.

We have audited the internal control over financial reporting of PCTEL, Inc. (a Delaware corporation) and subsidiaries (the Company) as of December 31, 2016, based on criteria established in the 2013 *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying "Management's Report on Internal Control Over Financial Reporting." Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on criteria established in the 2013 *Internal Control—Integrated Framework* issued by COSO.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated financial statements of the Company as of and for the year ended December 31, 2016, and our report dated March 15, 2017 expressed an unqualified opinion on those financial statements.

/s/ Grant Thornton LLP

Chicago, Illinois
March 15, 2017

PCTEL, INC.
CONSOLIDATED BALANCE SHEETS
(in thousands, except share data)

	December 31, 2016	December 31, 2015
ASSETS		
Cash and cash equivalents	\$ 14,855	\$ 7,055
Short-term investment securities	18,456	24,728
Accounts receivable, net of allowance for doubtful accounts of \$273 and \$314 at December 31, 2016 and December 31, 2015, respectively	19,101	21,001
Inventories, net	14,442	17,596
Prepaid expenses and other assets	1,548	1,586
Total current assets	68,402	71,966
Property and equipment, net	12,609	13,839
Goodwill	3,332	3,332
Intangible assets, net	3,275	11,378
Deferred tax assets, net	4,512	13,155
Other noncurrent assets	36	40
TOTAL ASSETS	\$ 92,166	\$ 113,710
LIABILITIES AND STOCKHOLDERS' EQUITY		
Accounts payable	\$ 6,073	\$ 6,735
Accrued liabilities	7,177	6,190
Total current liabilities	13,250	12,925
Other long-term liabilities	391	388
Total liabilities	13,641	13,313
Stockholders' equity:		
Common stock, \$0.001 par value, 100,000,000 shares authorized, 17,335,122 and 17,654,236 shares issued and outstanding at December 31, 2016 and December 31, 2015, respectively	17	18
Additional paid-in capital	134,480	135,714
Accumulated deficit	(55,590)	(35,320)
Accumulated other comprehensive loss	(382)	(15)
Total stockholders' equity	78,525	100,397
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	\$ 92,166	\$ 113,710

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

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

	Years Ended December 31,		
	2016	2015	2014
REVENUES	\$ 96,713	\$ 106,615	\$ 107,164
COST OF REVENUES	61,507	69,354	63,577
GROSS PROFIT	35,206	37,261	43,587
OPERATING EXPENSES:			
Research and development	10,158	11,205	11,736
Sales and marketing	13,810	14,196	12,961
General and administrative	12,051	12,399	12,819
Amortization of intangible assets	1,651	3,426	1,967
Impairment of goodwill and other intangible assets	5,785	161	0
Restructuring charges	664	1,630	0
Total operating expenses	44,119	43,017	39,483
OPERATING (LOSS) INCOME	(8,913)	(5,756)	4,104
Other income, net	112	3,287	1,666
(LOSS) INCOME BEFORE INCOME TAXES	(8,801)	(2,469)	5,770
Expense (benefit) for income taxes	8,880	(901)	1,158
NET (LOSS) INCOME	\$ (17,681)	\$ (1,568)	\$ 4,612
(Loss) Earnings per Share:			
Basic	\$ (1.09)	\$ (0.09)	\$ 0.25
Diluted	\$ (1.09)	\$ (0.09)	\$ 0.25
Weighted Average Shares:			
Basic	16,151	17,737	18,159
Diluted	16,151	17,737	18,389
Cash dividend per share	\$ 0.20	\$ 0.20	\$ 0.16

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

PCTEL, INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE (LOSS) INCOME
(in thousands, except per share data)

	Years Ended December 31,		
	2016	2015	2014
NET (LOSS) INCOME	\$ (17,681)	\$ (1,568)	\$ 4,612
OTHER COMPREHENSIVE LOSS			
Foreign currency translation adjustments	(367)	(150)	(74)
COMPREHENSIVE (LOSS) INCOME	<u>\$ (18,048)</u>	<u>\$ (1,718)</u>	<u>\$ 4,538</u>

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

PCTEL, INC.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(in thousands)

	Common Stock	Additional Paid-In Capital	Retained Deficit	Accumulated Other Comprehensive Income (Loss)	Total Stockholders' Equity of PCTEL, Inc.
BALANCE at JANUARY 1, 2014	\$ 19	\$ 143,572	\$ (31,748)	\$ 209	\$ 112,052
Stock-based compensation expense	0	3,276	0	0	3,276
Issuance of shares for stock purchase and option plans	1	1,091	0	0	1,092
Cancellation of shares for payment of withholding tax	0	(1,037)	0	0	(1,037)
Tax effect from stock based compensation	0	203	0	0	203
Repurchase of common stock	(1)	(1,651)	0	0	(1,652)
Dividends paid	0	8	(2,965)	0	(2,957)
Net income	0	0	4,612	0	4,612
Change in cumulative translation adjustment, net	0	0	0	(74)	(74)
BALANCE at DECEMBER 31, 2014	<u>\$ 19</u>	<u>\$ 145,462</u>	<u>\$ (30,101)</u>	<u>\$ 135</u>	<u>\$ 115,515</u>
Stock-based compensation expense	0	1,865	0	0	1,865
Issuance of shares for stock purchase and option plans	0	1,018	0	0	1,018
Cancellation of shares for payment of withholding tax	0	(438)	0	0	(438)
Tax effect from stock based compensation	0	(115)	0	0	(115)
Repurchase of common stock	(1)	(12,078)	0	0	(12,079)
Dividends paid	0	0	(3,651)	0	(3,651)
Net loss	0	0	(1,568)	0	(1,568)
Change in cumulative translation adjustment, net	0	0	0	(150)	(150)
BALANCE at DECEMBER 31, 2015	<u>\$ 18</u>	<u>\$ 135,714</u>	<u>\$ (35,320)</u>	<u>\$ (15)</u>	<u>\$ 100,397</u>
Stock-based compensation expense	0	3,986	0	0	3,986
Issuance of shares for stock purchase and option plans	0	649	0	0	649
Cancellation of shares for payment of withholding tax	0	(426)	0	0	(426)
Tax effect from stock based compensation	0	(482)	0	0	(482)
Repurchase of common stock	(1)	(4,094)	0	0	(4,095)
Dividends paid	0	(867)	(2,589)	0	(3,456)
Net loss	0	0	(17,681)	0	(17,681)
Change in cumulative translation adjustment, net	0	0	0	(367)	(367)
BALANCE at DECEMBER 31, 2016	<u>\$ 17</u>	<u>\$ 134,480</u>	<u>\$ (55,590)</u>	<u>\$ (382)</u>	<u>\$ 78,525</u>

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

PCTEL, INC.
CONSOLIDATED STATEMENT OF CASH FLOWS
(in thousands)

	Years Ended December 31,		
	2016	2015	2014
Operating Activities:			
Net (loss) income	\$ (17,681)	\$ (1,568)	\$ 4,612
Adjustments to reconcile net (loss) income to net cash provided by operating activities:			
Depreciation and amortization	5,468	7,105	4,806
Stock based compensation	3,986	1,865	3,276
Impairment of goodwill and other intangible assets	5,785	161	0
(Gain) loss on disposal/sale of property and equipment	2	(12)	9
Restructuring costs	30	688	0
Payment of withholding tax on stock based compensation	(426)	(438)	(1,037)
Deferred tax provision	8,152	(1,284)	1,666
Changes in operating assets and liabilities, net of acquisitions:			
Accounts receivable	1,695	8,260	(5,301)
Inventories	2,863	(1,385)	(1,870)
Prepaid expenses and other assets	17	227	1,406
Accounts payable	(484)	1,114	1,050
Income taxes payable	81	4	(79)
Other accrued liabilities	878	(4,465)	(1,625)
Deferred revenue	40	(1,198)	1,063
Net cash provided by operating activities	<u>10,406</u>	<u>9,074</u>	<u>7,976</u>
Investing Activities:			
Capital expenditures	(1,912)	(2,102)	(2,542)
Proceeds from disposal of property and equipment	15	64	0
Purchase of investments	(74,264)	(30,146)	(58,629)
Redemptions/maturities of short-term investments	80,536	44,995	55,157
Purchase of assets	0	(20,500)	0
Net cash provided by (used in) investing activities	<u>4,375</u>	<u>(7,689)</u>	<u>(6,014)</u>
Financing Activities:			
Proceeds from issuance of common stock	649	1,018	1,092
Tax benefit from stock based compensation	0	0	203
Payments for repurchase of common stock	(4,095)	(12,079)	(1,652)
Dividends paid	(3,456)	(3,651)	(2,957)
Net cash used in financing activities	<u>(6,902)</u>	<u>(14,712)</u>	<u>(3,314)</u>
Net increase (decrease) in cash and cash equivalents	7,879	(13,327)	(1,352)
Effect of exchange rate changes on cash	(79)	(50)	(6)
Cash and cash equivalents, beginning of year	7,055	20,432	21,790
Cash and Cash Equivalents, End of Year	<u>\$ 14,855</u>	<u>\$ 7,055</u>	<u>\$ 20,432</u>
Other information:			
Cash paid for income taxes	\$ 622	\$ 413	\$ 199
Cash paid for interest	\$ 8	\$ 7	\$ 14
Non-cash investing and financing information:			
Increases (decreases) to deferred stock compensation, net	\$ (879)	\$ 3,566	\$ 12
Issuance of restricted common stock, net of cancellations	\$ 1,725	\$ 4,941	\$ 431
Purchase of assets under capital leases	\$ 134	\$ 30	\$ 189

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

PCTEL, INC.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
For the Year Ended: December 31, 2016
(in thousands)

1. Organization and Summary of Significant Accounting Policies

Nature of Operations

PCTEL, Inc. (“PCTEL”, the “Company”, “we”, “ours”, and “us”) delivers Performance Critical TELecom technology solutions to the wireless industry. PCTEL is the leading global supplier of wireless network antenna and testing solutions. PCTEL’s Connected Solutions segment designs and manufactures precision antennas. PCTEL antennas are deployed in small cells, enterprise Wi-Fi access points, fleet management and transit systems, and in network equipment and devices for the Industrial Internet of Things (“IIoT”). PCTEL’s RF Solutions segment provides test tools and engineering services that improve the performance of wireless networks globally. Mobile operators, neutral hosts, and equipment manufacturers rely on PCTEL to analyze, design, and optimize next generation wireless networks.

Segment Reporting

PCTEL operates in two segments for reporting purposes, Connected Solutions and RF Solutions. The Company’s chief operating decision maker uses operating profits and identified assets for the Connected Solutions and RF Solutions segments to make operating decisions. Each segment has its own segment manager as well as its own engineering, sales and marketing, and operational general and administrative functions. All of the Company’s accounting and finance, human resources, IT and legal functions are provided on a centralized basis through the corporate function. The Company manages its balance sheet and cash flows centrally at the corporate level, with the exception of trade accounts receivable and inventory which is managed at the segment level. Each of the segment managers reports to and maintains regular contact with the chief operating decision maker to discuss operating activities, financial results, forecasts, or plans for the segment.

Connected Solutions Segment

PCTEL Connected Solutions designs and manufactures precision antennas. PCTEL antennas are deployed primarily in small cells, enterprise Wi-Fi access points, fleet management and transit systems, and in equipment and devices for the Industrial Internet of Things (“IIoT”). Revenue growth in these markets is driven by the increased use of wireless communications and increased complexity trends occurring within them. PCTEL antennas are primarily sold to original equipment manufacturer (“OEM”) providers where they are designed into the customer’s solution.

Competition in the antenna markets addressed by Connected Solutions is fragmented. Competitors include Amphenol, Comtelco, Laird, Mobile Mark, Pulse, and Radiall/Larsen. The Company seeks out product applications that command a premium for product performance and customer service, and avoids commodity markets.

PCTEL maintains expertise in several technology areas in order to be competitive in the antenna market. These include radio frequency engineering, mobile antenna design and manufacturing, mechanical engineering, product quality and testing, and wireless network engineering.

RF Solutions Segment

PCTEL RF Solutions provides test tools and engineering services that improve the performance of wireless networks globally. Mobile operators, neutral hosts, and equipment manufacturers rely on PCTEL to analyze, design, and optimize next generation wireless networks. Revenue growth is driven by the implementation and roll out of new wireless technology standards (i.e. 1G to 2G, 2G to 3G, 3G to 4G, 4G to 5G, etc...). PCTEL test equipment is sold directly to wireless carriers or to OEM providers who integrate the Company’s products into their solution which is then sold to wireless carriers.

Competitors for PCTEL’s test tool products include OEMs such as Anritsu, Berkley Varitronics, Digital Receiver Technology, and Rohde and Schwarz.

PCTEL maintains expertise in several technology areas in order to be competitive in the test tool and related engineering services market. These include radio frequency engineering, DSP engineering, manufacturing, mechanical engineering, product quality and testing, and wireless network engineering.

Basis of Consolidation

These consolidated financial statements include the accounts of the Company and its subsidiaries. All intercompany accounts and transactions have been eliminated.

Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles in the U.S. 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 periods reported. Actual results could differ from those estimates.

Foreign Operations

The Company is exposed to foreign currency fluctuations due to its foreign operations and because products are sold internationally. The functional currency for the Company's foreign operations is predominantly the applicable local currency. Accounts of foreign operations are translated into U.S. dollars using the year-end exchange rate for assets and liabilities and average monthly rates for revenue and expense accounts. Adjustments resulting from translation are included in accumulated other comprehensive income (loss), a separate component of stockholders' equity. Gains and losses resulting from other transactions originally in foreign currencies and then translated into U.S. dollars are included in the consolidated statements of operations. Net foreign exchange gains (losses) resulting from foreign currency transactions included in other income, net were \$13, \$(33), and \$(49) in the years ended December 31, 2016, 2015, and 2014, respectively.

Fair Value of Financial Instruments

The Company follows accounting pronouncements for Fair Value Measurements and Disclosures, which establishes a fair value hierarchy that requires the Company to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. Fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability. As a basis for considering such assumptions, a three-tier fair value hierarchy has been established, which prioritizes the inputs used in measuring fair value as follows:

Level 1: inputs are unadjusted quoted prices in active markets for identical assets or liabilities.

Level 2: inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices in active markets for similar assets and liabilities, quoted prices for identical or similar assets or liabilities in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of assets or liabilities.

Level 3: unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

Cash equivalents are measured at fair value and investments are recognized at amortized cost in the Company's financial statements. Accounts receivable and other investments are financial assets with carrying values that approximate fair value due to the short-term nature of these assets. Accounts payable is a financial liability with a carrying value that approximates fair value due to the short-term nature of these liabilities.

Cash and Cash Equivalents and Investments

The Company's cash and investments consist of the following:

	December 31, 2016	December 31, 2015
Cash	\$ 7,507	\$ 6,077
Cash equivalents	7,348	978
Short-term investments	18,456	24,728
	<u>\$ 33,311</u>	<u>\$ 31,783</u>

Cash and Cash equivalents

At December 31, 2016, cash and cash equivalents included bank balances and investments with original maturities less than 90 days. At December 31, 2016 and 2015, the Company's cash equivalents were invested in highly liquid AAA rated money market funds that are required to comply with Rule 2a-7 under the Investment Company Act of 1940. Such funds utilize the amortized cost method of accounting, seek to maintain a constant \$1.00 per share price, and are redeemable upon demand. The Company restricts its investments in AAA money market funds to those invested 100% in either short-term U.S. Government Agency securities or bank repurchase agreements collateralized by these same securities. The fair values of these money market funds are established through quoted prices in active markets for identical assets (Level 1 inputs). The cash in the Company's U.S. banks is insured by the Federal Deposit Insurance Corporation up to the insurable limit of \$250.

At December 31, 2016, the Company had \$7.5 million in cash and \$7.3 million in cash equivalents and at December 31, 2015, the Company had \$6.1 million in cash and \$1.0 million in cash equivalents. The Company had \$0.9 million and \$1.3 million of cash and cash equivalents in foreign bank accounts at December 31, 2016 and at December 31, 2015, respectively. Within the cash in foreign bank accounts, the Company had cash of \$0.5 million and \$0.8 million in China bank accounts at December 31, 2016 and December 31, 2015, respectively. The Company ceased ongoing operations of its subsidiary in Israel during the third quarter 2016. The Company expects to liquidate the subsidiary and repatriate its remaining cash during 2017. In December 2015 the Company recorded the expense for the estimated incremental income tax of \$0.1 million related to the repatriation of the funds from Israel. The Company does not expect the foreign currency exchange related to the repatriation of these funds to have a material impact on the financial statements. As of December 31, 2016, the Company had no intentions of repatriating the cash in its foreign bank accounts in the U.K. or China. If the Company decides to repatriate the cash in the foreign bank accounts, it may experience difficulty in doing so in a timely manner. The Company may also be exposed to foreign currency fluctuations and taxes if it repatriates these funds. The Company's cash in its foreign bank accounts is not insured.

Investments

At December 31, 2016 and 2015, the Company's short-term investments consisted of pre-refunded municipal bonds, U.S. government agency bonds, AA or higher rated corporate bonds and certificates of deposit, all classified as held-to-maturity.

At December 31, 2016, the Company had invested \$7.8 million in pre-refunded municipal bonds and taxable bond funds, \$5.6 million in AA rated or higher corporate bond funds, \$2.6 million in U.S. government agency bonds, and \$2.5 million in certificates of deposit. The income and principal from the pre-refunded municipal bonds is secured by an irrevocable trust of U.S. Treasury securities. The bonds have original maturities greater than 90 days and mature in 2017. The Company's bonds are recorded at the purchase price and carried at amortized cost. The net unrealized gains (losses) were approximately \$(9) and \$1 at December 31, 2016 and December 31, 2015, respectively. Approximately 6% and 11% of the Company's bonds were protected by bond default insurance at December 31, 2016 and 2015, respectively.

At December 31, 2015, the Company had invested \$7.6 million in AA rated or higher corporate bond funds, \$7.5 million in pre-refunded municipal bonds and taxable bond funds, \$7.0 million in U.S. government agency bonds, and \$2.7 million in certificates of deposit.

The Company categorizes its financial instruments within a fair value hierarchy according to accounting guidance for fair value. The fair value hierarchy is described under the Fair Value of Financial Instruments in Note 1. For the Level 2 investments, the Company uses quoted prices of similar assets in active markets.

Cash equivalents and Level 1 and Level 2 investments measured at fair value were as follows:

	December 31, 2016				December 31, 2015			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Cash equivalents:								
Money market funds and other cash equivalents	\$ 7,349	\$ 0	\$ 0	\$ 7,349	\$ 978	\$ 0	\$ 0	\$ 978
Investments:								
Pre-refunded municipal bonds	0	7,776	0	7,776	0	7,497	0	7,497
Corporate bonds	0	5,569	0	5,569	0	7,558	0	7,558
US government agency bonds	0	2,571	0	2,571	0	7,008	0	7,008
Certificates of deposit	2,530	0	0	2,530	2,666	0	0	2,666
Total	\$ 9,879	\$ 15,916	\$ 0	\$ 25,795	\$ 3,644	\$ 22,063	\$ 0	\$ 25,707

Accounts Receivable and Allowance for Doubtful Accounts

Accounts receivable are recorded at invoiced amount with standard net terms for most customers that range between 30 and 60 days. The Company extends credit to its customers based on an evaluation of a company's financial condition and collateral is generally not required. The Company maintains an allowance for doubtful accounts for estimated uncollectible accounts receivable. The allowance is based on the Company's assessment of known delinquent accounts, historical experience, and other currently available evidence of the collectability and the aging of accounts receivable. The Company's allowance for doubtful accounts was \$0.3 million at December 31, 2016 and 2015, respectively. The provision for doubtful accounts is included in sales and marketing expense in the consolidated statements of operations.

Inventories

Inventories are stated at the lower of cost or market and include material, labor and overhead costs using the first-in, first-out ("FIFO") method of costing. Inventories as of December 31, 2016 and 2015 were composed of raw materials, sub-assemblies, finished goods and work-in-process. The Company had consigned inventory of \$0.4 million and \$0.7 million at December 31, 2016 and 2015, respectively. The Company records allowances to reduce the value of inventory to the lower of cost or market, including allowances for excess and obsolete inventory. Reserves for excess inventory are calculated based on the Company's estimate of inventory in excess of normal and planned usage. Obsolete reserves are based on the Company's identification of inventory where carrying value is above net realizable value. The allowance for inventory losses was \$2.9 million and \$2.2 million as of December 31, 2016 and 2015, respectively.

Inventories consisted of the following:

	December 31, 2016	December 31, 2015
Raw materials	\$ 8,718	\$ 11,012
Work in process	1,486	917
Finished goods	4,238	5,667
Inventories, net	<u>\$ 14,442</u>	<u>\$ 17,596</u>

Prepaid and other current assets

Prepaid assets are stated at cost and are amortized over the useful lives (up to one year) of the assets.

Property and Equipment

Property and equipment are stated at cost and are depreciated using the straight-line method over the estimated useful lives of the assets. The Company depreciates computers over three to five years, office equipment, manufacturing and test equipment and motor vehicles over five years, furniture and fixtures over seven years, and buildings over 30 years. Leasehold improvements are amortized over the shorter of the corresponding lease term or useful life. Depreciation expense and gains and losses on the disposal of property and equipment are included in cost of sales and operating expenses in the consolidated statements of operations. Maintenance and repairs are expensed as incurred.

Property and equipment consisted of the following:

	December 31, 2016	December 31, 2015
Building	\$ 6,351	\$ 6,227
Computers and office equipment	11,577	10,931
Manufacturing and test equipment	12,940	12,826
Furniture and fixtures	1,239	1,273
Leasehold improvements	1,191	1,001
Motor vehicles	20	42
Total property and equipment	<u>33,318</u>	<u>32,300</u>
Less: Accumulated depreciation and amortization	(22,479)	(20,231)
Land	1,770	1,770
Property and equipment, net	<u>\$ 12,609</u>	<u>\$ 13,839</u>

Depreciation and amortization expense was approximately \$3.2 million, \$3.1 million, and \$2.8 million for the years ended December 31, 2016, 2015, and 2014, respectively. Amortization for capital leases is included in depreciation and amortization expense. See Note 7 for information related to capital leases.

Liabilities

Accrued liabilities consisted of the following:

	December 31, 2016	December 31, 2015
Payroll, bonuses, and other employee benefits	\$ 2,029	\$ 1,179
Inventory receipts	1,622	1,628
Paid time off	1,230	1,271
Income and sales taxes	546	381
Warranties	394	348
Professional fees and contractors	320	305
Employee stock purchase plan	300	280
Real estate taxes	152	161
Restructuring	126	237
Deferred revenues	104	65
Other	354	335
Total	<u>\$ 7,177</u>	<u>\$ 6,190</u>

Long-term liabilities consisted of the following:

	December 31, 2016	December 31, 2015
Long-term obligations under capital leases	\$ 157	\$ 107
Deferred rent	156	250
Restructuring	70	0
Deferred revenues	8	31
Total	<u>\$ 391</u>	<u>\$ 388</u>

Revenue Recognition

The Company sells antennas, site solutions, and scanning receiver products, and provides network engineering and staffing services. The Company recognizes revenue when the following criteria are met: persuasive evidence of an arrangement exists, delivery has occurred or services have been rendered, price is fixed and determinable, and collectability is reasonably assured.

The Company recognizes revenue for sales of its products when title transfers, which is predominantly upon shipment from its factory. For products shipped on consignment, the Company recognizes revenue upon delivery from the consignment location. The Company allows its major antenna product distributors to return product under specified terms and conditions and accrues for product returns. The Company recognizes revenue for its engineering services under the completed performance method. Most services occur in one week or less, and revenue is generally recognized when engineering reports are completed and issued to the customer. For specialized staffing, the Company recognizes revenue as services are provided to the customer.

Research and Development Costs

The Company expenses research and development costs as incurred. To date, the Company has expensed all software development costs related to research and development because the costs incurred subsequent to the products reaching technological feasibility were not significant.

Advertising Costs

Advertising costs are expensed in the period in which they are incurred. Advertising expense was \$162, \$212, and \$175 in each of the fiscal years ended December 31, 2016, 2015, and 2014, respectively.

Income Taxes

Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. Valuation allowances are provided against deferred tax assets, which are not likely to be realized. On a regular basis, management evaluates the recoverability of deferred tax assets and the need for a valuation allowance.

Deferred tax assets arise when the Company recognizes charges or expenses in the financial statements that will not be allowed as income tax deductions until future periods. The deferred tax assets also include unused tax net operating losses and tax credits that the Company is allowed to carry forward to future years. Accounting rules permit the Company to carry the deferred tax assets on the balance sheet at full value as long as it is more likely than not the deductions, losses, or credits will be used in the future. A valuation allowance must be recorded against a deferred tax asset if this test cannot be met. During 2016, the Company recorded adjustments to the valuation allowance of \$12.6 million because the Company does not believe it will generate sufficient US taxable income to realize a significant portion of its deferred tax assets. See Note 6 for more information on the deferred tax valuation allowance.

The Company recognizes the effect of income tax positions only if those positions are more likely than not of being sustained. Recognized income tax positions are measured at the largest amount that is greater than 50% likely of being realized. Changes in recognition or measurement are reflected in the period in which the change in judgment occurs.

Sales and Value Added Taxes

Taxes collected from customers and remitted to governmental authorities are presented on a net basis in cost of sales in the accompanying consolidated statements of operations.

Shipping and handling costs

Shipping and handling costs are included on a gross basis in cost of sales in the accompanying consolidated statements of operations.

Goodwill

The Company performs an annual impairment test of goodwill as of the end of the first month of the fiscal fourth quarter (October 31st), or at an interim date if an event occurs or if circumstances change that would indicate that an impairment loss may have been incurred. In performing the annual impairment test, the Company first performs a qualitative assessment to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying value, including goodwill. If the qualitative assessment is indicative of possible impairment, then a two-step quantitative fair value assessment is performed at the reporting unit level. In the first step, the fair value of each reporting unit is compared with its carrying value. If the fair value exceeds the carrying value, then goodwill is not impaired and no further testing is performed. The second step is performed if the carrying value exceeds the fair value. The implied fair value of goodwill is then compared against the carrying value of goodwill to determine the amount of impairment.

The process of evaluating the potential impairment of goodwill is subjective because it requires the use of estimates and assumptions in determining a reporting unit's fair value. The Company calculates the fair value of each reporting unit by using the income approach based on the present value of future discounted cash flows. The discounted cash flow method requires the Company to use estimates and judgments about the future cash flows of the reporting units. Although the Company bases cash flow forecasts on assumptions that are consistent with plans and estimates the Company uses to manage the underlying reporting units, there is significant judgment in determining the cash flows attributable to these reporting units, including markets and market share, sales volumes and mix, research and development expenses, tax rates, capital spending, discount rate and working capital changes. Cash flow forecasts are based on reporting unit operating plans for the early years and business projections in later years. The Company believes the accounting estimate related to the valuation of goodwill is a critical accounting estimate because it requires us to make assumptions that are highly uncertain about the future cash flows of the reporting units. Changes in these estimates can have a material impact on the Company's financial statements.

The Company performed its annual goodwill test on the RF Solutions products reporting unit at October 31, 2016. The Company tested goodwill of \$3.3 million that was recorded from the Nexgen acquisition in February 2015. The Company performed both a qualitative analysis of goodwill and the step one quantitative analysis. There was no triggering event from the qualitative analysis, and the fair value of the reporting unit was higher than its carrying value in the quantitative analysis. Based on the Company's

analysis, there was no impairment of goodwill as of the testing date because the fair value of the reporting unit exceeded its carrying value by a significant margin.

The Company performed its annual goodwill test at October 31, 2015 for its goodwill within the RF Solutions segment. The Company tested its goodwill of \$3.3 million for products and \$0.2 million for services. At that date the carrying value of the Company's assets was \$102.5 million as compared to a \$100.0 million market capitalization and a \$9.3 million control premium determined by the Company as the net present value of its public company costs that would become cost savings synergies to an acquirer. During the fourth quarter the products reporting unit was operating consistently with the projections made at September 30, 2015. The services reporting unit was operating at a lower level than the projections at September 30, 2015. The Company performed a qualitative assessment and concluded it is more likely than not that the fair value of the products reporting unit is more than its carrying value, including goodwill, and the services reporting unit is less likely than not. In addition the Company performed a Step 1 quantitative goodwill test for both reporting units at October 31, 2015 which confirmed the qualitative assessments. The Company performed a Step 2 quantitative goodwill test at October 31, 2015 on the Services reporting unit and concluded that all \$0.2 million of the goodwill was impaired.

The Company's carrying value at December 31, 2015 was \$100.5 million as compared to a market capitalization of \$80.3 million and a control premium of \$9.3 million. The market cap deficit had existed since mid-November 2015. A stock performance comparison was performed with twelve of the peer companies the Company uses for compensation comparable data that are still publicly traded at December 31, 2015. The company list can be found in the Company's Proxy Statement dated April 30, 2015. When comparing the period October 31, 2015 to December 31, 2015 eight of the companies experienced stock price declines, two of which were comparable to PCTEL's decline. Trading volume for all the companies including PCTEL during that period was consistent with historical levels. Management concluded that the market was distressed but liquid. The Company considered the decline in market capitalization and resulting deficit to carrying value to be an indication that an impairment loss may have occurred at December 31, 2015. The Company performed another Step 1 quantitative goodwill test at December 31, 2015. The higher discount rates used for the reporting units reconciled the total fair value of the Company to its December 31, 2015 market capitalization. The test indicated the remaining goodwill was not impaired.

Long-lived and Definite-Lived Intangible assets

The Company reviews definite-lived intangible assets, investments and other long-lived assets for impairment when events or changes in circumstances indicate that their carrying values may not be fully recoverable. This analysis differs from the Company's goodwill analysis in that definite-lived intangible asset impairment is only deemed to have occurred if the sum of the forecasted undiscounted future cash flows related to the assets being evaluated is less than the carrying value of the assets. The estimate of long-term undiscounted cash flows includes long-term forecasts of revenue growth, gross margins, and operating expenses. All of these items require significant judgment and assumptions. An impairment loss may exist when the estimated undiscounted cash flows attributable to the assets are less than the carrying amount.

During 2016, the Company recorded total impairment expense of \$5.8 million related to customer relationships for the Services reporting unit within the RF Solutions segment, consisting of \$4.7 million at June 30, 2016 and \$1.1 million at December 31, 2016.

For the three months ended June 30, 2016, the revenue and contribution margin of the services reporting unit were below its forecasts. The results and revised forecast were reflective of a long-term slowdown in the DAS market which is the primary market addressed by the Company's services offering. The Company considered the changes to its forecast and the industry and market trends as a triggering event to assess the intangible assets of the services reporting units for impairment. The Company reviewed the intangible assets for impairment by performing a test of recoverability. The cash flow forecast prepared by the Company included assumptions for revenues, gross margins, and operating expenses. The test of recoverability failed because the undiscounted cash flows were below the carrying value of the services reporting unit. The Company calculated the fair value of the services reporting unit with the assistance of a third-party valuation firm.

For the three months ended December 31, 2016, the revenues and contribution margin for the services reporting unit declined sequentially. The fourth quarter 2016 gross margin was negatively impacted by the lower revenue volume and by lower average margins on individual projects. At December 31, 2016 the backlog was lower than historical trends and there were no known large projects in the sales funnel. Based on these facts and an updated review of the market and industry trends, the Company lowered its profit forecast for 2017 compared to the profit forecast prepared for the 2017 operating plan and the Company lowered its long-term revenue and profit forecast. The Company determined that the revision to the forecast for services was a triggering event for its review of intangible assets for impairment. The Company reviewed its intangible assets for impairment by performing a test of recoverability. The cash flow forecast prepared by the Company included assumptions for revenues, gross margins, and operating expenses. The test of recoverability failed because the undiscounted cash flows were below the carrying value of the services reporting unit. The Company calculated the fair value of the Services reporting unit based on the valuation assumptions from the analysis at June 30, 2016. The impairment charge of \$1.1 million represented the remaining value of the customer relationships as of December 31, 2016.

As discussed in the goodwill section above, the Company recorded an impairment of all \$0.2 million of the goodwill carried by the services reporting unit at the annual impairment test date. Additionally at December 31, 2015, the services reporting unit forecast had deteriorated from that used in the October 31, 2015 goodwill impairment analysis. Management concluded that these were triggering events indicating that a potential impairment of long-lived intangible assets in that reporting unit may have occurred. The Company performed a long-lived asset impairment test by comparing the undiscounted future cash flows for the services reporting unit to the reporting unit's asset carrying value. The customer relationships were determined to be the primary asset of the asset group. Since this asset was not separable from the other assets in the services reporting unit, the asset group consisted of all of the assets in the reporting group. No impairment was indicated.

Recent Accounting Pronouncements

In January 2017, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2017-04, Intangibles – Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment ("ASU 2017-04"). ASU 2017-04 eliminates Step 2 as part of the goodwill impairment test. The amount of the impairment charge to be recognized would now be the amount by which the carrying value exceeds the reporting unit's fair value. The loss to be recognized cannot exceed the amount of goodwill allocated to that reporting unit. The amendments in ASU 2017-04 are effective for annual or interim goodwill impairment tests in fiscal years beginning after December 15, 2019. Early adoption is permitted for interim and annual goodwill impairment tests performed on testing dates after January 1, 2017. The Company is evaluating the provisions of ASU 2017-04 and its impact on its consolidated financial statements and related disclosures.

In August 2016, the FASB issued ASU 2016-15, Statement of Cash Flows (Topic 230): Classification of certain cash receipts and cash payments (a consensus of the emerging issues take force). This ASU addresses the following eight specific cash flow issues: Debt prepayment or debt extinguishment costs; settlement of zero-coupon debt instruments or other debt instruments with coupon interest rates that are insignificant in relation to the effective interest rate of the borrowing; contingent consideration payments made after a business combination; proceeds from the settlement of insurance claims; proceeds from the settlement of corporate-owned life insurance policies (including bank-owned life insurance policies); distributions received from equity method investees; beneficial interests in securitization transactions; and separately identifiable cash flows and application of the predominance principle. This guidance will be effective for the Company on January 1, 2018. The Company does not believe the guidance will have a material impact on its consolidated financial statements.

In June 2016, the FASB issued Accounting Standards Update No. 2016-13 ("ASU 2016-13") regarding ASC Topic 326, "Financial Instruments - Credit Losses," which modifies the measurement of expected credit losses of certain financial instruments. The amendments will be effective for the Company on January 1, 2020. The Company is currently evaluating this guidance and the impact it will have on its consolidated financial statements.

In March 2016, the FASB issued ASU No. 2016-09, Compensation - Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting. ASU No. 2016-09 affects all entities that issue share-based payment awards to their employees. ASU No. 2016-09 simplifies several aspects of the accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows, including recognizing all excess tax benefits and tax deficiencies as income tax expense or benefit in the income statement rather than in additional paid-in capital. ASU No. 2016-09 is effective for financial statements issued for annual reporting periods beginning after December 15, 2016 and interim periods within those years. Upon adoption, the Company anticipates recognizing deferred tax assets for all excess tax benefits that had not been previously recognized. This will be accomplished through a cumulative-effect adjustment to retained earnings of approximately \$0.6 million.

In February 2016, the FASB issued ASU 2016-02, Leases (Topic 842), which amends existing guidance to require lessees to recognize assets and liabilities on the balance sheet for the rights and obligations created by long-term leases and to disclose additional quantitative and qualitative information about leasing arrangements. This ASU also provides clarifications surrounding the presentation of the effects of leases in the income statement and statement of cash flows. This guidance will be effective for the Company on January 1, 2019. The Company is currently evaluating this guidance and the impact it will have on its consolidated financial statements and related disclosures.

In November 2015, the FASB issued ASU 2015-17, Balance Sheet Classification of Deferred Taxes, to simplify the presentation of deferred income taxes. The amendments in this update require that deferred tax assets and liabilities be entirely classified as noncurrent within the statement of financial position. Effective December 31, 2015, the Company early adopted the balance sheet classification of deferred taxes on a prospective basis. The guidance requires deferred tax assets and liabilities to be classified as noncurrent rather than split between current and noncurrent. Approximately \$1.8 million in current deferred tax assets was reclassified to long-term deferred tax assets at December 31, 2015.

In July 2015, the FASB issued ASU No. 2015-11, Simplifying the Measurement of Inventory . ASU 2015-11 simplifies the subsequent measurement of inventory by requiring inventory to be measured at the lower of cost and net realizable value. ASU 2015-11 applies only to inventories for which h cost is determined by methods other than last-in first-out and the retail inventory method. ASU 2015-11 is effective for public companies for annual reporting periods beginning after December 15, 2016, and interim periods within those fiscal years. The Company is currently evaluating the impact of ASU 2015-11 and has preliminarily concluded that it will not have a significant impact on the consolidated financial statements.

In May 2014, the FASB issued ASU 2014-09, “Revenue from Contracts with Customers” which introduces a new revenue recognition model in which an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. ASU 2014-09 defines a five step process to achieve this core principle and, in doing so, more judgment and estimates may be required within the revenue recognition process than are required under existing U.S. GAAP. This ASU also requires disclosures sufficient to enable users to understand the nature, amount, timing, and uncertainty of revenue and cash flows arising from contracts with customers, including qualitative and quantitative disclosures about contracts with customers, significant judgments and changes in judgments, and assets recognized from the costs to obtain or fulfill a contract. This guidance will be effective for us on January 1, 2018. The FASB has also issued the following standards which clarify ASU 2014-09 and have the same effective date as the original standard: ASU 2016-20, Technical Corrections and Improvements to Topic 606, ASU No. 2016-12, Narrow-Scope Improvements and Practical Expedients, ASU 2016-10, Identifying Performance Obligations and Licensing and ASU 2016-08, Principal versus Agent Considerations.

The Company will commence our assessment of ASU 2014-09 during the first quarter of 2017 and develop a project plan to guide the implementation. This project plan includes analyzing the standard’s impact on the Company’s contract portfolio, comparing historical accounting policies and practices to the requirements of the new standard and identifying potential differences from applying the requirements of the new standard to its contracts. The Company will draft an updated accounting policy, evaluate new disclosure requirements and identify and implement appropriate changes to business processes, systems and controls to support recognition and disclosure under the new standard. The Company expects to adopt this new standard using the modified retrospective method that will result in a cumulative effect adjustment as of the date of adoption. The Company is currently evaluating this guidance and the impact it will have on the consolidated financial statements.

2. Earnings (Loss) per Share

The Company computes earnings per share data under two different disclosures, basic and diluted, for all periods in which statements of operations are presented. Basic earnings (loss) per share is computed by dividing net income (loss) by the weighted average number of shares of common stock outstanding, less shares subject to repurchase. Diluted earnings (loss) per share are computed by dividing net income by the weighted average number of common stock and common stock equivalents outstanding. Common stock equivalents consist of stock options using the treasury stock method. Common stock options are excluded from the computation of diluted earnings per share if their effect is anti-dilutive.

The following table provides a reconciliation of the numerators and denominators used in calculating basic and diluted earnings per share:

	Years Ended December 31,		
	2016	2015	2014
Basic (Loss) Earnings Per Share computation:			
Numerator:			
Net (loss) income	\$ (17,681)	\$ (1,568)	\$ 4,612
Denominator:			
Common shares outstanding	16,151	17,737	18,159
(Loss) Earnings per common share - basic			
Net (loss) income	\$ (1.09)	\$ (0.09)	\$ 0.25
Diluted (Loss) Earnings Per Share computation:			
Denominator:			
Common shares outstanding	16,151	17,737	18,159
Restricted shares subject to vesting	*	*	139
Performance shares subject to vesting	*	*	80
Common stock option grants	*	*	11
Total shares	16,151	17,737	18,389
(Loss) Earnings per common share - diluted			
Net (loss) income	\$ (1.09)	\$ (0.09)	\$ 0.25

* As denoted by “*” in the table above, weighted average common stock option grants and restricted shares of 174,000 and 520,000 were excluded from the calculations of diluted net loss per share for the years ended December 31, 2016 and 2015, respectively, since their effects are anti-dilutive.

3. Acquisitions

Business combinations are accounted for using the acquisition method of accounting. In general, the acquisition method requires acquisition-date fair value measurement of identifiable assets acquired, liabilities assumed, and non-controlling interests in the acquiree. The measurement requirements result in the recognition of the full amount of acquisition-date goodwill, which includes amounts attributable to non-controlling interests. Neither the direct costs incurred to effect a business combination nor the costs the acquirer expects to incur under a plan to restructure an acquired business may be included as part of the business combination accounting. As a result, those costs are charged to expense when incurred, except for debt or equity issuance costs, which are accounted for in accordance with other generally accepted accounting principles.

Acquisition of business from Nexgen Wireless, Inc.

On February 27, 2015, the Company acquired substantially all of the assets of, and assumed certain specified liabilities of, Nexgen Wireless, Inc., an Illinois corporation (“Nexgen”), pursuant to an Asset Purchase Agreement dated as of February 27, 2015 (the “Nexgen APA”) among PCTEL, Inc., Nexgen, Bhumika Thakkar 2012 Irrevocable Trust Number One, Bhumika Thakkar 2012 Irrevocable Trust Number Two, and Jigar Thakkar (collectively, such trusts and Mr. Thakkar are the “Nexgen Shareholders”), and Bhumika Thakkar (collectively with Nexgen and the Nexgen Shareholders, the “Nexgen Parties”).

The business acquired from Nexgen was based in Schaumburg, Illinois. Nexgen provided a network analysis tool portfolio, and engineering services. Nexgen’s software product portfolio translates real-time network performance data into engineering actions to optimize operator performance and supports crowd-based, cloud-based data analysis to enhance network performance. The business provides performance engineering, specialized staffing, and trend analysis for carriers, infrastructure vendors, and neutral hosts for 2G, 3G, 4G, and LTE networks.

The purchase consideration for the Nexgen business was \$21.4 million, consisting of \$18.25 million in cash paid at closing, \$2.25 million held in escrow, an estimated \$0.8 million excess working capital true-up to be paid in cash, and a contingency payment that was provisionally calculated with a fair value of \$0.1 million. The contingency payment was dependent on the achievement of revenue-based goals pertaining to the acquired business for the period commencing on March 1, 2015 and ending on April 30, 2016. The purchase consideration paid in cash was provided from the Company’s existing cash. The Company incurred transaction costs of \$0.8 million for the acquisition of Nexgen primarily related to investment banking, legal, and due diligence consulting services.

The assets acquired from Nexgen consisted primarily of customer relationships, intellectual property (including trade names), working capital (accounts receivable, work in process, accounts payable and accrued liabilities), and fixed assets. The Nexgen Parties are bound by non-competition covenants under the Nexgen APA, which generally expire on February 27, 2019. The Company calculated the fair value of the customer relationships, trade names, and non-compete agreement assets acquired by using the present value of future discounted cash flows. For the new technology, the Company used the replacement cost method for its valuation. The intangible assets recorded have a weighted average amortization period of 5.0 years.

As previously reported in the Company’s Current Report on Form 8-K filed with the SEC on April 14, 2015, on April 7, 2015, Samsung Electronics America, Inc., as successor in interest to Samsung Telecommunications America, LLC (“Samsung”), provided Nexgen and the Company with a final notice of Samsung’s election to terminate, effective April 30, 2015, the Contractor Services Agreement, dated May 2, 2012 (the “CSA”), by and between Samsung and Nexgen. On May 5, 2015, the Company and the Nexgen Parties entered into an Amendment to the Asset Purchase Agreement (the “Nexgen APA Amendment”) with the following principal terms: (a) Nexgen agreed to transfer to the Company previously excluded accounts receivable with an aggregate value of \$0.8 million; (b) the aggregate amount potentially payable to the Nexgen Parties as contingent earnout consideration was reduced from \$2.0 million to \$1.0 million; (c) the Company waived its right to seek additional indemnification from the Nexgen Parties for matters specified therein; (d) the parties directed that \$2.25 million in escrowed funds potentially payable to the Nexgen Parties pursuant to the Nexgen APA be released to the Company; (e) Mr. Thakkar relinquished a portion of the equity awards previously granted to him; and (f) the Company released various potential claims against Nexgen and the Nexgen Parties with respect to the termination of the CSA and related matters. The measurement period for the revised earnout commenced on January 1, 2016 and ends on December 31, 2016 and is dependent on software revenue-based goals pertaining to the acquired business. The contingent liability was 0 at December 31, 2016.

The amendment terms were accounted for consistent with accounting for legal settlements, as there is not a clear and direct link between the settlement and the acquisition price. During June 2015, the Company received the cash from the escrow fund and the previously excluded accounts receivable. These amounts are recorded in Other Income, net in the condensed consolidated statements of operations. At December 31, 2015 and 2016, the Company assumed no liability for the contingent earnout consideration.

Approximately 78% of Nexgen's revenue was related to the U.S. Sprint cellular network, contracted either with Samsung or Sprint directly. During due diligence, the Company modeled a likely range of future revenue and cash flow based on the high degree of customer concentration risk. While the terminated CSA represented a material portion of that revenue, the resulting total future revenue and cash flow remained within the lower range of the forecast model. The Company utilized the lower end of the forecast range in evaluating the fair value of the acquired assets. At December 31, 2015, the valuation yielded goodwill of \$3.3 million, of which \$1.5 million was related to the assembled workforce. The goodwill is deductible for income tax purposes. The purchase accounting related to the valuation of certain tangible and intangible assets was complete as of December 31, 2015. The following is the allocation of the purchase price for the assets from Nexgen at the date of the acquisition as of December 31, 2015:

Tangible assets:	
Accounts receivable	\$ 5,358
Prepaid and other assets	49
Deferred cost of sales	24
Fixed assets	43
Total tangible assets	<u>5,474</u>
Intangible assets:	
Customer relationships	8,117
Trade names	972
Technology	3,332
Backlog	162
Non-compete	583
Goodwill	3,332
Total intangible assets	<u>16,498</u>
Total assets	<u>21,972</u>
Accounts payable	200
Accrued liabilities	341
Total liabilities	<u>541</u>
Net assets acquired	<u>\$ 21,431</u>

A reconciliation of the assets acquired with the cash paid at closing is as follows:

Net assets acquired	\$ 21,431
Due Nexgen - contingent liability	(91)
Due Nexgen - working capital adjustment	(840)
Cash paid at closing	<u>\$ 20,500</u>

The Company did not have any material relationship with Mr. Thakkar and the other Nexgen Parties other than in respect of the Nexgen APA, the Nexgen APA Amendment and the transactions provided for therein. Effective November 2015, Mr. Thakkar resigned from his role as the Company's Vice President and Chief Technology Officer, Network Analytics.

The Company assumed Nexgen's existing lease for Nexgen's offices in Schaumburg, Illinois. Effective March 2016, the Company exercised its right of early termination of the Schaumburg lease. The lease termination was effective as of August 31, 2016. The Company moved the employees from the Schaumburg office to its Bloomingdale office prior to the termination date. The Nexgen services acquired in 2015 were integrated into the existing RF Solutions services reporting unit and the data analytics products were integrated in the RF Solutions product reporting unit. The Company recognizes revenue for the engineering services under the completed performance method. For specialized staffing, the Company recognizes revenue as services are provided to the customer.

Revenues for Nexgen were \$23.8 million for the year ended December 31, 2014. The Company's results for the year ended December 31, 2015 include the operating results for March through December 2015 for the business acquired from Nexgen. The following unaudited pro forma financial information gives effect to the acquisition of the Nexgen business as if the acquisition had taken place on January 1, 2014. The pro forma financial information for Nexgen was derived from the historical accounting records of Nexgen.

	(unaudited) Year Ended December 31, 2015	(unaudited) Year Ended December 31, 2014
REVENUES	\$ 109,573	\$ 130,991
NET (LOSS) INCOME	\$ (1,435)	\$ 8,954
NET (LOSS) INCOME PER SHARE	\$ (0.08)	\$ 0.49

The pro forma results include adjustments for intangible amortization of \$0.3 million and \$2.6 million for the years ended December 31, 2015 and 2014, respectively. The pro forma information is presented for illustrative purposes only and may not be indicative of the results that would have been obtained had the acquisition actually occurred on January 1, 2014, nor is it necessarily indicative of the Company's future consolidated results of operations or financial position.

4. Goodwill and Other Intangible Assets

Goodwill

The activity related to goodwill for the years ended December 31, 2016 and 2015 was as follows:

	Amount
Balance at January 1, 2015	\$ 161
Acquisition of business from Nexgen Wireless	3,332
Impairment of goodwill - RF Services	(161)
Balance at December 31, 2015	\$ 3,332
No changes	0
Balance at December 31, 2016	\$ 3,332

The Company recorded \$0.2 million of goodwill related to the business acquired from Envision Wireless, Inc. in 2011 and recorded goodwill of \$3.3 million of goodwill related to the business acquired from Nexgen in February 2015. There are two reporting units for goodwill testing purposes within the RF Solutions segment, products and services. The \$3.3 million of goodwill from the Nexgen acquisition was recorded in products and the \$0.2 million of goodwill from the Envision acquisition was recorded in services. The Company recorded an impairment charge of \$0.2 million in the fourth quarter 2015 because the fair value of the services reporting unit was below its carrying value. See the goodwill section of Note 1 for more information on the evaluation of goodwill.

Intangible Assets

The Company amortizes intangible assets with finite lives on a straight-line basis over the estimated useful lives, which range from one to eight years. Amortization expense was approximately \$2.3 million, \$4.0 million, and \$2.0 million for the years ended December 31, 2016, 2015, and 2014, respectively. For the year ended December 31, 2016, \$1.6 million of the intangible amortization was included in operating expenses and \$0.7 million was included in cost of goods sold. For the year ended December 31, 2015, \$3.4 million of the intangible amortization was included in operating expenses and \$0.6 million was included in cost of goods sold. For the year ended December 31, 2014 all of the intangible amortization was recorded within operating expenses.

The summary of other intangible assets, net is as follows:

	December 31, 2016			December 31, 2015		
	Cost	Accumulated Amortization	Net Book Value	Cost	Accumulated Amortization	Net Book Value
Customer contracts and relationships	\$ 25,497	\$ 25,497	\$ 0	\$ 25,497	\$ 18,616	\$ 6,881
Patents and technology	10,114	8,004	2,110	10,114	7,337	2,777
Trademarks and trade names	4,960	4,111	849	4,960	3,738	1,222
Other	2,743	2,427	316	2,743	2,245	498
	<u>\$ 43,314</u>	<u>\$ 40,039</u>	<u>\$ 3,275</u>	<u>\$ 43,314</u>	<u>\$ 31,936</u>	<u>\$ 11,378</u>

The \$8.1 million decrease in the net book value of intangible assets at December 31, 2016 compared to December 31, 2015 reflects impairment of \$5.8 million of customer relationships and amortization expense of \$2.3 million recorded for the year ended December 31, 2016. See the section on long-lived assets in Note 1 for more information related to the impairment charge. The amortization expense for technology of \$0.7 million was recorded in cost of revenues, and for all other intangible assets of \$1.6 million was recorded in operating expenses.

In 2015, the Company recorded \$13.1 million of intangible assets for the purchase of the business from Nexgen and wrote off \$0.4 million of assets related to the Company's exit from the mobile towers product line. As a restructuring charge, the Company wrote off the remaining technology and a portion of the trade names and customer relationships from the acquisition of the TelWorx business in 2012.

The amortization related to the assets recorded for the acquisition of the business from Nexgen was \$2.0 million and \$2.4 million for the years ended December 31, 2016 and 2015, respectively.

The assigned lives and weighted average amortization periods by intangible asset category is summarized below:

<u>Intangible Assets</u>	<u>Assigned Life</u>	<u>Weighted Average Amortization Period</u>
Customer contracts and relationships	4 to 6 years	5.0
Patents and technology	3 to 6 years	5.1
Trademarks and trade names	3 to 8 years	5.5
Other	1 to 6 years	3.4

The Company's scheduled amortization expense over the next four years is as follows:

<u>Fiscal Year</u>	<u>Amount</u>
2017	\$ 1,162
2018	\$ 1,084
2019	\$ 885
2020	\$ 144

5. Restructuring

The Company incurred restructuring expense of \$0.7 million and \$1.6 million for the years ended December 31, 2016 and 2015, respectively. No restructuring expenses were recorded for the year ended December 31, 2014.

2016 Restructuring

During the first quarter 2016, the Company reduced headcount in its RF Solutions segment related to services and SeeHawk analytics, and exited from its Colorado office in order to consolidate facility space. In the third and fourth quarters, the Company recorded additional restructuring expense primarily related to updated assumptions for the Colorado lease obligation. The total restructuring expense in 2016 consisted of \$0.3 million in employee severance and payroll related costs, \$0.3 million for lease terminations, and \$0.1 million related to fixed asset disposals. The restructuring expense incurred for lease terminations includes the remaining obligations under the lease, net of assumed proceeds for a sublease. As of December 31, 2016, the Colorado office has not been subleased.

Of the \$0.2 million restructuring liability at December 31, 2016, \$0.1 million was included in accrued liabilities and \$0.1 million was included in long-term liabilities in the consolidated balance sheets.

2015 Restructuring

In June 2015, the Company committed to a restructuring program for reductions in U.S. headcount and the exit from the mobile towers product line. To lower operating and production costs, the Company reduced headcount in engineering related to scanning receivers, in U.S. operations for Connected Solutions, and related to the mobile tower product line. The Company terminated 51 employees between June and December 2015 and recorded severance and other employee benefits of \$1.2 million.

The Company acquired the mobile tower product line in the 2012 acquisition of TelWorx. The Company's mobile towers were primarily sold into the oil and gas exploration market in North America. The mobile towers were used to primarily provide a communications link to an oil drilling site or lighting for a site under construction. The decline in oil prices caused a decline in related mobile tower sales. The Company made the decision to exit the mobile tower product line due to the anticipated long term effect on revenue from depressed oil prices, and the fact that one of its two tower suppliers filing for Chapter 7 bankruptcy in June 2015 as a result of the decline in sales. Mobile towers were not a key element of the company's kitting operation or antenna business within Connected Solutions. The Company's exit from the mobile tower product line does not meet the accounting guidance for discontinued operations. The exit from mobile towers did not constitute a strategic shift in the Company's operations. The Company recorded a charge of \$0.4 million related to write-off of intangible assets related to the mobile product line.

The restructuring liability of \$0.2 million at December 31, 2015 was included in accrued liabilities in the consolidated balance sheets.

The following table summarizes the Company's restructuring accrual activity for 2015 and 2016:

	Severance	Intangible Assets	Lease Terminations	Asset Disposals	Total
Balance at January 1, 2015	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Restructuring charges	1,199	406	0	25	1,630
Payments/Charges	(962)	(406)	0	(25)	(1,393)
Balance at December 31, 2015	237	0	0	0	237
Restructuring charges	254	0	338	72	664
Payments/Charges	(485)	0	(148)	(72)	(705)
Balance at December 31, 2016	\$ 6	\$ 0	\$ 190	\$ 0	\$ 196

6. Income Taxes

The Company recorded income tax expense of \$8.9 million for the year ended December 31, 2016, an income tax benefit of \$0.9 million for the year ended December 31, 2015, and income tax expense of \$1.2 million for the years ended December 31, 2014.

The 2016 effective tax rate differed from the statutory Federal rate of 34% primarily due to adjustments to the deferred tax valuation allowance. The Company recorded adjustments of \$12.6 million to the deferred tax valuation allowance in 2016. The 2015 effective tax rate differed from the statutory Federal rate of 34% primarily due to research and development credits and incremental tax on repatriation of funds from Israel. The 2014 effective tax rate differed from the statutory Federal rate of 34% primarily because of reversals of liabilities for uncertain tax positions related to research credits and foreign withholding taxes. During 2016 and 2015 the Company wrote off \$0.5 million and \$0.1 million, respectively of deferred tax assets to additional paid in capital related to vested stock options that were forfeited. During 2014, the Company recorded \$0.2 million to additional paid in capital related to excess tax benefits for stock-based compensation.

A reconciliation of the expense (benefit) for income taxes at the federal statutory rate compared to the expense (benefit) at the effective tax rate is as follows:

	Years Ended December 31		
	2016	2015	2014
Statutory federal income tax rate	34%	34%	34%
State income tax, net of federal benefit	4%	2%	4%
Tax effect of permanent differences	0%	-2%	1%
Tax on repatriation	0%	-5%	0%
Effective state rate change to deferred tax assets	1%	0%	0%
Foreign income taxed at different rates	2%	3%	-1%
Research and development credits	1%	5%	-3%
Return to provision adjustments	1%	0%	0%
Change in valuation allowance	-144%	0%	0%
Release of FIN 48 liability	0%	0%	-15%
	<u>-101%</u>	<u>37%</u>	<u>20%</u>

The domestic and foreign components of the continuing income (loss) before expense (benefit) for income taxes were as follows:

	Years Ended December 31,		
	2016	2015	2014
Domestic	\$ (11,475)	\$ (3,705)	\$ 4,882
Foreign	2,674	1,236	888
	<u>\$ (8,801)</u>	<u>\$ (2,469)</u>	<u>\$ 5,770</u>

The expense (benefit) for income taxes of continuing operations consisted of the following:

	Years Ended December 31,		
	2016	2015	2014
Current:			
Federal	\$ (5)	\$ 30	\$ (716)
State	12	91	60
Foreign	721	262	148
	<u>728</u>	<u>383</u>	<u>(508)</u>
Deferred:			
Federal	7,478	(1,214)	1,521
State	666	(113)	164
Foreign	8	43	(19)
	<u>8,152</u>	<u>(1,284)</u>	<u>1,666</u>
Total	<u>\$ 8,880</u>	<u>\$ (901)</u>	<u>\$ 1,158</u>

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.

The net deferred tax accounts consist of the following:

	December 31,	
	2016	2015
Deferred Tax Assets:		
Amortization	\$ 9,313	\$ 7,799
Stock compensation	1,902	1,571
Federal, foreign, and state credits	1,307	1,247
Inventory reserves	1,397	1,191
Accrued vacation	461	465
Net operating loss carryforwards	4,029	2,514
Other	298	330
Gross deferred tax assets	<u>18,707</u>	<u>15,117</u>
Valuation allowance	(13,300)	(659)
Net deferred tax asset	<u>5,407</u>	<u>14,458</u>
Deferred Tax liabilities:		
Depreciation	(895)	(1,303)
Net Deferred Tax Assets	<u>\$ 4,512</u>	<u>\$ 13,155</u>

Effective December 31, 2015, the Company early adopted the balance sheet classification of deferred taxes on a prospective basis. The guidance required deferred tax assets and liabilities to be classified as noncurrent rather than split between current and noncurrent. Approximately \$1.8 million in current deferred tax assets were reclassified to long-term deferred tax assets at December 31, 2015.

Deferred Tax Valuation Allowance

At December 31, 2016, the Company had \$4.5 million of net deferred tax assets, including domestic net deferred tax assets of \$4.4 million and foreign net deferred tax assets of \$0.1 million. At December 31, 2015, the Company had \$13.2 million of net deferred tax assets, including domestic net deferred tax assets of \$13.1 million and foreign net deferred tax assets of \$0.1 million. The most significant balance within the net deferred tax assets at December 31, 2016 and 2015 relates to intangible assets acquired under purchase accounting which are amortized for tax purposes over 15 years, but for shorter periods under generally accepted accounting

principles. The Company had a valuation allowance of \$13.3 million and \$0.7 million at December 31, 2016 and 2015, respectively. The valuation allowance at December 31, 2016 is primarily because the Company does not believe it will generate sufficient US taxable income to realize a significant portion of its deferred tax assets. The valuation allowance at December 31, 2015 related to credits and state operating losses that the Company does not expect to realize because they correspond to tax jurisdictions where the Company no longer has significant operations.

On a regular basis, the Company evaluates the recoverability of deferred tax assets and the need for a valuation allowance. Such evaluations involve the application of significant judgment. The Company considers multiple factors in its evaluation of the need for a valuation allowance. The Company's domestic deferred tax assets have a ratable reversal pattern over 15 years. The carry forward rules allow for up to a 20 year carryforward of net operating losses ("NOL") to future income that is available to realize the deferred tax assets. The combination of the deferred tax asset reversal pattern and carry forward period yields a 27.0 year average period over which future income can be utilized to realize the deferred tax assets. In 2016, the Company recorded adjustments of \$12.6 million to the valuation allowance for deferred tax assets.

During the quarter ended June 30, 2016, there were two significant changes in the deferred tax asset recoverability evidence pattern. The cumulative three year US book income turned to a loss. In addition, the Company experienced a significant shift in its Connected Solutions segment revenue to products that are designed, manufactured and sold through the Company's China subsidiary directly into China. This will cause a significant shift going forward in the Company's tax profitability from the United States to China. The Company believes this is the beginning of a long-term trend. In the third quarter, the Company completed a recapitalization of its China subsidiary to accommodate the initial working capital growth required to support the shift and continues to anticipate permanently reinvesting future earnings and profits from its China subsidiary in China to support its future working capital needs there. The Company re-forecasted its long term domestic profitability in light of the shift in business to China that is occurring. The analysis that the Company prepared to determine the valuation allowance required significant judgment and assumptions regarding future market conditions as well as forecasts for profits, taxable income, and taxable income by jurisdiction. The Company used a series of projections bound on the low side by what it would take for none of its deferred tax assets to be realized and on the high side by what it would take for all of the deferred tax assets to be realized. Based on assigned probabilities to each scenario, the Company recorded an adjustment to the valuation allowance of \$7.6 million.

In the fourth quarter 2016, the Company updated its projections for its analysis to determine the valuation allowance. The Company reduced its domestic profit forecast because it lowered its long-term forecast for its services business and increased the contribution of the profits from its China subsidiary. The Company also updated its estimated tax deductions. The Company used the same approach with a series of projections bound on the low side by what it would take for none of its deferred tax assets to be realized and on the high side by what it would take for all of the deferred tax assets to be realized. Based on assigned probabilities to each scenario, the Company recorded an adjustment to the valuation allowance of \$5.0 million.

Due to the sensitivity of the analysis, changes to the assumptions in subsequent periods could have a material effect on the valuation allowance.

Accounting for Uncertainty for Income Taxes

A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows:

	December 31,	
	2016	2015
Beginning of period	\$ 850	\$ 807
Addition related to tax positions in current year	20	43
End of period	<u>\$ 870</u>	<u>\$ 850</u>

Included in the balance of total unrecognized tax benefits at December 31, 2016 are potential benefits of \$0.9 million that, if recognized, would affect the effective rate on income before taxes. During 2014, the Company recognized tax benefits of \$0.8 million related to the reversal of liabilities related to tax positions for research credits and foreign withholding taxes. The Company is unaware of any positions for which it is reasonably possible that the unrecognized tax benefits will significantly increase or decrease within the next twelve months.

The Company recognizes all interest and penalties, including those relating to unrecognized tax benefits as income tax expense. There was no income tax expense related to interest and penalties for the years ended December 31, 2016, 2015, and 2014.

Audits

The Company and its subsidiaries file income tax returns in the U.S. and various foreign jurisdictions. The Company's U.S. federal tax returns remain subject to examination for 2012 and subsequent periods. The Company's state tax returns remain subject to examination for 2012 and subsequent periods. The Company's foreign tax returns remain subject to examination for 2010 and subsequent periods.

Summary of Carryforwards

At December 31, 2016, the Company has a federal net operating loss carryforward of \$11.8 million that expires between 2033 and 2037, state net operating loss carryforwards of \$11.7 million that expire between 2025 and 2037. Of the \$11.8 million net operating loss, \$1.7 million is related to stock-based compensation tax deductions in excess of book compensation expense (APIC NOLs) that will be credited to additional paid in capital when such deductions reduce taxes payable as determined on a "with-and-without" basis. The Company's state net operating losses consist of tax deductible expenses in addition to excess tax benefits for stock-based compensation. Additionally, the Company has \$1.5 million of state research credits with no expiration.

Investment in Foreign Operations

In 2015 the Company provided U.S. income taxes of \$0.1 million related to the expected repatriation of earnings from its subsidiary in Israel. The Company expects to liquidate this entity and repatriate the earnings in 2017. As of December 31, 2016 there are no business activities in this subsidiary. The Company has not provided deferred U.S. income taxes and foreign withholding taxes on approximately \$4.8 million of undistributed cumulative earnings of other foreign subsidiaries because the Company considers such earnings to be permanently reinvested in those operations. Upon repatriation of these earnings, the Company would be subject to U.S. income tax, net of available foreign tax credits. The Company does not believe that the net tax effect of repatriation of foreign earnings is significant.

7. Commitments and Contingencies

Operating Leases

The Company has operating leases for facilities through 2020 and office equipment through 2021. The future minimum rental payments under these leases at December 31, 2016, are as follows:

Year	Amount
2017	\$ 936
2018	884
2019	821
2020	305
Thereafter	28
Future minimum lease payments	<u>\$ 2,974</u>

The rent expense under leases was approximately \$0.9 million, \$1.1 million, and \$0.9 million for the years ended December 31, 2016, 2015, and 2014, respectively.

Capital Leases

The Company has capital leases for office and manufacturing equipment. As of December 31, 2016 and 2015, the equipment had cost, accumulated depreciation, and a net book value as follows:

	December 31, 2016	December 31, 2015
Cost	\$ 324	\$ 190
Accumulated Depreciation	(105)	(48)
Net Book Value	<u>\$ 219</u>	<u>\$ 142</u>

The following table presents future minimum lease payments under capital leases together with the present value of the net minimum lease payments due in each year:

Year	Amount
2017	\$ 77
2018	76
2019	60
2020	20
2021	8
Total minimum payments required:	241
Less amount representing interest:	15
Present value of net minimum lease payments:	<u>\$ 226</u>

Warranty Reserve and Sales Returns

The Company allows its major distributors and certain other customers to return unused product under specified terms and conditions. The Company accrues for product returns based on historical sales and return trends. The Company's allowance for sales returns was \$0.2 million at December 31, 2016 and 2015 and is included within accounts receivable on the consolidated balance sheet.

The Company offers repair and replacement warranties of primarily five years for antenna products and for scanning receivers. The Company's warranty reserve is based on historical sales and costs of repair and replacement trends. The warranty reserve was \$0.4 million at December 31, 2016 and \$0.3 million at December 31, 2015 and is included in other accrued liabilities in the accompanying consolidated balance sheets.

	Year Ended December 31,	
	2016	2015
Beginning balance	\$ 348	\$ 304
Provisions for warranties	114	60
Consumption of reserves	(68)	(16)
Ending balance	<u>\$ 394</u>	<u>\$ 348</u>

Contingent Consideration

As part of the acquisition of the business from Nexgen, the purchase consideration included a contingent payment that was dependent on the achievement of revenue-based goals pertaining to the acquired business for the period commencing on March 1, 2015 and ending on April 30, 2016. As part of the Nexgen APA Amendment, the parties revised the terms of the contingent consideration to software revenue-based goals pertaining to the acquired business. The measurement period for the revised earnout commenced on January 1, 2016 and ended on December 31, 2016. Based on the 2016 results, there was no contingent liability at December 31, 2016. See Note 3 for information related to the Nexgen APA Amendment.

Legal Proceedings

Settlement with TelWorx Parties and Other Parties

On March 27, 2013, the Company and the TelWorx Parties (as defined below) entered into an Amendment (the "Amendment") to the Asset Purchase Agreement dated July 9, 2012 (the "Original Agreement"), among the Company, PCTelWorx, Ciao Enterprises, LLC f/k/a TelWorx Communications, LLC and certain of its affiliated entities (collectively, the "TelWorx Entities") and Tim and Brenda Scronce ("Sellers" and collectively with the TelWorx Entities, the "TelWorx Parties"), as part of a settlement arrangement relative to PCTelWorx's acquisition of substantially all of the assets and the assumption of certain specified liabilities of the TelWorx Entities on July 9, 2012 (the "Acquisition").

As disclosed in the Company's Form 8-K/A filed with the Securities and Exchange Commission (the "Commission") on March 13, 2013, after completion of the Acquisition, the Company became aware of certain accounting irregularities with respect to the TelWorx Entities and the Company's Board of Directors directed management to conduct an internal investigation. Based on the results of the Company's investigation, the Company's Board of Directors directed management to seek restitution from the TelWorx Parties, and after protracted negotiations and concurrent litigation, the parties entered into the Amendment and related settlement agreements to resolve their dispute. The settlement had an aggregate fair value of \$5.4 million.

The Company received restitution from two other parties used by the TelWorx Parties for professional services in their sale of the business to the Company. In 2014, the Company settled in cash with the two parties for \$0.1 million \$0.8 million, respectively. The Company recorded the settlements as other income.

8. Shareholders' Equity

Common Stock

The activity related to common shares outstanding for the years ended December 31st is as follows:

	2016	2015	2014
Beginning of year	17,654	18,571	18,566
Issuance of common stock on exercise of stock options net of stock swaps	0	35	58
Issuance of restricted common stock and performance shares, net of cancellations	400	916	183
Issuance of common stock from purchase of Employee Stock Purchase Plan shares	146	134	101
Cancellation of stock for withholding tax for vested shares	(82)	(59)	(121)
Common stock buyback	(783)	(1,943)	(216)
End of Year	<u>17,335</u>	<u>17,654</u>	<u>18,571</u>

Preferred Stock

The Company is authorized to issue up to 5,000,000 shares of preferred stock in one or more series, each with a par value of \$0.001 per share. As of December 31, 2016 and 2015, no shares of preferred stock were issued or outstanding.

9. Stock-Based Compensation

Stock Plans

Common Stock Reserved for Future Issuance

At December 31, 2016, the Company had 4,459,926 shares of common stock that could potentially be issued under various stock-based compensation plans described in this footnote. A summary of the reserved shares of common stock for future issuance are as follows:

	December 31,	
	2016	2015
Stock Plan	3,937,606	4,712,576
2001 Stock Plan	31,110	50,530
Employee Stock Purchase Plan	491,210	637,158
Total shares reserved	<u>4,459,926</u>	<u>5,400,264</u>

These amounts include the shares available for grant and the options outstanding.

Stock Plan

The Board of Directors may grant to employees, directors and consultants restricted stock, options to purchase common stock, or stock purchase rights at terms and prices determined by the Board under the 1997 Stock Plan which expires in 2016. Under the 1997 Stock Plan, each restricted share award consumes 1.78 of shares available and each stock option award consumes 1.0 share available. As of December 31, 2016, options to acquire 794,451 shares were outstanding and a total of 3,143,155 shares remain available for future grants.

2001 Non-Statutory Stock Option Plan

Options granted under the 2001 Plan are exercisable at any time within ten years from the date of grant or within ninety days of termination of employment. In June 2010 the stockholders approved certain changes to the 1997 Stock Plan that included the following: (i) there would be no additional grants from the 2001 Stock Plan; and (ii) any shares returned (or that would have otherwise returned) to the 2001 Plan would be added to the shares of common stock authorized for issuance under the 1997 Stock Plan. The 2001 Plan terminated in August 2011, and options to acquire 31,110 shares were outstanding at December 31, 2016.

Employee Stock Purchase Plan

Under the Company's ESPP, eligible employees can purchase common stock at the lower of 85% of the fair market value of the common stock on the first or last day of each offering period. In June 2014, the Company's shareholders approved an amended and restated ESPP. Under the restated ESPP, the number of shares authorized for issuance was increased by 750,000 and the expiration date of the ESPP was modified from March 2017 to the date that all shares authorized have been granted. As of December 31, 2016, the Company had 491,210 shares remaining that can be issued under the Purchase Plan.

Stock-Based Compensation Expense

The consolidated statements of operations include \$4.0 million, \$1.9 million, and \$3.3 million of stock compensation expense for the years ended December 31, 2016, 2015, and 2014, respectively. Stock compensation expense for the year ended December 31, 2016, consisted of \$3.0 million for service-based restricted stock and restricted stock unit awards, \$0.6 million for stock bonuses and \$0.3 million for stock option and stock purchase plan expenses. Stock compensation expense for the year ended December 31, 2015, consisted of \$1.8 million for service-based restricted stock and restricted stock unit awards and \$0.6 million for stock option and stock purchase plan expenses, offset by a \$0.5 million benefit related to expense reversals for performance-based stock awards. Stock compensation expense for the year ended December 31, 2014, consisted of \$1.5 million for service-based restricted stock and restricted stock unit awards, \$1.2 million for stock option and stock purchase plan expenses, and \$0.6 million for performance-based stock awards. The Company did not capitalize any stock compensation expense during the years ended December 31, 2016, 2015, and 2014.

The stock-based compensation expense by type is as follows:

	Years Ended December 31,		
	2016	2015	2014
Service-based awards	\$ 3,030	\$ 1,813	\$ 1,468
Stock bonuses	624	0	0
Stock option and employee purchase plans	332	562	1,192
Performance-based shares and stock options	0	(510)	616
	<u>\$ 3,986</u>	<u>\$ 1,865</u>	<u>\$ 3,276</u>

The stock-based compensation is reflected in the consolidated statements of operations as follows:

	Years Ended December 31,		
	2016	2015	2014
Cost of revenues	\$ 411	\$ 370	\$ 426
Research and development	650	419	659
Sales and marketing	627	238	661
General and administrative	2,298	838	1,530
Total	<u>\$ 3,986</u>	<u>\$ 1,865</u>	<u>\$ 3,276</u>

Restricted Stock - Serviced Based

The Company grants service-based restricted shares as employee incentives. When service-based restricted stock is granted to employees, the Company records deferred stock compensation within additional paid-in capital, representing the fair value of the common stock on the date the restricted shares are granted. The Company records stock compensation expense on a straight-line basis over the vesting period of the applicable service-based restricted shares. These grants vest over various periods, but typically vest over four years. During the years ended December 31, 2016, 2015 and 2014, the Company awarded annual service-based restricted stock to eligible employees as long-term incentives.

The following table summarizes service-based restricted stock activity for the years ended December 31 st :

	2016		2015		2014	
	Shares	Weighted Average Fair Value	Shares	Weighted Average Fair Value	Shares	Weighted Average Fair Value
Unvested Restricted Stock Awards						
Beginning of year	1,050,172	\$ 6.11	343,836	\$ 7.41	543,021	\$ 6.59
Shares awarded	457,300	5.60	1,033,776	6.12	182,407	8.19
Shares vested	(242,585)	6.43	(193,751)	7.20	(378,417)	6.60
Shares cancelled	(143,927)	6.20	(133,689)	7.90	(3,175)	8.28
End of year	1,120,960	\$ 5.83	1,050,172	\$ 6.11	343,836	\$ 7.41

The intrinsic values of service-based restricted shares that vested were \$1.1 million, \$1.5 million, and \$3.2 million during the years ended December 31, 2016, 2015, and 2014, respectively.

As of December 31, 2016, the unrecognized compensation expense related to the unvested portion of the Company's restricted stock was approximately \$3.8 million, net of estimated forfeitures to be recognized through 2020 over a weighted average period of 2.0 years.

Restricted Stock Units – Service Based

The Company grants service-based restricted stock units as employee incentives. Restricted stock units are primarily granted to foreign employees for long-term incentive purposes. Employee restricted stock units are service-based awards and are amortized over the vesting period. At the vesting date, these units are converted to shares of common stock. The Company records expense on a straight-line basis for restricted stock units.

The following summarizes the service-based restricted stock unit activity during the year ended December 31 st :

	2016		2015		2014	
	Shares	Weighted Average Fair Value	Shares	Weighted Average Fair Value	Shares	Weighted Average Fair Value
Unvested Restricted Stock Units						
Beginning of year	22,725	\$ 5.65	4,600	\$ 7.47	6,325	\$ 6.70
Units awarded	15,000	5.61	22,350	5.62	1,500	8.77
Units vested/Shares awarded	(1,337)	7.25	(2,475)	7.00	(3,225)	6.56
Units cancelled	0	0	(1,750)	7.91	0	0
End of year	36,388	\$ 5.57	22,725	\$ 5.65	4,600	\$ 7.47

The intrinsic values of service-based restricted stock units that vested were \$7, \$20, and \$27 during the years ended December 31, 2016, 2015, and 2014, respectively.

The Company recorded stock compensation expense of \$58, \$22, and \$21 for restricted stock units in the years ended December 31, 2016, 2015, and 2014, respectively. As of December 31, 2016, the unrecognized compensation expense related to the unvested portion of the Company's restricted stock units was \$0.1, million net of estimated forfeitures to be recognized through 2020 over a weighted average period of 1.4 years.

Stock Options

The Company grants stock options to purchase common stock as long-term incentives. The Company issues stock options with exercise prices no less than the fair value of the Company's stock on the grant date. Employee options are subject to installment vesting typically over a period of four years. Stock options may be exercised at any time prior to their expiration date or within ninety days of termination of employment, or such shorter time as may be provided in the related stock option agreement. Prior to July 2010, the Company primarily granted stock options with a ten-year life. Beginning with options granted in July 2010, the Company grants stock options with a seven-year life. During 2013, the Company issued its annual long-term incentive awards in the form of stock options, and during the years ended December 31, 2016, 2015, and 2014, the Company awarded stock options to eligible new employees for incentive purposes.

A summary of the Company's stock option activity for the years ended December 31 is as follows:

	2016		2015		2014	
	Options Outstanding	Weighted Average Exercise Price	Options Outstanding	Weighted Average Exercise Price	Options Outstanding	Weighted Average Exercise Price
Beginning of Year	1,220,442	\$ 7.72	1,357,928	\$ 7.81	1,461,559	\$ 8.40
Options granted	26,000	4.95	185,000	7.61	25,800	8.19
Options granted from stock option rights	0	0.00	0	0.00	207,236	7.16
Options exercised	0	0.00	(35,134)	7.25	(74,463)	7.46
Options forfeited	(86,061)	7.36	(141,722)	7.46	(10,144)	7.98
Options cancelled/expired	(334,820)	8.64	(145,630)	8.75	(252,060)	10.86
End of Year	825,561	\$ 7.30	1,220,442	\$ 7.72	1,357,928	\$ 7.81
Exercisable	628,333	\$ 7.40	764,546	\$ 7.97	643,810	\$ 8.46

During the year ended December 31, 2015, the Company received proceeds of \$0.3 million from the exercise of 35,134 options. The intrinsic value of these options exercised was \$34. During the year ended December 31, 2014, the Company received proceeds of \$0.6 million from the exercise of 74,463 options. The intrinsic value of these options exercised was \$72. There were no exercises during the year ended December 31, 2016.

The range of exercise prices for options outstanding and exercisable at December 31, 2016, was \$4.00 to \$11.00. The following table summarizes information about stock options outstanding under all stock option plans:

Range of Exercise Prices	Options Outstanding			Options Exercisable		
	Number Outstanding	Weighted Average Contractual Life (Years)	Weighted-Average Exercise Price	Number Exercisable	Weighted Average Exercise Price	
\$ 4.00 — \$ 5.00	9,000	6.53	\$ 4.75	0	\$ 0.00	
5.01 — 6.00	26,335	5.92	5.38	4,372	5.94	
6.01 — 6.50	11,267	2.18	6.27	11,267	6.27	
6.51 — 7.00	37,522	1.40	6.85	36,314	6.86	
7.01 — 7.50	608,548	3.27	7.17	470,918	7.17	
7.51 — 8.00	18,000	3.79	7.80	12,695	7.81	
8.01 — 8.50	52,729	3.79	8.13	32,167	8.15	
8.51 — 9.00	6,750	2.58	8.76	5,534	8.77	
9.01 — 10.00	54,010	0.59	9.39	53,666	9.39	
10.01 — 11.00	1,400	1.59	10.46	1,400	10.46	
\$ 4.00 — \$ 11.00	825,561	3.15	\$ 7.30	628,333	\$ 7.40	

The weighted average contractual life and intrinsic value at December 31, 2016, was the following:

	Weighted Average Contractual Life (years)	Intrinsic Value
Options Outstanding	3.15	\$ 11
Options Exercisable	2.88	\$ 0

The intrinsic value is based on the share price of \$5.38 at December 31, 2016.

The Company calculated the fair value of each option grant on the date of grant using the Black-Scholes option-pricing model using the following assumptions at December 31 st :

	2016	2015	2014
Dividend yield	3.7%	4.4%	2.3%
Risk-free interest rate	0.8%	0.7%	0.8%
Expected volatility	32%	34%	33%
Expected life (in years)	4.9	5.2	5.3

The fair value of each unvested option was estimated on the date of grant using the Black-Scholes option valuation model. 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 option life. Because the Company's employee stock options have characteristics significantly different from those of traded options, and because changes in the subjective input assumptions can materially affect the fair value estimate, the existing models may not necessarily provide a reliable single measure of the fair value of the employee stock options.

The dividend yield rate was calculated by dividing the Company's annual dividend by the closing price on the grant date. The risk-free interest rate was based on the U.S. Treasury yields with remaining term that approximates the expected life of the options granted. The Company calculates the volatility based on a five-year historical period of the Company's stock price. The Company incorporates a forfeiture rate based on historical data in the expense calculation. The expected life used for options granted is based on historical data of employee exercise performance. The Company records expense based on the grading vesting method.

As of December 31, 2016, the unrecognized compensation expense related to the unvested portion of the Company's stock options was approximately \$48, net of estimated forfeitures to be recognized through 2020 over a weighted average period of 1.3 years.

Stock Bonuses

For the Company's 2016 short-term incentive plan ("STIP"), executives will be paid in the Company's stock. The value of the shares was based on percentages achieved related to the 2016 metrics and the number of shares was based on the value as of March 3, 2017 the date the Compensation Committee approved the payments under the STIP. . The Company recorded \$0.6 million of compensation expense based on the stock bonuses earned by the executive employees. The shares will be awarded in March 2017.

Performance-based Equity Awards

Performance units

The Company issued performance share units to executives in 2014 and 2015. The fair value of these performance share units was calculated based on the stock price on the date of grant.

In March 2015, the Company's Board of Directors approved the 2015 Long-Term Incentive Plan ("2015 LTIP"). Under the 2015 LTIP, shares can be earned by certain executive employees based upon achievement of revenue goals over a four-year period with a penalty if certain earnings levels are not maintained. The four-year period is divided into two interim periods (each an "Interim Period"), the first of which will end on December 31, 2016, and the second of which will end on December 31, 2018. At the award date, the number of shares that could be earned collectively by all participants at threshold and target were 212,000 and 424,000, respectively. Stock compensation expense is amortized over the performance period for these awards based on estimated achievement of the goals. No expense was recorded during the years ended December 31, 2015 or 2016 for the 2015 LTIP because the Company did not meet the revenue threshold for the year ended December 31, 2016. The units cancelled during 2016 consist of 158,500 awards that did not vest related to the Interim Period ended December 31, 2016 and 100,000 awards for terminated employees.

In March 2014, the Company's Board of Directors approved the 2014 Long-Term Incentive Plan ("2014 LTIP"). Under the 2014 LTIP, shares can be earned by certain executive employees based upon achievement of revenue goals over a four-year period with a penalty if certain profit levels are not maintained. The four-year period is divided into two interim periods (each an "Interim Period"), the first of which will end on December 31, 2015, and the second of which will end on December 31, 2017. The number of shares that could be earned collectively by all participants at threshold and target were 190,000 and 380,000, respectively. Stock compensation expense is amortized over the performance period for these awards based on estimated achievement of the goals. No expense was recorded for the 2014 LTIP because the Company did not meet the revenue threshold for the year ended 2015 and does not expect to meet the revenue threshold for the year ended 2017. The units cancelled during 2015 consist of 162,000 awards that did not vest related to the Interim Period ended December 31, 2015 and 80,798 awards for terminated employees.

The following summarizes the performance unit activity during the years ended December 31st:

	2016		2015		2014	
	Awards	Weighted Average Fair Value	Awards	Weighted Average Fair Value	Awards	Weighted Average Fair Value
Unvested Performance Units						
Beginning of Year	555,000	\$ 7.78	380,000	\$ 8.47	0	\$ 0.00
Units awarded	0	0.00	431,000	7.49	380,000	8.47
Units vested	0	0.00	(13,202)	7.98	0	0.00
Units cancelled	(258,500)	7.58	(242,798)	8.34	0	0.00
End of Year	<u>296,500</u>	<u>\$ 7.95</u>	<u>555,000</u>	<u>\$ 7.78</u>	<u>380,000</u>	<u>\$ 8.47</u>

The number of awards presented in the table above is based on achievement at target. The intrinsic value of performance units that vested during the year ended December 31, 2015 was \$82.

Performance stock option rights

For the Company's 2013 Long-Term Incentive Plan, the Company awarded 182,500 performance-based retention stock option rights to executive officers with a weighted average grant date fair value of \$2.83 in April 2013. The number of options granted was based on the target for the Company's 2013 revenue goal. In March 2014, the Company awarded 207,236 stock options because the Company exceeded the target revenue goal for 2013. These options will vest between two and four years beginning in April 2014. The Company records expense for these retention stock options on the grading vested method based on achievement of the performance goals. The assumptions used for the valuation of these stock options were consistent with the employee stock options awarded to employees in April 2013.

The following table summarizes the retention stock option activity for the year ended December 31, 2014:

Retention Stock Option Rights	2014	
	Stock Options Rights	Weighted Average Exercise Price
Beginning of Year	182,500	\$ 7.16
Stock option rights granted	24,736	7.16
Stock options granted	(207,236)	7.16
End of Year	<u>0</u>	<u>\$ 0.00</u>
Exercisable	<u>0</u>	<u>\$ 0.00</u>

Employee Stock Purchase Plan

The following summarizes the Purchase Plan activity during the years ended December 31st:

	2016		2015		2014	
	Shares	Weighted Average Fair Value at Grant Date	Shares	Weighted Average Fair Value at Grant Date	Shares	Weighted Average Fair Value at Grant Date
Outstanding, beginning of year	0	\$ 0.00	0	\$ 0.00	0	\$ 0.00
Granted	145,948	1.16	133,607	1.35	100,608	1.88
Vested	(145,948)	1.16	(133,607)	1.35	(100,608)	1.88
Outstanding, end of year	<u>0</u>	<u>\$ 0.00</u>	<u>0</u>	<u>\$ 0.00</u>	<u>0</u>	<u>\$ 0.00</u>

Based on the 15% discount and the fair value of the option feature of this plan, the ESPP is considered compensatory. Compensation expense is calculated using the fair value of the employees' purchase rights under the Black-Scholes model. The Company recognized compensation expense of \$0.2 million for the years ended December 31, 2016, 2015 and 2014, respectively.

The Company calculated the fair value of each employee stock purchase grant on the date of grant using the Black-Scholes option-pricing model using the following assumptions:

	Employee Stock Purchase Plan		
	2016	2015	2014
Dividend yield	3.7%	3.4%	2.2%
Risk-free interest rate	0.8%	0.6%	0.3%
Expected volatility	33%	34%	38%
Expected life (in years)	0.5	0.5	0.5

The dividend yield rate was calculated by dividing the Company's annual dividend by the closing price on the grant date. The risk-free interest rate was based on the U.S. Treasury yields with remaining term that approximates the expected life of the options granted. The dividend yield rate is calculated by dividing the Company's annual dividend by the closing price on the grant date. The Company calculates the volatility based on a five-year historical period of the Company's stock price. The expected life used is based on the offering period.

Board of Director Equity Awards

The Company grants equity awards to members of its Board of Directors for an annual retainer and for committee services in shares of the Company's stock. These awards vest immediately. New directors receive service-based restricted shares which vest over three years. During the year ended December 31, 2016, the Company issued 85,374 shares of the Company's stock with a fair value of \$0.4 million which vested immediately to the directors. During the year ended December 31, 2015, the Company issued 37,379 shares of the Company's stock with a fair value of \$0.3 million which vested immediately to the directors. During the year ended December 31, 2014, the Company issued 35,555 shares of the Company's stock with a fair value of \$0.3 million which vested immediately to the directors.

Employee Withholding Taxes on Stock Awards

For ease in administering the issuance of stock awards, the Company holds back shares of vested restricted stock awards and short-term incentive plan stock awards for the value of the statutory withholding taxes. For each individual receiving a share award, the Company redeems the shares it computes as the value for the withholding tax and remits this amount to the appropriate tax authority. For withholding taxes related to stock awards, the Company paid \$0.4 million during the years ended December 31, 2016 and 2015, and \$1.0 million during the year ended December 31, 2014.

10. Stock Repurchases

All share repurchase programs are authorized by the Company's Board of Directors and are announced publicly. On March 18, 2013, the Board of Directors approved a share repurchase program of \$5.0 million. On May 6, 2014, the Board of Directors extended this stock buyback program through September 2014. On November 13, 2014, the Board of Directors approved a share repurchase program of up to 926,000 of the Company's outstanding shares that will expire on the earlier of the date that the total shares are repurchased or November 13, 2016. On April 20, 2015, the Board of Directors authorized an increase to the share repurchase program to purchase another 500,000 shares of stock. Additionally, on August 10, 2015, the Board of Directors authorized another increase to the share repurchase program to purchase an additional 1,300,000 shares, for a total of 2,726,000 shares. The Company repurchased 783,212 shares at an average price of \$5.23 during the year ended December 31, 2016. The Company repurchased 1,942,788 shares at an average price of \$6.22 during the year ended December 31, 2015. At December 31, 2016, the Company did not have any shares that could still be repurchased under these programs.

The following table is a summary of the share repurchases for the years ended December 31st:

Year	Shares	Amount	Avg price per Share
2014	215,650	\$ 1,651	\$ 7.66
2015	1,942,788	\$ 12,079	\$ 6.22
2016	783,212	\$ 4,095	\$ 5.23

11. Segment, Customer and Geographic Information

PCTEL operates in two segments for reporting purposes. The Company's Connected Solutions segment includes its antenna and engineered site solutions. Its RF Solutions segment includes its scanning receivers and engineering services. Each of the segments has

its own segment manager as well as its own engineering, sales and marketing, and operational general and administrative functions. All of the Company's accounting and finance, human resources, IT and legal functions are provided on a centralized basis through the corporate function. The Company manages its balance sheet and cash flows centrally at the corporate level, with the exception of trade accounts receivable and inventory which is managed at the segment level. Each of the segment managers reports to and maintains regular contact with the chief operating decision maker to discuss operating activities, financial results, forecasts, or plans for the segment. The Company's chief operating decision maker uses the profit and loss results through operating profit and identified assets for Connected Solutions and RF Solutions segments to make operating decisions.

The following tables are the segment operating profits and cash flow information for the years ended December 31, 2016, 2015 and 2014, and the segment balance sheet information as of December 31, 2016 and December 31, 2015:

Year Ended December 31, 2016

	Connected Solutions	RF Solutions	Corporate	Total
REVENUES	\$ 65,763	\$ 31,126	\$ (176)	\$ 96,713
GROSS PROFIT	20,706	14,485	15	35,206
OPERATING INCOME (LOSS)	<u>\$ 7,804</u>	<u>\$ (6,738)</u>	<u>\$ (9,979)</u>	<u>\$ (8,913)</u>
Depreciation	\$ 1,720	\$ 1,181	\$ 249	\$ 3,150
Intangible amortization	\$ 192	\$ 2,126	\$ 0	\$ 2,318
Capital expenditures	\$ 1,192	\$ 347	\$ 373	\$ 1,912

As of December 31, 2016

	Connected Solutions	RF Solutions	Corporate	Total
Accounts receivable	\$ 12,731	\$ 6,370	\$ 0	\$ 19,101
Inventories	\$ 12,301	\$ 2,141	\$ 0	\$ 14,442
Long-lived assets:				
Property and equipment, net	\$ 9,756	\$ 2,122	\$ 731	\$ 12,609
Goodwill	\$ 0	\$ 3,332	\$ 0	\$ 3,332
Intangible assets, net	\$ 233	\$ 3,042	\$ 0	\$ 3,275
Deferred tax assets, net	\$ 0	\$ 0	\$ 4,512	\$ 4,512
Other noncurrent assets	\$ 0	\$ 0	\$ 36	\$ 36

Year Ended December 31, 2015

	Connected Solutions	RF Solutions	Corporate	Total
REVENUES	\$ 69,579	\$ 37,255	\$ (219)	\$ 106,615
GROSS PROFIT	20,426	16,803	32	37,261
OPERATING INCOME (LOSS)	<u>\$ 5,040</u>	<u>\$ (298)</u>	<u>\$ (10,498)</u>	<u>\$ (5,756)</u>
Depreciation	\$ 1,706	\$ 1,108	\$ 271	\$ 3,085
Intangible amortization	\$ 850	\$ 3,170	\$ 0	\$ 4,020
Capital expenditures	\$ 954	\$ 997	\$ 151	\$ 2,102

As of December 31, 2015

	Connected Solutions	RF Solutions	Corporate	Total
Accounts receivable	\$ 12,875	\$ 8,126	\$ 0	\$ 21,001
Inventories	\$ 15,507	\$ 2,089	\$ 0	\$ 17,596
Long-lived assets:				
Property and equipment, net	\$ 10,250	\$ 2,985	\$ 604	\$ 13,839
Goodwill	\$ 0	\$ 3,332	\$ 0	\$ 3,332
Intangible assets, net	\$ 425	\$ 10,953	\$ 0	\$ 11,378
Deferred tax assets, net	\$ 0	\$ 0	\$ 13,155	\$ 13,155
Other noncurrent assets	\$ 0	\$ 0	\$ 40	\$ 40

Year Ended December 31, 2014

	Connected Solutions	RF Solutions	Corporate	Total
REVENUES	\$ 72,333	\$ 35,113	\$ (282)	\$ 107,164
GROSS PROFIT	22,818	20,743	26	43,587
OPERATING INCOME (LOSS)	\$ 7,357	\$ 7,333	\$ (10,586)	\$ 4,104
Depreciation	\$ 1,700	\$ 795	\$ 344	\$ 2,839
Intangible amortization	\$ 1,151	\$ 816	\$ 0	\$ 1,967
Capital expenditures	\$ 1,173	\$ 1,328	\$ 41	\$ 2,542

The Company's revenues attributable to products and services are as follows:

	Years Ended December 31,		
	2016	2015	2014
Revenues:			
Products	\$ 85,006	\$ 90,533	\$ 96,346
Services	11,707	16,082	10,818
Total revenues	\$ 96,713	\$ 106,615	\$ 107,164

	Years Ended December 31,		
	2016	2015	2014
Cost of revenues:			
Products	\$ 50,595	\$ 55,405	\$ 55,813
Services	10,912	13,949	7,764
Total cost of revenues	\$ 61,507	\$ 69,354	\$ 63,577

The Company's revenue to customers by geographic location, as a percent of total revenues, is as follows:

Region	Years Ended December 31,		
	2016	2015	2014
Asia Pacific	21%	9%	11%
Europe, Middle East, & Africa	8%	10%	11%
Other Americas	6%	6%	5%
Total Foreign sales	35%	25%	27%
Total Domestic sales	65%	75%	73%
	100%	100%	100%

Huawei Technologies Co., Ltd ("Huawei") accounted for approximately 11% of revenues during the year ended December 31, 2016. Approximately 89% of the revenues for Huawei are within Connected Solutions. No other customer accounted for 10% or greater of revenues during the year ended December 31, 2016. There were no customers that accounted for 10% or greater of revenues during the years ended December 31, 2015 and December 31, 2014. At December 31, 2016, Huawei accounted for 17% of customer accounts receivable at December 31, 2016. No other customer accounts receivable balance represented 10% or greater of gross accounts receivable at December 31, 2016. At December 31, 2015, no customer accounts receivable balance represented 10% or greater of gross accounts receivable.

The long-lived assets by geographic region are as follows:

	December 31,		
	2016	2015	2014
United States	\$ 22,557	\$ 23,741	\$ 26,436
All Other	1,207	994	954
	\$ 23,764	\$ 24,735	\$ 27,390

12. Benefit Plans

The Company's 401(k) plan covers all of the U.S. employees beginning the first of the month following the first 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. The Company may make discretionary contributions to the 401(k) plan. For the years ended December 31, 2016 and 2015, contributions of \$71 and \$55, respectively, were related to employees from the acquisition of the business from Nexgen. The Company also contributes to various defined contribution retirement plans for foreign employees.

The Company's contributions to retirement plans were as follows:

	Year Ended December 31,		
	2016	2015	2014
PCTEL, Inc. 401(k) Profit sharing Plan - US employees	\$ 673	\$ 757	\$ 666
Defined contribution plans - foreign employees	378	345	332
Total	\$ 1,051	\$ 1,102	\$ 998

13. Quarterly Data (Unaudited)

	Quarters Ended,			
	March 31, 2016	June 30, 2016	September 30, 2016	December 31, 2016
Revenues	\$ 21,074	\$ 24,243	\$ 24,687	\$ 26,709
Gross profit	7,051	9,237	8,937	9,981
Operating loss	(2,753)	(5,330)	(163)	(667)
Loss before income taxes	(2,747)	(5,322)	(128)	(604)
Net (loss) income	\$ (1,456)	\$ (11,073)	\$ 175	\$ (5,327)
(Loss) earnings per Share:				
Basic	\$ (0.09)	\$ (0.69)	\$ 0.01	\$ (0.33)
Diluted	\$ (0.09)	\$ (0.69)	\$ 0.01	\$ (0.33)
Weighted Average Shares:				
Basic	16,324	15,979	16,106	16,194
Diluted	16,324	15,979	16,245	16,194

	Quarters Ended,			
	March 31, 2015	June 30, 2015	September 30, 2015	December 31, 2015
Revenues	\$ 26,326	\$ 27,625	\$ 26,526	\$ 26,138
Gross profit	10,169	9,350	8,463	9,279
Operating loss	(96)	(1,665)	(2,221)	(1,774)
(Loss) income before income taxes	(52)	540	(1,687)	(1,270)
Net (loss) income	\$ (33)	\$ 347	\$ (1,062)	\$ (820)
(Loss) earnings per Share:				
Basic	\$ 0.00	\$ 0.02	\$ (0.06)	\$ (0.05)
Diluted	\$ 0.00	\$ 0.02	\$ (0.06)	\$ (0.05)
Weighted Average Shares:				
Basic	18,312	18,257	17,626	16,820
Diluted	18,312	18,408	17,626	16,820

The quarterly information for 2015 includes reclassifications between cost of revenues and operating expenses for intangible amortization. The Company reclassified \$20 from operating expense to cost of revenues for the quarter ended March 31, 2015, reclassified \$0.2 million from operating expenses to cost of revenues for the quarters ended June 30, 2015 and September 30, 2015, respectively, and reclassified \$0.4 million from cost of revenues to operating expenses for the quarter ended December 31, 2015.

14. Related Parties

The Company leased its Pryor, Oklahoma facility from American Tradition Custom Steel LLC, of which Aaron Jarvis is a member. Mr. Jarvis was the operations manager for the Company's mobile tower business. Mr. Jarvis was separated from employment with the Company in September 2015, and the lease terminated on October 31, 2015. Mr. Jarvis provided warranty support as a contractor for the mobile towers product line through October, 2016, because all warranty periods ended by then.

15. Accumulated Other Comprehensive Income

Accumulated other comprehensive loss of \$382 and \$15 at December 31, 2016 and December 31, 2015, respectively, consists of foreign currency translation adjustments.

16. Subsequent Events

The Company evaluates subsequent events occurring between the most recent balance sheet date and the date that the financial statements are available to be issued in order to determine whether the subsequent events are to be recorded and/or disclosed in the Company's financial statements and footnotes. The financial statements are considered to be available to be issued at the time that they are filed with the SEC. Except as described below, there were no other subsequent events or transactions that required recognition or disclosure in the consolidated financial statements.

On January 2, 2017, Mr. David Neumann began serving as Chief Executive Officer. Mr. Neumann had been serving as the Senior Vice President and General Manager of the company's RF Solutions segment. Mr. Steve Levy, who currently serves on the PCTEL Board, began serving as Chairman. Levy currently chairs the Nominating and Governance Committee. Mr. Marty Singer, who had been Chairman and CEO for over 15 years, began providing services as the company's Vice Chair but will no longer serve as a director on the Company's Board of Directors.

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

None.

Item 9A: Controls and Procedures

(a) Evaluation of Disclosure Controls and Procedures

Our management evaluated, with the participation of our Chief Executive Officer and our Chief Financial Officer, the effectiveness of our disclosure controls and procedures as defined by Rule 13a-15(e) of the Securities Exchange Act of 1934, as of the end of the period covered by this Annual Report on Form 10-K. Based on this evaluation, our Chief Executive Officer and our Chief Financial Officer have concluded that our disclosure controls and procedures are effective to ensure that information we are required to disclose in our reports that we file or submit under Securities Exchange Act of 1934 (i) is recorded, processed, summarized, and reported within the time periods specified in SEC rules and forms, and (ii) is accumulated and communicated to our management, including our Chief Executive Officer and our Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

(b) Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934. Our internal control over financial reporting is a process designed by, or under the supervision of, our principal executive and principal financial officers, or persons performing similar functions, and effected by our board of directors, management, and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles (GAAP) and includes those policies and procedures that:

- pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of the assets of PCTEL;
- provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with GAAP, and that receipts and expenditures of PCTEL are being made only in accordance with authorizations of management and directors of PCTEL; and
- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of PCTEL's assets that could have a material effect on the financial statements.

Our management has assessed the effectiveness of our internal control over financial reporting as of December 31, 2016. In making its assessment of internal control over financial reporting, management used the criteria described in "2013 *Internal Control – Integrated Framework* " issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

Based on our management's assessment of internal control over financial reporting, management has concluded that, as of December 31, 2016, our internal control over financial reporting was effective to provide assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles.

Grant Thornton LLP, our independent registered public accounting firm, has audited and issued their report on our internal control over reporting, which is included herein.

(c) Changes in Internal Control Over Financial Reporting

There have been no changes in our internal control over financial reporting during the most recently completed fiscal quarter that have materially affected, or are likely to materially affect, our internal control over financial reporting.

Item 9B: Other Information

None.

PART III

Item 10: Directors, Executive Officers and Corporate Governance

The information with respect to the directors and the board committees of the Company required to be included pursuant to this Item 10 is included in PCTEL's proxy statement for the 2017 Annual Meeting of Stockholders which will be filed with the SEC pursuant to Rule 14a-6 under the Exchange Act in accordance with applicable SEC deadlines, and is incorporated in this Item 10 by reference.

The information regarding executive and director compensation in response to this item will be included in PCTEL's proxy statement for the 2017 Annual Meeting of Stockholders and incorporated by reference herein. Information included under the caption "Compensation Committee Report" in PCTEL's proxy statement for the 2017 Annual Meeting of Stockholders is incorporated by reference herein; however, this information shall not be deemed to be "soliciting material" or to be filed with the Securities and Exchange Commission or subject to Regulation 14A or 14C, or the liabilities of Section 18 of the Securities Exchange Act of 1934.

Item 11: Executive Compensation

The information required by Item 402, 407(e)(4) and Item 407(e)(5) of Regulation S-K will be included under the captions "Compensation Discussion and Analysis," "Executive Compensation and Other Matters," "Compensation Committee Interlocks and Insider Participation," and "Compensation Committee Report," respectively, in PCTEL's proxy statement for the 2017 Annual Meeting of Stockholders and is incorporated by reference herein.

Item 12: Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information regarding security ownership will be included under the caption "Security Ownership of Certain Beneficial Owners and Management" in PCTEL's proxy statement for the 2017 Annual Meeting of Stockholders and is incorporated by reference herein.

The information regarding securities authorized for issuance under equity compensation plans is included under the caption "Equity Compensation Plan Information" in PCTEL's proxy statement for the 2017 Annual Meeting of Stockholders and is incorporated by reference herein.

Item 13: Certain Relationships and Related Transactions, and Director Independence

The information required by this item is incorporated by reference to the sections entitled "Certain Relationships and Related Transactions" and "Corporate Governance" which will be contained in PCTEL's proxy statement for the 2017 Annual Meeting of Stockholders and is incorporated by reference herein.

Item 14: Principal Accountant Fees and Services

Information regarding principal accounting fees and services is under the caption "Summary of Fees" in PCTEL's proxy statement for the 2017 Annual Meeting of Stockholders and is incorporated by reference herein.

PART IV**Item 15: Exhibits and Financial Statement Schedules****(a) (1) Financial Statements**

The Consolidated Financial Statements are included in Part II, Item 8 of this Annual Report on Form 10-K on pages 29 to 68.

(a) (2) Financial Statement Schedules

The following financial statement schedule is filed as a part of this Report under "Schedule II" immediately preceding the signature page: Schedule II — Valuation and Qualifying Accounts for the three fiscal years ended December 31, 2016.

All other information called for this Item are omitted because they are inapplicable or the required information is shown in the financial statements, or notes thereto, included herein.

PCTEL, INC.
SCHEDULE II — VALUATION AND QUALIFYING ACCOUNTS
(in thousands)

	Balance at Beginning of Year	Charged to Costs and Expenses	Addition (Deductions)	Balance at End of Year
Year Ended December 31, 2014:				
Allowance for doubtful accounts	\$ 130	48	(57)	\$ 121
Warranty reserves	\$ 305	124	(125)	\$ 304
Deferred tax asset valuation allowance	\$ 640	(7)	0	\$ 633
Year Ended December 31, 2015:				
Allowance for doubtful accounts	\$ 121	205	(12)	\$ 314
Warranty reserves	\$ 304	60	(16)	\$ 348
Deferred tax asset valuation allowance	\$ 633	26	0	\$ 659
Year Ended December 31, 2016:				
Allowance for doubtful accounts	\$ 314	(40)	(1)	\$ 273
Warranty reserves	\$ 348	114	(68)	\$ 394
Deferred tax asset valuation allowance	\$ 659	12,641	0	\$ 13,300

All other schedules called for by Form 10-K are omitted because they are inapplicable or the required information is shown in the financial statements, or notes thereto, included herein.

a) (3) Exhibits (numbered in accordance with Item 601 of Regulation S-K)

The exhibits listed in the accompanying index to exhibits are filed or incorporated by reference as part of this Annual Report on Form 10-K. We will furnish at no cost a copy of any exhibit filed with or incorporated by reference into this Annual Report on Form 10-K. Oral or written requests for copies of any exhibits should be directed to us, Attn: Corporate Secretary.

Item 16: Form 10-K Summary

Not applicable.

Exhibit No.	Description	Reference
2.1.1	Asset Purchase Agreement dated July 9, 2012, by and among PCTEL, Inc., TelWorx Communications, LLC, and other parties.	Incorporated by reference to Exhibit Number 2.1 filed with the Registrant's Current Report on Form 8-K filed July 13, 2012.
2.1.2	Amendment to Asset Purchase Agreement dated March 27, 2013, by and among PCTEL, Inc., PCTelWorx Enterprises, LLC f/k/a TelWorx Communications, LLC and the other parties thereto.	Incorporated by reference to Exhibit Number 10.1 filed with the Registrant's Current Report on Form 8-K dated March 27, 2013.
2.2	Asset Purchase Agreement dated February 27, 2015, by and among PCTEL, Inc., Nexgen Wireless, Inc. and other parties thereto.	Incorporated by reference to Exhibit Number 2.1 filed with the Registrant's Current Report on Form 8-K filed March 4, 2015.
2.2.1	Amendment to Asset Purchase Agreement dated as of May 5, 2015 by and among, PCTEL, Inc., Nexgen Wireless, Inc. and other parties thereto.	Incorporated by reference to Exhibit Number 2.1 filed with the Registrant's Quarterly Report on Form 10-Q filed March 31, 2015.
3.1	Amended and Restated Certificate of Incorporation of PCTEL, Inc.	Incorporated by reference to Exhibit Number 3.2 filed with the Registrant's Registration Statement on Form S-1 (File No. 333-84707).
3.2	Amended and Restated Bylaws of the Registrant	Incorporated by reference to Exhibit Number 3.3 filed with the Registrant's Annual Report on Form 10-K for fiscal year ended December 31, 2001.
4.1	Specimen common stock certificate	Incorporated by reference to Exhibit Number 4.1 filed with the Registrant's Registration Statement on Form S-1 (File No. 333-84707).
10.1	* Form of Indemnification Agreement between PCTEL, Inc. and each of its directors and officers	Incorporated by reference to Exhibit Number 10.1 filed with the Registrant's Registration Statement on Form S-1 (File No. 333-84707).
10.2	* Employment Agreement between Jeffrey A. Miller and PCTEL, Inc., dated November 7, 2001	Incorporated by reference to Exhibit Number 10.25 filed with the Registrant's Annual Report on Form 10-K for fiscal year ended December 31, 2001.
10.2.1	* Letter agreement dated August 22, 2006 amending the Employment Agreement, by and between PCTEL, Inc. and Jeffrey A. Miller	Incorporated by reference to Exhibit Number 10.25.1 filed with the Registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2006.
10.3	* Employment Agreement between John Schoen and the Registrant, dated November 12, 2001	Incorporated by reference to Exhibit Number 10.26 filed with the Registrant's Annual Report on Form 10-K for fiscal year ended December 31, 2001.
10.3.1	* Letter agreement dated August 22, 2006 amending the Employment Agreement, by, and between PCTEL, Inc. and John Schoen	Incorporated by reference to Exhibit Number 10.26.1 filed with the Registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2006.
10.4	* Stock Option Agreement of Jeffrey A. Miller, dated November 15, 2001	Incorporated by reference to Exhibit Number 10.1 filed with the Registrant's Registration Statement on Form S-8 filed on December 14, 2001 (File No. 333-75204).
10.5	* Stock Option Agreement of John Schoen, dated November 15, 2001	Incorporated by reference to Exhibit 10.2 filed with the Registrant's Registration Statement on Form S-8 filed on December 14, 2001 (File No. 333-75204).

<u>Exhibit No.</u>	<u>Description</u>	<u>Reference</u>
10.6	* Employment Agreement dated September 5, 2007 between PCTEL, Inc., and Martin H. Singer	Incorporated by reference to Exhibit Number 10.61 filed with the Registrant's Current Report on Form 8-K filed on September 10, 2007.
10.6.1	* Employment Agreement dated November 11, 2016 between PCTEL, Inc., and Martin H. Singer	Filed Herewith
10.7	* Management Retention Agreement dated September 5, 2007 between PCTEL, Inc., and Martin H. Singer	Incorporated by reference to Exhibit Number 10.62 filed with the Registrant's Current Report on Form 8-K filed on September 10, 2007.
10.8	* Form of Management Retention Agreement	Incorporated by reference to Exhibit Number 10.64 filed with the Registrant's Current Report on Form 8-K filed on October 12, 2007.
10.9	* Form of 1997 Stock Plan Performance Share Agreement	Incorporated by reference to Exhibit Number 10.66 filed with the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2008.
10.10	* Form of 1997 Stock Plan Stock Option Award Agreement, as amended September 18, 2008	Incorporated by reference to Exhibit Number 10.69 filed with the Registrant's Current Report on Form 8-K filed on September 22, 2008.
10.11	* Employee Stock Purchase Plan,, as amended and restated June 10, 2015	Incorporated by reference from Appendix A to the Registrant's Definitive Proxy Statement on Schedule 14A filed April 30, 2014.
10.12	* PCTEL, Inc., 1997 Stock Plan, as amended and restated June 30, 2015	Incorporated by reference From Appendix A to the Registrant's Definitive Proxy Statement on Schedule 14A filed on April 30, 2015.
10.13	* Letter agreement dated April 12, 2011 between PCTEL, Inc. and Anthony Kobrinetz covering severance benefits	Incorporated by reference to Exhibit Number 10.74 filed with the Registrant's Current Report on Form 8-K filed on April 14, 2011.
10.14	* Letter Agreement dated September 24, 2013 between PCTEL, Inc. and David Neumann granting severance benefits	Incorporated by reference to Exhibit Number 10.1 filed with the Registrant's Current Report on Form 8-K filed on September 30, 2013.
10.15	* Employment Agreement dated December 5, 2016 between PCTEL, Inc., and David A. Neumann	Filed Herewith
10.16	* Amended and Restated Management Retention Agreement dated April 9, 2013 between PCTEL, Inc. and David A. Neumann	Filed Herewith
10.16.1	* First Amendment to Amended and Restated Management Retention Agreement dated December 13, 2016 between PCTEL, Inc., and David A. Neumann	Filed Herewith
11	** Statement re Computation of Per Share Earnings	
21	List of significant subsidiaries	Filed herewith
23	Consent of Grant Thornton LLP	Filed herewith
31.1	Certification of Principal Executive Officer pursuant to Exchange Act Rules 13a-14(a) and 15(d)-14(a), as adopted pursuant to Section 302 of Sarbanes-Oxley Act of 2002	Filed herewith

Exhibit No.	Description	Reference
31.2	Certification of Principal Financial Officer pursuant to Exchange Act Rules 13a-14(a) and 15(d)-14(a), as adopted pursuant to Section 302 of Sarbanes-Oxley Act of 2002	Filed herewith
32	Certifications of Principal Executive Officer and Principal Financial Officer pursuant to 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of Sarbanes-Oxley Act of 2002.	Filed herewith
101.INS	XBRL Instance Document	Filed herewith
101.SCH	XBRL Taxonomy Extension Schema	Filed herewith
101.CAL	XBRL Taxonomy Extension Calculation Linkbase	Filed herewith
101.DEF	XBRL Taxonomy Extension Definition Linkbase	Filed herewith
101.LAB	XBRL Taxonomy Extension Label Linkbase	Filed herewith
101.PRE	XBRL Taxonomy Extension Presentation Linkbase	Filed herewith

* Management contract or compensatory plan or arrangement required to be filed as an Exhibit hereto.

** Information required to be presented in Exhibit 11 is provided in Note 2 of the Notes to the Consolidated Financial Statements in this Annual Report on Form 10-K in accordance with accounting rules related to accounting for earnings per share.

SIGNATURES

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

PCTEL, Inc.
A Delaware corporation
(Registrant)

/s/ DAVID A. NEUMANN
David A. Neumann

Chief Executive Officer
Dated: March 15, 2017

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints David A. Neumann and John Schoen, and each of them, his true and lawful attorneys-in-fact and agents, each with full power of substitution and re-substitution, to sign any and all amendments (including post-effective amendments) to this Annual Report on Form 10-K and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or their substitute or substitutes, or any of them, shall do or cause to be done by virtue hereof.

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

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ DAVID A. NEUMANN</u> (David A. Neumann)	Chief Executive Officer	March 15, 2017
<u>/s/ JOHN SCHOEN</u> (John Schoen)	Chief Financial Officer (Principal Financial and Accounting Officer)	March 15, 2017
<u>/s/ CINDY ANDREOTTI</u> (Cindy Andreotti)	Director	March 15, 2017
<u>/s/ GINA HASPILAIRE</u> (Gina Haspilaire)	Director	March 15, 2017
<u>/s/ BRIAN J. JACKMAN</u> (Brian J. Jackman)	Director	March 15, 2017
<u>/s/ STEVEN D. LEVY</u> (Steven D. Levy)	Director	March 15, 2017
<u>/s/ GIACOMO MARINI</u> (Giacomo Marini)	Director	March 15, 2017
<u>/s/ JAY SINDER</u> (Jay Sinder)	Director	March 15, 2017

PCTEL, Inc.

**MARTIN H. SINGER
EMPLOYMENT AGREEMENT**

This Employment Agreement, effective as of November 11, 2016 (the “Effective Date”), is made and entered into by and between PCTEL, Inc. (the “Company”) and Martin H. Singer (“Executive”).

1. Duties and Scope of Employment. Commencing January 2, 2017, Executive will step down as Chairman of the Board and Chief Executive Officer (“CEO”) of the Company and will serve as the Company’s Vice Chairman, a non-board officer-level management position, from January 2, 2017 until October 2, 2017 (the “Employment Term”). During the Employment Term, Executive will render business and professional services related to CEO transition activities and perform such other duties as shall reasonably be assigned to him by the successor CEO.

2. Compensation. As compensation for Executive providing the services described in paragraph 1 above (including services provided from his home office) during the Employment Term, the Company will pay Executive an annual base salary of \$315,000 pro-rated for the actual Employment Term and paid in accordance with the Company’s customary semi-monthly pay schedule. While Executive will not participate in the 2017 Short-Term Incentive Plan or other incentive program, he will receive the amount earned under the 2016 Short-Term Incentive Plan in accordance with its terms (without giving effect to any requirement to remain an employee of the Company on the date of vesting or payment of the award). Such amount shall be determined by the Compensation Committee in February 2017 in accordance with its customary procedures and shall be paid in accordance with the award agreement based on Executive’s 2016 base compensation.

3. Employee Benefits. During the period of his employment with the Company, Executive will be entitled to participate in the employee benefit plans currently maintained by the Company of general applicability to other employees of the Company, including, without limitation, the Company’s health care, disability, life insurance, directors and officers insurance, and 401(k) plans. In the event of an involuntary termination during the Employment Term, in lieu of participating in the Company’s healthcare plans, and subject to Employee’s election within the specified period to continue health insurance under the Consolidated Omnibus Reconciliation Act of 1985, as amended (“COBRA”), the Company shall pay, or reimburse Employee for the cost of, COBRA premiums for continued health coverage (i.e., medical, dental and vision as then offered by Company) for Employee and his spouse during the remaining period of the Employment Term. The Company reserves the right to cancel or change the benefit plans and programs it offers to its employees at any time.

4. Paid Time Off. During the Employment Term, Executive will not accrue additional vacation days or paid time off (“PTO”), but will carry forward from 2016 any unused PTO up to 200 hours. At the time of his separation from the Company, the value of the remaining unused PTO will be calculated on the basis of his 2016 base salary (\$445,500) and be paid to Executive in cash within the next two pay periods following the last day of his employment.

5. Expenses. The Company will reimburse Executive for reasonable travel and other expenses incurred by Executive in the furtherance of or in connection with the performance of Executive’s duties hereunder in accordance with the Company’s approval procedures and expense reimbursement policy as in effect from time to time. In addition, Executive shall receive reimbursement of up to \$6,000 for financial and tax advisory services and tax preparation in connection with his retirement planning and 2016 taxes and up to \$1000 as reimbursement for the legal review of this

EXHIBIT 10.6.1

Agreement. Such reimbursement will be paid in accordance with the Company's expense reimbursement policy as in effect from time to time.

6. Separation from Company. As of January 2, 2017, this Agreement supersedes all other agreements regarding compensation previously made by the Company with Executive, including that certain Martin H. Singer Employment Agreement, amended and restated on December 11, 2008 (the "Prior Employment Agreement"), and that certain Amended and Restated Management Retention Agreement dated April 15, 2013 (the "MRA"); provided that this Agreement is not intended to supersede that certain Indemnification Agreement between the Company and the Executive effective as of November 19, 2009. The parties agree that Executive may terminate his employment during the Employment Term provided that Executive provides one month's written notice delivered to the Company's Vice President, Corporate Services. The Company may terminate Executive's employment at any time during the Employment Term provided that the Company provides one month's written notice of termination to Executive at his last home address given to the Company.

Executive will not receive severance benefits in the event of a Change of Control of the Company, nor will he receive severance benefits in the event of an involuntary termination with or without Cause during the Employment Term under the Prior Employment Agreement or the MRA; provided, however, that in the event of a Change of Control, an involuntary termination (other than for Cause) or in the event that death or Disability should occur, in each case prior to September 10, 2017, all shares in the equity awards identified as #4156 (135,000 shares) and #4332 (65,000 shares) will immediately accelerate and vest in full. Such shares shall be delivered to Executive or his estate, as the case may be, as soon as reasonably practicable thereafter. Except in the event of a separation of the Executive for Cause or Executive's voluntary separation from the Company, Executive shall receive all cash compensation pursuant to paragraph 2 that Executive would have received for the remainder of the Employment Term, paid as if no separation had occurred during the Employment Term.

For the purposes of this Agreement, the capitalized terms used above and not defined shall have the following meanings:

"Cause" means (a) any material act (that remains uncured for thirty (30) days following written notice from the Company) which permits the Company to terminate the Employment Agreement or any similar arrangement between Executive and the Company for "cause" or a substantially equivalent term as defined in such agreement or arrangement, or (b) in the event there is no such agreement or arrangement, or the agreement or arrangement does not define the term "cause" or a substantially equivalent term, then "Cause" means:

- (i) an act of personal dishonesty taken by Executive in connection with his responsibilities as an employee and intended to result in substantial personal enrichment of Executive;
- (ii) Executive being convicted of, or a plea of nolo contendere to, a felony;
- (iii) a willful act by Executive which constitutes gross misconduct and which is injurious to the Company; or
- (iv) following delivery to Executive of a written demand for performance from the Company which describes the basis for the Company's reasonable belief that Executive has not substantially performed his duties, continued violations by Executive of Executive's obligations to the Company which are demonstrably willful and deliberate on Executive's part.

"Change of Control" means the occurrence of any of the following events:

EXHIBIT 10.6.1

(i) Any “person” (as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended) becomes the “beneficial owner” (as defined in Rule 13d-3 under said Act), directly or indirectly, of securities of the Company representing fifty percent (50%) or more of the total voting power represented by the Company’s then outstanding voting securities who is not already such as of January 2, 2017; or

(ii) The consummation of the sale or disposition by the Company of all or substantially all the Company’s assets (for these purposes a substantial sale or disposition will in no event be considered to occur unless at least fifty percent (50%) of the total gross fair market value of all of the assets of the Company are sold or disposed of); or

(iii) The consummation of a merger or consolidation of the Company with any other corporation, other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or its parent) at least fifty percent (50%) of the total voting power represented by the voting securities of the Company or such surviving entity or its parent outstanding immediately after such merger or consolidation.

Notwithstanding the foregoing, a transaction will not be deemed a Change of Control unless the transaction qualifies as a change in control event within the meaning of Section 409A of the Code (“Section 409A”).

“Disability” means that:

(i) Executive is unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment that can be expected to result in death or can be expected to last for a continuous period of not less than twelve (12) months;

(ii) Executive is, by reason of any medically determinable physical or mental impairment that can be expected to result in death or can be expected to last for a continuous period of not less than twelve (12) months, receiving income replacement benefits for at least three (3) months under the Company’s accident and health plan; or

(iii) Executive is determined to be totally disabled by the Social Security Administration.

7. Non-Compete and Non-Solicitation

(a) Non-Compete. Executive acknowledges that the nature of the Company’s business is such that if Executive were to become employed by, or substantially involved in, a Restricted Business (as defined below) during the twelve (12) months following the termination of Executive’s employment (the “Restricted Period”) with the Company for any reason (whether during the Employment Term or subsequent to the end of such period), it would be very difficult for Executive not to rely on or use the Company’s trade secrets and confidential information. Thus, to avoid the inevitable disclosure of the Company’s trade secrets and confidential information, Executive agrees and acknowledges that Executive’s right to receive the payments and benefits set forth in this Agreement (to the extent Executive is otherwise entitled to such payments and benefits) shall be conditioned upon Executive not directly or indirectly engaging in (whether as an employee, consultant, agent, proprietor, principal, partner, stockholder, corporate officer, director or otherwise), nor having any ownership interest in or participating in the financing, operation, management or control of, any person, firm, corporation or business that is a Restricted Business; provided, however, that nothing in this Section 5(a) shall prevent Executive from owning as a passive investment less than one percent (1%) of the outstanding shares of the

EXHIBIT 10.6.1

capital stock of a publicly-held company if (A) such shares are actively traded on the New York Stock Exchange or the Nasdaq Global Market and (B) Executive is not otherwise associated with such company or any of its affiliates. A “Restricted Business” is a business which is engaged in the design, development, manufacture, production, marketing, sale, licensing or servicing of any products, or the provision of any services, that are the same as or substantially similar to those of the Company, or a business which is otherwise one of the top competitors of the Company as listed on Exhibit A. Upon any breach of this section, all severance payments and benefits pursuant to this Agreement shall immediately cease.

(b) Non-Solicitation. During the twelve (12) months following the termination of Executive’s employment with the Company for any reason (whether during or after the Employment Term), Executive agrees and acknowledges that Executive’s right to receive the payments and benefits set forth in this Agreement (to the extent Executive is otherwise entitled to such payments and benefits) shall be conditioned upon Executive not either directly or indirectly soliciting, inducing, attempting to hire, recruiting, encouraging, taking away, hiring any employee of the Company or causing an employee to leave his or her employment either for Executive or for any other entity or person.

(c) Understanding of Covenants. Executive represents that he (i) is familiar with the foregoing covenants not to compete and not to solicit, and (ii) is fully aware of his obligations hereunder, including, without limitation, the reasonableness of the length of time, scope and geographic coverage of these covenants.

8. Section 280G. Notwithstanding any other provision of this Agreement to the contrary, in the event that the amount of severance and other benefits payable to the Executive under this Agreement (including, without limitation, the acceleration of any payment or the accelerated vesting of any payment or other benefit), together with any payments, awards or benefits payable under any other plan, program, arrangement or agreement maintained by the Company or one of its affiliates, would constitute an “excess parachute payment” (within the meaning of Section 280G of the Code), the payments under this Agreement shall be reduced (by the minimum possible amount) until no amount payable to the Executive under this Agreement constitutes an “excess parachute payment” (within the meaning of Section 280G of the Code); provided, however, that no such reduction shall be made if the net after-tax payment (after taking into account federal, state, local or other income, employment and excise taxes) to which the Executive would otherwise be entitled without such reduction would be greater than the net after-tax payment (after taking into account federal, state, local or other income and employment taxes) to the Executive resulting from the receipt of such payments with such reduction. Unless the Company and Executive otherwise agree in writing, any determination required under this Section shall be made in writing, by the Company’s independent public accountants (the “Accountants”), whose determination shall be conclusive and binding upon Executive and the Company for all purposes. For purposes of making the calculations required by this Section, the Accountants may make reasonable assumptions and approximations concerning applicable taxes and may rely on reasonable, good faith interpretations concerning the application of Sections 280G and 4999 of the Code. The Company and Executive shall furnish to the Accountants such information and documents as the Accountants may reasonably request in order to make a determination under this Section. The Company shall bear all costs the Accountants may reasonably incur in connection with any calculations contemplated by this Section.

9. Successors.

(a) Company’s Successors. Any successor to the Company (whether direct or indirect and whether by purchase, merger, consolidation, liquidation or otherwise) to all or substantially all of the Company’s business and/or assets shall assume the obligations under this Agreement and

EXHIBIT 10.6.1

agree expressly to perform the obligations under this Agreement in the same manner and to the same extent as the Company would be required to perform such obligations in the absence of a succession. For all purposes under this Agreement, the term “Company” shall include any such successor to the Company which executes and delivers an assumption agreement consistent with this Section 8(a) or which becomes bound by the terms of this Agreement by operation of law.

(b) Executive’s Successors. The terms of this Agreement and all rights of Executive hereunder shall inure to the benefit of, and be enforceable by, Executive’s personal or legal representatives, executors, administrators, successors, heirs, distributees, devisees and legatees.

10. Notice. Notices and all other communications contemplated by this Agreement shall be in writing and shall be deemed to have been duly given when personally delivered or one (1) business day following mailing via Federal Express or similar overnight courier service. In the case of Executive, mailed notices shall be addressed to him at the home address which he most recently communicated to the Company in writing. In the case of the Company, mailed notices shall be addressed to its corporate headquarters, and all notices shall be directed to the attention of its General Counsel.

11. Choice of Law. The validity, interpretation, construction and performance of this Agreement shall be governed by the laws of the State of Illinois.

12. Severability. The invalidity or unenforceability of any provision or provisions of this Agreement shall not affect the validity or enforceability of any other provision hereof, which shall remain in full force and effect.

13. Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together will constitute one and the same instrument.

[SIGNATURE PAGE FOLLOWS]

EXHIBIT 10.6.1

IN WITNESS WHEREOF, each of the parties has executed this Agreement, in the case of the Company by its duly authorized officer, as of the day and year set forth below.

PCTEL, INC.

EXECUTIVE

Signature : /s/Gina Haspilaire

Signature: /s/ David A. Neumann

Name: Gina Haspilaire

Title: VP/GM

Title: Chair of the Compensation Committee if the Board of Directors

EXHIBIT A
RESTRICTED BUSINESSES

The following are the identified competitors of the Company and include their parent companies, direct and indirect subsidiaries:

Accuver/Innowireless
Airgain
Anite
Baylin Technologies
Boeing/DRT
CommScope
Danaher Corporation
Huber and Suhner AG
InfoVista S.A.S
Laird Plc
Mars Antennas and RF Systems Ltd
Mobile Mark
MTI Wireless Edge Ltd.
Panorama Antennas Ltd.
Pulse (Suzhou) Wireless Products Co., Ltd
Rhode and Schwartz
Taoglas
Venture

PCTEL, INC.

**DAVID A. NEUMANN
EMPLOYMENT AGREEMENT**

This Employment Agreement, dated as of December 5, 2016 (the “Effective Date”), is made and entered into by and between PCTEL, Inc. (the “Company”) and David A. Neumann (“Executive”).

1. Duties and Scope of Employment. Commencing January 2, 2017, Executive will serve as the Company’s Chief Executive Officer and will render such business and professional services in the performance of his duties, consistent with Executive’s position within the Company, as shall reasonably be assigned to him by the Company’s Board of Directors (the “Board”). The period of Executive’s employment under this Agreement is referred to herein as the “Employment Term.”

2. At-Will Employment. The parties agree that Executive’s employment with the Company will be “at will” employment and may be terminated at any time, with or without cause or notice, by either the Company or Executive.

3. Compensation.

(a) Base Salary. During the Employment Term, the Company will pay Executive as compensation for his services a base salary at an annualized rate determined by the Board (the “Base Salary”). Executive’s initial Base Salary is \$350,000 per annum. Executive’s Base Salary will be reviewed on an annual basis by the Compensation Committee (the “Committee”), with advice from its compensation consultant or other advisors, if any, and the Committee shall make a recommendation regarding the Executive’s Base Salary to the Board in accordance with the Committee’s and the Board’s established procedures.

(b) Bonus and Incentives. Executive shall be eligible to receive annual bonuses through short-term incentives (“STI”), long-term incentives, and such other elements of compensation (whether in cash or equity) as determined by and at the discretion of the Board. For 2017, the maximum potential award under the short-term incentive plan as a percentage of annual salary will be 130%.

(c) Modifications. The Company will not, without Executive’s written consent, materially modify Executive’s combined Base Salary and STI in a manner which (either individually or when aggregated with any prior modifications) results in a reduction for Executive of 10% or more (determined for the purpose of the STI at the incentive opportunity at target), unless such reduction is made on the same or substantially similar basis for substantially all senior executives of the Company.

4. Employee Benefits. During the Employment Term, Executive will be entitled to participate in the employee benefit plans currently and hereafter maintained by the Company of general applicability to other employees of the Company, including, without limitation, the

Company's group medical, dental, vision, disability, life insurance, and 401(k) plans. The Company reserves the right to cancel or change the benefit plans and programs it offers to its employees at any time. The Company will not materially reduce, without good business reasons, the facilities or perquisites (including office space and location) available to Executive immediately prior to such reduction.

5. Vacation. Executive will be entitled to paid vacation of twenty-five (25) days per year, in addition to the Company's paid holidays.

6. Expenses. The Company will reimburse Executive for reasonable travel, entertainment or other expenses incurred by Executive in the furtherance of or in connection with the performance of Executive's duties hereunder, in accordance with the Company's expense reimbursement policy as in effect from time to time. In addition, the Company will provide the following:

- (i) a one-time reimbursement to Executive of actual and reasonable expenses incurred by Executive in connection with a legal review of this Agreement;
- (ii) in connection with his relocation to Illinois:
 - (a) reimbursement for actual expenses for two house hunting trips;
 - (b) reimbursement for actual closing costs associated with the sale of his current home and purchase of his new home in Illinois;
 - (c) reimbursement for the cost of up to sixty (60) days of temporary housing, if temporary housing is necessary;
 - (d) reimbursement for actual costs of moving and any temporary storage; and
 - (e) \$25,000 as a one-time grant for miscellaneous expenses related to relocation; and
- (iii) an annual reimbursement of up to \$6,000 per year for financial and tax advisory services and tax preparation.

Such reimbursements will be subject to documentation required under, and will be paid in accordance with, the Company's expense reimbursement policy as in effect from time to time and may constitute income to Executive under then current tax laws.

7. Severance.

(a) Termination Following a Change of Control. If Executive's employment is terminated within twelve (12) months following a Change of Control, the severance and other benefits to which Executive is entitled shall be governed by the Management Retention Agreement then in effect between the Company and Executive (which includes the definition of Change of Control).

(b) Involuntary Termination other than for Cause; Voluntary Termination for Good Reason Apart From a Change of Control. If either prior to the occurrence of a

Change of Control or after the twelve (12) month period following a Change of Control, Executive's employment with the Company is terminated either (A) involuntarily by the Company for reasons other than Cause, or (B) by Executive pursuant to a Voluntary Termination for Good Reason, and Executive signs and does not revoke a standard mutual release of claims with the Company pursuant to Section 11, then, subject to Section 12, Executive shall be entitled to receive the following benefits from the Company:

(i) Salary Continuation. Executive shall be entitled to receive continuing payments of salary (less applicable withholding taxes) at the rate equal to Executive's Base Salary, as then in effect, for a period of twelve (12) months from the date of such termination in accordance with the Company's normal payroll policies.

(ii) Short-Term and Long-term Incentives. Executive shall be entitled to receive cash and/or equity awards under the Company's short-term incentive program (or other bonus program) then in effect and equity under the long-term incentive program then in effect, in each case, in the amount determined in accordance with the terms of such programs (without giving effect to any requirement to remain an employee on the date of vesting or payment of the award). The awards shall be determined based upon actual performance and will be paid on a pro-rated basis for the period of employment, less applicable withholding taxes, following the completion of the performance period and the determination by the Committee of the amount to be paid. The Company shall pay the bonuses and awards to the Executive at the same time that other employees participating in the program receive them, but in no event later than the next regular payday after the date when the Committee has determined the amount to be paid.

(iii) Benefits. Subject to Executive's right to continue health insurance under the Consolidated Omnibus Reconciliation Act of 1985, as amended ("COBRA"), should Executive elect COBRA within the required period, the Company shall pay, or reimburse Executive for the cost of, COBRA premiums for continued health coverage (i.e., medical, dental and vision as then offered by Company) for a period of twelve (12) months for Executive and his eligible dependents who were receiving healthcare coverage under the Company's healthcare plans on the date of separation. Executive will be responsible for any and all taxes on income related to such subsidized COBRA payments, as well as any COBRA payments after such twelve-month period elapses.

(iv) Accelerated Vesting. All equity awards then held by Executive with restrictions that are time-based shall accelerate or if Executive is then holding unvested shares, the Company's right to repurchase the then-unvested shares under each such equity award shall lapse. All performance-based equity awards then held by Executive shall vest and then pay-out in accordance with the terms thereof based upon actual performance for the entirety of the then current performance period.

(v) Terms. The benefits set forth in this Section 7(b) are in addition to and not in lieu of any other benefits which Executive may be expressly entitled to receive resulting from Executive's involuntary termination of employment pursuant to any Company severance and benefit plans and practices, or pursuant to other agreements with the Company. Such other benefits will be provided to Executive in accordance with the terms of the related plans or agreements.

8. Sections 280G and 4999. The Company's obligations to provide the compensation, equity and other benefits as set forth in Section 7 above are expressly conditioned upon Executive's compliance with the covenants set forth in Section 14 below, and are not contingent upon any event constituting a change of effective control or ownership of the Company or in the ownership of a substantial portion of the assets of the Company. In the event that the severance and other benefits provided for in this Agreement or otherwise payable to Executive (i) constitute "parachute payments" within the meaning of Section 280G of the Code and (ii) but for this Section, would be subject to the excise tax imposed by Section 4999 of the Code, then Executive's severance benefits under the Employment Agreement shall be payable either

(i) in full, or

(ii) as to such lesser amount which would result in no portion of such severance benefits being subject to excise tax under Section 4999 of the Code,

whichever of the foregoing amounts, taking into account the applicable federal, state and local income taxes and the excise tax imposed by Section 4999, results in the receipt by Executive, on an after-tax basis, of the greatest amount of severance benefits under the Employment Agreement, notwithstanding that all or some portion of such severance benefits may be taxable under Section 4999 of the Code. Any determination required under this Section shall be made in writing by the Company's independent public accountants (the "Accountants") whose determination shall be conclusive and binding upon Executive and the Company for all purposes; provided, however, that upon request of Executive the Company shall appoint another nationally recognized accounting firm to make the determinations required hereunder (which accounting firm shall then be referred to as the "Accountants" hereunder). For purposes of making the calculations required by this Section, the Accountants may make reasonable assumptions and approximations concerning applicable taxes and may rely on reasonable, good faith interpretations concerning the application of Sections 280G and 4999 of the Code. The Company and Executive shall furnish to the Accountants such information and documents as the Accountants may reasonably request in order to make a determination under this Section. The Company shall bear all costs the Accountants may reasonably incur in connection with any calculations contemplated by this Section. Any reduction in payments and/or benefits required by this Section 8 shall occur in the following order: (1) reduction of cash payments, and (2) reduction of other benefits paid to Executive. In the event that acceleration of vesting of equity awards is to be reduced, such acceleration of vesting shall be cancelled in the reverse order of the date of grant for Executive's equity awards.

9. Voluntary Termination; Termination for Cause. If Executive's employment is terminated by the Company for Cause, or by Executive for any reason other than pursuant to a

Voluntary Termination for Good Reason, then all further vesting of any stock options, restricted stock award or other Company equity compensation held by Executive will cease immediately and all rights to receive further compensation by the Company to Executive hereunder will terminate immediately (except as to amounts already earned).

10. Death and Disability. If Executive's employment terminates as a result of death or Disability, Executive (or his estate, as applicable) shall be entitled to receive the following benefits from the Company:

(a) Salary. Executive shall be entitled to receive continuing payments of salary (less applicable withholding taxes) at the rate equal to Executive's Base Salary, as then in effect, for a period of twelve (12) months in accordance with the Company's normal payroll policies.

(b) Bonuses. Executive shall receive the target bonus in effect for the performance period during which Executive's employment is terminated. Such bonus shall be paid to Executive as soon as practicable following the completion of the performance period and the determination of the amount of bonus to be paid.

(c) Equity Incentives. All unvested equity incentives, whether time-based or performance-based, shall immediately accelerate and vest in full, and all repurchase restrictions in favor of the Company shall immediately lapse. Performance-based incentives in which a range of incentives above or below the target may be earned dependent on the achievement of different levels of performance, which this section shall accelerate and vest as to the targeted number of incentives.

11. Separation Agreement and Mutual Release. The receipt of any severance payments or benefits pursuant to this Agreement will be subject to Executive signing and not revoking a separation agreement and mutual release of claims (in a form reasonably acceptable to the Company) and provided that such separation agreement and mutual release of claims is effective within sixty (60) days following the termination date. No severance pursuant to this Agreement will be paid or provided until the separation agreement and mutual release of claims becomes effective. If Executive should die before all of the severance amounts have been paid, such unpaid amounts will be paid in a lump-sum payment promptly following such event to Executive's designated beneficiary, if living, or otherwise to the personal representative of Executive's estate.

12. Section 409A.

(a) Timing of Severance Payments. Notwithstanding anything to the contrary in this Agreement, if Executive is a "specified employee" within the meaning of Section 409A of the Code and the final regulations and any other guidance promulgated thereunder ("Section 409A") at the time of his termination (other than due to death), the severance payable to Executive, if any, pursuant to this Agreement, when considered together with any other severance payments or separation benefits which may be considered deferred compensation under Section 409A (together, the "Deferred Compensation Separation Benefits"), that is payable within the first six (6) months

following Executive's termination of employment will become payable on the first payroll date that occurs on or after the date six (6) months and one (1) day following the date of Executive's termination of employment. All subsequent Deferred Compensation Separation Benefits, if any, will be payable in accordance with the payment schedule applicable to each payment or benefit. Notwithstanding any thing herein to the contrary, if Executive dies following his termination but prior to the six (6) month anniversary of his termination, then any payments delayed in accordance with this paragraph will be payable in a lump sum as soon as administratively practicable after the date of Executive's death and all other Deferred Compensation Separation Benefits will be payable in accordance with the payment schedule applicable to each payment or benefit. Each payment and benefit payable under this Agreement is intended to constitute separate payments for purposes of Section 1.409A -2(b)(2) of the Treasury Regulations. In addition to the foregoing, to the extent that any payment of deferred compensation subject to Section 409A is contingent upon the execution of a written release, if the designated period for executing a written release spans two of Executive's tax years, the payment will be paid in the second tax year.

(b) Short-Term Deferral. Any amount paid under the Agreement that satisfies the requirements of the "short-term deferral" rule set forth in Section 1.409A-1(b)(4) of the Treasury Regulations shall not constitute Deferred Compensation Separation Benefits for purposes of Section 12(a).

(c) Involuntary Separation from Service. Any amount paid under the Agreement that qualifies as a payment made as a result of an involuntary separation from service pursuant to Section 1.409A-1(b)(9)(iii) of the Treasury Regulations that does not exceed the Section 409A Limit shall not constitute Deferred Compensation Separation Benefits for purposes of Section 12(a). For purposes of this Agreement, "Section 409A Limit" shall mean the lesser of two (2) times: (i) Executive's annualized compensation based upon the annual rate of pay paid to Executive during the Company's taxable year preceding the Company's taxable year of Executive's termination of employment as determined under Treasury Regulation 1.409A-1(b)(9)(iii)(A)(i) and any Internal Revenue Service guidance issued with respect thereto; or (ii) the maximum amount that may be taken into account under a qualified plan pursuant to Section 401(a) (17) of the Code for the year in which Executive's employment is terminated.

(d) Amendment. This provision is intended to comply with the requirements of Section 409A so that none of the Deferred Compensation Separation Benefits to be provided hereunder will be subject to the additional tax imposed under Section 409A, and any ambiguities herein will be interpreted to so comply. The Company and Executive agree to work together in good faith to consider amendments to this Agreement and to take such reasonable actions which are necessary, appropriate or desirable to avoid imposition of any additional tax or income recognition prior to actual payment to Executive under Section 409A.

13. Definitions.

(a) Cause. "Cause" shall mean:

(i) An act of personal dishonesty taken by Executive in connection with his responsibilities as an employee and intended to result in substantial personal enrichment of Executive;

(ii) Executive being convicted of, or a plea of nolo contendere to, a felony;

(iii) A willful act by Executive which constitutes gross misconduct and which is injurious to the Company;
or

(iv) Following delivery to Executive of a written demand for performance from the Company that describes the basis for the Company's reasonable belief that Executive has not substantially performed his duties, and after affording the Executive a reasonable opportunity to cure within a reasonable period of time, there are continued violations by Executive of Executive's obligations to the Company which are demonstrably willful and deliberate on Executive's part.

(b) Disability. "Disability" shall mean that:

(i) the Executive has been unable to perform his Company duties as the result of his incapacity due to physical or mental illness, and such inability, at least 26 weeks after its commencement, is determined to be total and permanent by a physician selected by the Company or its insurers and acceptable to the Executive or the Executive's legal representative (such agreement as to acceptability not to be unreasonably withheld). Termination resulting from Disability may only be effected after at least 30 days' written notice by the Company of its intention to terminate the Executive's employment. In the event that the Executive resumes the performance of substantially all of his duties hereunder before the termination of his employment becomes effective, the notice of intent to terminate shall automatically be deemed to have been revoked.

(ii) Executive is determined to be totally disabled by the Social Security Administration.

(c) Voluntary Termination for Good Reason. "Voluntary Termination for Good Reason" shall mean Executive voluntarily resigns after the occurrence of any of the following without Executive's express written consent:

(i) A material reduction of Executive's duties, authority or responsibilities (including any change in title that would compromise Executive's direct reporting responsibility to the Board) relative to Executive's duties, authority or responsibilities as in effect immediately prior to such reduction, or the assignment to Executive of such reduced duties, authority or responsibilities;

(ii) A violation of the covenants regarding Executive's compensation in Section 3;

(iii) A relocation of Executive to a facility or location more than fifty (50) miles from the principal business office of the Company on the execution date of this Agreement (excluding Executive's voluntary relocation to Chicago); or

(iv) Any other action or inaction that constitutes a material breach by the Company of this Agreement;

provided, however, that before Executive's employment may be terminated by a Voluntary Termination for Good Reason, (A) Executive must provide written notice to the Company, within ninety (90) days of the initial existence of the Voluntary Termination for Good Reason condition, setting forth the reasons for Executive's intention to terminate his employment as a result of a Voluntary Termination for Good Reason, (B) the Company must have an opportunity within thirty (30) days following delivery of such notice to cure the Voluntary Termination for Good Reason condition, and (C) Executive's employment must terminate within twelve (12) months of the initial existence of the Voluntary Termination for Good Reason condition.

14. Conditional Nature of Severance Payments.

(a) Noncompete. Executive acknowledges that the nature of the Company's business is such that if Executive were to become employed by, or substantially involved in, a Restricted Business (as defined below) during the twelve (12) months following the termination of Executive's employment (the "Restricted Period") with the Company for any reason (whether during the Employment Term or subsequent to the end of such period), it would be very difficult for Executive not to rely on or use the Company's trade secrets and confidential information. Thus, Executive agrees and acknowledges that his right to receive the severance payments and benefits set forth in Section 7 (to the extent Executive is otherwise entitled to such payments and benefits) shall be conditioned upon Executive not directly or indirectly engaging in (whether as an employee, consultant, agent, proprietor, principal, partner, stockholder, corporate officer, director or otherwise), nor having any ownership interest in or participating in the financing, operation, management or control of, any person, firm, corporation or business that competes in the markets for the Restricted Business (as defined below) during the Restricted Period; provided, however, that nothing in this Section 14(a) shall prevent Executive from owning as a passive investment less than one percent (1%) of the outstanding shares of the capital stock of a publicly-held company if (A) such shares are actively traded on the New York Stock Exchange or the Nasdaq Global Market and (B) Executive is not otherwise associated with such company or any of its affiliates. A "Restricted Business" is a business which is engaged in the design, development, manufacture, production, marketing, sale, licensing or servicing of any products, or the provision of any services, that are the same as or substantially similar to those of the Company, or a business which is otherwise one of the top fifteen (15) competitors of the Company during the Restricted Period. Upon any breach of this section, all severance payments and benefits pursuant to this Agreement shall immediately cease.

(b) Non-Solicitation. During the twelve (12) month period following the termination of Executive's employment with the Company for any reason (whether during or after the Employment Term), Executive agrees and acknowledges that Executive's right to receive the severance payments and benefits set forth in Section 7 (to the extent Executive is otherwise entitled to such payments and benefits) shall be conditioned upon Executive not either directly or indirectly soliciting, inducing, attempting to hire, recruiting, encouraging, taking away, hiring any employee of the Company or causing an employee to leave his or her employment either for Executive or for any other entity or person.

15. Assignment. This Agreement will inure to the benefit of the heirs, executors and legal representatives of Executive upon Executive's death and will be binding upon and inure to the benefit of any successor of the Company. Any such successor of the Company will be deemed substituted for the Company under the terms of this Agreement for all purposes. For this purpose, "successor" means any person, firm, corporation or other business entity which at any time, whether by purchase, merger or otherwise, directly or indirectly acquires all or substantially all of the assets or business of the Company. None of the rights of Executive to receive any form of compensation payable pursuant to this Agreement may be assigned or transferred except by will or the laws of descent and distribution. Any other attempted assignment, transfer, conveyance or other disposition of Executive's right to compensation or other benefits will be null and void.

16. Notices. All notices, requests, demands and other communications called for hereunder shall be in writing and shall be deemed given (i) on the date of delivery if delivered personally, (ii) one (1) day after being sent by a well-established commercial overnight service, or four (4) days after being mailed by registered or certified mail, return receipt requested, prepaid and addressed to the parties or their successors at the following addresses, or at such other addresses as the parties may later designate in writing:

If to the Company:

PCTEL, Inc.
471 Brighton Drive
Bloomingdale, Illinois 60108
Attention: General Counsel

If to Executive:

David A. Neumann
at the last residential address known by the Company.

17. Severability. In the event that any provision hereof becomes or is declared by a court of competent jurisdiction to be illegal, unenforceable or void, this Agreement will continue in full force and effect without said provision.

18. Arbitration and Equitable Relief.

(a) Arbitration. Except as provided in Section 18(b) below, Executive agrees that any dispute or controversy arising out of, relating to, or concerning Executive's employment with the Company or the termination of Executive's employment with the Company, or any interpretation, construction, performance or breach of this Agreement, shall be settled by arbitration to be held in Cook County, Illinois, in accordance with the National Rules for Resolution of Employment Disputes then in effect of the American Arbitration Association, except as provided in Section 18(b) below. The arbitrator may grant injunctions or other relief in such dispute or controversy. The decision of the arbitrator shall be final, conclusive and binding on the parties to the arbitration. Judgment may be entered on the arbitrator's decision in any court having jurisdiction. The substantially prevailing party shall be awarded his or its reasonable attorney's fees and costs, including any amounts paid to the arbitrator and American Arbitration Association. This arbitration clause constitutes a waiver of Executive's and the Company's right to a jury trial and relates to the resolution of all disputes relating to all aspects of the employer/employee relationship, including, but not limited to, the following claims:

(i) Any and all claims for wrongful discharge of employment; breach of contract, both express and implied; breach of the covenant of good faith and fair dealing, both express and implied; negligent or intentional infliction of emotional distress; negligent or intentional misrepresentation; negligent or intentional interference with contract or prospective economic advantage; and defamation;

(ii) Any and all claims for violation of any federal, state or municipal statute, including, but not limited to, Title VII of the Civil Rights Act of 1964, the Civil Rights Act of 1991, the Age Discrimination in Employment Act of 1967, the Americans with Disabilities Act of 1990, and the Fair Labor Standards Act; and

(iii) Any and all claims arising out of any other laws and regulations relating to employment or employment discrimination.

(b) Equitable Remedies. Executive agrees that it would be impossible or inadequate to measure and calculate the Company's damages from any breach of the covenants set forth in Section 14. Accordingly, Executive agrees that if Executive breaches such covenants, the Company will have available, in addition to any other right or remedy available, the right to obtain an injunction from a court of competent jurisdiction restraining such breach or threatened breach and to specific performance of any such provision of this Agreement. Executive further agrees that no bond or other security shall be required in obtaining such equitable relief.

(c) Administrative Relief. Executive understands that this Agreement does not prohibit Executive from pursuing an administrative claim with a local, state or federal administrative body, such as the Illinois Department of Human Rights, the Equal Employment Opportunity Commission or the Workers' Compensation Commission.

This Agreement does, however, preclude Executive from pursuing court action regarding any such claim (other than workers' compensation claims).

19. Integration. This Agreement represents the entire agreement and understanding between the parties as to the subject matter herein except the Management Retention Agreement referenced herein, as it may be amended from time to time. This Agreement specifically supersedes that certain letter from the Company dated September 24, 2013 regarding severance benefits as well as all other prior or contemporaneous agreements whether written or oral, including any consulting or independent contractor agreements. No waiver, alteration, or modification of any of the provisions of this Agreement will be binding unless in writing and signed by duly authorized representatives of the parties hereto.

20. Tax Withholding. All payments made pursuant to this Agreement will be subject to withholding of applicable taxes.

21. Governing Law. This Agreement will be governed by the laws of the State of Illinois (with the exception of its conflict of law's provisions), and all actions to enforce its terms will be venued exclusively in Cook County, Illinois.

IN WITNESS WHEREOF, each of the parties has executed this Agreement, in the case of the Company by their duly authorized officers, as of the day and year first above written.

PCTEL, INC.

Signature : /s/Gina Haspilaire

Name: Gina Haspilaire

Title: Chair of the Compensation Committee of the Board of Directors

EXECUTIVE

Signature: /s/ David A. Neumann

Title: VP/GM

PCTEL, INC.

AMENDED AND RESTATED MANAGEMENT RETENTION AGREEMENT

This Amended and Restated Management Retention Agreement (the "Agreement") is made and entered into on the 9th day of April, 2013 by and between **David Neumann** (the "Executive") and **PCTEL, Inc.** (the "Company").

RECITALS

A. It is expected that the Company from time to time may consider a Change of Control (as defined below). The Board of Directors of the Company (the "Board") recognizes that such consideration can be a distraction to Executive and can cause Executive to consider alternative employment opportunities. The Board has determined that it is in the best interests of the Company and its stockholders to assure that the Company will have the continued dedication and objectivity of Executive, notwithstanding the possibility, threat or occurrence of a Change of Control of the Company.

B. The Board believes that it is in the best interests of the Company and its stockholders to provide Executive with an incentive to continue his/her employment and to motivate Executive to maximize the value of the Company upon a Change of Control for the benefit of its stockholders.

C. The Board believes that it is imperative to provide Executive with certain benefits upon a Change of Control and severance benefits upon Executive's termination of employment following a Change of Control which provide Executive with enhanced financial security and incentive and encouragement to remain with the Company notwithstanding the possibility of a Change of Control.

D. Certain capitalized terms used in this Agreement are defined in Section 4.

The parties hereto agree as follows:

1. Term of Agreement. This Agreement shall terminate upon the date that all obligations of the parties with respect to this Agreement have been satisfied.

2. At-Will Employment. The Company and Executive acknowledge that Executive's employment is and shall continue to be at-will, as defined under applicable law, and may be terminated by either party at any time, with or without cause or notice, except as may be provided to the contrary in any written employment agreement or similar arrangement between the Company and Executive. If Executive's employment terminates for any reason, including (without limitation) any termination prior to a Change of Control, Executive shall be entitled to such payments, benefits, damages, awards and compensation as provided by this Agreement, or pursuant to other written agreements between Executive and the Company.

3. Change of Control Severance Benefits.

(a) Change of Control. Upon the occurrence of a Change of Control, the unvested portion of all Executive's outstanding equity awards (including, but not limited to, stock options and restricted stock grants) with a performance-based vesting schedule shall be automatically amended to convert such equity awards to a time-based vesting schedule (the "Converted Awards"). Each Converted Award shall vest as to one forty-eighth ($1/48^{\text{th}}$) of the shares subject to the award each month, provided that Executive remains an employee of the Company through each such date. Executive shall be given vesting credit from the original date of grant as if each Converted Award had been subject to a time-based vesting schedule from its grant date. For purposes of this Section 3(a), the number of shares subject to the Converted Award shall be the amount of the award that is targeted for achievement during the total performance period (whether measured in one or more fiscal periods) in which the Change of Control occurs, regardless of any actual level of achievement subsequently determined. Converted Awards shall be subject to the provisions of Section 3(b)(iii). In the event of a conflict between the terms and conditions of the Company's 1997 Stock Plan, as amended from time to time (the "Option Plan"), the agreements relating to Executive's equity awards, and this Section 3(a), the terms and conditions of this Section 3(a) shall prevail and any subsequent documents that purport to modify this Agreement shall be without effect unless they specifically refer to this Agreement.

(b) Involuntary Termination other than for Cause, Death or Disability or Voluntary Termination for Good Reason Following a Change of Control. If, within twelve (12) months following a Change of Control, Executive's employment is terminated (1) involuntarily by the Company other than for Cause, death or Disability or (2) by Executive pursuant to a Voluntary Termination for Good Reason, and in either case Executive enters into a standard form of release of claims with the Company pursuant to Section 3(g), the Company shall provide Executive with the following benefits upon such termination:

- (i) Severance Payment. Executive shall be entitled to receive a lump-sum cash payment in an amount equal to two hundred percent (200%) of Executive's annual base salary. Such severance payment will be made on the sixtieth (60th) day following the date of Executive's termination of employment.
- (ii) Continued Executive Benefits. Provided (1) Executive constitutes a qualified beneficiary, as defined in Section 4980B(g)(1) of the Internal Revenue Code of 1986, as amended (the "Code"), and (2) Executive elects continuation coverage pursuant to the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended ("COBRA"), within the time period prescribed pursuant to COBRA, the Company will reimburse Executive for the cost of COBRA premiums for continued health (i.e., medical, dental and vision) coverage at the same level of coverage as was provided to Executive immediately prior to the Change of Control and at the same ratio of Company premium payment to Executive premium.

payment as was in effect immediately prior to the Change of Control (the “Company-Paid Coverage”). If such coverage included Executive’s eligible dependents immediately prior to the Change of Control, such dependents shall also be covered in the same proportion as provided above. Company-Paid Coverage shall continue until the earlier of (x) twelve (12) months following the date of Executive’s termination, and (y) the date upon which Executive or Executive’s eligible dependents become covered under another employer’s group medical, dental and vision insurance benefit plans.

(iii) Equity Compensation Accelerated Vesting. One hundred percent (100%) of Executive’s outstanding equity awards (including but not limited to stock options and restricted stock grants) with a time-based vesting schedule (including the Converted Awards) shall immediately accelerate and become completely vested.

(c) Voluntary Resignation. If Executive’s employment terminates by reason of Executive’s voluntary resignation (other than a Voluntary Termination for Good Reason), then Executive shall not be entitled to receive severance or other benefits except for those (if any) established under the Company’s then existing severance and benefits plans or pursuant to other written agreements with the Company.

(d) Disability; Death. If Executive’s employment with the Company terminates as a result of Executive’s Disability, or if Executive’s employment is terminated due to the death of Executive, then Executive shall not be entitled to receive severance or other benefits except for those benefits (if any) established under the Company’s then existing severance and benefits plans or pursuant to other written agreements with the Company.

(e) Termination for Cause. If Executive is terminated for Cause, then Executive shall not be entitled to receive severance or other benefits.

(f) Termination Apart from Change of Control. In the event Executive’s employment is terminated for any reason, either prior to the occurrence of a Change of Control or after the twelve (12) month period following a Change of Control, then Executive shall be entitled to receive severance and any other benefits only as established under the Company’s then existing severance and benefits plans or pursuant to other written agreements with the Company.

(g) Separation Agreement and Release. The receipt of any severance payments or benefits pursuant to this Agreement will be subject to Executive signing, delivering and not revoking a separation agreement and release of claims (in a form reasonably acceptable to the Company), provided that such separation agreement and release of claims is effective within sixty (60) days following Executive’s termination date. No severance pursuant to this Agreement will be paid or provided until the separation agreement and release of claims becomes effective. If the 60th day after the termination date is in the subsequent calendar year, no payment will be made prior to January 1 of such subsequent calendar year. If Executive should die before all of the severance

amounts have been paid, such unpaid amounts will be paid in a lump sum payment promptly following such event to Executive's designated beneficiary, if living, or otherwise to the personal representative of Executive's estate.

4. Definition of Terms. The following terms referred to in this Agreement shall have the following meanings:

(a) Cause. “ Cause ” means (i) any material act (that remains uncured for thirty (30) days following written notice from the Company) which permits the Company to terminate a written employment agreement or similar arrangement between Executive and the Company, for “cause” or a substantially equivalent term as defined in such agreement or arrangement, or (b) in the event there is no such agreement or arrangement, or the agreement or arrangement does not define the term “cause” or a substantially equivalent term, then “Cause” means: (i) an act of personal dishonesty taken by Executive in connection with his/her responsibilities as an employee and intended to result in substantial personal enrichment of Executive, (ii) Executive being convicted of, or a plea of *nolo contendere* to, a felony, (iii) a willful act by Executive which constitutes gross misconduct and which is injurious to the Company, or (iv) following delivery to Executive of a written demand for performance from the Company which describes the basis for the Company's reasonable belief that Executive has not substantially performed his/her duties, continued violations by Executive of Executive's obligations to the Company which are demonstrably willful and deliberate on Executive's part.

(b) Change of Control. “ Change of Control ” means the occurrence of any of the following events:

- (i) Any “person” (as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended) becomes the “beneficial owner” (as defined in Rule 13d-3 under said Act), directly or indirectly, of securities of the Company representing fifty percent (50%) or more of the total voting power represented by the Company's then outstanding voting securities who is not already such as of the Effective Date of this Agreement; or
- (ii) The consummation of the sale or disposition by the Company of all or substantially all the Company's assets (for these purposes a substantial sale or disposition will in no event be considered to occur unless at least fifty percent (50%) of the total gross fair market value of all of the assets of the Company are sold or disposed of); or
- (iii) The consummation of a merger or consolidation of the Company with any other corporation, other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or its parent) at least fifty percent (50%) of the total voting power represented by the

voting securities of the Company or such surviving entity or its parent outstanding immediately after such merger or consolidation.

Notwithstanding the foregoing, a transaction will not be deemed a Change of Control unless the transaction qualifies as a change in control event within the meaning of Section 409A of the Code (“Section 409A”).

(c) Disability. “Disability” means that:

- (i) Executive is unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment that can be expected to result in death or can be expected to last for a continuous period of not less than twelve (12) months;
- (ii) Executive is, by reason of any medically determinable physical or mental impairment that can be expected to result in death or can be expected to last for a continuous period of not less than twelve (12) months, receiving income replacement benefits for at least three (3) months under the Company’s accident and health plan; or
- (iii) Executive is determined to be totally disabled by the Social Security Administration.

(d) Voluntary Termination for Good Reason. “Voluntary Termination for Good Reason” means Executive voluntarily resigns within thirty (30) days following the expiration of any cure period (as discussed below) after the occurrence of any of the following without Executive’s written consent:

- (i) a material diminution by the Company in the annual base salary of Executive as in effect immediately prior to such reduction (other than a reduction that applies to Company officers and/or managers generally);
- (ii) a material change in the geographic location at which Executive must perform service (in other words, the relocation of Executive to a facility or a location more than thirty-five (35) miles from Executive’s then present location); or
- (iii) any other action or inaction that constitutes a material breach by the Company of this Agreement;

provided, however, that before Executive’s employment may be terminated by a Voluntary Termination for Good Reason, (A) Executive must provide written notice to the Company, within ninety (90) days of the initial existence of the Voluntary Termination for Good Reason condition, setting forth the reasons for Executive’s intention to terminate his/her employment as a result of a Voluntary Termination for Good Reason, and (B) the Company must have an opportunity within thirty (30) days following delivery of such notice to cure the Voluntary Termination for Good Reason condition.

For the avoidance of doubt, the voluntary resignation by Executive after the occurrence of either of the following shall not constitute grounds for a "Voluntary Termination for Good Reason": (1) a reduction of Executive's duties, titles, authority or responsibilities, relative to Executive's duties, title, authority or responsibilities as in effect immediately prior to such reduction, as a result of (x) the Company being acquired and made part of a larger entity, or (y) a restructuring of the Company and/or its subsidiaries, or a restructuring of the Company's employees' functions, and/or reporting relationships; or (2) a material reduction, without good business reasons, of the facilities or perquisites (including office space and location) available to Executive immediately prior to such reduction.

Notwithstanding anything herein to the contrary, the Company agrees that it will not materially reduce Executive's aggregate level of Executive benefits, including bonuses, to which Executive was entitled immediately prior to such reduction with the result that Executive's aggregate benefits package is materially reduced (other than a reduction that generally applies to Company officers and/or managers).

5. Non-Solicitation. During the twelve (12) month period following the termination of Executive's employment with the Company for any reason, Executive agrees and acknowledges that Executive's right to receive the payments and benefits Executive is to receive herein (to the extent Executive is otherwise entitled to such payments and benefits), shall be conditioned upon Executive not either directly or indirectly soliciting, inducing, attempting to hire, recruiting, encouraging, taking away, hiring any employee of the Company or causing an employee to leave his/her employment either for Executive or for any other entity or person.

6. Section 280G. Notwithstanding any other provision of this Agreement to the contrary, in the event that the amount of severance and other benefits payable to Executive under this Agreement (including, without limitation, the acceleration of any payment or the accelerated vesting of any payment or other benefit), together with any payments, awards or benefits payable under any other plan, program, arrangement or agreement maintained by the Company or one of its affiliates, would constitute an "excess parachute payment" (within the meaning of Section 280G of the Code), the payments under this Agreement shall be reduced (by the minimum possible amount) until no amount payable to Executive under this Agreement constitutes an "excess parachute payment" (within the meaning of Section 280G of the Code); provided, however, that no such reduction shall be made if the net after-tax payment (after taking into account federal, state, local or other income, employment and excise taxes) to which Executive would otherwise be entitled without such reduction would be greater than the net after-tax payment (after taking into account federal, state, local or other income and employment taxes) to Executive resulting from the receipt of such payments with such reduction. Unless the Company and Executive otherwise agree in writing, any determination required under this Section shall be made in writing, by the Company's independent public accountants (the "Accountants"), whose determination shall be conclusive and binding upon Executive and the Company for all purposes. For purposes of making the calculations required by this Section, the Accountants may make reasonable assumptions and approximations concerning applicable taxes and may rely on reasonable, good faith interpretations concerning the application of Sections 280G and 4999 of the Code. The Company and Executive shall furnish to the Accountants such information and documents as the Accountants may reasonably request in order to make a determination under

this Section. The Company shall bear all costs the Accountants may reasonably incur in connection with any calculations contemplated by this Section.

7. Section 409A.

(a) Amounts paid under this Agreement are intended to satisfy the requirements of the “short term deferral” rule set forth in Section 1.409A-1(b)(4) of the Treasury Regulations, and thus, will not constitute a “deferral of compensation” governed by Section 409A.

(b) Amounts paid under this Agreement that do not satisfy the requirements of the “short term deferral” rule as described in clause 7(a) above are intended to satisfy the requirements of the “separation pay plan” rule set forth in Section 1.409A-1(b)(9)(iii) of the Treasury Regulations, and thus, will not constitute a “deferral of compensation” governed by Section 409A.

(c) Amounts paid under this Agreement are intended to constitute “separate payments” for purposes of Treasury Regulation Section 1.409A-2(b)(2).

(d) The Company intends the amounts paid under this Agreement to satisfy either the “short term deferral” rule (described in clause 7(a) above) or the “separation pay plan” rule (described in clause 7(b) above) so that none of the severance payments and benefits provided hereunder will be deemed a deferral of compensation that is subject to the additional tax imposed under Section 409A and any ambiguities herein will be interpreted to satisfy the “short term deferral” rule set forth in Section 1.409A-1(b)(4) of the Treasury Regulations, or alternatively, to satisfy the “separation pay plan” rule set forth in Section 1.409A-1(b)(9)(iii) of the Treasury Regulations. The Company and Executive agree to work together in good faith to consider amendments to this Agreement and to take such reasonable actions which are necessary, appropriate or desirable to avoid imposition of any additional tax or income recognition prior to actual payment of severance or other benefits to Executive under Section 409A.

(e) To the extent (i) the requirements for the “short term deferral” rule and/or the “separation pay plan” rule are not satisfied, and (ii) Executive is a “specified employee” of the Company (or any successor entity thereto) within the meaning of Section 409A(a)(2)(B)(i) on the date of Executive’s termination (other than a termination due to death), then the portion of the severance payments payable to Executive, if any, under this Agreement, when considered together with any other severance payments or separation benefits that is deemed a deferral of compensation under Section 409A shall be delayed until the earlier of: (A) the date that is six (6) months and one (1) day after the date of termination, or (B) the date of Executive’s death (such date, the “Delayed Initial Payment Date”), and the Company (or the successor entity thereto) shall (x) pay to Executive a lump sum equal to the amount Executive would have otherwise received on or before the Delayed Initial Payment Date, without any adjustment on account of such delay, as if the payments had not been delayed pursuant to this section, and (y) pay the balance of the payments in accordance with any applicable payment schedules set forth herein. Notwithstanding anything herein to the contrary, if Executive dies following his

or her termination, but prior to the six (6) month anniversary of Executive's termination date, then any payments which have been delayed in accordance with this clause will be payable in a lump sum as soon as administratively practicable after the date of Executive's death.

8. Successors.

(a) Company's Successors. Any successor to the Company (whether direct or indirect and whether by purchase, merger, consolidation, liquidation or otherwise) to all or substantially all of the Company's business and/or assets shall assume the obligations under this Agreement and agree expressly to perform the obligations under this Agreement in the same manner and to the same extent as the Company would be required to perform such obligations in the absence of a succession. For all purposes under this Agreement, the term "Company" shall include any such successor to the Company which executes and delivers an assumption agreement consistent with this Section 8(a) or which becomes bound by the terms of this Agreement by operation of law.

(b) Executive's Successors. The terms of this Agreement and all rights of Executive hereunder shall inure to the benefit of, and be enforceable by, Executive's personal or legal representatives, executors, administrators, successors, heirs, distributees, devisees and legatees.

9. Notice.

(a) General. Notices and all other communications contemplated by this Agreement shall be in writing and shall be deemed to have been duly given when personally delivered or one (1) business day following mailing via Federal Express or similar overnight courier service. In the case of Executive, mailed notices shall be addressed to him or her at the home address which he/she most recently communicated to the Company in writing. In the case of the Company, mailed notices shall be addressed to its corporate headquarters, and all notices shall be directed to the attention of its Secretary.

(b) Notice of Termination. Any termination by the Company for Cause shall be communicated by a notice of termination to Executive given in accordance with Section 9(a). Such notice shall indicate the specific termination provision in this Agreement relied upon, shall set forth in reasonable detail the facts and circumstances claimed to provide a basis for termination under the provision so indicated, and shall specify the termination date (which shall be not more than thirty (30) days after the giving of such notice). A termination by Executive pursuant to a Voluntary Termination for Good Reason shall be communicated by a notice of termination to the Company in accordance with Section 4(d) and Section 9(a).

10. Miscellaneous Provisions.

(a) No Duty to Mitigate. Executive shall not be required to mitigate the value of any benefits contemplated by this Agreement, nor shall any such benefits be reduced by any earnings or benefits that Executive may receive from any other source.

(b) Waiver. No provision of this Agreement shall be modified, waived or discharged unless the modification, waiver or discharge is agreed to in writing and signed by Executive and by two (2) authorized officers of the Company (other than Executive). No waiver by either party of any breach of, or of compliance with, any condition or provision of this Agreement by the other party shall be considered a waiver of any other condition or provision or of the same condition or provision at another time.

(c) Integration. This Agreement represents the entire agreement and understanding between the parties as to the subject matter herein and supersedes all prior or contemporaneous oral agreements related to the subject matter of this Agreement and the following written agreements: that certain Management Retention Agreement entered into on April 10, 2012 that superseded the Management Retention Agreement entered into on December 22, 2010; all other provisions of the Amendment shall remain in full force and effect. No waiver, alteration, or modification of any of the provisions of this Agreement will be binding unless in writing and signed by duly authorized representatives of the parties (except that the Option Plan may be revised or modified in accordance with its terms) and any subsequent documents that purport to modify this Agreement shall be without effect unless they specifically refer to this Agreement.

(d) Choice of Law. The validity, interpretation, construction and performance of this Agreement shall be governed by the laws of the State of Illinois.

(e) Severability. The invalidity or unenforceability of any provision or provisions of this Agreement shall not affect the validity or enforceability of any other provision hereof, which shall remain in full force and effect.

(f) Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together will constitute one and the same instrument.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, each of the parties has executed this Agreement, in the case of the Company by its duly authorized officer, as of the day and year set forth below.

PCTEL, INC.

EXECUTIVE

Signature : /s/Martin H. Singer

Signature: /s/ David A. Neumann

Name: Martin H. Singer

Title: VP/GM

Title: Chairman & CEO

Exhibit 10.16.1

First Amendment to Amended and Restated Management Retention Agreement

This First Amendment to Amended and Restated Management Retention Agreement (“**First Amendment**”) is entered into as of December 13, 2016 between PCTEL, Inc. (“**PCTEL**”) and David Neumann (“**Executive**”).

WHEREAS, PCTEL and Executive entered into that certain Amended and Restated Management Retention Agreement on April 9, 2013 (the “**Agreement**”);

WHEREAS, PCTEL has appointed Executive to serve as Chief Executive Officer (“CEO”) commencing January 2, 2017;

WHEREAS, in connection with Executive’s appointment to CEO, PCTEL and Company wish to amend the Agreement to increase the severance payment to be made under certain circumstances described therein related to a Change of Control;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby mutually acknowledged, the parties agree as follows:

1. All capitalized terms not otherwise defined herein shall have the same meaning as defined in the Agreement.
2. The Agreement is hereby amended to restate Section 3(b)(i) as follows:
 - (i) Severance Payment. From and after January 2, 2017, Executive shall be entitled to receive a lump-sum cash payment in an amount equal to two hundred twenty-five percent (225%) of Executive’s annual base salary. Such severance payment will be made on the sixtieth (60th) day following the date of Executive’s termination of employment.
3. The Agreement is hereby amended to restate Section 4(c) as follows:
 - (c) Disability. “Disability” means one of the following:
 - (i) the Executive has been unable to perform his Company duties as the result of his incapacity due to physical or mental illness, and such inability, at least 26 weeks after its commencement, is determined to be total and permanent by a physician selected by the Company or its insurers and acceptable to the Executive or the Executive's legal representative (such agreement as to acceptability not to be unreasonably withheld). Termination resulting from Disability may only be effected after at least 30 days' written notice by the Company of its intention to terminate the Executive's employment. In the event that the Executive resumes the performance of substantially all of his duties hereunder before the termination of his employment becomes effective, the notice of intent to terminate shall automatically be deemed to have been revoked.

Exhibit 10.16.1

(ii) Executive is determined to be totally disabled by the Social Security Administration.

4. This First Amendment forms part of and is subject to the terms and conditions of the Agreement; however, the terms of this First Amendment shall prevail to the extent of any conflict or inconsistency between the terms of this First Amendment and the Agreement, and all references in the Agreement to the "Agreement," "herein," "hereof" or using similar terms shall be deemed to refer to the Agreement as amended by this First Amendment. The parties may execute this First Amendment in one or more counterparts, each of which shall for all purposes be deemed to be an original but both of which together shall constitute one and the same First Amendment. This First Amendment shall be governed by the laws of the State of Illinois without regard to its provisions regarding conflicts of laws.

IN WITNESS WHEREOF, each of the parties has executed this Agreement, in the case of the Company by its duly authorized officer, as of the day and year set forth above.

PCTEL, INC.

EXECUTIVE

Signature : /s/Gina Haspilaire

Signature: /s/ David A. Neumann

Name: Gina Haspilaire

Title: VP/GM

Title: Chair of the Compensation Committee of the Board of Directors

<u>Subsidiary</u>	<u>State or Other Jurisdiction of Incorporation or Organization</u>
PCTEL (Tianjin) Electronics Company Ltd.	China
PCTEL Israel Ltd.	Israel
PCTEL Limited (United Kingdom)	United Kingdom

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We have issued our reports dated March 15, 2017, with respect to the consolidated financial statements, schedule, and internal control over financial reporting included in the Annual Report of PCTEL, Inc. on Form 10-K for the year ended December 31, 2016. We consent to the incorporation by reference of said reports in the Registration Statements of PCTEL, Inc. on Forms S-8 (File No. 333-205754, effective July 20, 2015; File No. 333-198134, effective August 14, 2014; File No. 333-168222, effective July 20, 2010; File No. 333-135586, effective July 3, 2006; File No. 333-131020, effective January 13, 2006; File No. 333-122117, effective January 18, 2005; File No. 333-112621, effective February 9, 2004; File No. 333-106891, effective July 9, 2003; File No. 333-103233, effective February 14, 2003; File No. 333-82120, effective February 4, 2002; File No. 333-75204, effective December 14, 2001; File No. 333-70886, effective October 3, 2001; File No. 333-61926, effective May 30, 2001; and File No. 333-34910, effective April 17, 2000).

/s/ Grant Thornton LLP

Chicago, Illinois
March 15, 2017

CERTIFICATION OF CHIEF EXECUTIVE OFFICER PURSUANT TO EXCHANGE ACT RULES 13a-14(a) and 15(d)-14(a), AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, David A. Neumann, certify that:

1. I have reviewed this annual report on Form 10-K of PCTEL, Inc.:
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)), for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 15, 2017

/s/ DAVID A. NEUMANN

David A. Neumann
Chief Executive Officer

CERTIFICATION OF CHIEF FINANCIAL OFFICER PURSUANT TO EXCHANGE ACT RULES 13a-14(a) and 15(d)-14(a), AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, John Schoen, certify that:

1. I have reviewed this annual report on Form 10-K of PCTEL, Inc.:
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)), for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 15, 2017

/s/ JOHN SCHOEN

John Schoen
Chief Financial Officer

CERTIFICATIONS OF CHIEF EXECUTIVE OFFICER AND CHIEF FINANCIAL
OFFICER PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED
PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

I, Martin H. Singer, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Annual Report on Form 10-K of PCTEL, Inc. for the fiscal year ended December 31, 2016 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in such Annual Report on Form 10-K fairly presents in all material respects the financial condition and results of operations of PCTEL, Inc. A signed original of this written statement required by Section 906 has been provided to PCTEL, Inc. and will be retained by PCTEL, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

DATE: March 15, 2017 By: /s/ David A Neumann
NAME: DAVID A. NEUMANN
Title: Chief Executive Officer

I, John Schoen, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Annual Report on Form 10-K of PCTEL, Inc. for the fiscal year ended December 31, 2016 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in such Annual Report on Form 10-K fairly presents in all material respects the financial condition and results of operations of PCTEL, Inc. A signed original of this written statement required by Section 906 has been provided to PCTEL, Inc. and will be retained by PCTEL, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

DATE: March 15, 2017 By: s/ John Schoen
NAME: JOHN SCHOEN
Title: Chief Financial Officer