PC TEL INC
Form 10-K
March 16, 2018

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, 2017

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	77-0364943
(State or Other Jurisdiction of	(I.R.S. Employer
Incorporation or Organization)	Identification Number)
471 Brighton Drive,	
Bloomingdale IL	60108
(Address of Principal Executive Office)	(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	Name of each exchange on which registered
Common Stock, $.001 Par Value Per Share	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 acquired 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, a smaller reporting company, or an emerging growth company. See definition of "large accelerated filer", "accelerated filer", "smaller reporting company" and "emerging growth 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

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

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, 2017, the last business day of the registrant's most recently completed second fiscal quarter, there were 17,791,498 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, 2017) was approximately $125,963,806. 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.

18,138,543 shares of common stock were issued and outstanding as of March 15, 2018.

Documents Incorporated by Reference

Certain sections of the registrant's definitive proxy statement relating to its 2018 Annual Stockholders' Meeting to be held on June 5, 2018 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.

PCTEL, Inc.

Form 10-K

For the Fiscal Year Ended December 31, 2017

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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 Performance Critical TELecom technology solution to the wireless industry. We are a leading global supplier of antennas and wireless network testing solutions. PCTEL 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 RF Solutions segment provides test tools 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 for resource allocations. Each segment has its own segment manager as well as its own engineering, business development, 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 IIoT. We offer in-house design, testing, radio integration, and manufacturing capabilities for our antenna customers. Revenue growth in these markets is driven by the increased use of wireless communications and increased complexity occurring in these markets. 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 Airgain, Amphenol, Laird, Pulse, and Taoglas. We seek out product applications that command a premium for product performance and customer service, and we 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 that improve the performance of wireless networks globally, with a focus on LTE, public safety, and emerging 5G technologies. Network operators, neutral hosts, and equipment manufacturers rely on our scanning receivers and testing solutions to analyze, design, and optimize their networks. Revenue growth is driven by the implementation and roll out of new wireless technology standards (i.e. 3G to 4G, 4G to 5G). Our test equipment is sold directly to wireless carriers or to OEMs who integrate our products into their solutions which are 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 market. These include radio frequency engineering, digital signal process ("DSP") engineering, manufacturing, mechanical engineering, product quality and testing, and wireless network engineering.

Discontinued Operations

During the quarter ended June 30, 2017, we approved a plan to sell our Network Engineering Service business ("Engineering Services") and shift our focus toward research and development driven radio frequency ("RF") products. On July 31, 2017, we sold substantially all of the assets of our Engineering Services business to Gabe's Construction Co., Inc. ("Gabe's") for a purchase price of $1.45 million in cash. The Engineering Services business provided design, testing, commissioning, optimization, and consulting services for cellular, Wi-Fi and public safety networks, and was a reporting unit within the RF Solutions segment. We classified assets of the Engineering Services reporting unit as held for sale at December 31, 2016 and reported the results of its operations as discontinued operations for the years ended December 31, 2017, 2016, and 2015, respectively. The financial information presented in this Form 10-K has been restated to reflect the historical results of Engineering Services as discontinued operations. See Note 4 in the notes to the financial statements for more information on discontinued operations.

Major Customers

The following table represents the customer that accounted for 10% or more of revenues during the years ended December 31, 2017, 2016 and 2015:

	Years Ended December 31,		
Revenues	2017	2016	2015
Customer A	9%	11%	3%

The following table represents customers that accounted for 10% or more of total trade accounts receivable at December 31, 2017 and 2016 are as follows:

	As of December 31,	
Trade Accounts Receivable	2017	2016
Customer A	7%	17%
Customer B	12%	8%

International Activities

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

	Years Ended December 31,		
Region	2017	2016	2015
Asia Pacific	17%	22%	9%
Europe, Middle East, & Africa	9%	9%	11%
Other Americas	5%	6%	6%
Total Foreign sales	31%	37%	26%
Total Domestic sales	69%	63%	74%
	100%	100%	100%

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

Backlog

Sales of our products 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 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 $11.1 million, $10.2 million, and $11.2 million in the fiscal years 2017, 2016, and 2015, 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 $12.6 million, $12.7 million, and $13.0 million in fiscal years 2017, 2016, and 2015, 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, 2017, we had 484 full-time equivalent employees, consisting of 342 in operations, 56 in research and development, 49 in sales and marketing, and 37 in general and administrative functions. Total full-time equivalent employees were 430 and 403 at December 31, 2016 and 2015, respectively. Headcount increased by 54 at December 31, 2017 from December 31, 2016 primarily due to production employees. 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

Our business model depends upon our ability to recognize significant emerging technologies in a timely manner and to innovate to solve the engineering problems presented by such emerging technologies.

Our strength is solving complex network engineering problems through our products and solutions. In order to provide solutions to complex engineering problems, the Company has to anticipate which technologies are promising and will be adopted by its customers and potential customers, and we need to be engaged early in the development of these new technologies and products. If we expend resources on the wrong technologies or are not included in the development phase of new technologies that are widely adopted in our industry, we may miss the opportunity for meaningful participation or revenue generation. Missed opportunities like these could have a negative impact on the Company's long-term competitiveness.

To innovate and solve complex network engineering problems, the Company has to offer highly competitive compensation in order to attract and retain specific types of engineers and other skilled professionals. In addition, the Company must create intellectual property or obtain it from third parties when necessary. Failure to accomplish these tasks while managing the costs thereof will result in difficulty in distinguishing our Company from its competitors and may result in a significant loss of business or diminishing margin on our products.

Mobile operators, who drive demand for our products, may decrease their capital expenditures on their mobile networks.

Mobile operators engage in a variety of businesses and must allocate their capital expenditure budget across these businesses. They may limit their capital expenditures allocated to improvement of their network or adoption of new technologies. Our business depends upon their demand for our solutions and products.

Competition within the wireless product industry is intense and could result in decreased margins on our products or loss of key customers. Failure to compete successfully could materially harm our prospects and financial results.

Competition in our industry can result from the following:

- a competitor significantly reducing prices on their products causing disruption to our customer relationships;
- customers demanding lower prices and requiring suppliers like us to engage in auctions and other forms of competitive bidding for purchase orders;
- entrance of a significant competitor in the markets for our products, either from a new participant or as a result of a merger of existing competitors; 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.

Conducting business in foreign countries involves additional financial, operating, and regulatory risks.

A substantial portion of our manufacturing, research and development, and sales activities is conducted outside the United States, primarily in China. There are a number of risks inherent in doing business in foreign countries, including: (i) fluctuations in the value of the U.S. dollar relative to other currencies, and in particular the impact of a re-valuation of the Chinese Yuan; (ii) impact of tariffs or trade wars among the countries in which we do business;

(iii) difficulties in repatriation of earnings; (iv) disruption to our supply chain, including our ability to import materials and export products; (v) nationalist sentiment creating advantages for our competitors in their home countries; (vi) impact of labor unrest; (vii) unexpected legal or regulatory changes, particularly changes to environmental, labor or manufacturing regulations; (vii) lack of sufficient protection for intellectual property rights; (viii) difficulties in recruiting and retaining personnel and managing international operations;(ix) less developed infrastructure; and (x) other unfavorable political or economic factors which could include nationalization of the wireless communications or related industries.. 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.

Disruption in our manufacturing and supply chains could adversely impact our sales and reputation.

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, a number of our antenna products are 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 summary, in order to be successful, the Company must manage its operations to limit the cost of product production, accurately forecast demand for its products, avoid excess production and inventory that results in waste or obsolescence, dual source critical materials to avoid shortages and delays in shipping, build for manufacturability and avoid excessive quality issues.

Future acquisitions and investments may not yield their intended benefits. Our failure to successfully integrate acquisitions into our existing operations could adversely affect our business. We may in the future make acquisitions of, or large investments in, businesses that offer products, and technologies that we believe would complement our products, 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,
- 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 may 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 which could impose restrictive covenants on how we conduct our business.

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

Depending on the mix of our products sold, our gross profit could vary significantly from quarter to quarter. Generally, antenna products have a lower profit margin than scanning receiver products, creating the variance in gross profits related to profit mix. A decline in 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, and
- the development and commercial introduction of products incorporating new technologies frequently are delayed.

A significant portion of our operating expenses is relatively fixed and is 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 uncertainty that customers may decide 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.

A failure in our information technology systems could negatively impact our business.

We rely on information technology to record and process transactions, manage our business and maintain the financial accuracy of our records. Our computer systems are subject to damage or interruption from various sources, including power outages, computer and telecommunications failures, computer viruses, security breaches, vandalism, catastrophic events and human error. Interruptions of our computer systems could disrupt our business and could result in the loss of business and cause us to incur additional expense.

Information technology security threats are increasing in frequency and sophistication. Our information technology systems could be breached by unauthorized outside parties or misused by employees or other insiders intent on extracting sensitive information, corrupting information or disrupting business processes. Such unauthorized access could compromise confidential information, disrupt our business, harm our reputation, result in the loss of assets, customer confidence and business and have a negative impact on our financial results.

Additional income tax expense or exposure to additional income tax liabilities could have a negative impact on our financial results.

We are subject to income tax laws and regulations in the United States and various foreign jurisdictions. Significant judgment is required in evaluating and estimating our provision and accruals for these taxes. Our income tax liabilities are dependent upon the location of earnings among these different jurisdictions. Our income tax provision and income tax liabilities could be adversely affected by the jurisdictional mix of earnings, changes in valuation of deferred tax assets and liabilities and changes in tax laws and regulations. In the ordinary course of our business, we are also subject to continuous examinations of our income tax returns by tax authorities. Although we believe our tax estimates are reasonable, the final results of any tax examination or related litigation could be materially different from our related historical income tax provisions and accruals. Adverse developments in an audit, examination, litigation related to previously filed tax returns, or in the relevant jurisdiction’s tax laws, regulations, administrative practices, principles and interpretations could have a material effect on our results of operations and cash flows in the period or periods for which that development occurs, as well as for prior and subsequent periods.

Federal income tax reform could have unforeseen effects on our financial condition and results of operations.

On December 22, 2017, the President of the United States signed into law the Tax Cuts and Jobs Act. The Company is in the process of determining the impact to the financial statements of all aspects of the Act and will reflect the impact of such reform in the financial statements during the period in which such amounts can be reasonably estimated. The Act includes a number of provisions, including the lowering of the U.S. corporate tax rate from 35 percent to 21 percent, effective January 1, 2018, which will result in a blended federal tax rate for fiscal year 2018. There are also provisions that may partially offset the benefit of such rate reduction, such as the repeal of the deduction for domestic production activities. The Act also includes international provisions, which generally establish a territorial-style system for taxing foreign-source income of domestic multinational corporations. Financial statement impacts will include adjustments for the re-measurement of deferred tax assets (liabilities) and the accrual for deemed repatriation tax on unremitted foreign earnings and profits. While there are benefits, there is also substantial uncertainty regarding the details of the Act. The intended and unintended consequences of the Act on our business and on holders of our common shares is uncertain and could be adverse. The Company anticipates that the impact of the Act may be material to the income tax expense in our consolidated financial statements.

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 closing price on the NASDAQ Global Select Market fluctuated between a high of $8.18 and a low of $5.18 in 2017. Our stock price can be subject to wide fluctuations in response to a variety of factors, many of which are out of our control, including:

- adverse changes in domestic or global economic conditions,
- new products 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, these fluctuations often have been unrelated or disproportionate to the operating performance of the Company.

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:

			Lease Term		
Location	Square feet	Owned/Leased	Beginning	Ending	Segment
Bloomingdale, 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
Beijing, China	11,270	Leased	2016	2020	Connected Solutions
Akron, Ohio	5,977	Leased	2018	2025	Connected Solutions
Lexington, North Carolina	5,630	Leased	2013	2019	Connected Solutions

Facility Changes

In August 2017, we entered into a new seven-year lease for 5,977 square feet of office space in Akron, Ohio for antenna product development. The total lease obligation pursuant to the agreement was $0.7 million. We assumed occupancy of this office in March 2018.

In April 2017, we renewed the first-floor space of the Tianjin facility for 22,120 square feet of leased space. The total lease obligation pursuant to the agreement is $46 annually and expires on April 11, 2018. This lease will be renewed during the second quarter 2018. We expect the lease term to be extended to the same date as the other facility lease in Tianjin.

In June 2016, we entered into a new four-year lease for our Beijing Design Center, and in January 2017 we signed a new lease for additional space at the same location. With the expansion, the Company has 11,270 square feet in its Beijing Design Center. The total lease obligation for the Beijing Design Center is $0.2 million annually. The Beijing Design Center has an engineering department for antenna development as well as sales and marketing for the China market.

During the first quarter 2016, we vacated our Colorado office lease in order to consolidate facility space related to our Engineering Services reporting unit. In May 2017, the Company signed a sublease with a term through the lease termination date. The lease expires on October 31, 2020. See Note 6 in the notes to the financial statements for more information on the Colorado lease.

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

We are the subject of various pending or threatened legal actions in the ordinary course of our business. All such matters are subject to many uncertainties and outcomes that are not predictable with assurance. In our opinion, as of December 31, 2017, there were no claims or litigation pending that would be reasonably likely to have a material adverse effect on our consolidated financial position, results of operations or liquidity.

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 closing prices of our common stock as reported by the NASDAQ Global Select Market for the periods indicated and the frequency and amounts of dividends declared on PCTEL’s common stock during those periods.

	2017			2016		
	Market Price			Market Price		
	High	Low	Dividends per Share	High	Low	Dividends per Share
Fourth Quarter	$7.83	$6.30	$ 0.055	$5.68	$4.86	$ 0.050
Third Quarter	$7.50	$5.87	$ 0.055	$5.62	$4.62	$ 0.050
Second Quarter	$8.18	$6.31	$ 0.050	$4.95	$4.36	$ 0.050
First Quarter	$7.12	$5.18	$ 0.050	$6.00	$4.38	$ 0.050
			$ 0.210			$ 0.200

The closing sale price of our common stock as reported on the NASDAQ Global Select Market on March 15, 2018 was $6.90 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, 2012 and ending December 31, 2017. 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.

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 repurchase of 500,000 shares of stock under an existing share repurchase program. Additionally, on August 10, 2015, our Board of Directors authorized repurchase of an additional 1,300,000 shares under the existing share repurchase programs, for a total of 2,726,000 shares. Under these repurchase programs, we repurchased 1,942,788 shares at an average price of $6.22 during the year ended December 31, 2015 and we repurchased 783,212 shares at an average price of $5.23 during the year ended December 31, 2016. At December 31, 2017, the Company had no shares remaining that could 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, 2017, 2016, and 2015 and the balance sheet data as of December 31, 2017 and 2016 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, 2014 and 2013 and the balance sheet data as of December 31, 2015, 2014, and 2013 are derived from audited financial statements not included in this Annual Report on Form 10-K.

	2017	2016	2015	2014	2013
		(in thousands, except per share data)			
Consolidated Statement of Operations Data:					
Revenues	$91,437	$85,006	$90,533	$96,346	$97,722
Cost of revenues	52,626	50,595	55,405	55,813	57,387
Gross profit	38,811	34,411	35,128	40,533	40,335
Operating expenses:					
Research and development	11,142	10,158	11,205	11,736	11,064
Sales and marketing	12,630	12,716	12,972	12,437	12,121
General and administrative	13,110	11,905	11,920	12,766	15,570
Amortization of intangible assets	496	531	1,905	1,798	2,231
Restructuring expenses	0	234	1,609	0	256
Total operating expenses	37,378	35,544	39,611	38,737	41,242
Operating income (loss)	1,433	(1,133)	(4,483)	1,796	(907)
Other income, net	105	112	3,287	1,666	5,378
Income (loss) before income taxes	1,538	(1,021)	(1,196)	3,462	4,471
Expense (benefit) for income taxes	(2,471)	11,776	(462)	287	1,875
Net income (loss) from continuing operations	4,009	(12,797)	(734)	3,175	2,596
Net income (loss) from discontinued operations, net of tax expense (benefit)	(187)	(4,884)	(834)	1,437	655
Net income (loss)	$3,822	$(17,681)	$(1,568)	$4,612	$3,251
Net income (loss) per share from continuing operations:					
Basic	$0.24	$(0.79)	$(0.04)	$0.17	$0.14
Diluted	$0.24	$(0.79)	$(0.04)	$0.17	$0.14
Net income (loss) per share from discontinued operations:					
Basic	$(0.01)	$(0.30)	$(0.05)	$0.08	$0.04
Diluted	$(0.01)	$(0.30)	$(0.05)	$0.08	$0.04
Net income (loss)per share:					
Basic	$0.23	$(1.09)	$(0.09)	$0.25	$0.18
Diluted	$0.23	$(1.09)	$(0.09)	$0.25	$0.18
Weighted average shares:					
Basic	16,626	16,151	17,737	18,159	17,797
Diluted	16,913	16,151	17,737	18,389	18,184
Cash dividends per share	$0.21	$0.20	$0.20	$0.16	$0.14
Consolidated Balance Sheet Data:					
Cash, cash equivalents and short-term investments	$38,058	$33,311	$31,783	$60,009	$57,895
Working capital	$58,091	$55,152	$59,041	$88,573	$83,585
Total assets	$96,466	$92,166	$113,710	$131,669	$127,432
Total stockholders' equity	$83,319	$78,525	$100,397	$115,515	$112,052

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 2017 and 2016. 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.

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 for resource allocations. Each segment has its own segment manager as well as its own engineering, business development, 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 our 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.

Our 2017 revenues increased by $6.4 million (7.6%), compared to 2016 because revenues increased 18.5% for RF Solutions and 4.3% for Connected Solutions. We recorded operating income of $1.4 million in 2017, compared to an operating loss of $1.1 million in 2016 as the gross margin impact of higher revenues offset higher operating expenses. The increase in operating expenses during 2017 includes research and development investments for Connected Solutions and expenses for our short-term incentive plan.

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"). We offer in-house design, testing, radio integration, and manufacturing capabilities for our antenna customers. Revenue growth in these markets is driven by the increased use of wireless communications and increased complexity trends occurring in these markets. 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 the Connected Solutions segment is fragmented. Competitors include Airgain, Amphenol, Laird, Pulse, and Taoglas. We seek out product applications that command a premium for product performance and customer service and we 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 that improve the performance of wireless networks globally with a focus on LTE, public safety, and emerging 5G technologies. Network operators, neutral hosts, and equipment manufacturers rely on our scanning receivers and testing solutions to analyze, design, and optimize their networks. Revenue growth is driven by the implementation and roll out of new wireless technology standards (i.e. 3G to 4G, 4G to 5G). PCTEL test equipment is sold directly to wireless carriers or to OEM providers who integrate our products into their solutions which are 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 market. These include radio frequency engineering, digital signal processing ("DSP") engineering, manufacturing, mechanical engineering, product quality and testing, and wireless network engineering.

During the quarter ended June 30, 2017, we approved a plan to sell our Network Engineering Service business ("Engineering Services") and shift our focus toward research and development driven radio frequency ("RF") products. On July 31, 2017, we sold substantially all of the assets of our Engineering Services business to Gabe's Construction Co., Inc. ("Gabe's") for a purchase price of $1.45 million. The Engineering Services business provided design, testing, commissioning, optimization, and consulting services for cellular, Wi-Fi and public safety networks was a reporting unit within the RF Solutions segment. We classified assets of the Engineering Services reporting unit as held for sale at December 31, 2016 and reported the results of its operations as discontinued operations for the years ended December 31, 2017, 2016, and 2015, respectively. The financial information presented in this Form 10-K has been restated to reflect the historical results of Engineering Services as discontinued operations. See Note 4 in the notes to the financial statements for more information on discontinued operations.

Results of Operations for Continuing Operations

Years ended December 31, 2017, 2016, and 2015

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

REVENUES BY SEGMENT

		2017 compared to 2016				2016 compared to 2015			
	2017	$ Change	% Change		2016	$ Change	% Change		2015
Connected Solutions	$68,612	$2,849	4.3	%	$65,763	$(3,816)	-5.5	%	$69,579
RF Solutions	23,019	3,600	18.5	%	19,419	(1,754)	-8.3	%	21,173
Corporate	(194)	(18)	not meaningful		(176)	43	not meaningful		(219)
Total	$91,437	$6,431	7.6	%	$85,006	$(5,527)	-6.1	%	$90,533

Revenues were approximately $91.4 million for the year ended December 31, 2017, an increase of 7.6% from the prior year. Revenues increased by $3.6 million (18.5%) for the RF Solutions segment due to the addition of new OEM partners and increased demand from U.S. operators. Revenues for the Connected Solutions segment increased $2.8 million (4.3%) due the growing sales of our antenna products in our core vertical markets, including fleet, industrial, small cells, and enterprise Wi-Fi.

Revenues were approximately $85.0 million for the year ended December 31, 2016, a decrease of 6.1% from the prior year. Revenues declined by $1.8 million (8.3%) for the RF Solutions segment due to the acquisition of one of our large OEM customers. Revenues for the Connected Solutions segment decreased $3.8 million (5.5%) primarily due to lower kitting revenues and due to the exit from the mobile tower product line. Approximately 42% of the revenue decline during 2016 was due to our exit from the mobile tower product line.

GROSS PROFIT BY SEGMENT

	2017	% of Revenues		2016	% of Revenues		2015	% of Revenues	
Connected Solutions	$22,439	32.7	%	$20,706	31.5	%	$20,426	29.4	%
RF Solutions	16,354	71.0	%	13,690	70.5	%	14,670	69.3	%
Corporate	18			15			32		

		not meaningful			not meaningful			not meaningful
Total	$38,811	42.4	%	$34,411	40.5	%	$35,128	38.8 %

Gross profit was 42.4% for the year ended December 31, 2017, an increase of 1.9% compared to 2016. The RF Solutions segment's gross profit increased 0.5% to 71.0%. The Connected Solutions segment's gross profit was 32.7%, an increase of 1.2% compared to 2016. The margin improvement was primarily due to increased efficiencies in the supply chain as well as leveraging the fixed cost of goods sold against increased revenues.

Gross profit was 40.5% for the year ended December 31, 2016, an increase of 1.7% compared to 2015. The RF Solutions segment's gross profit increased 1.2% to 70.5% due to more favorable customer mix. 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.

CONSOLIDATED OPERATING EXPENSES

						% of Revenues		
	2017	Change	2016	Change	2015	2017	2016	2015
Research and development	$11,142	$984	$10,158	$(1,047)	$11,205	12.2%	11.9%	12.4%
Sales and marketing	12,630	(86)	12,716	(256)	12,972	13.8%	15.0%	14.3%
General and administrative	13,110	1,205	11,905	(15)	11,920	14.3%	14.0%	13.2%
Amortization of intangible assets	496	(35)	531	(1,374)	1,905	0.5 %	0.6 %	2.1 %
Restructuring expenses	0	(234)	234	(1,375)	1,609	0.0 %	0.3 %	1.8 %
	$37,378	$1,834	$35,544	$(4,067)	$39,611	40.9%	41.8%	43.8%

RESEARCH AND DEVELOPMENT

Research and development expenses increased by $1.0 million from 2016 to 2017 due to an increase of $1.6 million for the Connected Solutions segment offset by a decrease of $0.6 million for the RF Solutions segment. The increase for Connected Solutions was due to investments in headcount to increase our capabilities in key vertical markets. The decrease of $0.6 million for RF Solutions was primarily driven by headcount reductions for certain product development areas and lower stock compensation expense.

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

We had 56, 49, and 61 full-time equivalent employees in research and development at December 31, 2017, 2016, and 2015, 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 $0.1 million from 2016 to 2017 as expenses declined by $0.7 million within the Connected Solutions segment and increased by $0.6 million within the RF Solutions segment. The decrease for Connected Solutions was due to headcount reductions in marketing and sales. The increase for RF Solutions was primarily driven by sales investments to support an increase in the number of direct customers.

Sales and marketing expenses decreased $0.3 million from 2015 to 2016 as expenses declined by $0.7 million within Connected Solutions, offset by an increase of $0.4 million for stock compensation. The decrease for Connected Solutions was primarily due to headcount reductions in marketing and site solution sales.

We had 49, 53, and 55 full-time equivalent employees in sales and marketing at December 31, 2017, 2016, and 2015, 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 increased $1.2 million from 2016 to 2017. The increase was due to increased expense of $0.5 million for the Company's short-term incentive plan, $0.4 million for costs related to the CEO transition, $0.1 million for legal expenses, and $0.2 million for other corporate expenses.

General and administrative expenses were approximately the same in 2016 compared to 2015 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. 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.

We had 37, 35, and 35 full-time equivalent employees in general and administrative functions at December 31, 2017, 2016, and 2015, respectively.

AMORTIZATION OF INTANGIBLE ASSETS

Amortization expense within operating expenses was approximately $0.5 million for both the years ended December 31, 2017 and 2016. Amortization expense decreased by approximately $1.4 million in 2016 compared to 2015. The decrease was attributable to certain assets being fully amortized in 2015. Amortization expense declined by $0.8 million because certain Connected Solutions intangible assets were fully amortized in 2015 and amortization expense declined by $0.6 million because assets for the RF Solutions segment were fully amortized in 2015.

RESTRUCTURING CHARGES

No restructuring expenses were recorded for the year ended December 31, 2017. We incurred restructuring expense of $0.2 million and $1.6 million for the years ended December 31, 2016 and 2015, respectively.

During the first quarter 2016, we reduced headcount in our RF Solutions segment related to analytics and incurred $0.2 million of expenses related to severance and other employee benefits.

In 2015, we reduced U.S. headcount and exited 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 the Connected Solutions segment, 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. We also recorded a charge of $0.4 million related to write-off of intangible assets related to the mobile towers product line. 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 antenna business within the Connected Solutions segment. 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.

OPERATING PROFIT (LOSS) BY SEGMENT

	2017	% of Revenues		2016	% of Revenues		2015	% of Revenues	
Connected Solutions	$8,304	12.1	%	$7,804	11.9	%	$5,040	7.2	%
RF Solutions	4,177	18.1	%	1,042	5.4	%	975	4.6	%
Corporate	(11,048)	not meaningful		(9,979)	not meaningful		(10,498)	not meaningful	
Total	$1,433	1.6	%	$(1,133)	-1.3	%	$(4,483)	-5.0	%

Total operating income increased $2.6 million for the year ended December 31, 2017 compared to 2016 as higher operating profits for the RF Solutions and Connected Solutions segment offset higher corporate expenses. The operating profit for RF Solutions increased by $3.1 million primarily due to the gross profit from higher revenues. The operating profit for Connected Solutions increased by $0.5 million due to the higher gross profits offsetting higher operating expenses. Higher gross profit was attributable to higher revenues and a higher gross margin percentage. Operating expenses were higher due to investments in research and development. Within the corporate function, expenses were $1.0 million higher in 2017 compared to 2016 due to a $0.5 million increase in short-term incentive plan expenses, $0.4 million related to the CEO transition, and $0.1 million for other corporate expenses.

Total operating loss declined $3.4 million for the year ended December 31, 2016 compared to 2015. The decline is largely attributed to an increase in operating profit for the Connected Solutions segment of $2.8 million and lower corporate expenses of $0.5 million.

OTHER INCOME, NET

	2017	2016	2015
Interest income	$270	$100	$55
Income from legal settlements	0	0	3,160
Insurance proceeds	0	5	102
Foreign exchange (losses) gains	(139)	13	(33)
Other, net	(26)	(6)	3
	$105	$112	$3,287
Percentage of revenues	0.1 %	0.1 %	3.6 %

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

For the year ended December 31, 2017, we recorded interest income of $270 and foreign exchange losses of $139, and for the year ended December 31, 2016, we recorded interest income of $100 and foreign exchange gains of $13. Interest income increased due to higher average investment balances and higher average interest rates. Foreign exchange losses were primarily due to fluctuation of the Chinese Yuan to the U.S. Dollar.

For the year ended December 31, 2015, an amendment to the terms of the Nexgen acquisition 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 incurred in connection with the SEC investigation of the parties to the TelWorx acquisition. 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.

(BENEFIT) EXPENSE FOR INCOME TAXES

	2017	2016	2015
(Benefit) expense for income taxes	$(2,471)	$11,776	$(462)
Effective tax rate	-160.7%	-1153.4%	38.6%

On December 22, 2017, the United States federal government enacted the Tax Cuts and Jobs Act (the “Tax Act”), marking a change from a worldwide tax system to a modified territorial tax system in the United States. As part of this change, the Tax Act, among other changes, provides for a transition tax on the accumulated unremitted foreign earnings and profits of our foreign subsidiaries (“Transition Tax”), a reduction of the U.S. federal corporate income tax rate from 34% to 21%, and an indefinite carryforward for net operating losses in 2018 and future periods.

In response to the enactment of the Tax Act in late 2017, the U.S. Securities and Exchange Commission issued Staff Accounting Bulletin No. 118 (“SAB 118”) to address situations where the accounting is incomplete for certain income tax effects of the Tax Act upon issuance of an entity’s financial statements for the reporting period in which the Tax Act was enacted. Under SAB 118, a company may record provisional amounts during a measurement period for specific income tax effects of the Tax Act for which the accounting is incomplete, but a reasonable estimate can be determined, and when unable to determine a reasonable estimate for any income tax effects, report provisional amounts in the first reporting period in which a reasonable estimate can be determined. The measurement period should not extend beyond one year.

As a result of the Tax Act, we recorded provisional income tax expense related to the deemed repatriation of the accumulated unremitted earnings and profits of foreign subsidiaries, and net income tax expense associated with the remeasurement of our net deferred tax assets due to the tax rate reduction and included these amounts in our consolidated financial statements for the year ended December 31, 2017.

The effective tax rate differed from the statutory rate of 34.0% by approximately 195% during 2017 because we decreased the valuation allowance for our U.S. deferred tax assets by $8.2 million, offsetting provisional income tax expense of $5.0 million related to the remeasurement of deferred tax assets, and provisional income tax expense of $0.6 million related to the Transition Tax. These provisional charges may be adjusted once we obtain, prepare, and analyze additional information during the measurement period in 2018. We adjusted our valuation allowance because we believe it is more likely than not that we will generate sufficient U.S. income to utilize our deferred tax assets related to timing differences. See Note 7 of the consolidated financial statements for more information on income taxes.

The effective tax rate differed from the statutory rate of 34.0% by approximately 1187% during 2016 primarily due to an adjustment to the valuation allowance for deferred taxes. Based on lower future projected U.S. tax corporate tax at December 31, 2016, we recorded adjustments of $12.6 million to the valuation allowance.

The effective tax rate differed from the statutory rate of 34.0% by approximately 5% during 2015 primarily due to research and development credits and incremental tax on repatriation of Israel funds.

At December 31, 2017, we had net deferred tax assets of $7.7 million, including a valuation allowance of $5.2 million. We maintain a valuation allowance due to uncertainties regarding realizability. Management evaluates the recoverability of deferred tax assets and the need for a valuation allowance and our ability to use these deferred tax assets on a regular basis. The valuation allowance at December 31, 2017 relates to federal and state operating losses and credits that we do not expect to realize because we expect them to expire unutilized. The valuation allowance at December 31, 2016 of $13.3 million was primarily because the Company did not believe it would generate sufficient US taxable income to realize a significant portion of its deferred tax assets.

NET LOSS FROM DISCONTINUED OPERATIONS, NET OF INCOME TAX BENEFIT

	2017	2016	2015
Net loss from discontinued operations, net of tax expense (benefit)	$(187)	$(4,884)	$(834)

During the quarter ended June 30, 2017, we approved a plan to sell our Network Engineering Services business ("Engineering Services") and shift our focus toward research and development driven radio frequency ("RF") products. We sold the business to Gabe's Construction on July 31, 2017. See Note 4 to the consolidated financial statements for information related to discontinued operations. The results for our services business are reported as discontinued operations for the years ended December 31, 2017, 2016 and 2015.

The net income from discontinued operations for all periods presented includes operating losses, net of income tax benefits for Engineering Services. The loss for the year ended December 31, 2017 includes a net gain on sale of $0.5 million.

The loss for the year ended December 31, 2016 was significantly higher than 2015 due to lower gross profits from lower revenues as well as impairment expense of $5.8 million, intangible amortization of $1.1 million, and restructuring expense of $0.4 million. As a result of declining revenues and profits during 2016, we reviewed the customer relationship intangible asset for impairment and concluded that the fair value of the reporting unit was below its carrying value at both June 30, 2016 and December 31, 2016. The restructuring charges primarily related to the exit from our Colorado office lease.

Liquidity and Capital Resources

	Years Ended December 31,		
	2017	2016	2015
Net income (loss) from continuing operations	$4,009	$(12,797)	$(734)
Changes for depreciation, amortization, stock-based compensation, and other non-cash items	4,027	18,754	6,652
Changes in operating assets and liabilities	1,733	5,168	2,618
Net cash provided by operating activities	$9,769	$11,125	$8,536
Net cash (used in) provided by investing activities	$(16,708)	$4,548	$(7,187)
Net cash used in financing activities	$(3,126)	$(7,379)	$(15,211)
Net cash flows provided by (used in) discontinued operations	$639	$(415)	$535

	December 31, 2017	December 31, 2016
Cash and cash equivalents at the end of the year	$5,559	$14,855
Short-term investments at the end of the year	$32,499	$18,456

Working capital at the end of the year	$58,091	$55,152

Liquidity and Capital Resources Overview

At December 31, 2017, our cash, cash equivalents, and investments were approximately $38.1 million, and we had working capital of approximately $58.1 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. During the three years ended December 31, 2017, 2016, and 2015 our balance sheet provided operating funds. In periods of expansion, we will expect to use cash from our balance sheet.

Within investing activities, capital spending historically ranges between 2.0% and 4.0% 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, 2017 was approximately 3.0% 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 we 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 $9.8 million of funds from operating activities during the year ended December 31, 2017. Adjustments related to non-cash items within net income were $4.0 million for the year ended December 31, 2017, as amortization and depreciation was $3.7 million, and stock-based compensation was $3.0 million offset by a $2.6 million adjustment to the deferred tax provision. Within the balance sheet, we generated cash of $2.0 million from the reduction of inventories and $0.9 million from the reduction of accounts receivable, but we used $1.0 million from the reduction of accounts payables. Inventories decreased $2.0 million with RF Solutions inventories declining by $1.3 million and Connected Solutions inventories declining by $0.7 million. The decrease in RF Solutions inventories was due to improvements in supply chain management while the decrease in Connected Solutions was due to improved processes for forecasting and reductions in minimum order quantities for purchases. Accounts receivable generated cash primarily because of the sale of Engineering Services. We had accounts receivable of $3.1 million at December 31, 2016 related to Engineering Services. Accounts payables declined primarily due to the reduction in inventories.

We generated $11.1 million of funds from operating activities during the year ended December 31, 2016. Adjustments related to non-cash items within net income were $24.0 million for the year ended December 31, 2016 as the deferred tax provision was $11.0 million, amortization and depreciation was $3.8 million, and stock-based compensation was $3.8 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 because 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 generated $8.5 million of funds from operating activities during the year ended December 31, 2015. Adjustments related to non-cash items within net income were $9.2 million for the year ended December 31, 2015 as amortization and depreciation was $5.1 million and stock-based compensation was $1.7 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 the Nexgen acquisition. 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.

Investing Activities:

Our investing activities used $16.7 million of cash during the year ended December 31, 2017. Redemptions and maturities of our short-term investments during the year provided $35.0 million in cash and we rotated $49.0 million of cash into new short-term investments. We used $2.7 million of cash for capital expenditures during the year ended December 31, 2017. Capital expenditures during 2017 include $0.6 million for a new IP phone and communications system.

Our investing activities provided $4.5 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 $1.7 million for capital expenditures during the year ended December 31, 2016. During 2016, we used capital for a facility expansion and upgrades at our Tianjin, China facility.

Our investing activities used $7.2 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 $1.6 million for capital expenditures during the year ended December 31, 2015.

Financing Activities:

We used $3.1 million of cash for financing activities during the year ended December 31, 2017. We used $3.7 million for cash dividends paid quarterly during 2017. We received $2.0 million in proceeds from the purchase of shares through our ESPP and due to stock option exercises. We used $1.3 million for payroll taxes related to stock-based compensation. The tax payments related to our stock issued for restricted stock awards.

We used $7.4 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 $0.4 million for payroll taxes related to stock-based compensation. The tax payments related to our stock issued for restricted stock awards.

We used $15.2 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 $3.7 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 $0.4 million for payroll taxes related to stock-based compensation. The tax payments related to our stock issued for restricted stock awards.

Contractual Obligations and Commercial Commitments

The following summarizes our contractual obligations at December 31, 2017 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):