



2018

A N N U A L R E P O R T

**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, 2018

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,
Bloomingdale 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

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 check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted 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 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 the definitions of "large accelerated filer", "accelerated filer", "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.:

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input checked="" type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input checked="" type="checkbox"/>
Emerging growth company	<input type="checkbox"/>		

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, 2018, the last business day of the registrant's most recently completed second fiscal quarter, there were 18,318,141 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, 2018) was approximately \$114,305,200. 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.

18,429,313 shares of common stock were issued and outstanding as of March 13, 2019.

Documents Incorporated by Reference

Certain sections of the registrant's definitive proxy statement relating to its 2019 Annual Stockholders' Meeting to be held on May 29, 2019 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 Performance Critical TELEcom technology solutions to the wireless industry. We are a leading global supplier of antennas and wireless network testing solutions. Our precision antennas are deployed 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. PCTEL’s test and measurement tools 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.

Our strength is to solve complex network engineering problems for our customers through our products and solutions. To this end, we are constantly innovating and improving antenna and wireless testing products and capabilities in order to capture the opportunities and meet the challenges of the rapidly evolving wireless industry. We focus on engineering, research and development to maintain and expand our competitiveness.

PCTEL is celebrating its 25th year in business, having been 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. Additional information about our company can be obtained on our website; however, the information within, or that can be accessed through, our website, is not part of this report.

Product Lines

Antenna Products PCTEL designs and manufactures precision antennas and we offer in-house wireless product development for our customers, including design, testing, radio integration, and manufacturing capabilities. PCTEL antennas are deployed in small cells, enterprise Wi-Fi access points, fleet management and transit systems, and in equipment and devices for the Industrial Internet of Things. Revenue growth in these markets is driven by the increased use and complexity of wireless communications. Consistent with our mission to solve complex network engineering problems and in order to compete effectively in the antenna market, PCTEL maintains expertise in the following areas: radio frequency engineering, digital signal process (“DSP”) engineering, wireless network engineering, mechanical engineering, manufacturing, and product quality and testing. We seek out product applications that command a premium for product design and performance and customer service, and we avoid commodity markets.

Our antennas are primarily sold to original equipment manufacturer (“OEM”) providers where they are designed into and incorporated into the customer’s solution. Competition in the antenna markets is fragmented. Competitors include Airgain, Amphenol, Laird, Panorama, Pulse, and Taoglas. PCTEL maintains expertise in several technology areas in order to be competitive in the antenna market.

Test and Measurement Products PCTEL provides radio frequency (“RF”) test and measurement tools that improve the performance of wireless networks globally, with a focus on LTE, public safety, and emerging 5G technologies. Wireless carriers, neutral hosts, engineering services companies, and equipment manufacturers rely on PCTEL to analyze, design, and optimize next generation wireless networks. Revenue growth in this market is driven by expansion of current wireless technologies to improve coverage and capacity and by the implementation and roll out of new wireless technology standards (i.e. 3G to 4G, 4G to 5G). Consistent with our mission to solve complex network engineering problems and in order to compete effectively in the RF test and measurement market,

PCTEL maintains expertise in the following areas: radio frequency engineering, DSP engineering, wireless network engineering, mechanical engineering, manufacturing, and product quality and testing.

Our test equipment is sold directly to wireless carriers, engineering companies, 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, Viavi, Digital Receiver Technology, and Rohde and Schwarz. PCTEL maintains expertise in several technology areas in order to be competitive in the test tool market.

Discontinued Operations

During the quarter ended June 30, 2017, we approved a plan to sell our Network Engineering Service business (“Engineering Services”) and shifted our focus toward research and development driven 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. We classified assets of the Engineering Services business as held for sale at December 31, 2017 and reported the results of its operations as discontinued operations for the year ended December 31, 2017. The financial information presented in this annual report on Form 10-K reflects the historical results of Engineering Services as discontinued operations. See Note 3 in the notes to the financial statements for more information on discontinued operations.

Reorganization and Segment Reporting

Effective August 2018, we consolidated our organizational structure to drive growth and address the convergence in the industrial IIoT, public safety, and 4G infrastructure markets and the emergence of new technologies such as 5G (“the Reorganization”). Our operations, engineering, business development, sales and marketing, and operational general and administrative functions were consolidated into a single enterprise-wide organization. As a result of the Reorganization, our Chief Executive Officer, as the chief operating decision maker (“CODM”) began assesses operating profits and identifies assets at the enterprise level for resource allocations. In connection with the Reorganization, in the place of general managers for each segment, the Board of Directors appointed a Chief Operating Officer who maintains regular contact with the CODM to discuss operating activities, financial results, forecasts, and plans for the Company’s entire businesses. All operating profit and cash flows are measured and managed at the enterprise level. The balance sheet and cash flows were already managed centrally at the corporate level, with the exception of accounts receivable and inventory, and now as a result of the Reorganization, those assets are also managed at the corporate level.

Until the Reorganization, PCTEL operated in two segments for reporting purposes, Connected Solutions and RF Solutions. We are reporting our financial condition and results of operations as one segment beginning with this annual report on Form 10-K; however, we have included revenues and gross profit for the two major product lines (antenna products and test and measurement products). In order to understand our financial results, it is necessary to understand the impact on gross profit margin of the revenue mix between the two product lines.

Major Customers

There were no customers that accounted for 10% or more of revenues during the years ended December 31, 2018, and 2017.

The following table represents customers that accounted for 10% or more of total trade accounts receivable at December 31, 2018 and 2017:

Trade Accounts Receivable	As of December 31,	
	2018	2017
Customer A	13%	12%

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 of customer purchase orders 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

Given that the Company’s mission is to solve complex RF problems for our customers, research and development is essential to our long-term success. We work closely with our customers, consultants and market research organizations to monitor and predict changes in the wireless industry, including emerging industry standards. We continue to make substantial investments in engineering, talent,

research and development and we devote substantial resources to product development, innovation, and patent submissions. We have over 100 patents in the U.S. and countries worldwide. The patent submissions are primarily for defensive purposes, rather than for potential license revenue generation.

Sales, Marketing and Support

Our marketing strategy is focused on building market awareness and acceptance of our new products. In connection with the Reorganization, the Company combined its sales functions under a single Chief Sales Officer and has focused on sharing best sales practices and software tools company-wide to execute on our marketing strategy. PCTEL's direct sales force is technologically sophisticated with many sales personnel having college degrees in engineering, and sales executives having strong industry domain knowledge. We supply our products to public and private carriers, wireless infrastructure providers, wireless equipment distributors, value added resellers ("VARs") and OEMs. Our direct sales force supports the sales efforts of our distributors and OEM resellers.

Manufacturing

PCTEL has historically done final assembly of most of our antenna products in-house at our facilities in Bloomingdale, Illinois and Tianjin, China and final assembly of all and all of our OEM receiver and interference management product lines in-house at our facility in Germantown, Maryland. In order to optimize the cost structure of our antenna product line and increase our competitiveness, we have engaged with several contract manufacturers over the last several years and are in the process of transitioning several product lines from our Tianjin facility to additional contract manufacturers in China and elsewhere over the next two years. As a result of using multiple contract manufacturers with a variety of expertise, we will avoid becoming 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 transitioning a new contract manufacturer could cause delays, disruption and additional costs and could negatively impact our timely delivery of products. We have no material guaranteed supply contracts or long-term agreements with any of our suppliers, but we do have open purchase orders with several of our suppliers. See the contractual obligations and commercial commitments section of Note 7 for information on purchase commitments.

Employees

As of December 31, 2018, we had 454 full-time equivalent employees, consisting of 324 in operations, 55 in research and development, 42 in sales and marketing, and 33 in general and administrative functions. Total full-time equivalent employees were 484 at December 31, 2017. Headcount decreased by 30 at December 31, 2018 from December 31, 2017 primarily due a reduction in force related to the U.S. workforce. None of our U.S. employees are represented by a labor union. All of our employees in Tianjin, China are represented by a labor union, and our employees in Beijing, China are represented by a separate labor union pursuant to the requirements of China's National Labor Law. These two labor unions do not have collective bargaining rights. As indicated in the section titled "Manufacturing" above, we are in the process of transitioning the final assembly of some of our antenna products to contract manufacturers, resulting in a reduction of a significant portion of our workforce in Tianjin, China. We are negotiating severance arrangements for those workers.

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, 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, and a portion of our 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, potentially in connection with a reduction in force of a significant portion of our workforce in Tianjin, China (vii) unexpected legal or regulatory changes, particularly changes to environmental, labor or manufacturing regulations; (viii) lack of sufficient protection for intellectual property rights; (ix) difficulties in recruiting and retaining personnel and managing international operations; (x) under-developed infrastructure; and (xi) 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.

In the third quarter 2018, the Office of the United States Trade Representative imposed tariffs on certain imports from mainland China containing industrially significant technologies, including certain PCTEL antenna and antenna components, and a potential increase in certain of these tariffs is currently under consideration. In addition to impacting the products sent to our U.S.-based customers from our facility in Tianjin, China, these tariffs pertain to certain components and materials sent from our Tianjin facility to our Bloomingdale, Illinois facility for final assembly. The costs of these tariffs have necessitated price increases and may result in a loss of revenue. The impact of the tariffs on the Company's future revenue and profitability is uncertain. Furthermore, political uncertainty surrounding international trade disputes and protectionist measures may have a negative effect on customer confidence and spending. The Company will continue to monitor, manage manufacturing costs, and adjust prices as necessary and as market conditions permit. We do not believe these price increases have resulted in a significant loss of revenue.

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

PCTEL has limited in-house 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 our suppliers have no unique capability, any failure by these suppliers to meet delivery commitments could cause delayed product delivery and potentially disrupt our supply chain and ability to accept new orders for products.

In addition, in the event that our suppliers discontinued manufacturing 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 Bloomingdale Illinois and Tianjin, China and scanning receivers at our facility in Germantown, 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 currently manufactured in China via contract manufacturers and, as described in the section titled "Manufacturing" in Item 1 of this Form 10-K, over the next two years we are transitioning additional products currently manufactured in our Tianjin facility to contract manufacturers in China and elsewhere. Any disruption of our own or contract manufacturers' operations could cause delayed product delivery, which could negatively impact our sales, competitive reputation and position. Moreover, 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 and may lead to obsolete inventory.

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.

In the future, we may 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.

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 commercialization 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.

The 2017 Tax Cuts and Jobs Act ("Tax Act") includes international provisions, which generally establish a territorial-style system for taxing foreign-source income of domestic multinational corporations. The Tax Act imposed a deemed repatriation tax on foreign earnings and implemented a minimum tax on the global intangible low-taxed income ("GILTI"), which is generally the net income of its controlled foreign corporation in excess of a 10% return on depreciable tangible assets after identification of other income subject to non-deferral rules. The ultimate outcome of the Tax Act on our business and financial condition is uncertain. It is possible that the application of these new rules may have a material and adverse impact on our operating results, cash flows and financial condition.

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 \$7.83 and a low of \$3.94 during 2018. 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 the Company or repurchases by 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.

Item 1B: Unresolved Staff Comments

None.

Item 2: Properties

The following table lists our main facilities:

Location	Square feet	Owned/Leased	Lease Term	
			Beginning	Ending
Bloomington, Illinois	75,517	Owned	N/A	N/A
Tianjin, China	44,289	Leased	2012	2020
Germantown, Maryland	20,704	Leased	2012	2020
Beijing, China	11,270	Leased	2016	2020
Akron, Ohio	5,977	Leased	2018	2025
Lexington, North Carolina	5,630	Leased	2013	2019
Englewood, Colorado	4,759	Leased	2015	2020

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 wireless product development. The annual lease obligation pursuant to the agreement was \$0.1 million. We assumed occupancy of this office in March 2018.

In April 2018, we extended our lease of its first-floor facility space in Tianjin, China. The total lease obligation pursuant to the lease agreement is approximately \$0.1 million. The lease expires in October 2020 which is consistent with the expiration for the second-floor facility lease in Tianjin, China.

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, we signed a sublease with a term through the lease termination date. The lease expires on October 31, 2020. See Note 5 in the notes to the financial statements for more information on the Colorado lease.

We exited the office in Lexington, North Carolina in the fourth quarter 2018 and we will not renew this lease.

On January 18, 2019 we entered into a new lease for 21,030 square feet of office space in Clarksburg, Maryland commencing January 1, 2020. The lease has an eleven-year term that ends on December 31, 2027. Total lease payments are \$5.0 million. We will relocate our operations from Germantown, Maryland facility to the new facility in Clarksburg, Maryland in January 2020.

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, 2018, 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

Market Information

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. As of March 13, 2019, there were 35 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.

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. The Company did not repurchase any shares of its common stock during the fourth quarter of 2018, and it has no shares remaining that could be repurchased under previously approved programs.

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 2018 and 2017. 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.

You should read this discussion of the Company’s financial condition and results of operations in conjunction with, and we qualify our discussion in its entirety by, the consolidated financial statements and notes thereto included elsewhere within this annual report, the material contained under Part 1, Item 1. “Description of Business” and Part I, Item 1A. “Risk Factors” of this annual report, and the cautionary disclosure about forward-looking statements at the front of Part I of this annual report.

Introduction

PCTEL delivers Performance Critical TELEcom technology solutions to the wireless industry. We are a leading global supplier of antennas and wireless network testing solutions.

PCTEL designs and manufactures precision antennas and we offer in-house wireless product development for our customers, including design, testing, radio integration, and manufacturing capabilities. 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 and complexity of wireless communications. Consistent with our mission to solve complex network engineering problems and in order to compete effectively in the antenna market, PCTEL maintains expertise in the following areas: radio frequency engineering, wireless network engineering, mechanical engineering, mobile antenna design, manufacturing, and product quality and testing. We seek out product applications that command a premium for product design and performance and customer service, and we avoid commodity 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 is fragmented. Competitors include Airgain, Amphenol, Laird, Pulse, and Taoglas.

PCTEL’s Test & Measurement Product line 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). Consistent with our mission to solve complex network engineering problems and in order to compete effectively in the radio frequency (“RF”) test and measurement market, PCTEL maintains expertise in the following areas: radio frequency engineering, digital signal process engineering, wireless network engineering, mechanical engineering, manufacturing, and product quality and testing. Our 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.

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 highly engineered radio frequency (“RF”) products. On July 31, 2017, we sold substantially all 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 Test & Measurement Products. We classified assets of the Engineering Services reporting unit as held for sale at December 31, 2017 and reported the results of its operations as discontinued operations for the year ended December 31, 2017. The financial information presented in this Form 10-K reflects the historical results of the Engineering Services business as discontinued operations. See Note 3 in the notes to the financial statements for more information on discontinued operations.

Reorganization and Segment Reporting

Effective August 2018, we consolidated our organizational structure to drive growth and address the convergence in the industrial IoT, public safety, and 4G infrastructure markets and the emergence of new technologies such as 5G (the “Reorganization”). Our operations, engineering, business development, sales and marketing, and operational general and administrative functions were consolidated into a single enterprise-wide organization. As a result of the Reorganization, our Chief Executive Officer, as the CODM, began assessing operating profits and identified assets at the enterprise level for resource allocations. In connection with the

Reorganization, the Board of Directors appointed a Chief Operating Officer who maintains regular contact with the CODM to discuss operating activities, financial results, forecasts, and plans for the Company's businesses. All operating profit and cash flows are measured and managed at the enterprise level.

Until the Reorganization, PCTEL operated in two segments for reporting purposes, Connected Solutions and RF Solutions. Our CODM assessed operating profits and identified assets for the Connected Solutions and RF Solutions segments for resource allocations. Each segment had its own general manager as well as its own engineering, business development, sales and marketing, and operational general and administrative functions.

Because the Reorganization occurred during the third quarter 2018, this Form 10-K does not include segment reporting information; however, we have included revenues and gross profit for the two major product lines (antenna products and test and measurement products) because each product line has a significantly different gross profit margin profile. In order to understand our financial results, it is necessary to understand the impact on gross profit margin of the revenue mix between them.

Research and Development

Given that the Company's mission is to solve complex RF problems for our customers, research and development is essential to our long-term success. We work closely with our customers, consultants and market research organizations to monitor and predict changes in the wireless industry, including emerging industry standards. We continue to make substantial investments in engineering, talent, research and development and we devote substantial resources to product development, innovation, and patent submissions. The patent submissions are primarily for defensive purposes, rather than for potential license revenue generation.

In March 2018 we opened a development center for wireless products in Akron, Ohio and invested in specialized equipment, testing chamber, and office improvements to further support our strategies in key vertical markets for antenna products.

Manufacturing

We have historically done final assembly of most of our antenna products in-house at our facilities in Bloomingdale, Illinois and Tianjin, China and final assembly of all our OEM receiver and interference management product lines in-house at our facility in Germantown, Maryland. In order to optimize the cost structure of our antenna product line and increase our competitiveness, we have engaged with several contract manufacturers over the last several years and are in the process of transitioning several product lines from our Tianjin facility to additional contract manufacturers in China and elsewhere over the next two years. As a result of using multiple contract manufacturers with a variety of expertise, we will avoid becoming 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 transitioning to a new contract manufacturer could cause delays, disruption and additional costs and could negatively impact our timely delivery of products. We have no material guaranteed supply contracts or long-term agreements with any of our suppliers, but we do have open purchase orders with several our suppliers.

Financial Summary

Revenues were approximately \$83.0 million for the year ended December 31, 2018, a decrease of 9.3% from the prior year. By product line, revenues decreased by \$6.3 million (27.3%) for test & measurement products and \$2.3 million (3.3%) for antenna products. Gross margins were lower by \$7.7 million due to the gross margin impact of lower revenues, a higher mix of antenna products versus test and measurement products, and lower gross margin percentages within both product lines compared to 2017. Operating expenses declined in 2018 by \$0.7 million as 2017 included incentive compensation expense of \$1.4 million under the short-term incentive plan and higher sales commission of \$0.3 million, partially offset by separation costs and other related costs of \$1.0 million associated with our Reorganization in 2018. Higher interest income provided additional other income of \$0.5 million in 2018 compared to 2017. The net impact of these changes resulted in an operating loss of \$5.6 million in 2018 compared to operating income of \$1.4 million in 2017.

Results of Operations for Continuing Operations
Years ended December 31, 2018 and 2017
(All amounts in tables, other than percentages, are in thousands)

REVENUES BY PRODUCT LINE

	2018	2018 compared to 2017		2017
		\$ Change	% Change	
Antenna Products	\$ 66,328	\$ (2,284)	-3.3%	\$ 68,612
Test & Measurement Products	16,733	(6,286)	-27.3%	23,019
Corporate	(82)	112	not meaningful	(194)
Total	\$ 82,979	\$ (8,458)	-9.3%	\$ 91,437

Revenues for antenna products decreased \$2.3 million (3.3%) compared to 2017, primarily due to lower revenues from site solutions products and from fleet and transit systems. Revenues declined by \$6.3 million (27.3%) for test & measurement products primarily due to lower revenues from U.S. carriers and from customers in the Asia Pacific region. Revenues from U.S. carriers declined by \$4.1 million and revenues in the Asia Pacific region declined by \$1.6 million compared to 2017. Spending was lower on legacy systems by U.S. carriers in preparation for the capital expenditures required for 5G deployments.

GROSS MARGIN BY PRODUCT LINE

	2018	% of Revenues	2017	% of Revenues
	Antenna Products	\$ 20,157	30.4%	\$ 22,439
Test & Measurement Products	10,883	65.0%	16,354	71.0%
Corporate	41	not meaningful	18	not meaningful
Total	\$ 31,081	37.5%	\$ 38,811	42.4%

The gross margin percentage was 37.5% for the year ended December 31, 2018, a decrease of 4.9% compared to 2017. Approximately 1.7% of the gross margin percentage decline was due to a lower mix of test and measurement products in 2018. The proportion of test and measurement products declined from 25% in 2017 to 20% in 2018. The remainder of the percentage decline is due to lower gross margin percentages in both product lines in 2018 compared to 2017. For antenna products, the gross margin percentage declined by 2.3% due to less favorable product mix, pricing pressure with small cell antennas, and costs associated with headcount reductions associated with our corporate reorganization in the third quarter 2018. For test and measurement products, the gross margin percentage decreased by 6.0% to 65.0% due to volume decline and also due to less favorable product mix.

CONSOLIDATED OPERATING EXPENSES

	2018	Change	2017	% of Revenues	
				2018	2017
Research and development	\$ 11,851	\$ 709	\$ 11,142	14.3%	12.2%
Sales and marketing	12,083	(547)	12,630	14.6%	13.8%
General and administrative	12,355	(755)	13,110	14.9%	14.3%
Amortization of intangible assets	418	(78)	496	0.5%	0.5%
	\$ 36,707	\$ (671)	\$ 37,378	44.2%	40.9%

Research and development expenses increased by \$0.7 million from 2017 to 2018 due to investments for antenna products. In 2017, we added headcount to increase our capabilities in key vertical markets for antenna products. In March 2018 we opened a development center for wireless products in Akron, Ohio and invested in specialized equipment, testing chamber, and office improvements to further support our strategies in these vertical markets.

We had 55 and 56 full-time equivalent employees in research and development at December 31, 2018 and 2017, respectively.

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

Sales and marketing expenses decreased \$0.5 million from 2017 to 2018 due to employee headcount reductions in sales and sales support, and due lower sales commissions and lower marketing expenses.

We had 42 and 49 full-time equivalent employees in sales and marketing at December 31, 2018 and 2017, respectively.

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 \$0.8 million from 2017 to 2018. The decrease was primarily because 2017 included \$1.0 million of incentive compensation expense and \$0.3 million of expense related to the CEO transition that were not included in 2018, offsetting expense of \$0.5 million related to executive separations in 2018.

We had 33 and 37 full-time equivalent employees in general and administrative functions at December 31, 2018 and 2017, respectively.

Amortization expense within operating expenses was approximately \$0.4 million and \$0.5 million for the years ended December 31, 2018 and 2017, respectively. Amortization expense decreased by approximately \$0.1 million in 2018 compared to 2017. The decrease was attributable to certain assets being fully amortized in 2018.

OPERATING (LOSS) PROFIT

	2018	% of Revenues	2017	% of Revenues
Total	\$ (5,626)	-6.8%	\$ 1,433	1.6%

Total operating income decreased \$7.1 million for the year ended December 31, 2018 compared to 2017 primarily due to the gross margin impact of lower revenues, partially offset by lower operating expenses of \$0.7 million.

OTHER INCOME, NET

	2018	2017
Interest income	\$ 623	\$ 270
Foreign exchange losses	(77)	(139)
Other, net	18	(26)
	<u>\$ 564</u>	<u>\$ 105</u>
Percentage of revenues	0.7%	0.1%

Other income, net consists of interest income, foreign exchange gains and losses, and interest expense.

For the year ended December 31, 2018, interest income increased by \$0.4 million due to higher average investment balances and higher average interest rates. Foreign exchange losses were due to fluctuation of the Chinese Yuan to the U.S. Dollar and due to the realization of foreign exchange losses related to the British Pound.

EXPENSE (BENEFIT) FOR INCOME TAXES

	2018	2017
Expense (benefit) for income taxes	\$ 7,827	\$ (2,471)
Effective tax rate	-154.6%	-160.7%

The effective tax rate for the year ended December 31, 2018 increased from the statutory rate of 21.0% by approximately 176% primarily because we recorded a valuation allowance of approximately \$9.2 million related to deferred tax assets for U.S. federal and state operating losses generated in 2018, U.S. federal and state timing differences, and China deferred tax assets.

In accordance with ASC 740 “Accounting for Income Taxes” (“ASC 740”), we evaluate our deferred income tax assets quarterly to determine if valuation allowances are required or should be adjusted. ASC 740 requires that companies assess whether valuation allowances should be established against their deferred tax assets based on consideration of all available evidence, both positive and negative, using a “more likely than not” standard of whether the deferred tax assets will be realized. At December 31, 2017, the Company had a partial valuation allowance on its deferred tax assets. Our positive results in 2017, the impact of selling our Engineering Services business, and our performance versus the 2017 projections supported a partial valuation allowance. However, our losses in 2018 and the cumulative loss position for the past three years is considered significant negative evidence that is difficult to overcome on a “more likely than not” standard through objectively verifiable data. While the Company believes its financial outlook remains positive, under the accounting standards objective verifiable evidence will have greater weight than subjective evidence such as the Company’s projections for future growth. Based on an evaluation in accordance with these accounting standards,

as of December 31, 2018, we recorded a valuation allowance of \$8.9 million was recorded against the net U.S. deferred tax assets and a valuation allowance of \$0.3 million has been recorded against the net China deferred tax assets. We did this in order to reduce the amount of deferred tax assets that are more likely than not to be realized based on the weight of all the available evidence. Until an appropriate level of profitability is attained, we expect to maintain a full valuation allowance on our U.S. net deferred tax assets, and China net deferred tax assets. Any U.S. or China tax benefits or tax expense recorded on our Consolidated Statement of Operations will be offset with a corresponding valuation allowance until such time that the Company changes its determination related to the realization of deferred tax assets. In the event that we change our determination as to the amount of deferred tax assets that can be realized, we will adjust our valuation allowance with a corresponding impact to the provision for income taxes in the period in which such determination is made.

The effective tax rate differed from the statutory rate of 34.0% for the year ended December 31, 2017 by approximately 195% because we increased the valuation allowance for our U.S. deferred tax assets by \$8.2 million. This adjustment offset 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 on the accumulated unremitted foreign earnings and profits of our foreign subsidiaries ("Transition Tax"). These provisional charges were finalized with the filing of the 2017 U.S. federal income tax return with minimal changes to the provisional amounts.

At December 31, 2018, we had a full valuation allowance of \$14.5 million on our deferred tax assets. 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 was \$5.2 million, all of which related to U.S. deferred tax assets.

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, provided for a 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 subject to an 80% annual income limitation against future income.

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, 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. We completed the accounting in the fourth quarter 2018 upon filing our U.S. Federal tax returns and increased our Transition Tax by \$0.1 million.

The Tax Act also included global intangible low-taxed income ("GILTI") provisions. Under the provisions, a U.S. shareholder of controlled foreign corporations ("CFCs") is required to include in gross income the amount of its GILTI. Generally, the GILTI inclusion is the U.S. shareholder's allocable share of certain income earned through its CFCs ("net CFC tested income") in excess of a deemed 10% return on the shareholder's allocable share of certain of the CFC's depreciable, tangible assets less certain interest expense items ("net deemed tangible income return"). Under U.S. GAAP, we are allowed to make an accounting policy choice of either (1) treating taxes due on future U.S. inclusions in taxable income related to GILTI as a current-period expense when incurred (the "period cost method") or (2) factoring such amounts into our measurement of its deferred taxes (the "deferred method"). For the year ended December 31, 2018, we included the expected 2018 GILTI income tax expense under the period cost method. The amount included for GILTI did not have a significant impact on the Company's tax provision for the year ended December 31, 2018.

See Note 6 of the consolidated financial statements for more information on income taxes.

NET LOSS FROM DISCONTINUED OPERATIONS, NET OF INCOME TAX BENEFIT

	2018	2017
Net loss from discontinued operations, net of tax benefit	\$ 0	\$ (187)

During the quarter ended June 30, 2017, we approved a plan to sell Engineering Services business and shift our focus toward highly engineered RF products. We sold the business to Gabe's July 31, 2017. See Note 3 to the consolidated financial statements for information related to discontinued operations. The results for our services business are reported as discontinued operations for the year ended December 31, 2017.

The net income from discontinued operations for the year ended December 31, 2017 includes operating losses for Engineering Services and a net gain on sale of \$0.5 million.

LIQUIDITY AND CAPITAL RESOURCES

	Years Ended December 31,	
	2018	2017
Net (loss) income from continuing operations	\$ (12,889)	\$ 4,009
Changes for depreciation, amortization, stock-based compensation, and other non-cash items	15,211	4,027
Changes in operating assets and liabilities	1,621	1,733
Net cash provided by operating activities	\$ 3,943	\$ 9,769
Net cash used in investing activities	\$ (1,110)	\$ (16,708)
Net cash used in financing activities	\$ (4,032)	\$ (3,126)
Net cash flows provided by discontinued operations	\$ 0	\$ 639
	December 31,	December 31,
	2018	2017
Cash and cash equivalents at the end of the year	\$ 4,329	\$ 5,559
Short-term investments at the end of the year	\$ 30,870	\$ 32,499
Working capital at the end of the year	\$ 53,443	\$ 58,091

Liquidity and Capital Resources Overview

At December 31, 2018, our cash, cash equivalents, and investments were approximately \$35.2 million, and we had working capital of approximately \$53.4 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 two years ended December 31, 2018 and 2017 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, 2018 was approximately 3.3% 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.

We believe that cash generated by operating activities, our short-term investment balances, and cash on our balance sheet will be sufficient to support our operations for the next 12 months, including dividend payments and capital expenditures.

Operating Activities:

We generated \$3.9 million of funds from operating activities during the year ended December 31, 2018. Adjustments related to non-cash items within net income were \$15.2 million for the year ended December 31, 2018, as amortization and depreciation was \$3.9 million, stock-based compensation was \$3.3 million, and a \$7.8 million adjustment to the deferred tax provision. Within the balance sheet, we generated cash of \$2.4 million from the reduction of accounts receivable and \$1.1 million from the increase of accounts payable, but we used \$1.7 million from the reduction of other liabilities. Accounts receivable declined primarily due to lower revenue in Q4 2018 compared to the same period in 2017. Other liabilities declined due to there was no liability related to the 2018 Short-Term Incentive Plan. The liability at December 31, 2017 was \$1.7 million.

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 \$0.8 million from the reduction of accounts receivable, but we used \$1.0 million from the reduction of accounts payables. The inventory decrease was due to improvements in supply chain management, 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, 2017 related to Engineering Services. Accounts payables declined primarily due to the reduction in inventories.

Investing Activities:

Our investing activities used \$1.1 million of cash during the year ended December 31, 2018. Redemptions and maturities of our short-term investments during the year provided \$46.2 million in cash and we rotated \$44.6 million of cash into new short-term investments. We used \$2.8 million of cash for capital expenditures during the year ended December 31, 2018. Capital expenditures during 2018 include \$1.1 million for specialized equipment, testing chamber, and leasehold improvements for the wireless product development center in Akron, Ohio.

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.

Financing Activities:

We used \$4.0 million of cash for financing activities during the year ended December 31, 2018. We used \$4.0 million for cash dividends paid quarterly during 2018. We received \$0.7 million in proceeds from the purchase of shares through our ESPP. We used \$0.6 million for payroll taxes related to stock-based compensation. The tax payments related to our stock issued for restricted stock awards.

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.

Contractual Obligations and Commercial Commitments

The following summarizes our contractual obligations at December 31, 2018 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)	\$ 2,067	\$ 1,135	\$ 688	\$ 217	\$ 27
Equipment	(b)	186	41	122	23	0
Purchase obligations	(c)	10,750	10,750	0	0	0
Total		\$ 13,003	\$ 11,926	\$ 810	\$ 240	\$ 27

- (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, 2018, we had obligations through 2022 for capital leases of \$237 related to office 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 \$0.7 million at December 31, 2018. We do not know when this obligation will be paid.

U.S. Tariffs

In the third quarter 2018, the Office of the United States Trade Representative imposed tariffs on certain imports from mainland China containing industrially significant technologies, including certain PCTEL antenna and antenna components, and there are additional tariffs under review. In addition to impacting the products sent to our U.S.-based customers from our facility in Tianjin, China, these tariffs pertain to certain components and materials sent from our Tianjin facility to our Bloomingdale, Illinois facility for final assembly. The cost of these tariffs has necessitated price increases on our antenna products. The impact of the tariffs on the Company's future revenue and profitability is uncertain. Furthermore, political uncertainty surrounding international trade disputes and protectionist measures may have a negative effect on customer confidence and spending. The Company will continue to monitor and adjust prices as necessary and as market conditions permit. We do not believe these price increases have resulted in a significant loss of revenue.

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 sell antenna products and test and measurement products. All of our revenue relates to contracts with customers. Our accounting contracts are from purchase orders or purchase orders combined with purchase agreements. The majority of our revenue is recognized on a "point-in-time" basis and a nominal amount of revenue is recognized "over time". For the sale of antenna products and test and measurement products, we satisfy our performance obligations generally at the time of shipment, or upon delivery based on the contractual terms with its customers. For products shipped on consignment, we recognize revenue upon delivery from the consignment location. For its test and measurement software tools, we have performance obligations to provide software maintenance and support for one year. We recognize revenues for the maintenance and support over this period. For products shipped on consignment, we recognize revenue upon customer delivery from the consignment location. We allow our major antenna product distributors to return a limited amount of products under specified terms and conditions and accrue for product returns. See Note 14 for additional information related to revenue policies.

Accounts Receivable and Allowance for Doubtful Accounts - Accounts receivable is 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. Reserves for obsolete inventory 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. We amortize stock-based compensation expense over the requisite service period, and we record forfeitures as incurred. 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 Company has international subsidiaries located in Tianjin, and branch office thereof in Beijing, China and a representative office located in Hong Kong. The complexities that arise from operating in 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.

On December 22, 2017, the United States federal government enacted 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, a reduction of the U.S. federal corporate income tax rate from 34% to 21%, and an indefinite carryforward for net operating losses incurred in 2018 and future periods subject to an 80% annual limitation against future income.

In response to the enactment of the Tax Act in late 2017, the U.S. Securities and Exchange Commission issued 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. We recorded provisional amounts during the fourth quarter 2017 and finalized the adjustments in the fourth quarter 2018 upon completion of our U.S. income tax returns.

In the fourth quarter 2017 we recorded provisional income tax expense of \$0.6 million related to the deemed repatriation of the accumulated unremitted earnings and profits of foreign subsidiaries, and provisional income tax expense of \$5.0 million associated with the remeasurement of our net deferred tax assets due to the reduction in the U.S. corporate tax rate, and we included these amounts in our consolidated financial statements for the year ended December 31, 2017. In the fourth quarter 2018, we recorded an increase of \$0.1 million for the Transition Tax.

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 enough 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.

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 ("Topic 350"). Topic 350 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. We early adopted this guidance on January 1, 2017 because its annual impairment test is performed after January 1, 2017. The adoption of Topic 350 did not have an impact on our consolidated financial statements because there was no impairment identified from our step 1 analysis at the measurement date of October 1, 2017.

In October 2016, the FASB issued ASU 2016-16, Income Taxes ("Topic 740"): Intra-Entity Transfer of Assets Other than Inventory. Topic 740 requires an entity to recognize the income tax consequences of an intra-entity transfer of an asset other than inventory when the transfer occurs. We adopted Topic 740 on January 1, 2018 using the modified retrospective approach, and as a result recorded a deferred tax asset with a corresponding adjustment to retained earnings of \$0.1 million associated with an intra-entity transfer of goodwill in 2009. The goodwill was transferred to the U.S. entity from a Canadian entity that was dissolved in 2009.

In August 2016, the FASB issued ASU 2016-15, Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments ("Topic 230"). Topic 230 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 was effective for us on January 1, 2018. Adoption of Topic 230 did not have an 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. Topic 718 affects all entities that issue share-based payment awards to their employees. Topic 718 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. We adopted Topic 718 in the first quarter of 2017. Upon adoption, we recognized deferred tax assets of \$0.6M for all excess tax benefits that had not been previously recognized. We also elected to recognize forfeitures as incurred. We recorded an adjustment of \$0.1 million to deferred tax assets for estimated forfeitures previously recorded. These adjustments were recorded through a cumulative-effect adjustment to retained earnings of approximately \$0.5 million and an adjustment to the valuation allowance for \$0.2 million. We also reclassified our payments for withholding tax on stock-based compensation from operating activities to financing activities in the consolidated statements of cash flows for the years ended December 31, 2017.

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. Topic 842 also provides clarifications surrounding the presentation of the effects of leases in the income statement and statement of cash flows. This guidance was effective for us on January 1, 2019. We expect to record a right of use asset and corresponding lease liability in the range of \$1.4 to \$1.8 million upon adoption of Topic 842. We do not believe the standard will materially impact our statement of operations. We updated our controls to identify and classify leases in accordance with Topic 842. As a practical expedient, short-term agreements of less than 12 months will be excluded from recognition under the Topic 842 but will be logged and monitored for disclosure purposes.

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. We adopted this guidance on January 1, 2017. The adoption of this ASU did not have an impact on our consolidated financial statements.

In May 2014, the FASB issued ASU 2014-09, "Revenue from Contracts with Customers" ("Topic 606") which introduced 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. Topic 606 defines a five-step process to achieve this core principle and, in doing so, more judgment and estimates may be required in connection with the revenue recognition process than were previously required under prior U.S. GAAP. Topic 606 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. The FASB has also issued the following standards which clarify Topic 606 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 adopted Topic 606 on January 1, 2018 using the modified retrospective approach. The majority of our revenue is recognized on a "point-in-time" basis and a nominal amount of our revenue is recognized "over time" under the new standard, which is consistent with our revenue recognition policy under the previous guidance.

See Note 14 for information on Revenue from Contracts with Customers.

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 and short-term investments in U.S. government agency bonds or money market funds invested exclusively in government agency bonds and A 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 change in interest income earned through maturity on investments held at

December 31, 2018. 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. During 2018, approximately 10% of our billings were in the Chinese yuan. 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 fluctuations in foreign exchange rates. 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 \$0.8 million of cash in foreign bank accounts at December 31, 2018. As of December 31, 2018, we had no intention of repatriating the \$0.06M of cash in our foreign bank accounts in China. 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. We completed the closure of our Israel subsidiary during the fourth quarter 2018. We expect to repatriate its remaining cash of \$0.2 million during the first quarter of 2019. We do not expect the foreign currency exchange rate related to the repatriation of these funds to have a material impact on the financial statements.

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. We do not require collateral from customers, but for some customers we do require partial or full prepayments.

The following tables represents customers that accounted for 10% or more of total trade accounts receivable at December 31, 2018 and 2017.

Trade Accounts Receivable	As of December 31,	
	2018	2017
Customer A	13%	12%

Item 8: Financial Statements and Supplementary Data

**PCTEL, INC.
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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and Stockholders
PCTEL, Inc.

Opinion on the financial statements

We have audited the accompanying consolidated balance sheets of PCTEL, Inc. (a Delaware corporation) and subsidiaries (the “Company”) as of December 31, 2018 and 2017, the related consolidated statements of operations, comprehensive (loss) income, stockholders’ equity, and cash flows for each of the years then ended, and the related notes and financial statement schedule included under Item 15(a) (collectively referred to as the “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the years then ended, in conformity with accounting principles generally accepted in the United States of America.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (“PCAOB”), the Company’s internal control over financial reporting as of December 31, 2018, 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 18, 2019 expressed an unqualified opinion.

Basis for opinion

These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Grant Thornton LLP

We have served as the Company’s auditor since 2006.

Chicago, Illinois
March 18, 2019

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and Stockholders
PCTEL, Inc.

Opinion on internal control over financial reporting

We have audited the internal control over financial reporting of PCTEL, Inc. (a Delaware corporation) and subsidiaries (the “Company”) as of December 31, 2018, based on criteria established in the 2013 *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (“COSO”). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, 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) (“PCAOB”), the consolidated financial statements of the Company as of and for the year ended December 31, 2018, and our report dated March 18, 2019, expressed an unqualified opinion on those financial statements.

Basis for opinion

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 are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. 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.

Definition and limitations of internal control over financial reporting

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.

/s/ Grant Thornton LLP

Chicago, Illinois
March 18, 2019

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

	December 31, 2018	December 31, 2017
ASSETS		
Cash and cash equivalents	\$ 4,329	\$ 5,559
Short-term investment securities	30,870	32,499
Accounts receivable, net of allowances of \$63 and \$319 at December 31, 2018 and December 31, 2017, respectively	15,864	18,624
Inventories, net	12,848	12,756
Prepaid expenses and other assets	1,416	1,605
Total current assets	65,327	71,043
Property and equipment, net	12,138	12,369
Goodwill	3,332	3,332
Intangible assets, net	1,029	2,113
Deferred tax assets, net	0	7,734
Other noncurrent assets	45	72
TOTAL ASSETS	\$ 81,871	\$ 96,663
LIABILITIES AND STOCKHOLDERS' EQUITY		
Accounts payable	\$ 6,083	\$ 5,471
Accrued liabilities	5,801	7,481
Total current liabilities	11,884	12,952
Long-term liabilities	381	392
Total liabilities	12,265	13,344
Stockholders' equity:		
Common stock, \$0.001 par value, 100,000,000 shares authorized, 18,271,249 and 17,806,792 shares issued and outstanding at December 31, 2018 and December 31, 2017, respectively	18	18
Additional paid-in capital	133,859	134,505
Accumulated deficit	(64,055)	(51,258)
Accumulated other comprehensive (loss) income	(216)	54
Total stockholders' equity	69,606	83,319
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	\$ 81,871	\$ 96,663

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,	
	2018	2017
REVENUES	\$ 82,979	\$ 91,437
COST OF REVENUES	51,898	52,626
GROSS PROFIT	31,081	38,811
OPERATING EXPENSES:		
Research and development	11,851	11,142
Sales and marketing	12,083	12,630
General and administrative	12,355	13,110
Amortization of intangible assets	418	496
Total operating expenses	36,707	37,378
OPERATING (LOSS) INCOME	(5,626)	1,433
Other income, net	564	105
(LOSS) INCOME BEFORE INCOME TAXES	(5,062)	1,538
Expense (benefit) for income taxes	7,827	(2,471)
NET (LOSS) INCOME FROM CONTINUING OPERATIONS	(12,889)	4,009
NET LOSS FROM DISCONTINUED OPERATIONS, NET OF INCOME TAX BENEFIT	0	(187)
NET (LOSS) INCOME	\$ (12,889)	\$ 3,822
Net (Loss) Income per Share from Continuing Operations:		
Basic	\$ (0.75)	\$ 0.24
Diluted	\$ (0.75)	\$ 0.24
Net Loss per Share from Discontinued Operations:		
Basic	\$ 0.00	\$ (0.01)
Diluted	\$ 0.00	\$ (0.01)
Net (Loss) Income per Share:		
Basic	\$ (0.75)	\$ 0.23
Diluted	\$ (0.75)	\$ 0.23
Weighted Average Shares:		
Basic	17,186	16,626
Diluted	17,186	16,913
Cash dividend per share	\$ 0.22	\$ 0.21

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)

	<u>Years Ended December 31,</u>	
	<u>2018</u>	<u>2017</u>
NET (LOSS) INCOME	\$ (12,889)	\$ 3,822
OTHER COMPREHENSIVE (LOSS) INCOME		
Foreign currency translation adjustments	(270)	436
COMPREHENSIVE (LOSS) INCOME	<u>\$ (13,159)</u>	<u>\$ 4,258</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 DECEMBER 31, 2016	\$ 17	\$ 134,480	\$ (55,590)	\$ (382)	\$ 78,525
Cumulative-effect adjustment resulting from adoption of ASU 2016-09			510		510
BALANCE at JANUARY 1, 2017	\$ 17	\$ 134,480	\$ (55,080)	\$ (382)	\$ 79,035
Stock-based compensation expense	1	3,053	0	0	3,054
Issuance of shares for stock purchase and option plans	0	1,975	0	0	1,975
Cancellation of shares for payment of withholding tax	0	(1,298)	0	0	(1,298)
Dividends paid	0	(3,705)	0	0	(3,705)
Net income	0	0	3,822	0	3,822
Change in cumulative translation adjustment, net	0	0	0	436	436
BALANCE at DECEMBER 31, 2017	\$ 18	\$ 134,505	\$ (51,258)	\$ 54	\$ 83,319
Cumulative-effect adjustment resulting from adoption of ASU 2016-16			92		92
BALANCE at JANUARY 1, 2018	\$ 18	\$ 134,505	\$ (51,166)	\$ 54	\$ 83,411
Stock-based compensation expense	0	3,261	0	0	3,261
Issuance of shares for stock purchase and option plans	0	686	0	0	686
Cancellation of shares for payment of withholding tax	0	(578)	0	0	(578)
Dividends paid	0	(4,015)	0	0	(4,015)
Net loss	0	0	(12,889)	0	(12,889)
Change in cumulative translation adjustment, net	0	0	0	(270)	(270)
BALANCE at DECEMBER 31, 2018	\$ 18	\$ 133,859	\$ (64,055)	\$ (216)	\$ 69,606

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,	
	2018	2017
Operating Activities:		
Net (loss) income from continuing operations	\$ (12,889)	\$ 4,009
Adjustments to reconcile net (loss) income to net cash provided by operating activities:		
Depreciation	2,806	2,567
Intangible asset amortization	1,084	1,162
Stock-based compensation	3,261	3,005
Loss on disposal/sale of property and equipment	19	18
Restructuring costs	(39)	(78)
Bad debt provision	265	55
Deferred tax provision	7,817	(2,647)
Changes in operating assets and liabilities, net of acquisitions:		
Accounts receivable	2,362	798
Inventories	(336)	1,970
Prepaid expenses and other assets	198	(121)
Accounts payable	1,095	(1,037)
Income taxes payable	(3)	(199)
Other accrued liabilities	(1,657)	182
Deferred revenue	(40)	85
Net cash provided by operating activities	<u>3,943</u>	<u>9,769</u>
Investing Activities:		
Capital expenditures	(2,754)	(2,666)
Proceeds from disposal of property and equipment	15	1
Purchase of investments	(44,591)	(49,009)
Redemptions/maturities of short-term investments	46,220	34,966
Net cash used in finance activities	<u>(1,110)</u>	<u>(16,708)</u>
Financing Activities:		
Proceeds from issuance of common stock	686	1,975
Payment of withholding tax on stock-based compensation	(578)	(1,298)
Principle payments on capital leases	(125)	(98)
Cash dividends	(4,015)	(3,705)
Net cash used in financing activities	<u>(4,032)</u>	<u>(3,126)</u>
Cash flows from discontinued operations:		
Net cash used in operating activities	0	(795)
Net cash provided by investing activities	0	1,434
Net cash flows provided by discontinued operations:	<u>0</u>	<u>639</u>
Net decrease in cash and cash equivalents	(1,199)	(9,426)
Effect of exchange rate changes on cash	(31)	130
Cash and cash equivalents, beginning of year	5,559	14,855
Cash and Cash Equivalents, End of Year	<u><u>\$ 4,329</u></u>	<u><u>\$ 5,559</u></u>
Other information:		
Cash paid for income taxes	\$ 41	\$ 172
Cash paid for interest	\$ 11	\$ 12
Non-cash investing and financing information:		
Decreases to additional paid-in capital related to restricted stock	\$ (189)	\$ (1,339)
Issuance of restricted common stock, net of cancellations	\$ 2,276	\$ 196
Purchase of assets under capital leases	\$ 47	\$ 149

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, 2018
(in thousands, except share data and numbers disclosed in millions)

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 a leading global supplier of wireless network antenna and testing solutions. PCTEL designs and manufactures precision antennas and provides test and measurement products that improve the performance of wireless networks globally. 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 test tools 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.

Antenna Products

PCTEL designs and manufactures precision antennas and offers in-house wireless product development for our customers, including design, testing, radio integration, and manufacturing capabilities. PCTEL antennas are deployed in small cells, enterprise Wi-Fi access points, fleet management and transit systems, and in equipment and devices for the IIoT. Revenue growth in these markets is driven by the increased use and complexity of wireless communications. Consistent with the Company’s mission to solve complex network engineering problems and in order to compete effectively in the antenna market, PCTEL maintains expertise in the following areas: radio frequency engineering, wireless network engineering, mechanical engineering, mobile antenna design, manufacturing, and product quality and testing. The Company seeks out product applications that command a premium for product design and performance and customer service, and it avoids commodity 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 is fragmented. Competitors include Airgain, Amphenol, Laird, Pulse, and Taoglas.

Test and Measurement Products

PCTEL provides RF test and measurement tools that improve the performance of wireless networks globally, with a focus on LTE, public safety, and emerging 5G technologies. Mobile operators, neutral hosts, and equipment manufacturers rely on PCTEL to analyze, design, and optimize next generation wireless networks. Revenue growth in this market is driven by the implementation and roll out of new wireless technology standards (i.e. 3G to 4G, 4G to 5G). Consistent with our mission to solve complex network engineering problems and in order to compete effectively in the RF test and measurement market, PCTEL maintains expertise in the following areas: radio frequency engineering, digital signal process (“DSP”) engineering, wireless network engineering, mechanical engineering, manufacturing, and product quality and testing. The Company’s test equipment is sold directly to wireless carriers or to OEMs who integrate its products into their solutions which are then sold to wireless carriers. Competitors for the Company’s test tool products include OEMs such as Anritsu, Berkley Varitronics, Digital Receiver Technology, and Rohde and Schwarz.

Segment Reporting

Effective August 2018, the Company consolidated its organizational structure to drive growth and address the convergence in the IIoT, public safety, and 4G infrastructure markets and the emergence of new technologies such as 5G (the “Reorganization”). The Company’s operations, engineering, business development, sales and marketing, and operational general and administrative functions were consolidated into a single enterprise-wide organization. As a result of the Reorganization that occurred in the third quarter 2018, the Company’s Chief Executive Officer, as the chief operating decision maker (“CODM”) began assessing operating profits and identified assets at the enterprise level for resource allocations. In connection with the Reorganization, the Board of Directors appointed a Chief Operating Officer who maintains regular contact with the CODM to discuss operating activities, financial results, forecasts, and plans for the Company’s businesses. All operating profit and cash flows are measured and managed at the enterprise level.

Until the Reorganization, PCTEL operated in two segments for reporting purposes, Connected Solutions and RF Solutions. The CODM assessed operating profits and identified assets for the Connected Solutions and RF Solutions segments for resource allocations. Each segment had its own general manager as well as its own engineering, business development, sales and marketing, and operational general and administrative functions.

Because the Reorganization occurred during the third quarter 2018, this Form 10-K does not include segment reporting information; however, we have included revenues and gross profit for the two major product lines (antenna products and test and measurement products) because each product line has a significantly different gross profit margin profile. In order to understand our financial results, it is necessary to understand the impact on gross profit margin of the revenue mix between them.

During the quarter ended June 30, 2017, the Company approved a plan to sell its Network Engineering Service business (“Engineering Services”) and shift its focus toward research and development driven RF products. On July 31, 2017, the Company sold substantially all of the assets of the Company’s 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 and was a reporting unit within the test and measurement product line. The Company classified assets of the Engineering Services reporting unit as held for sale at December 31, 2017 and reported the results of its operations as discontinued operations for the year ended December 31, 2017.

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 losses resulting from foreign currency transactions included in other income, net was \$77, and \$139 in the years ended December 31, 2018, and 2017, 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, 2018	December 31, 2017
Cash	\$ 1,485	\$ 3,785
Cash equivalents	2,844	1,774
Short-term investments	30,870	32,499
	<u>\$ 35,199</u>	<u>\$ 38,058</u>

Cash and Cash Equivalents

At December 31, 2018 and 2017, cash and cash equivalents included bank balances and investments with original maturities less than 90 days. At December 31, 2018 and 2017, 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.

The Company had \$0.8 million and \$1.2 million of cash and cash equivalents in foreign bank accounts at December 31, 2018 and at December 31, 2017, respectively. The Company's cash in its foreign bank accounts is not insured. Within the cash in foreign bank accounts, the Company had cash of \$0.6 million and \$1.0 million in China bank accounts at December 31, 2018 and December 31, 2017, respectively. As of December 31, 2018, the Company has no intentions of repatriating the cash in its foreign bank accounts in 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 completed the closure of its Israel subsidiary during the fourth quarter 2018. The Company expects to repatriate its remaining cash of \$0.2 million during the first quarter of 2019. The Company does not expect the foreign currency exchange rate related to the repatriation of these funds to have a material impact on the financial statements.

Investments

At December 31, 2018, the Company's short-term investments consisted of U.S. government agency bonds, A or higher rated corporate bonds, and certificates of deposit. At December 31, 2017, 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 of the investments at December 31, 2018 and 2017 were classified as held-to-maturity.

The Company had investments of pre-refunded municipal bonds at December 31, 2017 but none at December 31, 2018. The income and principal from the pre-refunded municipal bonds were secured by an irrevocable trust of U.S. Treasury securities. The bonds that had original maturities greater than 90 days were recorded at the purchase price and carried at amortized cost. Approximately 8% of the Company's municipal bonds were protected by bond default insurance.

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

	December 31, 2018				December 31, 2017			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Cash equivalents:								
Corporate bonds	\$ 0	\$ 1,156	\$ 0	\$ 1,156	\$ 0	\$ 1,350	\$ 0	\$ 1,350
US government agency bonds	0	0	0	0	0	249	0	249
Money market funds	1,688	0	0	1,688	175	0	0	175
Total Cash Equivalents	<u>\$ 1,688</u>	<u>\$ 1,156</u>	<u>\$ 0</u>	<u>\$ 2,844</u>	<u>\$ 175</u>	<u>\$ 1,599</u>	<u>\$ 0</u>	<u>\$ 1,774</u>
Investments:								
Corporate bonds	0	21,583	0	21,583	0	18,463	0	18,463
Pre-refunded municipal bonds	0	0	0	0	0	2,133	0	2,133
US government agency bonds	0	5,671	0	5,671	0	4,457	0	4,457
Certificates of deposit	3,616	0	0	3,616	7,446	0	0	7,446
Total Investments	<u>\$ 3,616</u>	<u>\$ 27,254</u>	<u>\$ 0</u>	<u>\$ 30,870</u>	<u>\$ 7,446</u>	<u>\$ 25,053</u>	<u>\$ 0</u>	<u>\$ 32,499</u>
Cash equivalents and Investments - book value	<u>\$ 5,304</u>	<u>\$ 28,410</u>	<u>\$ 0</u>	<u>\$ 33,714</u>	<u>\$ 7,621</u>	<u>\$ 26,652</u>	<u>\$ 0</u>	<u>\$ 34,273</u>
Cash equivalents and Investments - fair value	<u>\$ 5,304</u>	<u>\$ 28,389</u>	<u>\$ 0</u>	<u>\$ 33,693</u>	<u>\$ 7,622</u>	<u>\$ 26,617</u>	<u>\$ 0</u>	<u>\$ 34,239</u>

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. The fair values in the table above reflect net unrealized losses of \$21 and \$34 at December 31, 2018 and December 31, 2017, respectively.

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 90 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 \$0.1 million and \$0.3 million at December 31, 2018 and 2017, 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 net realizable value and include material, labor and overhead costs using the first-in, first-out method of costing. Inventories as of December 31, 2018 and 2017 were composed of raw materials, sub-assemblies, finished goods and work-in-process. The Company had consigned inventory of \$0.9 million and \$0.5 million at December 31, 2018 and 2017, 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 \$3.3 million and \$3.0 million as of December 31, 2018 and 2017, respectively.

Inventories consisted of the following:

	December 31, 2018	December 31, 2017
Raw materials	\$ 7,023	\$ 6,849
Work in process	1,388	962
Finished goods	4,437	4,945
Inventories, net	<u>\$ 12,848</u>	<u>\$ 12,756</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, 2018	December 31, 2017
Building	\$ 6,351	\$ 6,351
Computers and office equipment	10,963	10,873
Manufacturing and test equipment	13,573	13,012
Furniture and fixtures	1,318	1,288
Leasehold improvements	1,529	1,444
Motor vehicles	20	20
Total property and equipment	33,754	32,988
Less: Accumulated depreciation and amortization	(23,386)	(22,389)
Land	1,770	1,770
Property and equipment, net	<u>\$ 12,138</u>	<u>\$ 12,369</u>

Depreciation and amortization expense were approximately \$2.8 million and \$2.6 million for the years ended December 31, 2018 and 2017, 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, 2018	December 31, 2017
Payroll, bonuses, and other employee benefits	\$ 1,409	\$ 2,780
Inventory receipts	1,396	1,730
Paid time off	936	1,011
Professional fees and contractors	346	155
Employee stock purchase plan	343	314
Warranties	339	382
Income and sales taxes	186	243
Customer refunds for estimated returns	154	197
Deferred revenues	149	189
Real estate taxes	148	148
Short-term obligations under capital leases	91	97
Other	304	235
Total	<u>\$ 5,801</u>	<u>\$ 7,481</u>

Long-term liabilities consisted of the following:

	December 31, 2018	December 31, 2017
Capital leases	\$ 132	\$ 180
Deferred rent	87	89
Other	162	123
Total	<u>\$ 381</u>	<u>\$ 392</u>

Revenue Recognition

The Company sells antenna product and test and measurement products. All of the Company's revenue relates to contracts with customers. The Company's accounting contracts are from purchase orders or purchase orders combined with purchase agreements. The majority of the Company's revenue is recognized on a "point-in-time" basis and a nominal amount of revenue is recognized "over time". For the sale of antenna products and test and measurement products, the Company satisfies its performance obligations generally at the time of shipment, or upon delivery based on the contractual terms with its customers. For products shipped on consignment, the Company recognizes revenue upon customer delivery from the consignment location. For its test and measurement software tools, the Company has a performance obligation to provide software maintenance and support for one year. The Company recognizes revenues for the maintenance and support over this period. The Company recognizes revenue for sales of its products when control 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. See Note 14 for additional information related to revenue policies.

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 \$0.1 million during the years ended December 31, 2018, and 2017.

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 deferred tax assets are recognized for net operating losses 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.

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.

On December 22, 2017, the United States federal government enacted the Tax Cuts and Jobs Act ("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, provided for a transition tax on the accumulated unremitted foreign earnings and profits of the Company's foreign subsidiaries ("Transition Tax"), a reduction of the U.S. federal corporate income tax rate from 34% to 21%, and an indefinite carryforward of net operating losses ("NOLs") incurred in 2018 and future periods subject to an 80% annual limitation against future income.

In accordance with the Tax Act, the Company recorded provisional income tax expense of \$0.6 million related to the deemed repatriation of the accumulated unremitted earnings and profits of foreign subsidiaries, and provisional income tax expense of \$5.0 million associated with the remeasurement of its net deferred tax assets due to the reduction in the U.S. corporate income tax rate, and included these amounts in its consolidated financial statements for the year ended December 31, 2017. The Company completed the accounting in the fourth quarter 2018 upon filing the Company's U.S. Federal tax returns and increased the Transition Tax by \$0.1 million.

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 carryforward 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. As a result of the Company's cumulative three-year

loss, the finite life for federal net operating losses generated through December 31, 2017, and the finite life of state net operating losses, the Company had a full valuation allowance of \$14.5 million at December 31, 2018. See Note 6 for more information on the deferred tax valuation allowance.

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 fourth fiscal 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 the Company 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 at October 31, 2018 related to its goodwill of \$3.3 million. Due to the Company's Reorganization in the third quarter 2018, its operations, engineering, business development, sales and marketing, and operational general and administrative functions were consolidated into a single enterprise-wide organization. Since there are no longer reportable segments, the Company has not disclosed segment information in this Form-10K for the year ended December 31, 2018. However, the Company has discrete financial information necessary to perform goodwill impairment testing for the reporting unit under the accounting guidance. The goodwill is not related to the whole Company. The Company evaluated the goodwill based on the cash flows for the test and measurement product line. The cash flows for test and measurement product line were only prepared for testing goodwill and were not reviewed by the Company's CODM. The revenues and gross margins were specifically identified, and the operating expenses were a combination of direct expenses and allocated expenses. The Company performed both a qualitative analysis of goodwill and the step one quantitative analysis. There were no triggering events 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, 2017 for the goodwill of \$3.3 million. 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.

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. There have been no impairments related to long-lived assets for continuing operations during the years ended December 31, 2018, and 2017.

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 (“Topic 350”). Topic 350 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 Company early adopted this guidance on January 1, 2017 because its annual impairment test is performed after January 1, 2017.

In October 2016, the FASB issued ASU 2016-16, Income Taxes (“Topic 740”): Intra-Entity Transfer of Assets Other than Inventory. Topic 740 requires an entity to recognize the income tax consequences of an intra-entity transfer of an asset other than inventory when the transfer occurs. The Company adopted Topic 740 on January 1, 2018 using the modified retrospective approach, and as a result recorded a deferred tax asset with a corresponding adjustment to retained earnings of \$0.1 million associated with an intra-entity transfer of goodwill in 2009. The goodwill was transferred to the U.S. entity from a Canadian entity that was dissolved in 2009.

In August 2016, the FASB issued ASU 2016-15, Statement of Cash Flows (Topic 230): Classification of certain cash receipts and cash payments (“Topic 230”). Topic 230 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 was effective for the Company on January 1, 2018. Adoption of this guidance did not have an impact on the Company’s 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 (“Topic 718”). Topic 718 affects all entities that issue share-based payment awards to their employees. Topic 718 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. The Company adopted Topic 718 in the first quarter of 2017. Upon adoption, the Company recognized deferred tax assets of \$0.6 million for all excess tax benefits that had not been previously recognized. The Company also elected to recognize forfeitures as incurred. The Company recorded an adjustment of \$0.1 million to deferred tax assets for estimated forfeitures previously recorded. These adjustments were recorded through a cumulative-effect adjustment to retained earnings of approximately \$0.5 million and an adjustment to the valuation allowance for \$0.2 million. The Company also reclassified its payments for withholding tax on stock-based compensation from operating activities to financing activities in the consolidated statements of cash flows for the years ended December 31, 2017.

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. Topic 842 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 expects to record a right of use asset and corresponding lease liability in the range of \$1.4 million to \$1.8 million upon adoption of Topic 842. The Company does not believe the standard will materially impact its statement of operations. In preparation for implementing Topic 842, the Company updated its controls to identify and classify leases appropriately. As a practical expedient, short-term agreements of less than 12 months will be excluded from recognition under the Topic 842 but will be logged and monitored for disclosure purposes.

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. The Company adopted this guidance on January 1, 2017. The adoption of this ASU did not have an impact to the Company's consolidated financial statements.

In May 2014, the FASB issued ASU 2014-09, "Revenue from Contracts with Customers" ("Topic 606") 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. Topic 606 defines a five-step process to achieve this core principle and, in doing so, more judgment and estimates may be required in connection with the revenue recognition process than were previously required under prior U.S. GAAP. Topic 606 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. The FASB has also issued the following standards which clarify Topic 606 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 adopted Topic 606 on January 1, 2018 using the modified retrospective approach. The majority of the Company's revenue is recognized on a "point-in-time" basis and a nominal amount of the Company's revenue is recognized "over time" under the new standard, which is consistent with the Company's revenue recognition policy under the previous guidance. There were no changes to retained earnings from the adoption of Topic 606.

There were no changes to retained earnings from the adoption of Topic 606. See Note 14 for information on Revenue from Contracts with Customers.

2. (Loss) Earnings 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:

	<u>Years Ended December 31,</u>	
	<u>2018</u>	<u>2017</u>
Basic (Loss) Income Per Share computation:		
Numerator:		
Net (loss) net income from continuing operations	\$ (12,889)	\$ 4,009
Net loss from discontinued operations	\$ 0	\$ (187)
Net (loss) income	\$ (12,889)	\$ 3,822
Denominator:		
Common shares outstanding	17,186	16,626
Net (Loss) Income per common share - basic		
Net (loss) income from continuing operations	\$ (0.75)	\$ 0.24
Net loss from discontinued operations	\$ 0.00	\$ (0.01)
Net (loss) income	\$ (0.75)	\$ 0.23
Diluted (Loss) Income Per Share computation:		
Denominator:		
Common shares outstanding	17,186	16,626
Restricted shares subject to vesting	*	285
Common stock option grants	*	2
Total shares	17,186	16,913
(Loss) Income per common share - diluted		
Net (loss) income from continuing operations	\$ (0.75)	\$ 0.24
Net loss from discontinued operations	\$ 0.00	\$ (0.01)
Net (loss) income	\$ (0.75)	\$ 0.23

* As denoted by “*” in the table above, weighted average common stock option grants and restricted shares of 361,000 was excluded from the calculations of diluted net loss per share for the year ended December 31, 2018, since the effect was anti-dilutive.

3. Discontinued Operations

During the quarter ended June 30, 2017, the Company approved a plan to sell its Engineering Services business and shift its focus towards research and development driven RF products. On July 31, 2017, the Company sold its Network Engineering Services business to Gabe’s. The Company filed a Form 8-K related to the disposition on August 4, 2017.

The disposition of Engineering Services met the requirements for classification as held for sale during the quarter ended June 30, 2017 because the disposition met all the criteria outlined in the accounting guidance. Due to the significance of the results during the years ended December 31, 2016, 2015, and 2014, and because this disposition represented a strategic shift by the Company to focus on products, the disposition of Engineering Services also qualified as a discontinued operation for reporting purposes. As such, the Company reported the results of its Engineering Services business as discontinued operations beginning with the quarter ended June 30, 2017. In this annual report on Form 10-K, the results for Engineering Services are reported as discontinued operations for the year ended December 31, 2017. All the revenues and cost of revenues in discontinued operations related to services provided by the Company.

The Company sold the fixed assets and backlog of the Network Engineering Services business to Gabe’s for \$1.45 million. At closing, the Company received \$1.4 million, consisting of \$1.3 million for the sale of the business and \$0.1 million related to future services. A pre-tax book gain of \$0.5 million is included in discontinued operations in the year ended December 31, 2017. The net pre-tax book gain includes proceeds from the sale of assets minus the book value of the assets disposed as well as severance and related payroll benefits for terminated employees. The book value of the assets was \$0.6 million at the date of closing. On August 1, 2017, the Company terminated 25 employees, and Gabe’s hired 11 of these employees. The severance and related benefits for the terminated

employees who were not subsequently hired by Gabe's was \$0.2 million. The income tax gain was \$0.3 million, which included the tax value of the fixed assets and the remaining tax value for intangible assets no longer being used by the Company as of the sale to Gabe's. The Company retained working capital of approximately \$0.5 million, including accounts receivable, accounts payable, and accrued liabilities. Subsequent to the sale, the Company provided transition services for billing and accounts receivable collection. The Company completed transition services as of June 30, 2018.

There was no impairment loss recorded on the long-lived assets because the fair value of the assets less cost to sell was higher than the carrying value of the assets.

The details of the discontinued operations within the Statement of Operations are as follows:

	<u>Year Ended December 31,</u>	
	<u>2017</u>	
Revenues	\$	3,725
Cost of revenues		3,974
Gross profit		(249)
Operating expenses:		
Sales and marketing		400
General and administrative		74
Amortization of intangible assets		0
Impairment of intangible assets		0
Restructuring expenses		19
Total operating expenses		493
Operating loss		(742)
Gain on sale		503
Net loss before income taxes		(239)
Benefit for income taxes		(52)
Net loss	\$	<u>(187)</u>

The details of the cash flows for discontinued operations are as follows:

	<u>Year Ended December</u>	
	<u>31,</u>	
	<u>2017</u>	
Cash flows from discontinued operations:		
Operating Activities:		
Net loss	\$	(187)
Gain on sale of assets		(803)
Depreciation		197
Intangible amortization		0
Impairment of intangible assets		0
Deferred tax provision		(53)
Stock compensation		49
Prepaid expenses and other assets		2
Net cash used in operating activities	\$	(795)
Investing Activities:		
Capital expenditures	\$	(16)
Proceeds from sale of assets		1,450
Net cash provided by investing activities	\$	1,434
Net cash flows from discontinued operations:	\$	<u>639</u>

The investing cash flows for the year ended December 31, 2017 includes the proceeds from the sale of assets to Gabe's.

The Company recognized revenue for engineering services under the completed performance method. Most engineering services were delivered in one week or less, and revenue was generally recognized when engineering reports were completed and issued to the customer. For specialized staffing, the Company recognized revenue as services are provided to the customer.

4. Goodwill and Other Intangible Assets

Goodwill

There were no changes to the goodwill of \$3.3 million during 2018 or 2017. See the goodwill section of Note 1 for more information on the evaluation of goodwill.

Intangible Assets

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

	December 31, 2018			December 31, 2017		
	Cost	Accumulated Amortization	Net Book Value	Cost	Accumulated Amortization	Net Book Value
Customer contracts and relationships	\$ 16,880	\$ 16,880	\$ 0	\$ 16,880	\$ 16,880	\$ 0
Patents and technology	10,114	9,336	778	10,114	8,670	1,444
Trademarks and trade names	4,834	4,607	227	4,834	4,335	499
Other	2,506	2,482	24	2,506	2,336	170
	<u>\$ 34,334</u>	<u>\$ 33,305</u>	<u>\$ 1,029</u>	<u>\$ 34,334</u>	<u>\$ 32,221</u>	<u>\$ 2,113</u>

The Company amortizes intangible assets with finite lives on a straight-line basis over the estimated useful lives, which range from one to six years. In continuing operations, amortization expense was approximately \$1.1 million for the year ended December 31, 2018, and \$1.2 million for the year ended December 31, 2017. Amortization for technology assets is included in cost of revenues and amortization for all other intangible assets is included in operating expenses. For the year ended December 31, 2018, \$0.4 million of the intangible asset amortization was included in operating expenses and \$0.7 million was included in cost of revenues. For the year ended December 31, 2017, \$0.5 million of the intangible asset amortization was included in operating expenses and \$0.7 million was included in cost of goods revenues.

There was no amortization expense in discontinued operations for the year ended December 31, 2018 or December 31, 2017.

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

Intangible Assets	Assigned Life	Weighted Average Amortization Period
Customer contracts and relationships	5 years	5.0
Patents and technology	5 to 6 years	5.1
Trademarks and trade names	5 to 6 years	5.6
Other	1 to 6 years	3.0

The Company's amortization expense for intangible assets is scheduled through the first quarter 2020. The Company's amortization expense over the next three years is as follows:

Fiscal Year	Amount
2019	\$ 885
2020	\$ 144

5. Restructuring

The following table summarizes the Company's restructuring accrual activity for the years ended December 31, 2018, and 2017:

	Lease		
	Severance	Terminations	Total
Balance at January 1, 2017	\$ 6	\$ 190	\$ 196
Restructuring expense	(1)	20	19
Payments/charges	(5)	(94)	(99)
Balance at December 31, 2017	0	116	116
Payments/charges	0	(39)	(39)
Balance at December 31, 2018	<u>\$ 0</u>	<u>\$ 77</u>	<u>\$ 77</u>

There were no expenses reported as restructuring in 2018. The restructuring expense for the year ended December 31, 2017 is included in the net loss from discontinued operations.

The restructuring liability is recorded on the balance sheet at December 31, 2018 and 2017 as follows:

	December 31, 2018	December 31, 2017
Accrued liabilities	\$ 33	\$ 35
Long-term liabilities	44	81
	<u>\$ 77</u>	<u>\$ 116</u>

Discontinued Operations

During the first quarter 2016, the Company reduced headcount related to Engineering Services and exited from its Colorado office in order to consolidate facility space. The Company signed a sublease for the office space in the second quarter 2017 and adjusted the net amount due for the lease. In July 2017, the Engineering Services business was sold to Gabe's Construction and the activity related to Engineering Services is reported as discontinued operations. The obligation for the Colorado lease was retained by the Company. See Note 3 for additional information related to discontinued operations.

The following table summarizes the minimum lease payments and sublease payments under the lease agreements for the Colorado office:

Year	Lease Payments	Sublease Payments
2019	122	88
2020	93	59
Total	<u>\$ 215</u>	<u>\$ 147</u>

6. Income Taxes

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

	Years Ended December 31,	
	2018	2017
Domestic	\$ (5,033)	\$ 917
Foreign	(29)	621
	<u>\$ (5,062)</u>	<u>\$ 1,538</u>

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

	Years Ended December 31,	
	2018	2017
Current:		
Federal	\$ 0	\$ 0
State	32	34
Foreign	(22)	142
	<u>10</u>	<u>176</u>
Deferred:		
Federal	6,337	(1,720)
State	1,333	(878)
Foreign	147	(49)
	<u>7,817</u>	<u>(2,647)</u>
Total	<u>\$ 7,827</u>	<u>\$ (2,471)</u>

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	
	2018	2017
Statutory federal income tax rate	21%	34%
State income tax, net of federal benefit	4%	3%
Tax effect of permanent differences	-1%	-2%
Change in valuation allowance	-182%	-535%
Foreign Income Inclusion	0%	37%
Effective state rate change to deferred tax assets	1%	-11%
Effective Federal rate change to deferred tax assets	0%	326%
Stock Compensation shortfalls	-2%	15%
Release of FIN 48 liability	0%	-8%
Foreign income taxed at different rates	0%	-6%
Tax on repatriation	0%	-7%
Research and development credits	4%	-6%
Return to provision adjustments	0%	-2%
Other	0%	1%
	<u>-155%</u>	<u>-161%</u>

The Company recorded net income tax expense of \$7.8 million for the year ended December 31, 2018. The 2018 effective rate differed from the Federal rate of 21% primarily because the Company recorded a valuation allowance of approximately \$9.2 million, consisting of \$8.9 million for U.S. deferred tax assets and \$0.3 million for China deferred tax assets. The Company increased the valuation allowance for deferred tax assets due to uncertainty regarding the utilization of the deferred tax assets.

The Company recorded an income tax benefit of \$2.5 million for the year ended December 31, 2017. The 2017 effective tax rate differed from the Federal rate of 34% because the Company decreased the valuation allowance for its U.S. deferred tax assets by \$8.2 million, offsetting the net income tax expense of \$5.0 million related to the remeasurement of net deferred tax assets, and the \$0.6 million of income tax expense related to a transition tax on the accumulated unremitted foreign earnings and profits of foreign subsidiaries ("Transition Tax"). The adjustment to the valuation allowance included \$1.4 million to reflect the new corporate tax rate of 21.0%.

On December 22, 2017, the United States federal government enacted 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, provided for a Transition Tax on the accumulated unremitted foreign earnings and profits of foreign subsidiaries, a reduction of the U.S. federal corporate income tax rate from 34% to 21%, and an indefinite carryforward of net operating losses ("NOL's") incurred in 2018 and future periods subject to an 80% annual limitation against future income.

In response to the enactment of the Tax Act in late 2017, the U.S. Securities and Exchange Commission issued 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, companies were allowed to 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.

To determine the amount of the Transition Tax at December 31, 2017, the Company determined, in addition to other factors, the amount of post-1986 earnings and profits of relevant subsidiaries, as well as the amount of non-U.S. income taxes paid on such earnings. The Company recorded provisional income tax expense of \$0.6 million related to the deemed repatriation of the accumulated unremitted earnings and profits of the Company's foreign subsidiaries. The deemed inclusion for the Transition Tax was offset by the 2017 net operating loss included within deferred tax assets. This provisional amount was based on available information, including estimated tax earnings and profits from foreign subsidiaries. The Company increased the Transition Tax \$0.1 million in the fourth quarter 2018 upon completion of its U.S. income tax returns.

The Tax Act also included global intangible low-taxed income ("GILTI") provisions. Under the provisions, a U.S. shareholder of controlled foreign corporations ("CFCs") is required to include in gross income the amount of its GILTI. Generally, the GILTI inclusion is the U.S. shareholder's allocable share of certain income earned through its CFCs ("net CFC tested income") in excess of a deemed 10% return on the shareholder's allocable share of certain of the CFC's depreciable, tangible assets less certain interest expense items ("net deemed tangible income return"). Under U.S. GAAP, the Company is allowed to make an accounting policy choice of either (1) treating taxes due on future U.S. inclusions in taxable income related to GILTI as a current-period expense when incurred (the period cost method) or (2) factoring such amounts into the Company's measurement of its deferred taxes (the deferred method). For the year ended December 31, 2018, the Company included an estimate of the expected 2018 GILTI income tax expense under the period cost method. The amount included for GILTI did not have a significant impact on the Company's tax provision for the year ended December 31, 2018.

For the reduction in the corporate tax rate at December 31, 2017, the Company recorded provisional income tax expense of \$5.0 million associated with the remeasurement of the Company's gross deferred tax assets and an income tax benefit of \$1.4 million associated with a remeasurement of the valuation allowance. These provisional impacts were finalized with the filing of the 2017 income tax returns with minimal impact.

The Company recognizes all interest and penalties as income tax expense. There was no income tax expense related to interest and penalties for the years ended December 31, 2018 or 2017.

Deferred Taxes

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:

	<u>December 31,</u>	
	<u>2018</u>	<u>2017</u>
Deferred Tax Assets:		
Net operating loss carryforwards	\$ 5,725	\$ 3,658
Amortization	3,920	4,508
Federal, foreign, and state credits	1,812	1,627
Inventory reserves	982	949
Stock compensation	982	845
Deferred Gain	875	876
Accrued vacation	240	257
Other	<u>235</u>	<u>635</u>
Gross deferred tax assets	14,771	13,355
Valuation allowance	<u>(14,457)</u>	<u>(5,234)</u>
Net deferred tax asset	314	8,121
Deferred Tax Liabilities:		
Depreciation	(314)	(387)
Net Deferred Tax Assets	<u>\$ 0</u>	<u>\$ 7,734</u>

At December 31, 2018, the Company had gross deferred tax assets of \$14.8 million, deferred tax liabilities of \$0.3 million, and a valuation allowance of \$14.5 million. The deferred tax assets consisted of domestic deferred tax assets of \$14.2 million for and foreign deferred tax assets of \$0.3 million.

At December 31, 2017, the Company had gross deferred tax assets of \$13.4 million, deferred tax liabilities of \$0.4 million, and a valuation allowance of \$5.2 million. The net deferred tax assets at December 31, 2017 consisted of domestic net deferred tax assets of \$7.6 million and foreign net deferred tax assets of \$0.1 million. The net income tax expense related to the remeasurement of the deferred tax assets consisted of income tax expense of \$5.0 million related to gross deferred tax assets and an income tax benefit of \$1.4 million related to the valuation allowance. The most significant balance within the net deferred tax assets at December 31, 2018 and 2017 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.

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 net deferred tax assets consist of assets related to net operating losses and credits as well as assets related to timing differences. The Company's net operating losses and credits have a finite life primarily based on the 20-year carryforward rule for federal NOL's generated as of December 31, 2017. The timing differences have a ratable reversal pattern over 12 years. Under the new rules enacted with the Tax Act, tax losses incurred in 2018 and future periods will not expire, thereby extending the period by which the Company's deferred tax assets can be realized. The Company has recorded pre-tax U.S. losses for the cumulative three-year period ending December 31, 2018 of \$7.9 million.

In accordance with ASC 740 "Accounting for Income Taxes" ("ASC 740"), the Company evaluates deferred income tax assets quarterly to determine if valuation allowances are required or should be adjusted. ASC 740 requires that companies assess whether valuation allowances should be established against their deferred tax assets based on consideration of all available evidence, both positive and negative, using a "more likely than not" standard. At December 31, 2017, the Company had a partial valuation allowance on its deferred tax assets. The Company's positive results in 2017, the impact of selling its Engineering Services business, and the Company's performance versus the 2017 projections supported a partial valuation allowance. However, the Company's losses in 2018 and the cumulative loss position for the past three years, and the Company's performance versus the 2018 projections are considered significant negative evidence that is difficult to overcome on a "more likely than not" standard through objectively verifiable data. While the Company believes its financial outlook remains positive, under the accounting standards objective verifiable evidence will have greater weight than subjective evidence such as the Company's projections for future growth. Based on an evaluation in accordance with the accounting standards, as of December 31, 2018, a valuation allowance of \$8.9 million was recorded against the net U.S. deferred tax assets and a valuation allowance of \$0.3 million has been recorded against the net China deferred tax assets in order to measure the deferred tax assets that are more likely than not to be realized based on the weight of all the available evidence.

Until an appropriate level of profitability is attained, the Company expects to maintain a full valuation allowance on its U.S. net deferred tax assets, and China net deferred tax assets. Any U.S. or China tax benefits or tax expense recorded on its Consolidated Statement of Operations will be offset with a corresponding valuation allowance until such time that the Company changes its determination related to the realization of deferred tax assets. In the event that the Company changes its determination as to the amount of deferred tax assets that can be realized, the Company will adjust its valuation allowance with a corresponding impact to the provision for income taxes in the period in which such determination is made.

The valuation allowance at December 31, 2017 reflected an allowance on deferred tax assets related to expiring net operating losses and credits and no valuation allowance on its deferred tax assets related to timing differences. The Company's adjustment to the valuation allowance at December 31, 2017 included \$1.4 million to reflect the new corporate tax rate of 21.0%.

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. 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,	
	2018	2017
Beginning of period	\$ 700	\$ 870
Addition related to tax positions in current year	30	13
Reversals for uncertain tax positions	0	(183)
End of period	<u>\$ 730</u>	<u>\$ 700</u>

Because the Company has a full valuation allowance against its deferred tax assets, the reversal of these unrecognized tax benefits would have no impact on its effective tax rate. The Company does not anticipate that its unrecognized tax benefits will significantly increase or decrease within the next twelve months.

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 2015 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, 2018, the Company has a federal net operating loss carryforward of \$12.6 million that expires between 2031 and 2037 and a Federal net operating loss carryforward of \$8.1 million with no expiration. The Company has state net operating loss carryforwards of \$19.7 million that expire between 2021 and 2038. Additionally, the Company has \$1.1 million of federal research credits that expire between 2030 and 2038 and \$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 adjusted this amount to reflect the provisional amount calculated from the Transition Tax in 2017. The Company closed this entity in 2018 and expects to repatriate the earnings in 2019. With respect to its subsidiary in China, while the Company recorded income tax related to the deemed dividend of earnings of its China subsidiary, the Company considers such earnings permanently reinvested. Upon repatriation of these earnings, the Company would be subject to local withholding taxes.

7. Commitments and Contingencies

Operating Leases

The Company has operating leases for facilities through 2025 and office equipment through 2023. The future minimum rental payments under these leases at December 31, 2018, are as follows:

Year	Amount
2019	\$ 1,176
2020	518
2021	145
2022	146
2023	131
Thereafter	137
Future minimum lease payments	<u>\$ 2,253</u>

The rent expense under leases was approximately \$1.0 million and \$0.9 million for the years ended December 31, 2018, and 2017, respectively.

Capital Leases

The Company has capital leases for office and manufacturing equipment. As of December 31, 2018, and 2017, the equipment had cost, accumulated depreciation, and a net book value as follows:

	December 31, 2018	December 31, 2017
Cost	\$ 502	\$ 453
Accumulated Depreciation	(287)	(195)
Net Book Value	<u>\$ 215</u>	<u>\$ 258</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
2019	\$ 98
2020	61
2021	48
2022	23
2023	7
Total minimum payments required	237
Less: amount representing interest	14
Present value of net minimum lease payments	<u>\$ 223</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 refund liability was \$0.2 million at December 31, 2018 and 2017 and is included in other accrued liabilities in the accompanying consolidated balance sheets.

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 \$0.3 million at December 31, 2018 and \$0.4 million at December 31, 2017 and is included in other accrued liabilities in the accompanying consolidated balance sheets.

	Year Ended December 31,	
	2018	2017
Beginning balance	\$ 382	\$ 394
Provisions for warranties	65	102
Consumption of reserves	(108)	(114)
Ending balance	<u>\$ 339</u>	<u>\$ 382</u>

8. Shareholders' Equity

Common Stock

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

(share data in thousands)	2018	2017
Beginning of year	17,807	17,335
Issuance of common stock on exercise of stock options net of stock swaps	0	189
Issuance of restricted common stock and performance shares, net of cancellations	415	245
Issuance of common stock from executive bonuses	0	113
Issuance of common stock from purchase of Employee Stock Purchase Plan shares	157	140
Cancellation of stock for withholding tax for vested shares	(108)	(215)
End of Year	<u>18,271</u>	<u>17,807</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, 2018, and 2017, no shares of preferred stock were issued or outstanding.

9. Stock-Based Compensation

Stock Plans

Common Stock Reserved for Future Issuance

At December 31, 2018, the Company had 2,778,502 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,	
	2018	2017
PCTEL Stock Plan	2,583,688	3,298,876
2001 Stock Plan	0	19,600
Employee Stock Purchase Plan	194,814	351,609
Total shares reserved	<u>2,778,502</u>	<u>3,670,085</u>

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

PCTEL 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 PCTEL, Inc. Stock Plan ("Stock Plan") which expires in 2025. Under the Stock Plan, restricted share awards are deducted from the shares available in the Stock Plan at a ratio of 1.78 stock option awards are deducted from the shares available in the Stock Plan at a ratio of 1.0. As of December 31, 2018, options to acquire 423,534 shares were outstanding and a total of 2,160,154 shares remain available for future grants.

2001 Non-Statutory Stock Option Plan

In June 2010, the stockholders approved certain changes to the PCTEL 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 PCTEL Stock Plan. The 2001 Plan terminated in August 2011, and there remain no options to acquire shares at December 31, 2018.

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. The expiration date of the ESPP is the date that all shares authorized have been granted. As of December 31, 2018, the Company had 194,814 shares remaining that can be issued under the Purchase Plan.

Stock-Based Compensation Expense

The consolidated statements of operations include \$3.3 million, and \$3.0 million of stock compensation expense in continuing operations for the years ended December 31, 2018 and 2017, respectively. The Company did not capitalize any stock compensation expense during the years ended December 31, 2018, and 2017.

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

	Years Ended December 31,	
	2018	2017
Service-based awards	\$ 2,618	\$ 2,415
Annual director awards	422	370
Stock option and employee purchase plans	221	220
Total continuing operations	3,261	3,005
Discontinued operations	0	49
Total	<u>\$ 3,261</u>	<u>\$ 3,054</u>

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

	Years Ended December 31,	
	2018	2017
Cost of revenues	\$ 224	\$ 268
Research and development	620	517
Sales and marketing	576	474
General and administrative	1,841	1,746
Total continuing operations	3,261	3,005
Discontinued operations	0	49
Total	<u>\$ 3,261</u>	<u>\$ 3,054</u>

Restricted Stock - Serviced Based

The Company grants service-based restricted shares as employee incentives under the Stock Plan. 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. During the first quarter 2018, the Company issued to employees 420,977 service-based restricted stock awards to employees that vest in three substantially equal annual increments commencing in 2019. During the years ended December 31, 2018, and 2017, 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 31st:

	2018		2017	
	Shares	Weighted Average Fair Value	Shares	Weighted Average Fair Value
Unvested Restricted Stock Awards				
Beginning of year	828,576	\$ 5.66	1,120,960	\$ 5.83
Shares awarded	486,975	6.92	337,786	6.13
Shares vested	(392,975)	5.93	(527,657)	6.27
Shares cancelled	(83,609)	6.14	(102,513)	5.92
End of year	<u>838,967</u>	<u>\$ 6.21</u>	<u>828,576</u>	<u>\$ 5.66</u>

The intrinsic values of service-based restricted shares that vested were \$2.2 million and \$3.3 million during the years ended December 31, 2018, and 2017, respectively.

As of December 31, 2018, the unrecognized compensation expense related to the unvested portion of the Company's restricted stock was approximately \$2.6 million, to be recognized through 2021 over a weighted average period of 1.5 years.

Restricted Stock Units – Service Based

The Company grants service-based restricted stock units as employee incentives under the Stock Plan. 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 31st:

Unvested Restricted Stock Units	2018		2017	
	Shares	Weighted Average Fair Value	Shares	Weighted Average Fair Value
Beginning of year	31,800	\$ 5.47	36,388	\$ 5.57
Units awarded	5,500	7.05	5,000	5.97
Units vested/Shares awarded	(11,587)	5.35	(9,588)	6.13
Units cancelled	(7,075)	6.90	0	0.00
End of year	18,638	\$ 5.66	31,800	\$ 5.47

The intrinsic values of service-based restricted stock units that vested were \$61 and \$60, during the years ended December 31, 2018, and 2017, respectively.

The Company recorded stock compensation expense of \$2 and \$65 for restricted stock units in the years ended December 31, 2018, and 2017, respectively. As of December 31, 2018, the unrecognized compensation expense related to the unvested portion of the Company's restricted stock units was \$0.1 million to be recognized through 2021 over a weighted average period of 1.2 years.

Stock Options

The Company may grant stock options to purchase common stock to new employees under the Stock Plan. 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. The Company grants stock options with a seven-year life. The Company granted 2000 stock options during 2018 and no stock options were granted during 2017.

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

	2018		2017	
	Options Outstanding	Weighted Average Exercise Price	Options Outstanding	Weighted Average Exercise Price
Beginning of Year	470,484	\$ 7.24	825,561	\$ 7.30
Options granted	2,000	6.98	0	0.00
Options exercised	0	0.00	(211,044)	7.09
Options forfeited	(2,793)	5.13	(103,381)	8.24
Options cancelled/expired	(46,157)	8.21	(40,652)	6.70
End of Year	423,534	\$ 7.15	470,484	\$ 7.24
Exercisable	417,385	\$ 7.17	458,698	\$ 7.28

During the year ended December 31, 2017, the Company received proceeds of \$1.5 million from the exercise of 211,044 options. The intrinsic value of these options exercised was \$128. There were no exercises during the year ended December 31, 2018.

The range of exercise prices for options outstanding and exercisable at December 31, 2018, was \$5.00 to \$8.32. 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	
\$ 5.00 — \$ 7.15	19,189	3.19	\$ 6.03	13,407	\$ 6.17	
7.16 — 7.19	291,140	0.88	7.16	291,140	7.16	
7.20 — 7.22	97,705	1.21	7.22	97,705	7.22	
7.23 — 8.32	15,500	2.38	7.83	15,133	7.83	
\$ 5.00 — \$ 8.32	423,534	1.12	\$ 7.15	417,385	\$ 7.17	

The weighted average contractual life and intrinsic value at December 31, 2018, was the following:

	Weighted Average Contractual Life (years)	Intrinsic Value
Options Outstanding	1.12	\$ 0.00
Options Exercisable	1.06	\$ 0.00

The intrinsic value is based on the share price of \$4.29 at December 31, 2018.

The Company calculated the fair value of stock options granted on the date of grant using the Black-Scholes option-pricing model based upon the following assumptions:

	2018
Dividend yield	3.2%
Risk-free interest rate	2.4%
Expected volatility	33%
Expected life (in years)	3.7

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 a remaining term that approximates the expected life of the options granted. The Company calculated the volatility based on a five-year historical period of the Company's stock price. The expected life used for options granted was based on historical data of employee exercise performance. The Company records expense based on the grading vesting method.

As of December 31, 2018, the unrecognized compensation expense related to the unvested portion of the Company's stock options was approximately \$3, to be recognized through 2021 over a weighted average period of 1.4 years.

Short-Term Incentive Plan

In March 2017, the Company awarded 112,986 shares to certain executives and key managers for the Company's 2016 Short-Term Incentive ("STIP"). 100% of the 2017 STIP was paid in cash. Incentive awards earned by certain executives and key managers under the Company's 2018 STIP were to be settled 50% in cash and 50% in shares of the Company's stock, but none of the performance thresholds were met.

Performance-based Equity Awards

The Company granted performance awards to executives in 2014 and 2015 as long-term incentives. These long-term incentive plans ("LTIPs") had four-year revenue goals to encourage long-term growth with a penalty if certain profit levels were not maintained. Each four-year period was divided into two interim periods (each an "Interim Period"), the first ending in 2015 and 2016, respectively and the second ending in 2017 and 2018, respectively. The LTIPs were designed so that at the end of each Interim Period, the participants would receive an equity award if the Company's actual revenue at the conclusion of the Interim Period exceeds the Interim Period threshold. The equity award increased in a linear progression as the Company's revenue for the Interim Period increased. The fair value of these performance awards was calculated based on the stock price on the date of grant and stock compensation expense is amortized over the performance period for these awards based on estimated achievement of the goals.

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

	2018		2017	
	Awards	Weighted Average Fair Value	Awards	Weighted Average Fair Value
Unvested Performance Units - at Target				
Beginning of Year	110,500	\$ 7.49	296,500	\$ 7.95
Units cancelled	(110,500)	7.49	(186,000)	8.22
End of Year	<u>0</u>	<u>\$ 0.00</u>	<u>110,500</u>	<u>\$ 7.49</u>

At the award date, the number of shares that could be earned collectively by all participants at target was 424,000. The Company did not meet the revenue threshold for either Interim Period and accordingly there was no award under the 2015 LTIP in the years ended December 31, 2016 or December 31, 2018.

At the award date, the number of shares that could be earned collectively by all participants at target was 380,000. The Company did not meet the revenue thresholds for revenue threshold for either Interim Period and accordingly there was no award under the 2014 LTIP the years ended December 31, 2015 or 2017.

The performance-based awards cancelled during 2018 consisted of 88,000 awards that were not earned under the second Interim Period of the 2015 LTIP related to the 2018 Interim Period and 22,500 awards related to terminated employees. The awards cancelled during 2017 consisted of 102,500 awards that were not earned the second Interim Period of the 2014 LTIP and 83,500 awards related to terminated employees.

The number of awards presented in the table above is based on achievement at target.

Employee Stock Purchase Plan

The following summarizes the ESPP activity during the years ended December 31, 2018 and 2017:

	2018		2017	
	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
Granted	156,795	1.49	139,601	1.41
Vested	(156,795)	1.49	(139,601)	1.41
Outstanding, end of year	<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 each of the years ended December 31, 2018, and 2017, respectively.

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

	<u>Employee Stock Purchase Plan</u>	
	<u>2018</u>	<u>2017</u>
Dividend yield	3.2%	3.5%
Risk-free interest rate	2.1%	1.1%
Expected volatility	33%	34%
Expected life (in years)	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 Company calculated the volatility based on a five-year historical period of the Company's stock price. The expected life used was based on the offering period.

Board of Director Equity Awards

The Company grants equity awards under the Stock Plan 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. In addition, new directors receive a one-time grant of \$55 paid in service-based restricted shares which vest in equal annual increments over three years. During the year ended December 31, 2018, one new director received 7,246 shares with a fair value of \$50 vesting over three years. During the year ended December 31, 2018, the Company issued to directors 63,897 shares of the Company's stock with a fair value of \$0.4 million which vested immediately. During the year ended December 31, 2017, the Company issued to directors 52,786 shares of the Company's stock with a fair value of \$0.4 million which vested immediately.

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, if paid in the Company's stock, for the value of the statutory withholding taxes. For each individual receiving a stock 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 \$0.6 million during the year ended December 31, 2018 and \$1.3 million during the year ended December 31, 2017.

10. Product Line, Customer and Geographic Information

The following tables are the product line revenues and gross profits for the years ended December 31, 2018, and 2017:

	<u>Year Ended December 31, 2018</u>			
	<u>Antenna Products</u>	<u>Test & Measurement</u>	<u>Corporate</u>	<u>Total</u>
REVENUES	\$ 66,328	\$ 16,733	\$ (82)	\$ 82,979
GROSS PROFIT	\$ 20,157	\$ 10,883	\$ 41	\$ 31,081

	<u>Year Ended December 31, 2017</u>			
	<u>Antenna Products</u>	<u>Test & Measurement</u>	<u>Corporate</u>	<u>Total</u>
REVENUES	\$ 68,612	\$ 23,019	\$ (194)	\$ 91,437
GROSS PROFIT	\$ 22,439	\$ 16,354	\$ 18	\$ 38,811

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

Region	Years Ended December 31,	
	2018	2017
Asia Pacific	15%	17%
Europe, Middle East, & Africa	12%	9%
Other Americas	4%	5%
Total Foreign sales	31%	31%
Total Domestic sales	69%	69%
	100%	100%

There were no customers that accounted for 10% or more of revenues during the years ended December 31, 2018, and 2017.

The following table represents the customers that accounted for 10% or more of total trade accounts receivable at December 31, 2018 and 2017.

Trade Accounts Receivable	As of December 31,	
	2018	2017
Customer A	13%	12%

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

	December 31,	
	2018	2017
United States	\$ 15,153	\$ 23,938
All Other	1,391	1,682
	\$ 16,544	\$ 25,620

11. 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 matches 100% of the employee's elective deferrals up to 4% of their compensation. The Company may make discretionary contributions to the 401(k) plan but there were no discretionary contributions during the years ended December 31, 2018 or 2017. The Company also contributes to various defined contribution retirement plans for foreign employees. The defined contribution for foreign employees is primarily related to contributions for employees of the Company's China subsidiary.

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

	December 31,	
	2018	2017
PCTEL, Inc. 401(k) profit sharing plan - US employees	\$ 681	\$ 627
Defined contribution plans - foreign employees	527	446
Total	\$ 1,208	\$ 1,073

12. Quarterly Data (Unaudited)

	Quarters Ended,			
	March 31, 2018	June 30, 2018	September 30, 2018	December 31, 2018
Revenues	\$ 21,731	\$ 21,582	\$ 18,426	\$ 21,240
Gross profit	7,864	7,799	6,721	8,697
Operating loss	(1,221)	(1,602)	(2,378)	(425)
Loss before income taxes	(1,170)	(1,393)	(2,152)	(347)
Net loss	<u>\$ (858)</u>	<u>\$ (1,226)</u>	<u>\$ (1,670)</u>	<u>\$ (9,135)</u>
Net loss per share:				
Basic	\$ (0.05)	\$ (0.07)	\$ (0.10)	\$ (0.53)
Diluted	\$ (0.05)	\$ (0.07)	\$ (0.10)	\$ (0.53)
Weighted Average Shares:				
Basic	17,056	17,142	17,234	17,361
Diluted	17,056	17,142	17,234	17,361

	Quarters Ended,			
	March 31, 2017	June 30, 2017	September 30, 2017	December 31, 2017
Revenues	\$ 22,970	\$ 21,501	\$ 23,665	\$ 23,301
Gross profit	9,454	8,962	10,150	10,245
Operating income (loss)	24	(339)	893	855
Income (loss) before income taxes	50	(325)	927	886
Net income (loss) from continuing operations	184	(185)	721	3,289
Net income (loss) from discontinued operations	(214)	(168)	234	(39)
Net income (loss)	<u>\$ (30)</u>	<u>\$ (353)</u>	<u>\$ 955</u>	<u>\$ 3,250</u>
Net income (loss) per share from continuing operations:				
Basic	\$ 0.01	\$ (0.01)	\$ 0.04	\$ 0.19
Diluted	\$ 0.01	\$ (0.01)	\$ 0.04	\$ 0.19
Net income (loss) per share from discontinued operations:				
Basic	\$ (0.01)	\$ (0.01)	\$ 0.02	\$ 0.00
Diluted	\$ (0.01)	\$ (0.01)	\$ 0.02	\$ 0.00
Net income (loss) per share:				
Basic	\$ 0.00	\$ (0.02)	\$ 0.06	\$ 0.19
Diluted	\$ 0.00	\$ (0.02)	\$ 0.06	\$ 0.19
Weighted Average Shares:				
Basic	16,340	16,534	16,757	16,926
Diluted	16,340	16,534	17,065	17,299

13. Accumulated Other Comprehensive Income

Accumulated other comprehensive (loss) income of \$(216) and \$54 at December 31, 2018 and December 31, 2017, respectively, consists of foreign currency translation adjustments.

14. Revenue from Contracts with Customers

Under Topic 606, a contract with a customer is an agreement which both parties have approved, that creates enforceable rights and obligations, has commercial substance, and has identified payment terms, and for which collectability is probable. Once the Company has entered into a contract, it is evaluated to identify performance obligations. For each performance obligation, revenue is recognized as control of promised goods or services transfers to the customer in an amount that reflects the consideration the Company expects to receive in exchange for those goods or services. The amount of revenue recognized takes into account variable consideration, such as returns and volume rebates. A majority of the Company's revenue is short cycle in nature with shipments within one year from order. The Company's payment terms generally range between 30 to 90 days.

All of the Company's revenue relates to contracts with customers. The Company's accounting contracts are from purchase orders or purchase orders combined with purchase agreements. The majority of the Company's revenue is recognized on a "point-in-time" basis and a nominal amount of revenue is recognized "over time". For the sale of antenna products and test and measurement products, the Company satisfies its performance obligations generally at the time of shipment, or upon delivery based on the contractual terms with its customers. For products shipped on consignment, the Company recognizes revenue upon delivery from the consignment location. For its test and measurement software tools, the Company has a performance obligation to provide software maintenance and support for one year. The Company recognizes revenues for the maintenance and support over this period.

The Company considers shipping and handling performed by the Company as fulfillment activities. Amounts billed for shipping and handling are included in revenues, while costs incurred for shipping and handling are included in cost of revenues. The Company excludes taxes from the transaction price. Cost of contracts include sales commissions. The Company expenses the cost of contracts when incurred because the amortization period is one year or less.

For the test and measurement product line, performance obligations for the sale of products and software licenses are satisfied at a point in time and the performance obligations for post contract support ("PCS"), extended warranties, and data storage are satisfied over time. If there is no standalone selling price for the performance obligations satisfied over time, the Company uses a market assessment approach for the standalone selling price. This standalone selling price is consistent for all customers.

Antenna product line sales have either contract pricing or negotiated prices on individual purchase orders. There is variable consideration related to specific customers or orders that impacts the stand-alone selling price including right of return, rebate incentives, or quantity-based pricing.

The Company allows its major distributors and certain other customers to return unused product under specified terms and conditions. The Company estimates product returns based on historical sales and return trends and records a corresponding refund liability. The refund liability was \$0.2 million at December 31, 2018 and December 31, 2017 and is included within accrued liabilities on the accompanying condensed consolidated balance sheets. Additionally, the Company recorded an asset based on historical experience for the amount of product expected to be returned to inventory as a result of the return, which is recorded in inventories in the condensed consolidated balance sheets. The product return asset was \$0.1 million at December 31, 2018 and December 31, 2017.

There were no contract assets at December 31, 2018 or December 31, 2017. The Company records contract liabilities for deferred revenue and customer prepayments. Contract liabilities are recorded in accrued liabilities in the condensed consolidated balance sheets. The contract liability was \$0.2 million and \$0.3 million at December 31, 2018 and December 31, 2017, respectively. The Company recognized revenue of \$0.2 million and \$0.2 million during the years ended December 31, 2018, and December 31, 2017 respectively, related to contract liabilities at the beginning of the period.

15. 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. On January 18, 2019, the Company entered into a new lease for 21,030 square feet of office space in Clarksburg, Maryland commencing January 1, 2020. The lease term ends on February 28, 2031. Total lease payments are \$5.0 million. The Company will relocate its operations from its Germantown, Maryland facility to the new facility in Clarksburg, Maryland in January 2020.

There were no additional subsequent events or transactions that required recognition or disclosure in the consolidated financial statements

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, 2018. 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, 2018, 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 required by this Item 10 will be included in PCTEL's proxy statement for the 2019 Annual Meeting of Stockholders under the captions "Proposal #1 Election of Directors," "Name Executive Officers," "Section 16(a) Beneficial Ownership Reporting Compliance," and "Corporate Governance" and is incorporated by reference herein. The proxy statement 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.

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 this Item 11 will be included in PCTEL's proxy statement for the 2019 Annual Meeting of Stockholders under the captions "Executive Compensation and Other Matters," "Compensation of Directors," and "Compensation Committee Interlocks," and is incorporated by reference herein.

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

The information required by this Item 12 will be included in PCTEL's proxy statement for the 2019 Annual Meeting of Stockholders under the captions under the caption "Security Ownership of Certain Beneficial Owners and Management" and "Equity Compensation Plan Information" and is incorporated by reference herein.

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

The information required by this Item 13 will be included in PCTEL's proxy statement for the 2019 Annual Meeting of Stockholders under the captions "Certain Relationships and Related Person Transactions" and "Corporate Governance" and is incorporated by reference herein.

Item 14: Principal Accountant Fees and Services

The information required by this Item 14 will be included in PCTEL's proxy statement for the 2019 Annual Meeting of Stockholders under the captions "Summary of Fees" of Proposal #3 and "Pre-Approval of Independent Auditor Services and Fees" 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 24 to 58.

(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 two fiscal years ended December 31, 2018.

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, 2017:				
Allowance for doubtful accounts	\$ 273	55	(9)	\$ 319
Warranty reserves	\$ 394	102	(114)	\$ 382
Deferred tax asset valuation allowance	\$ 13,300	(8,236)	170	\$ 5,234
Year Ended December 31, 2018:				
Allowance for doubtful accounts	\$ 319	265	(521)	\$ 63
Warranty reserves	\$ 382	65	(108)	\$ 339
Deferred tax asset valuation allowance	\$ 5,234	9,223	0	\$ 14,457

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 below 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.

<u>Exhibit No.</u>	<u>Description</u>	<u>Reference</u>
2.1	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.
2.2	Asset Purchase Agreement, dated July 31, 2017, by and between PCTEL and Gabe's Construction Co., Inc.	Incorporated by reference to Exhibit Number 10.1 filed with the Registrant's Current Report on Form 8-K filed on August 4, 2017
3.1	Amended and Restated Certificate of Incorporation of PCTEL, Inc. (P)	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	Filed Herewith
4.1	Specimen common stock certificate (P)	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 (P)	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 John Schoen and the Registrant, amended and restated December 11, 2008	Incorporated by reference to Exhibit Number 10.3 filed with the Registrant's Current Report on Form 8-K on November 7, 2018.
10.3	* Form of Severance Benefits Letter	Incorporated by reference to Exhibit Number 10.1 filed with the Registrant's Current Report on Form 8-K on November 7, 2018.
10.4	* Form of 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.
10.5	* Employee Stock Purchase Plan, as amended and restated June 10, 2014	Incorporated by reference from Appendix A to the Registrant's Definitive Proxy Statement on Schedule 14A filed April 30, 2014.
10.6	* PCTEL, Inc., 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.
10.7	* Employment Agreement dated December 5, 2016 between PCTEL, Inc. and David A. Neumann	Incorporated by reference to Exhibit Number 10.15 filed with the Registrant's Annual Report on Form 10-K for fiscal year ended December 31, 2017.
10.8	* Amended and Restated Management Retention Agreement dated April 9, 2013 between PCTEL, Inc. and David A. Neumann	Incorporated by reference to Exhibit Number 10.16 filed with the Registrant's Annual Report on Form 10-K for fiscal year ended December 31, 2017.
10.8.1	* First Amendment to Amended and Restated Management Retention Agreement dated December 13, 2016 between PCTEL, Inc. and David A. Neumann	Incorporated by reference to Exhibit Number 10.16.1 filed with the Registrant's Annual Report on Form 10-K for fiscal year ended December 31, 2017.
10.9	* Form of Management Retention Agreement	Filed Herewith

Exhibit No.	Description	Reference
10.10	* Separation Agreement and Release dated November 9, 2018 between PCTEL, Inc. and John Schoen	Filed Herewith
10.11	* FY 2018 Sales Compensation Agreement dated February 11, 2018 between PCTEL, Inc. and Arnt Arvik	Filed Herewith
10.11.1	* First Amendment to FY 2018 Sales Compensation Agreement dated September 20, 2018 between PCTEL, Inc. and Arnt Arvik	Filed Herewith
10.12	* FY 2019 Amended and Restated Sales Compensation Plan dated March 15, 2019 between PCTEL, Inc. and Arnt Arvik	Filed Herewith
10.13	* PCTEL, Inc. Long-Term Incentive Award Agreement dated February 6, 2019	Filed Herewith
10.14	* Lease Agreement between FP Gateway 270, LLC (Landlord) and PCTEL, Inc. (Tenant)	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
24	Power of Attorney	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
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.

(P) Paper Filing

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 18, 2019

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 18, 2019
<u>/s/ KEVIN MCGOWAN</u> (Kevin McGowan)	Chief Financial Officer (Principal Financial and Accounting Officer)	March 18, 2019
<u>/s/ CINDY K. ANDREOTTI</u> (Cindy K. Andreotti)	Director	March 18, 2019
<u>/s/ GINA HASPILAIRE</u> (Gina Haspilaire)	Director	March 18, 2019
<u>/s/ CYNTHIA KEITH</u> (Cynthia Keith)	Director	March 18, 2019
<u>/s/ STEVEN D. LEVY</u> (Steven D. Levy)	Director	March 18, 2019
<u>/s/ GIACOMO MARINI</u> (Giacomo Marini)	Director	March 18, 2019
<u>/s/ M. JAY SINDER</u> (M. Jay Sinder)	Director	March 18, 2019



CORPORATE INFORMATION

BOARD OF DIRECTORS

David A. Neumann
Chief Executive Officer
PCTEL, Inc.

Cindy K. Andreotti
President and CEO
The Andreotti Group

Gina Haspilaire
Chief Human Resources Officer
Reliance Communications Ltd. (Enterprise)
and Global Cloud Xchange

Cynthia A. Keith
Retired Partner
PricewaterhouseCoopers, LLP

Steven D. Levy
Chairman of the Board, PCTEL, Inc.
Retired Lehman Brothers Executive

Giacomo Marini
Chairman
Noventi LLC

M. Jay Sinder
General Manager
Verint ForeSee a division of Verint Americas Inc.

ELECTED OFFICERS

David A. Neumann
Chief Executive Officer

Arnt Arvik
Vice President and Chief Sales Officer

Shelley J. Bacastow
Vice President and General Counsel

Rishi Bharadwaj
Senior Vice President and Chief Operating Officer

Kevin McGowan
Vice President and Chief Financial Officer

Sumeet Paul
Vice President and Chief Information Officer

Les W. Sgnilek
Vice President Corporate Resources
and Chief Risk Officer

TRANSFER AGENT

Equiniti Trust Company
1110 Centre Pointe Curve, Suite 101
Mendota Heights, MN 55120
Tel: 1.855.217.6361

INDEPENDENT PUBLIC ACCOUNTANTS

Grant Thornton LLP
Chicago, IL

ANNUAL MEETING

The Annual Meeting of Stockholders
will be held at 4:00 p.m. on
May 29, 2019, at the
Corporate Offices of PCTEL
located at:
471 Brighton Drive
Bloomington, IL 60108 U.S.A.

INVESTOR RELATIONS

For further information on the Company,
additional copies of the Form 10-K
filed with the Securities and Exchange
Commission, or other financial
information, please contact:

PCTEL, Inc.
471 Brighton Drive
Bloomington, IL 60108 U.S.A.
Tel: 1.630.372.6800
Fax: 1.630.372.8077

You may also contact us by sending
an e-mail to:
investorrelations@pctel.com
or by visiting our web site at
www.pctel.com

GLOBAL HEADQUARTERS

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OTHER OFFICES

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Tel: 1.301.515.0036
Fax: 1.301.515.0037

787 White Pond Drive, Suite A
Akron, OH 44320
Tel: 1.630.372.6800

First Floor No. 3 Building, Block B,
C&W Electronics Park
14 Jiu Xian Qiao Road
Chao Yang District
Beijing, China 100015
Tel: 86.10.64362066
Fax: 86.10.64376752

PengAn Road 3#
PengAn Industrial Park
Beichen District, Tianjin City
PR China
Tel: 86.22.2666.6741
Fax: 86.22.2666.7439

