

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, 2019

OR

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

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission File Number 000-27115

**PCTEL, Inc.**

(Exact Name of Registrant as Specified in Its Charter)

Delaware  
(State or Other Jurisdiction of  
Incorporation or Organization)  
471 Brighton Drive,  
Bloomington IL  
(Address of Principal Executive Office)

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

60108  
(Zip Code)

(630) 372-6800

(Registrant's Telephone Number, Including Area Code)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, \$.001 Par Value Per Share	PCTI	The Nasdaq Global Select Market

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

None

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

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

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

Indicate by checkmark whether the registrant has submitted electronically 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 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, 2019, the last business day of the registrant's most recently completed second fiscal quarter, there were 18,492,276 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 28, 2019) was approximately \$81,920,783. 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.

18,772,240 shares of common stock were issued and outstanding as of March 12, 2020.

**Documents Incorporated by Reference**

Certain sections of the registrant's definitive proxy statement relating to its 2020 Annual Stockholders' Meeting to be held on May 27, 2020 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”) is a leading global supplier of wireless network antenna and test solutions. We design and manufacture precision antennas and provide test & measurement products that improve the performance of wireless networks globally. Our products address three market segments: Enterprise Wireless, Intelligent Transportation, and Industrial Internet of Things (“IoT”). Our 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. Our test & measurement tools improve the performance of wireless networks globally. Mobile operators, neutral hosts, and network equipment manufacturers rely on our products to analyze, design, and optimize next generation wireless 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 was incorporated in California in 1994 and reincorporated in Delaware in 1998. Our principal executive offices are located at 471 Brighton Drive, Bloomingdale, Illinois 60108. Our telephone number at that address is (630) 372-6800 and our website is [www.pctel.com](http://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, mobile antenna design, manufacturing, and product quality and testing. We seek out product applications that command a premium for product design and performance, and we avoid commodity markets. Our antennas are primarily sold to original equipment manufacturer (“OEM”) providers where they are designed into the customer’s solution.

**Test & Measurement Products** PCTEL provides radio frequency (“RF”) test & measurement tools that improve the performance of wireless networks globally, with a focus on LTE, public safety, and 5G technologies. Network operators, neutral hosts, and equipment manufacturers rely on our scanning receivers and testing solutions 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 & 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 or to OEMs who integrate our products into their solutions which are then sold to wireless carriers.

## Major Customers

There were no customers that accounted for 10% or more of revenues during the years ended December 31, 2019, and 2018.

The following table represents customers that accounted for 10% or more of total trade accounts receivable at December 31, 2019 and 2018:

Trade Accounts Receivable	As of December 31,	
	2019	2018
Customer A	15%	9%
Customer B	11%	1%
Customer C	8%	13%

## 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. The February 2020 work stoppage at our manufacturing facility in Tianjin, China, and at our contract manufacturers' facilities, as a result of the COVID-19 outbreak, will increase the backlog of customer purchase orders for the near future.

## 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 other 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 2019, the Company increased the headcount in its marketing department to centralize and focus its marketing efforts. The Company's sales function is managed under the Chief Sales Officer who has primary responsibility for revenue generation and oversight of the worldwide sales force. 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

We have historically done final assembly of most of our antenna products in-house at our facilities in Tianjin, China, and Bloomingdale, Illinois. In order to optimize the cost structure of our antenna product line, increase our competitiveness, and reduce our fixed costs in China, we are in the process of transitioning several product lines from our Tianjin facility to contract manufacturers in China and elsewhere. We expect to be substantially complete with the transition by the end of fiscal year 2020. We do final assembly of all of our test & measurement product in-house at our facility in Clarksburg, Maryland.

By transitioning some of our manufacturing to multiple contract manufacturers with a variety of expertise, we avoid becoming dependent on any specific contract manufacturer. If any contract manufacturer is unable to provide timely or satisfactory services for us, our other contract manufacturers will be available, provided, however, that transitioning production to a different contract manufacturer could cause delays, disruption and additional costs that could negatively impact timely delivery of our products and our earnings therefrom. 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 6 for information on purchase commitments.

## Employees

As of December 31, 2019, we had 331 full-time equivalent employees, consisting of 197 in operations, 55 in research and development, 48 in sales and marketing, and 31 in general and administrative functions. Total full-time equivalent employees were 454 at December 31, 2018. Headcount decreased by 123 during 2019 primarily due to a reduction in operations headcount in our Tianjin facility. The headcount reduction in the Tianjin facility resulted from the transition of the final assembly of some of our antenna products to contract manufacturers, as indicated in the section titled "Manufacturing" above, and from decreased demand from some of our China-based

customers, particularly for our small cell products which are manufactured in our Tianjin facility. All 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. During 2019 we negotiated severance arrangements with the Tianjin-based employees. None of our U.S. employees are represented by a labor union.

## **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](http://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](http://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, we must anticipate which technologies are promising and will be adopted by our 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 our long-term competitiveness.

To innovate and solve complex network engineering problems, we have to offer highly competitive compensation in order to attract and retain specific types of engineers and other skilled professionals. In addition, we 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 us from our competitors and may result in a significant loss of business or diminishing margin on our products.

#### **We have significant international operations and face risks related to global public health crises such as the coronavirus epidemic.**

Any outbreaks of contagious diseases and other adverse public health developments in countries where we operate could have a material and adverse effect on our business, financial condition and results of operations. For example, the recent worldwide outbreak of COVID-19 has resulted in significant governmental measures being implemented to control the spread of the virus, including temporary closure of businesses, severe restrictions on travel and the movement of people, and other material limitations on the conduct of business. These measures have resulted in work stoppages and other disruptions at our manufacturing facilities in China as well as the facilities of our suppliers, customers and our contract manufacturers. If our supply chain experiences extended disruptions, we may need to seek alternate sources of supply, which may be more expensive. Alternate sources may not be available or may result in delays in shipments to us from our supply chain and subsequently to our customers, each of which would affect our results of operations. Further, if our customers' businesses are similarly affected, they might delay or reduce purchases from us, which could adversely affect our results of operations. In addition, COVID-19 may result in a widespread health crisis that could adversely affect the economies and financial markets of many countries, resulting in an economic downturn that could affect demand for our products and our end customers' products. The extent to which COVID-19 will impact our business and our financial results will depend on future developments, which are highly uncertain and cannot be predicted.

**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:

- competitors, including foreign government-funded competitors, 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 new participants, such as emerging low-cost Chinese competitors, or as a result of a merger of existing competitors; and
- competitors with 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, whether as a result of the spread of COVID-19 or other factors which limit 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 the 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 and the risk of theft and forced transfer of intellectual property; (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 and in September 2019 additional tariffs were imposed. In January 2020, the U.S. and China entered into a phase 1 trade deal which reduced the tariffs imposed in September 2019 from 15.0% to 7.5%. Currently all of our imports from China are subject to U.S. tariffs ranging from 7.5% to 25.0%. The tariffs apply to the antenna products sent from our facility in Tianjin, China and our China-based contract manufacturers to our U.S.-based customers and components and materials sent from our Tianjin facility and our China-based contract manufacturers to our Bloomingdale, Illinois facility for final assembly. Tariffs impact the gross margin that we earn on sales of our products. We will continue to monitor and adjust prices as necessary and as market conditions permit, but we may not be able to adjust our prices enough to cover the entire cost of the imposed tariffs. The impact of the tariffs on our future revenue and profitability is uncertain. We do not believe these price increases resulted in a significant loss of revenue in 2019. In addition, political uncertainty surrounding international trade disputes and protectionist measures may have a negative effect on customer confidence and spending.

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

We have 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.

The spread of COVID-19 has impacted supply chains worldwide and may impact our ability to produce and sell products. See the risk factor presented under “We have significant international operations and face risks related to global public health crises such as the coronavirus epidemic.”

In addition, in the event that for any reason our suppliers discontinue 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 test & measurement products at our facility in Clarksburg, 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, 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, we must manage our operations to limit the cost of product production, accurately forecast demand for our 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 requires volume production of 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 of new technologies 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 enough 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. While we have engaged experts in cybersecurity to advise us and we have taken protective measures, 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, China 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.

**Risks Related to our Common Stock**

**The trading price of our stock fluctuates, sometimes significantly, based upon a variety of factors, many of which are not under our control.**

Over time, our stock experiences significant changes in price on a percentage basis. The closing price of our common stock on the Nasdaq Global Select Market fluctuated between a high of \$9.03 and a low of \$4.32 during 2019. A variety of factors, many of which are not under of our control influence our stock price, including:

- adverse changes in domestic or global economic conditions, including COVID-19 and recessions
- 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,
- sales of common stock by our stockholders or the Company, and
- repurchases of our common stock 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
Clarksburg, Maryland	21,030	Leased	2019	2031
Beijing, China	11,270	Leased	2016	2020
Akron, Ohio	5,977	Leased	2018	2025
Englewood, Colorado	4,759	Leased/Subleased	2015	2020
Germantown, Maryland *	20,704	Leased	2012	2020

\* lease terminated in February 2020

**Facility Changes**

In January 2019, we entered into an eleven-year lease ending February 28, 2031 for 21,030 square feet of office space in Clarksburg, Maryland for the Company’s test & measurement product line. In January 2020, we completed the move to the new Clarksburg office from our Germantown, Maryland office. The lease for our Germantown facility ended in February 2020. The total lease payments for the eleven-year Clarksburg lease are \$5.0 million and the Company will receive \$1.5 million in tenant improvement incentives.

We will not renew the lease for our office space in Englewood, Colorado. We do expect to renew the leases in Beijing, China and Tianjin, China. With our Tianjin facility lease, we expect to decrease the square footage of the leased space as a result of our transition of manufacturing of high-volume products to contract manufacturers.

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 may be 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, 2019, 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 12, 2020, 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. On November 6, 2019 the Board of Directors approved a share repurchase program pursuant to which the Company may repurchase up to \$7.0 million of its common stock, effective immediately through the end of 2020. Such purchases may be made from time to time at predetermined prices in the open market, by block purchases, in private transactions or otherwise. The repurchases will be funded with cash on hand. Prior to November 2019, the Company did not have a repurchase program in effect pursuant to which the Company could have repurchased shares of its common stock in 2019. The Company did not repurchase any shares of its common stock during 2019.

## 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. This review highlights the principal factors affecting earnings and the significant changes in balance sheet items for the years 2019 and 2018. 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 is a leading global supplier of wireless network antenna and test solutions.

We design and manufacture precision antennas and provides test & measurement products that improve the performance of wireless networks globally. PCTEL products address three market segments: Enterprise Wireless, Intelligent Transportation, and Industrial Internet of Things ("IIoT"). 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"). 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, Panorama, and Taoglas.

PCTEL's test & measurement product provides test & measurement tools that improve the performance of wireless networks globally with a focus on LTE, public safety, and 5G technologies. Network operators, neutral hosts, and equipment manufacturers rely on our scanning receivers and testing solutions to analyze, design, and optimize next generation wireless networks. Revenue growth is driven by the implementation and roll out of new wireless technology standards (i.e. 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 & 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.

### Financial Summary

Revenues were \$90.6 million for the year ended December 31, 2019, an increase of 9.2% from the prior year. By product line, revenues increased to \$28.1 million by \$11.4 million (68%) for test & measurement products and decreased to \$62.7 million by \$3.6 million (5.5%) for antenna products. Gross margins of \$41.5 million were higher by \$10.4 million due to the impact of higher revenues, a higher mix of test & measurement products which have a higher margin than antenna products, and higher gross margin percentages within both product lines compared to 2018. Operating expenses of \$38.7 million increased by \$2.0 million as 2019 included higher incentive compensation expense of \$2.7 million, higher sales commissions of \$0.6 million, and restructuring expense of \$0.5 million, partially offset by lower intangible amortization expense of \$0.2 million and because 2018 included separation costs and other related costs of \$1.0 million associated with headcount with our corporate reorganization. Higher interest income provided additional other income of \$0.4 million in 2019 compared to 2018. The net impact of these changes resulted in income before tax of \$3.8 million in 2019 compared to a loss before tax of \$5.1 million in 2018.

## Results of Operations

Years ended December 31, 2019 and 2018

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

### REVENUES BY PRODUCT LINE

	2019	2019 compared to 2018		2018
		\$ Change	% Change	
Antenna Products	\$ 62,708	\$ (3,620)	-5.5%	\$ 66,328
Test & Measurement Products	28,115	11,382	68.0%	16,733
Corporate	(206)	(124)	not meaningful	(82)
<b>Total</b>	<b>\$ 90,617</b>	<b>\$ 7,638</b>	<b>9.2%</b>	<b>\$ 82,979</b>

Revenues for antenna products and other emerging technologies of \$62.7 million decreased \$3.6 million (5.5%) compared to 2018, as lower revenues for small cell antennas and for Enterprise Wireless applications were partially offset by higher revenues generated by Intelligent Transportation project. The decline in revenues for small cell antennas is primarily due to lower demand from Huawei Technologies Co., Ltd. resulting from restrictions imposed by the U.S. Department of Commerce on sales of certain products to Huawei. The restrictions were unanticipated and negatively impacted our antenna revenue. Revenues from Huawei declined by \$4.5 million for the year ended December 31, 2019 compared to the year ended December 31, 2018. Revenues for antenna products decreased in 2019 in Asia Pacific by approximately \$5.6 million, partially offset by a net increase of \$2.0 million from the Americas and Europe.

Revenues for test & measurement products of \$28.1 million increased by \$11.4 million (68.0%) due to increased demand for products with 5G technology. Revenues increased for test & measurement products in all geographic regions. The roll out of 5G technology drove revenue growth in the U.S., Europe, and in the Asia Pacific region, and test & measurement equipment for public safety applications drove revenue growth in the U.S. market.

### GROSS MARGIN BY PRODUCT LINE

	2019	% of Revenues	2018	% of Revenues
	Antenna Products	\$ 21,841	34.8%	\$ 20,157
Test & Measurement Products	19,640	69.9%	10,883	65.0%
Corporate	31	not meaningful	41	not meaningful
<b>Total</b>	<b>\$ 41,512</b>	<b>45.8%</b>	<b>\$ 31,081</b>	<b>37.5%</b>

The gross margin percentage was 45.8% for the year ended December 31, 2019, an increase of 8.3% compared to 2018. Approximately 3.9% of the gross margin percentage increase was due to a higher mix of test & measurement products in 2019. The proportion of revenues from test & measurement products as a percentage of total revenues increased from 20% in 2018 to 31% in 2019. The remainder of the gross margin percentage increase is due to higher gross margin percentages in both product lines in 2019 compared to 2018. For antenna products, the gross margin percentage increased by 4.4% primarily due to more favorable product mix, but also because 2018 included costs associated with headcount reductions associated with our corporate reorganization in the third quarter 2018. For test & measurement products, the gross margin percentage increased by 4.9% primarily due to volume increase and also due to more favorable product mix.

### CONSOLIDATED OPERATING EXPENSES

	2019	Change	2018	% of Revenues	
				2019	2018
Research and development	\$ 12,272	\$ 421	\$ 11,851	13.5%	14.3%
Sales and marketing	12,254	171	12,083	13.5%	14.6%
General and administrative	13,452	1,097	12,355	14.8%	14.9%
Amortization of intangible assets	219	(199)	418	0.2%	0.5%
Restructuring expenses	507	507	0	0.6%	0.0%
	<b>\$ 38,704</b>	<b>\$ 1,997</b>	<b>\$ 36,707</b>	<b>42.7%</b>	<b>44.2%</b>

**Research and development** expenses increased by \$0.4 million from 2018 to 2019 as expense for incentive compensation was \$0.6 higher in 2019 compared to 2018 offset by a reduction in headcount-related expenses for antenna products in Beijing. 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 full-time equivalent employees in research and development at December 31, 2019 and 2018, 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 increased \$0.2 million from 2018 to 2019 as sales commissions were higher by \$0.7 million and marketing expenses and product management expenses were higher by \$0.2 million, but bad debt expense was lower by \$0.3 million, sales salary expense was lower by \$0.2 million, and 2018 included severance expense of \$0.2 million. We had 48 and 42 full-time equivalent employees in sales and marketing at December 31, 2019 and 2018, 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 increased \$1.1 million from 2018 to 2019. Performance-based incentive compensation expense increased by \$2.2 million for the year ended December 31, 2019, but time-based stock-based compensation declined by \$0.5 million and administrative expenses declined by \$0.1 million for our China operations, and the year ended December 31, 2018 included \$0.5 million related to executive separations. We had 31 and 33 full-time equivalent employees in general and administrative functions at December 31, 2019 and 2018, respectively.

**Amortization of intangible assets** within operating expenses was approximately \$0.2 million and \$0.4 million for the years ended December 31, 2019 and 2018, respectively. Amortization expense decreased by approximately \$0.2 million in 2019 compared to 2018 because certain assets were fully amortized in 2019.

**Restructuring expenses** of \$0.5 million in 2019 consisted of employee severance and payroll related costs associated with the termination of 84 employees in connection with our transition of certain manufacturing activities in our Tianjin, China facility to contract manufacturers. Upon completion of our China transition plan, we anticipate total severance costs to be approximately \$0.9 million incurred by the end of 2020.

### **OPERATING PROFIT (LOSS)**

	2019	% of Revenues	2018	% of Revenues
<b>Total</b>	\$ 2,808	3.1%	\$ (5,626)	-6.8%

Total operating profit increased \$8.5 million for the year ended December 31, 2019 compared to 2018 as the gross margin impact of higher revenues and higher gross margin percentages offset higher operating expenses.

### **OTHER INCOME, NET**

	2019	2018
Interest income	\$ 833	\$ 623
Foreign exchange gains (losses)	130	(77)
Other, net	19	18
	<u>\$ 982</u>	<u>\$ 564</u>
Percentage of revenues	1.1%	0.7%

Other income, net consists of interest income, foreign exchange gains and losses, and interest expense. For the year ended December 31, 2019, interest income increased by \$0.2 million due to higher average investment balances and higher average interest rates. Foreign exchange gains (losses) are due to fluctuations of the Chinese Yuan to the U.S. Dollar.

### **EXPENSE FOR INCOME TAXES**

	2019	2018
Expense for income taxes	\$ 40	\$ 7,827
Effective tax rate	1.1%	-154.6%

The effective tax rate for the year ended December 31, 2019 decreased from the statutory rate of 21.0% by approximately 20% primarily because we have a full valuation allowance on our 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. Our net deferred tax assets consist of assets related to net operating losses and credits as well as assets related to timing differences.

We generated book and tax income during 2019 but our cumulative pre-tax U.S. profit for the three-year period ending December 31, 2019 is \$0.1 million. We incurred significant losses during the year ended December 31, 2018 and we have historically not met our projections. 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, 2019, we maintained a full valuation allowance on our deferred tax assets. We have a valuation allowance of \$13.1 million recorded against our net U.S. deferred tax assets and a valuation allowance of \$0.5 million recorded against our 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, we expect to maintain a full valuation allowance on our U.S. net deferred tax assets, and our 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 we change our 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 its valuation allowance with a corresponding impact to the provision for income taxes in the period in which such determination is made.

The analysis that we 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.

The effective tax rate differed from the statutory rate of 21.0% for the year ended December 31, 2018 by approximately 176% because we recorded an adjustment to our valuation allowance on our deferred tax assets. During the year ended December 31, 2018, we recorded an adjustment to the 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. The adjustment to the valuation allowance reflected an increase to a full valuation allowance from a partial valuation allowance.

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. We completed the accounting in the fourth quarter 2018 upon filing our U.S. Federal tax returns and adjusted 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 the CFC’s depreciable, tangible assets less certain interest expense items (“net deemed tangible income return”). Under U.S. GAAP, we elected to treat taxes due on future U.S. inclusions in taxable income related to GILTI as a current-period expense when incurred (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, 2019 or 2018.

See Note 5 of the consolidated financial statements for more information on income taxes.

## **LIQUIDITY AND CAPITAL RESOURCES**

At December 31, 2019, our cash, cash equivalents, and investments were approximately \$39.7 million, and we had working capital of approximately \$58.2 million. At December 31, 2019 we had \$2.1 million of cash held in China to support our operations in country. This cash cannot be accessed without incurring a local withholding tax rate of 10%. These funds are currently considered permanently reinvested. Our primary source of liquidity is cash provided by operations and a significant balance of cash, with short term swings in liquidity supported 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. In periods of expansion, we 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, 2019 was approximately 2.5% 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 investments. 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 acquisition activity to continue in the future.

Within financing activities, we are a net user of funds. We have historically used funds for quarterly dividends but generated funds from the exercise of stock options and proceeds from the issuance of common stock through the Employee Stock Purchase Plan (“ESPP”). We also periodically repurchase shares of our common stock through share repurchase programs. In November 2019, our Board of Directors approved a share repurchase up to \$7.0 million of our common stock. No shares have been purchased as of the date of this report.

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

The following table is a summary of cash flow activity for the years ended December 31, 2019 and 2018:

	Years Ended December 31,	
	2019	2018
<b>Net cash flow provided by (used in):</b>		
Operating activities	\$ 10,918	\$ 3,943
Investing activities	\$ (3,949)	\$ (1,110)
Financing activities	\$ (4,136)	\$ (4,032)
<b>Net increase (decrease) in cash and cash equivalents</b>	<b>\$ 2,833</b>	<b>\$ (1,199)</b>

#### Operating Activities:

We generated \$10.9 million of funds from operating activities during the year ended December 31, 2019. The cash from operating activities was due to net income of \$3.8 million, the add-back of \$7.9 million for non-cash expenses, offset by changes in operating assets and liabilities of \$0.8 million. We used cash of \$2.8 million for the decrease of accounts payable. Accounts receivable increased by \$1.5 million primarily because revenues were higher in the fourth quarter 2019 by \$1.7 million compared to the fourth quarter 2018. Accrued liabilities were higher by \$2.3 million primarily because the Company’s accrual for its Short-Term Incentive Plan was \$2.6 million at December 31, 2019 and was \$0 at December 31, 2018.

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 because the 2018 Short-Term Incentive Plan liability was \$0. The liability at December 31, 2017 was \$1.7 million.

#### Investing Activities:

Our investing activities used \$3.9 million of cash during the year ended December 31, 2019. Redemptions and maturities of our short-term investments during the year provided \$46.6 million in cash and we rotated \$48.2 million of cash into new short-term investments. We used \$2.3 million of cash for capital expenditures during the year ended December 31, 2019. The capital expenditures during 2019 included \$0.6 million for leasehold improvements for the new Clarksburg, Maryland office.

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.

#### Financing Activities:

We used \$4.1 million of cash for financing activities during the year ended December 31, 2019. We used \$4.1 million for cash dividends paid quarterly during 2019. We received \$1.2 million in proceeds from the purchase of shares through our ESPP. We used \$1.2 million for payroll taxes related to stock-based compensation. The tax payments related to our stock issued for restricted stock awards.

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.

### Contractual Obligations and Commercial Commitments

The following summarizes our contractual obligations at December 31, 2019 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
Facility leases	(a)	\$ 5,660	\$ 306	\$ 1,599	\$ 1,082	\$ 2,673
Future payments for maintenance lease of office equipment	(b)	199	41	124	34	0
Purchase obligations	(c)	7,999	7,948	51	0	0
<b>Total</b>		<b>\$ 13,858</b>	<b>\$ 8,295</b>	<b>\$ 1,774</b>	<b>\$ 1,116</b>	<b>\$ 2,673</b>

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

(b) Future payments for the maintenance 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.

We have a liability related to uncertain positions for income taxes of \$0.8 million at December 31, 2019. We do not know when this obligation will be settled.

### 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 & 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 & measurement products, we satisfy our performance obligations generally at the time of shipment, or upon delivery based on the contractual terms with our customers. For antenna products shipped on consignment, we recognize revenue upon delivery from the consignment location. For our test & 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. We allow our major antenna product distributors to return a limited number 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 net realizable value 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. For service-based equity awards, we amortize stock-based compensation expense over the requisite service period. For performance-based equity awards, we amortize stock-based compensation expense based on the estimated achievement award over the performance period. We record forfeitures as incurred. Stock-based compensation expense is 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 marketplace 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 an international subsidiary located in Tianjin and a representative office located in Hong Kong. Our Tianjin subsidiary has a branch office in Beijing, China. 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.

**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 may consider qualitative factors that would indicate possible impairment. A quantitative fair value assessment is performed at the reporting unit level. 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**

See Note 1 Organization and Summary of Significant Accounting Policies in Item 1 of this Form 10-K for a discussion of recent accounting pronouncements.

### **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, 2019. 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 2019, approximately 4% 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 \$2.1 million of cash in bank accounts in China at December 31, 2019. As of December 31, 2019, we had no intention of repatriating 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 and repatriated the remaining cash of \$0.2 million during the second quarter of 2019.

### 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, 2019 and 2018.

Trade Accounts Receivable	As of December 31,	
	2019	2018
Customer A	15%	9%
Customer B	11%	1%
Customer C	8%	13%

**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, 2019 and 2018, the related consolidated statements of operations, comprehensive income (loss), 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, 2019 and 2018, 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, 2019, 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 13, 2020 expressed “an unqualified opinion”.

### Change in accounting principle

As discussed in Note 7 to the consolidated financial statements, the Company has changed its method of accounting for lease arrangements in 2019 due to the adoption of Accounting Standards Update (ASU) No. 2016-02, *Leases (Topic 842)*.

### 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 13, 2020

## 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, 2019, 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, 2019, 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, 2019, and our report dated March 13, 2020 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 13, 2020

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

	December 31, 2019	December 31, 2018
<b>ASSETS</b>		
Cash and cash equivalents	\$ 7,094	\$ 4,329
Short-term investment securities	32,556	30,870
Accounts receivable, net of allowances of \$104 and \$63 at December 31, 2019 and December 31, 2018, respectively	17,380	15,864
Inventories, net	11,935	12,848
Prepaid expenses and other assets	1,842	1,416
<b>Total current assets</b>	<b>70,807</b>	<b>65,327</b>
Property and equipment, net	11,985	12,138
Goodwill	3,332	3,332
Intangible assets, net	144	1,029
Other noncurrent assets	2,969	45
<b>TOTAL ASSETS</b>	<b>\$ 89,237</b>	<b>\$ 81,871</b>
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Accounts payable	\$ 3,190	\$ 6,083
Accrued liabilities	9,382	5,801
<b>Total current liabilities</b>	<b>12,572</b>	<b>11,884</b>
Long-term liabilities	3,315	381
<b>Total liabilities</b>	<b>15,887</b>	<b>12,265</b>
Stockholders' equity:		
Common stock, \$0.001 par value, 100,000,000 shares authorized, 18,611,289 and 18,271,249 shares issued and outstanding at December 31, 2019 and December 31, 2018, respectively	19	18
Additional paid-in capital	133,954	133,859
Accumulated deficit	(60,305)	(64,055)
Accumulated other comprehensive loss	(318)	(216)
<b>Total stockholders' equity</b>	<b>73,350</b>	<b>69,606</b>
<b>TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY</b>	<b>\$ 89,237</b>	<b>\$ 81,871</b>

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

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

	<b>Years Ended December 31,</b>	
	<b>2019</b>	<b>2018</b>
<b>REVENUES</b>	\$ 90,617	\$ 82,979
<b>COST OF REVENUES</b>	49,105	51,898
<b>GROSS PROFIT</b>	41,512	31,081
<b>OPERATING EXPENSES:</b>		
Research and development	12,272	11,851
Sales and marketing	12,254	12,083
General and administrative	13,452	12,355
Amortization of intangible assets	219	418
Restructuring expenses	507	0
Total operating expenses	38,704	36,707
<b>OPERATING INCOME (LOSS)</b>	2,808	(5,626)
Other income, net	982	564
<b>INCOME (LOSS) BEFORE INCOME TAXES</b>	3,790	(5,062)
Expense for income taxes	40	7,827
<b>NET INCOME (LOSS)</b>	<b>\$ 3,750</b>	<b>\$ (12,889)</b>
<b>Net Income (Loss) per Share:</b>		
Basic	\$ 0.21	\$ (0.75)
Diluted	\$ 0.21	\$ (0.75)
<b>Weighted Average Shares:</b>		
Basic	17,852,968	17,185,657
Diluted	18,158,659	17,185,657
Cash dividend per share	\$ 0.22	\$ 0.22

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



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

	<u>Years Ended December 31,</u>	
	<u>2019</u>	<u>2018</u>
<b>NET INCOME (LOSS)</b>	\$ 3,750	\$ (12,889)
<b>OTHER COMPREHENSIVE LOSS</b>		
Foreign currency translation adjustments	(102)	(270)
<b>COMPREHENSIVE INCOME (LOSS)</b>	<u>\$ 3,648</u>	<u>\$ (13,159)</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.
<b>BALANCE at DECEMBER 31, 2017</b>	\$ 18	\$ 134,505	\$ (51,258)	\$ 54	\$ 83,319
Cumulative-effect adjustment resulting from adoption of ASU 2016-16			92		92
<b>BALANCE at JANUARY 1, 2018</b>	\$ 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)
<b>BALANCE at DECEMBER 31, 2018</b>	\$ 18	\$ 133,859	\$ (64,055)	\$ (216)	\$ 69,606
Stock-based compensation expense	0	4,133	0	0	4,133
Issuance of shares for stock purchase and option plans	1	1,182	0	0	1,183
Cancellation of shares for payment of withholding tax	0	(1,152)	0	0	(1,152)
Dividends paid	0	(4,068)	0	0	(4,068)
Net income	0	0	3,750	0	3,750
Change in cumulative translation adjustment, net	0	0	0	(102)	(102)
<b>BALANCE at DECEMBER 31, 2019</b>	\$ 19	\$ 133,954	\$ (60,305)	\$ (318)	\$ 73,350

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

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

	<b>Years Ended December 31,</b>	
	<b>2019</b>	<b>2018</b>
<b>Operating Activities:</b>		
Net income (loss) from continuing operations	\$ 3,750	\$ (12,889)
Adjustments to reconcile net income (loss) to net cash provided by operating activities:		
Depreciation	2,870	2,806
Intangible asset amortization	885	1,084
Stock-based compensation	4,133	3,261
Loss on disposal/sale of property and equipment	97	19
Restructuring costs	(33)	(39)
Bad debt provision	(2)	265
Deferred tax provision	0	7,817
Changes in operating assets and liabilities, net of acquisitions:		
Accounts receivable	(1,532)	2,362
Inventories	873	(336)
Prepaid expenses and other assets	385	198
Accounts payable	(2,841)	1,095
Income taxes payable	(22)	(3)
Other accrued liabilities	2,263	(1,657)
Deferred revenue	92	(40)
Net cash provided by operating activities	<u>10,918</u>	<u>3,943</u>
<b>Investing Activities:</b>		
Capital expenditures	(2,263)	(2,754)
Proceeds from disposal of property and equipment	0	15
Purchase of investments	(48,245)	(44,591)
Redemptions/maturities of short-term investments	46,559	46,220
Net cash used in investing activities	<u>(3,949)</u>	<u>(1,110)</u>
<b>Financing Activities:</b>		
Proceeds from issuance of common stock	1,183	686
Payment of withholding tax on stock-based compensation	(1,152)	(578)
Principle payments on finance leases	(99)	(125)
Cash dividends	(4,068)	(4,015)
Net cash used in financing activities	<u>(4,136)</u>	<u>(4,032)</u>
Net increase (decrease) in cash and cash equivalents	2,833	(1,199)
Effect of exchange rate changes on cash	(68)	(31)
Cash and cash equivalents, beginning of year	4,329	5,559
<b>Cash and Cash Equivalents, End of Year</b>	<u><u>\$ 7,094</u></u>	<u><u>\$ 4,329</u></u>
<b>Other information:</b>		
Cash paid for income taxes	\$ 34	\$ 41
Cash paid for interest	\$ 9	\$ 11
<b>Non-cash investing and financing information:</b>		
Decreases to additional paid-in capital related to restricted stock	\$ (1,037)	\$ (189)
Issuance of restricted common stock, net of cancellations	\$ 226	\$ 2,276
Recognition of ROU assets under operating leases	\$ 2,116	\$ 0
Recognition of ROU assets under finance leases	\$ 118	\$ 47

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, 2019**  
**(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”) is a leading global supplier of wireless network antenna and testing solutions. PCTEL designs and manufactures precision antennas and provides test & measurement products that improve the performance of wireless networks globally. PCTEL products address three market segments: Enterprise Wireless, Intelligent Transportation, and Industrial Internet of Things (“IIoT”). 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. PCTEL test & measurement tools improve the performance of wireless networks globally. Mobile operators, neutral hosts, and equipment manufacturers rely on PCTEL products 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, performance, and customer service, and avoids commodity markets. Our antennas are primarily sold to original equipment manufacturer (“OEM”) providers where they are designed into the customers’ solution. Competition in the antenna markets is fragmented. Competitors include Airgain, Amphenol, Laird, Panorama, and Taoglas.

**Test & Measurement Products**

PCTEL provides RF test & measurement tools that improve the performance of wireless networks globally, with a focus on LTE, public safety, and 5G technologies. Network operators, neutral hosts, and equipment manufacturers rely on our scanning receivers and testing solutions 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 & 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, Rohde and Schwarz, and Viavi.

**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. For the year ended December 31, 2019, foreign currency transactions resulted in foreign exchange gains of \$0.1 million and for the year ended December 31, 2018, foreign currency transactions resulted in foreign exchange losses of \$0.1 million. Foreign exchange gains and losses are recorded in other income in the consolidated statement of operations.

### **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 cash equivalents and investments consist of the following:

	<b>December 31, 2019</b>	<b>December 31, 2018</b>
Cash	\$ 5,604	\$ 1,485
Cash equivalents	1,490	2,844
Short-term investments	32,556	30,870
	<u>\$ 39,650</u>	<u>\$ 35,199</u>

### **Cash and Cash Equivalents**

At December 31, 2019 and 2018, cash and cash equivalents included bank balances and investments with original maturities less than 90 days. At December 31, 2019 and 2018, the Company's cash equivalents were invested in highly liquid AAA rated money market funds that are required to comply with Rule 2a-7 under the Investment Company Act of 1940. Such funds utilize the amortized cost method of accounting, seek to maintain a constant \$1.00 per share price, and are redeemable upon demand. The Company restricts its investments in AAA money market funds to those invested 100% in either short-term U.S. Government Agency securities or bank repurchase agreements collateralized by these same securities. The fair values of these money market funds are established through quoted prices in active markets for identical assets (Level 1 inputs). The cash in the Company's U.S. banks is insured by the Federal Deposit Insurance Corporation up to the insurable limit of \$250.

At December 31, 2019, the Company had \$2.1 million of cash in bank accounts in China. The Company's cash in these foreign bank accounts is not insured. As of December 31, 2019, 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. At December 31, 2018, the Company had \$0.6 million of cash in bank accounts in China and \$0.2 million of cash in bank accounts in Israel. The Company completed the closure of its Israel subsidiary during the fourth quarter 2018 and repatriated the remaining cash of \$0.2 million during the second quarter of 2019.

## Investments

At December 31, 2019, the Company's short-term investments consisted of A or higher rated corporate bonds and certificates of deposit. 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. All of the investments at December 31, 2019 and 2018 were classified as held-to-maturity.

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

	December 31, 2019			December 31, 2018		
	Level 1	Level 2	Total	Level 1	Level 2	Total
<b>Cash equivalents:</b>						
Corporate bonds	\$ 0	\$ 708	\$ 708	\$ 0	\$ 1,156	\$ 1,156
Money market funds	782	0	782	1,688	0	1,688
Total Cash Equivalents	\$ 782	\$ 708	\$ 1,490	\$ 1,688	\$ 1,156	\$ 2,844
<b>Investments:</b>						
Corporate bonds	0	28,710	28,710	0	21,583	21,583
US government agency bonds	0	0	0	0	5,671	5,671
Certificates of deposit	3,846	0	3,846	3,616	0	3,616
Total Investments	\$ 3,846	\$ 28,710	\$ 32,556	\$ 3,616	\$ 27,254	\$ 30,870
Cash equivalents and Investments - book value	\$ 4,628	\$ 29,418	\$ 34,046	\$ 5,304	\$ 28,410	\$ 33,714
Unrealized gains (losses)	1	(11)	(10)	0	(21)	(21)
Cash equivalents and Investments - fair value	\$ 4,629	\$ 29,407	\$ 34,036	\$ 5,304	\$ 28,389	\$ 33,693

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. There were no Level 3 investments at December 31, 2019 or 2018. The fair values in the table above reflect net unrealized losses of \$10 and \$21 at December 31, 2019 and December 31, 2018, 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 at December 31, 2019 and 2018, 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, 2019 and 2018 were composed of raw materials, work-in-process, and finished goods. The Company had consigned inventory of \$0.3 million and \$0.9 million at December 31, 2019 and 2018, 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 \$3.4 million and \$3.3 million as of December 31, 2019 and 2018, respectively.

Inventories consisted of the following:

	December 31, 2019	December 31, 2018
Raw materials	\$ 6,502	\$ 7,023
Work in process	913	1,388
Finished goods	4,520	4,437
Inventories, net	\$ 11,935	\$ 12,848

## 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 computer equipment and software license 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, 2019	December 31, 2018
Building	\$ 6,389	\$ 6,351
Computers and office equipment	9,847	10,963
Manufacturing and test equipment	14,192	13,573
Furniture and fixtures	1,314	1,318
Leasehold improvements	2,850	1,529
Motor vehicles	20	20
Total property and equipment	34,612	33,754
Less: Accumulated depreciation and amortization	(24,397)	(23,386)
Land	1,770	1,770
Property and equipment, net	<u>\$ 11,985</u>	<u>\$ 12,138</u>

Depreciation and amortization expense were approximately \$2.9 million and \$2.8 million for the years ended December 31, 2019 and 2018, respectively. Amortization for capital leases is included in depreciation and amortization expense. See Note 7 for information related to finance leases.

## Liabilities

Accrued liabilities consisted of the following:

	December 31, 2019	December 31, 2018
Short-term incentive plan	\$ 2,553	\$ 0
Payroll and other employee benefits	1,605	1,409
Inventory receipts	1,431	1,396
Paid time off	855	936
Leasehold improvements	702	0
Warranties	444	339
Operating leases	282	0
Professional fees and contractors	246	346
Deferred revenues	241	149
Employee stock purchase plan	228	343
Real estate taxes	152	148
Customer refunds for estimated returns	147	154
Income and sales taxes	133	186
Finance leases	77	91
Restructuring	45	33
Other	241	271
Total	<u>\$ 9,382</u>	<u>\$ 5,801</u>

Long-term liabilities consisted of the following:

	December 31, 2019	December 31, 2018
Operating leases	\$ 3,021	\$ 0
Finance leases	164	132
Deferred revenue	119	87
Other	11	162
<b>Total</b>	<b>\$ 3,315</b>	<b>\$ 381</b>

### Revenue Recognition

The Company sells antenna products and test & 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 & 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 & 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 \$0.2 million and \$0.1 million during the years ended December 31, 2019, and 2018, respectively.

### Income Taxes

Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases, and 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.

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. The Company had a full valuation allowance of \$13.5 million at December 31, 2019 and of \$14.5 million at December 31, 2018. See Note 5 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 tests, the Company may consider qualitative factors that would indicate possible impairment. A quantitative fair value assessment is also performed at the reporting unit level. If the fair value exceeds the carrying value, then goodwill is not impaired, and no further testing 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, 2019 and at October 31, 2018 for the goodwill of \$3.3 million. The Company performed both a qualitative analysis of goodwill and a 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 dates 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 used for operations during the years ended December 31, 2019, and 2018.

## **Recent Accounting Pronouncements**

In July 2019, the FASB issued ASU 2019-07, Codification Updates to SEC Sections. This ASU amends various SEC paragraphs pursuant to the issuance of SEC Final Rule Releases No. 33-10532, Disclosure Update and Simplification, and Nos. 33-10231 and 33-10442, Investment Company Reporting Modernization. One of the changes in the ASU requires a presentation of changes in stockholders' equity in the form of a reconciliation, either as a separate financial statement or in the notes to the financial statements, for the current and comparative year-to-date interim periods. The Company presented changes in stockholders' equity as separate financial statements for the current and comparative year-to-date interim periods beginning on January 1, 2019. The additional elements of the ASU did not have a material impact on the Company's Consolidated Financial Statements.

In August 2018, the FASB issued ASU 2018-15, Intangibles-Goodwill and Other-Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract. The amendments in this update align the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software (and hosting arrangements that include an internal-use software license). The accounting for the service element of a hosting arrangement that is a service contract is not

affected by the amendments in this update. This guidance was effective for the Company on January 1, 2020. The adoption of ASU 2018-15 did not have a material impact on the consolidated financial statements.

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 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 Company will be required to use a forward-looking expected credit loss model for accounts receivables, loans, and other financial instruments. The amendments were effective for the Company on January 1, 2020. Adoption of the standard will be applied using a modified retrospective approach. Adoption of ASU 2016-13 did not have a material impact on its consolidated financial statements.

In February 2016, the FASB issued Accounting Standards Update (“ASU”) 2016-02, Leases (“Topic 842”), which amends existing guidance to require lessees to recognize assets and liabilities on the balance sheet for the rights and obligations created by long-term leases and to disclose additional quantitative and qualitative information about leasing arrangements. This ASU also provides clarification surrounding the presentation of the effects of leases in the statement of operations and statement of cash flows. The Company adopted this guidance on January 1, 2019. The Company commenced its assessment of Topic 842 in the second half of 2018 and developed a project plan to guide the implementation. The Company completed this project planning which it analyzed the ASU’s impact on its leases, surveyed the Company’s key employees, assessed the portfolio of leases, and established a future lease process to keep the lease accounting portfolio up to date. The Company also evaluated the key policy elections and considerations under the standard and completed the internal policy documentation to address the new standard requirements. The Company adopted this new guidance using the updated modified transition method allowed per ASU 2018-11 of Topic 842. Upon adoption on January 1, 2019, total assets and liabilities increased due to the recording of right-of-use assets of \$1.5 million and lease liabilities of \$1.6 million. See Note 7 for additional information and disclosures required by this new standard.

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. The Company adopted Topic 606 on January 1, 2018 using the modified retrospective approach. The impact of the adoption of Topic 606 was not material to the consolidated financial statements. 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.

## 2. Earnings (Loss) per Share

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

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

	Years Ended December 31,	
	2019	2018
<b>Basic Income (Loss) Per Share computation:</b>		
<b>Numerator:</b>		
Net income (loss)	\$ 3,750	\$ (12,889)
<b>Denominator:</b>		
Common shares outstanding	17,852,968	17,185,657
<b>Net Income (Loss) per common share - basic</b>		
Net income (loss)	\$ 0.21	\$ (0.75)
<b>Diluted Income (Loss) Per Share computation:</b>		
<b>Denominator:</b>		
Common shares outstanding	17,852,968	17,185,657
Performance related awards	191,247	*
Restricted shares subject to vesting	113,188	*
Common stock option grants	1,256	*
Total shares	18,158,659	17,185,657
<b>Income (Loss) per common share - diluted</b>		
Net income (loss)	\$ 0.21	\$ (0.75)

\* As denoted by “\*” in the table above, weighted average common stock option grants and restricted shares of 360,591 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. Goodwill and Other Intangible Assets

### Goodwill

There were no changes to the goodwill of \$3.3 million during 2019 or 2018. 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, 2019			December 31, 2018		
	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	10,003	111	10,114	9,336	778
Trademarks and trade names	4,834	4,801	33	4,834	4,607	227
Other	2,506	2,506	0	2,506	2,482	24
	<u>\$ 34,334</u>	<u>\$ 34,190</u>	<u>\$ 144</u>	<u>\$ 34,334</u>	<u>\$ 33,305</u>	<u>\$ 1,029</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 the Consolidated Statement of Operations, amortization expense was approximately \$0.9 million for the year ended December 31, 2019, and \$1.1 million for the year ended December 31, 2018. 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, 2019, \$0.2 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, 2018, \$0.4 million of the intangible asset amortization was included in operating expenses and \$0.7 million was included in cost of goods revenues.

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

<b>Intangible Assets</b>	<b>Assigned Life</b>	<b>Weighted Average Amortization Period</b>
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 as follows:

<b>Fiscal Year</b>	<b>Amount</b>
2020	\$ 144

#### 4. Restructuring

The following table summarizes the Company's restructuring accrual activity for the years ended December 31, 2019, and 2018:

	<b>Severance</b>	<b>Lease Termination</b>	<b>Total</b>
<b>Balance at January 1, 2018</b>	\$ 0	\$ 116	\$ 116
Payments made	0	(128)	(128)
Payments received	0	89	89
<b>Balance at December 31, 2018</b>	\$ 0	\$ 77	\$ 77
Restructuring expense	507	0	507
Payments made	(495)	(143)	(638)
Payments received	0	99	99
<b>Balance at December 31, 2019</b>	\$ 12	\$ 33	\$ 45

The restructuring liability is recorded on the balance sheet at December 31, 2019 and 2018 as follows:

	<b>December 31, 2019</b>	<b>December 31, 2018</b>
Accrued liabilities	\$ 45	\$ 33
Long-term liabilities	0	44
	\$ 45	\$ 77

## China Restructuring

On August 7, 2019 the Company's Board of Directors approved a transition plan for the Company's China manufacturing operations. In order to optimize the cost structure of the antenna product line, reduce fixed costs in China, and increase the Company's competitiveness, it is transitioning high-volume manufacturing from its Tianjin, China facility to contract manufacturers in China and elsewhere. The Company expects the transition to be substantially completed by the end of the 2020 fiscal year (the "Transition Period"). For the year ended December 31, 2019, the Company incurred restructuring expenses of \$0.5 million for employee severance and related benefits related to the separation of 84 employees. During 2020, the Company expects to reduce headcount in Tianjin by an additional 40 to 50 employees and estimates additional restructuring charges of approximately \$0.4 million consisting of severance and other non-cash costs. Severance costs are paid from the Company's cash in its China bank accounts

## Lease Termination

In 2016, the Company exited from its Colorado office in order to consolidate facility space and in the second quarter 2017 the Company signed a sublease for the office space. The termination date for the lease and the sublease is October 2020. The following table summarizes the minimum lease payments and sublease payments under the lease agreements for the Colorado office:

	<u>Lease Payments</u>
Lease Payments	92
Sublease Payments	(59)
	<u>33</u>

## **5. Income Taxes**

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

	<u>Years Ended December 31,</u>	
	<u>2019</u>	<u>2018</u>
Domestic	\$ 4,250	\$ (5,033)
Foreign	(460)	(29)
	<u>\$ 3,790</u>	<u>\$ (5,062)</u>

The expense for income taxes consisted of the following:

	<u>Years Ended December 31,</u>	
	<u>2019</u>	<u>2018</u>
Current:		
Federal	\$ 0	\$ 0
State	40	32
Foreign	0	(22)
	<u>40</u>	<u>10</u>
Deferred:		
Federal	0	6,337
State	0	1,333
Foreign	0	147
	<u>0</u>	<u>7,817</u>
Total	<u>\$ 40</u>	<u>\$ 7,827</u>

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

	Years Ended December 31	
	2019	2018
Statutory federal income tax rate	21%	21%
State income tax, net of federal benefit	7%	4%
Tax effect of permanent differences	3%	-1%
Change in valuation allowance	-25%	-182%
Effective state rate change to deferred tax assets	-1%	1%
Stock-based compensation shortfalls	3%	-2%
Research and development credits	-8%	4%
Other	1%	0%
	<u>1%</u>	<u>-155%</u>

The Company recorded net income tax expense of \$40 for the year ended December 31, 2019. The 2019 effective rate differed from the Federal rate of 21% primarily because the Company has a full valuation allowance on its deferred tax assets. The Company's valuation allowance is due to the uncertainty regarding the utilization of the deferred tax assets.

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

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. The Company increased the Transition Tax \$0.1 million in the fourth quarter 2018 upon completion of its U.S. income tax return.

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"). The Company elected to treat taxes due on future U.S. inclusions in taxable income related to GILTI as a current-period expense when incurred (the period cost method). The amount included for GILTI did not have a significant impact on the Company's tax provision for the years ended December 31, 2019 or December 31, 2018.

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, 2019 or 2018

### 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:

	December 31,	
	2019	2018
<b>Deferred Tax Assets:</b>		
Net operating loss carryforwards	\$ 4,759	\$ 5,725
Amortization	3,500	3,920
Federal, foreign, and state credits	2,086	1,812
Inventory reserves	1,159	982
Stock compensation	494	982
Deferred gain	870	875
Accrued vacation	220	240
Other	563	235
Gross deferred tax assets	13,651	14,771
Valuation allowance	(13,490)	(14,457)
Net deferred tax asset	161	314
<b>Deferred Tax Liabilities:</b>		
Depreciation	(161)	(314)
<b>Net Deferred Tax Assets</b>	<b>\$ 0</b>	<b>\$ 0</b>

At December 31, 2019, the Company had gross deferred tax assets of \$13.7 million, deferred tax liabilities of \$0.2 million, and a valuation allowance of \$13.5 million. The deferred tax assets consisted of domestic deferred tax assets of \$13.1 million and foreign deferred tax assets of \$0.5 million. At December 31, 2019, \$3.5 million of the deferred tax asset is intangible assets acquired under purchase accounting which are amortized for tax purposes over 15 years, but for shorter periods under generally accepted accounting principles.

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 net deferred tax assets at December 31, 2018 consisted of domestic net deferred tax assets of \$14.2 million and foreign net deferred tax assets of \$0.3 million.

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 net operating losses (NOLs) 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. profit for the cumulative three-year period ending December 31, 2019 of \$0.1 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, 2019 and December 31, 2018, the Company had a full valuation allowance on its deferred tax assets. The Company generated book and tax income during 2019. However, the Company incurred significant losses in 2018 and is in a cumulative break-even position for the past three years. 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, 2019, the Company has a valuation allowance of \$13.1 million which was recorded against the net U.S. deferred tax assets and a valuation allowance of \$0.5 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 a determination is made.

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,	
	2019	2018
Beginning of period	\$ 730	\$ 700
Addition related to tax positions in current year	45	30
Reversals for uncertain tax positions	(16)	0
End of period	<u>\$ 759</u>	<u>\$ 730</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 2017 and subsequent periods. The Company's state tax returns remain subject to examination for 2015 and subsequent periods. The Company's foreign tax returns in China remain subject to examination for 2011 and subsequent periods.

### Summary of Carryforwards

At December 31, 2019, the Company has a federal net operating loss carryforward of \$9.0 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 \$17.8 million that expire between 2021 and 2038. Additionally, the Company has \$1.3 million of federal research credits that expire between 2030 and 2039 and \$1.5 million of state research credits with no expiration. The Company has a China net operating loss carryforward of \$0.1 million that expires in 2025 and of China research credits of \$0.2 million that expire between 2024 and 2025.

### Investment in Foreign Operations

For the Company's subsidiary in China, it has recorded income tax related to the deemed dividend of earnings. The Company considers such earnings permanently reinvested. Upon repatriation of these earnings, the Company would be subject to local withholding taxes.

## 6. Commitments and Contingencies

### 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 \$0.1 million and \$0.2 million at December 31, 2019 and 2018, respectively, 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 \$0.4 million at December 31, 2019 and \$0.3 million at December 31, 2018 and is included in other accrued liabilities in the accompanying consolidated balance sheets.

	Year Ended December 31,	
	2019	2018
Beginning balance	\$ 339	\$ 382
Provisions for warranties	435	65
Consumption of reserves	(330)	(108)
Ending balance	<u>\$ 444</u>	<u>\$ 339</u>



## 7. Leases

The Company adopted Topic 842 as of January 1, 2019, using the transition method per ASU No. 2018-11, whereby entities are allowed to apply the new leases standard at the adoption date. Accordingly, all periods prior to January 1, 2019 were presented in accordance with the previous ASC Topic 840 ("Topic 840"), Leases, and no retrospective adjustments were made to the comparative periods presented. Adoption of Topic 842 resulted in an increase to total assets of \$1.5 million and to liabilities of \$1.6 million from the recording of operating lease right-of-use assets ("ROU") and operating lease liabilities. Finance leases were not impacted by the adoption of Topic 842, as finance lease liabilities and the corresponding ROU assets were already recorded in the balance sheet under the previous guidance, Topic 840. The adoption did not materially impact the Company's consolidated statements of operations or cash flows. The Company has operating leases for facilities and finance leases for office equipment. Leases with an initial term of 12 months or less are not recorded in the balance sheet. The Company has elected the practical expedient to account for each separate lease component of a contract and its associated non-lease components as a single lease component, thus causing all fixed payments to be capitalized. The Company also elected the package of practical expedients permitted within the new standard, which among other things, allows the Company to carry forward historical lease classifications. The Company determines if an arrangement is a lease at inception of a contract.

ROU assets represent the Company's right to use an underlying asset during the lease term and lease liabilities represent the Company's obligation to make lease payments arising from the lease. ROU assets and liabilities are recognized at the lease commencement date based on the net present value of fixed lease payments over the lease term. The Company's lease term is deemed to include options to extend or terminate the lease when it is reasonably certain that it will exercise that option. ROU assets also include any advance lease payments made and exclude lease incentives. As most of the Company's operating leases do not provide an implicit rate, the Company uses its incremental borrowing rate based on the information available at commencement date in determining the present value of lease payments on a collateralized basis. Finance lease agreements generally include an interest rate that is used to determine the present value of future lease payments. Operating fixed lease expense and finance lease depreciation expense are recognized on a straight-line basis over the lease term.

The Company's lease cost for the year ended December 31, 2019 included the following components:

	Year ended December 31, 2019	
Operating lease costs	\$	963
Short-term lease costs		92
Variable lease costs		27
Amortization of finance lease assets		99
Interest on finance lease liabilities		9
Total lease cost	\$	<u>1,190</u>

The table below summarizes the Company's scheduled future minimum lease payments under operating and finance leases recorded on the balance sheet as of December 31, 2019:

Year	Operating Leases	Finance Leases
2020	\$ 306	\$ 84
2021	472	73
2022	558	48
2023	569	32
2024	581	21
Thereafter	3,174	0
Total minimum payments required	<u>5,660</u>	<u>258</u>
Less: present value of tenant allowance	1,002	0
Less: amount representing interest	1,355	17
Present value of net minimum lease payments	<u>3,303</u>	<u>241</u>
Less: current maturities of lease obligations	(282)	(77)
Long-term lease obligations	<u>\$ 3,021</u>	<u>\$ 164</u>

The weighted average remaining lease terms and discount rates for all the Company's operating and finance leases were as follows as of December 31, 2019:

	December 31, 2019
Weighted-average remaining lease term - finance leases	3.6 years
Weighted-average remaining lease term - operating leases	9.7 years
Weighted-average discount rate - finance leases	4%
Weighted-average discount rate - operating leases	5%

The table below presents supplemental balance sheet information related to leases during the year ended December 31, 2019:

Leases	Consolidated Balance Sheet Classification	December 31, 2019
<b>Assets:</b>		
Operating right-of-use assets	Other noncurrent assets	\$ 2,696
Finance right-of-use assets	Other noncurrent assets	234
Total lease assets		<u>\$ 2,930</u>
<b>Liabilities:</b>		
Current		
Operating lease liabilities	Accrued liabilities	\$ 282
Finance lease liabilities	Accrued liabilities	77
Noncurrent		
Operating lease liabilities	Long-term liabilities	3,021
Finance lease liabilities	Long-term liabilities	164
Total lease liabilities		<u>\$ 3,544</u>

In January 2019, the Company entered into an eleven-year lease ending February 28, 2031 for 21,030 square feet of office space in Clarksburg, Maryland for the Company's test & measurement product line. The Company moved the operations for its test & measurement product line from its Germantown, Maryland office in January 2020. For the Clarksburg lease, the Company recognized a present value right of use asset of \$2.1 million in August 2019, which was the lease commencement date for accounting purposes. The present value of the right of use asset reflects 14 months of rent abatement and \$1.5 million in tenant improvement incentives in the form of cash reimbursements which the Company will fully utilize.

In accordance with the disclosure requirements for the adoption of Topic 842, the Company is presenting the operating lease commitments table under Topic 840 as of December 31, 2018. The following table is unchanged from the disclosure in Note 7 in the 2018 Form 10-K:

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>

## 8. Shareholders' Equity

### Common Stock

The activity related to common shares outstanding is as follows:

	Years Ended December 31,	
	2019	2018
<b>Beginning of year</b>	18,271,249	17,806,792
Issuance of common stock on exercise of stock options	73,680	0
Restricted stock awards, net of cancellations	189,578	343,810
Director share awards	79,918	71,143
Issuance of common stock from purchase of Employee Stock Purchase Plan shares	180,859	156,795
Cancellation of stock for withholding tax for vested shares	(183,995)	(107,291)
<b>End of Year</b>	<u>18,611,289</u>	<u>18,271,249</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, 2019, and 2018, no shares of preferred stock were issued or outstanding.

## 9. Stock-Based Compensation

### Stock Plans

#### Common Stock Reserved for Future Issuance

A summary of the reserved shares of common stock for future issuance are as follows:

Stock Plan	December 31,	
	2019	2018
PCTEL, Inc. 2019 Stock Incentive Plan	2,240,669	0
PCTEL, Inc. 2015 Stock Incentive Plan	489,136	2,160,154
PCTEL, Inc. 2019 Employee Stock Purchase Plan	1,800,000	0
PCTEL, Inc. 2014 Employee Stock Purchase Plan	0	194,814
Total shares reserved	<u>4,529,805</u>	<u>2,354,968</u>

These shares available exclude stock options outstanding.

#### Stock Incentive Plans

On May 29, 2019, at the Annual Meeting of Shareholders, the shareholders adopted and approved the PCTEL, Inc. 2019 Stock Incentive Plan (the "2019 Stock Plan") upon the recommendation of the Board of Directors. The purpose of the 2019 Stock Plan is to promote the interests of the Company and its stockholders by aiding the Company in attracting and retaining employees, officers, consultants, independent contractors and non-employee directors capable of assuring the future success of the Company, to provide such persons with opportunities for stock ownership in the Company and to offer such persons incentives to put forth maximum effort for the success of the Company's business. The 2019 Stock Plan replaced the PCTEL, Inc. Stock Plan adopted in 2015 (the "2015 Stock Plan").

The 2019 Stock Plan, which is administered by the Compensation Committee of the Company's Board of Directors, authorizes the grant of stock options, stock appreciation rights, restricted stock, restricted stock units, and other stock-based awards. The aggregate number of shares that may be issued under all stock-based awards made under the 2019 Stock Plan will be (i) the sum of 2,213,000 shares and (ii) any shares subject to any outstanding award under the 2015 Stock Plan that after the effective date of the 2019 Stock Plan are not purchased, are forfeited or are reacquired by the Company or otherwise not delivered to the participant due to termination or cancellation of such award. At December 31, 2019, the number of shares available in the 2019 Stock Plan that were from the 2015 Plan was 27,669. The Board of Directors may from time to time amend, suspend or terminate the 2019 Stock Plan, subject to its terms.

#### Employee Stock Purchase Plan

At the 2019 Annual Meeting of Shareholders, the shareholders adopted and approved the PCTEL, Inc. 2019 Employee Stock Purchase Plan (the "2019 ESPP") upon recommendation of the Board of Directors. The purpose of the 2019 ESPP is to provide employees with an

opportunity to purchase shares of PCTEL common stock through accumulated payroll deductions. Encouraging employees to acquire equity ownership in PCTEL assures a closer alignment of the interests of participating employees with those of the Company's stockholders. The 2019 ESPP replaces the 2014 ESPP effective for the trading period commencing October 1, 2019. On October 1, 2019, the remaining shares from the 2014 ESPP were cancelled.

The 2019 ESPP is administered by the Compensation Committee of the Company's Board of Directors. Subject to change by the administrator, shares of PCTEL common stock may be purchased during consecutive offering periods that begin approximately every six months commencing on the first trading day on or after April 1 and terminating on the last trading day of the offering period ending on September 30 and commencing on the first trading day on or after October 1 and terminating on the last trading day of the offering period ending on March 31. The maximum number of shares of common stock which are available for sale under the 2019 ESPP is 1,800,000 shares. Unless and until the administrator determines otherwise, the purchase price will be equal to 85% of the fair market value of PCTEL common stock on the first day of an offering period or the last day of an offering period, whichever is lower. The administrator may from time to time amend, suspend or terminate the 2019 ESPP, subject to its terms.

### **Stock-Based Compensation Expense**

The consolidated statements of operations include \$4.1 million, and \$3.3 million of stock compensation expense for the years ended December 31, 2019 and 2018, respectively. The Company did not capitalize any stock compensation expense during the years ended December 31, 2019, and 2018.

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

	<b>Years Ended December 31,</b>	
	<b>2019</b>	<b>2018</b>
Service-based awards	\$ 1,963	\$ 2,618
Director awards	402	422
Performance-based awards - long-term incentive plan	226	0
Performance-based awards - short-term incentive plan	1,335	0
Employee stock purchase plan	205	216
Stock options	2	5
<b>Total</b>	<b>\$ 4,133</b>	<b>\$ 3,261</b>

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

	<b>Years Ended December 31,</b>	
	<b>2019</b>	<b>2018</b>
Cost of revenues	\$ 408	\$ 224
Research and development	652	620
Sales and marketing	672	576
General and administrative	2,401	1,841
<b>Total</b>	<b>\$ 4,133</b>	<b>\$ 3,261</b>

The following table presents a summary of the remaining unrecognized share-based compensation expense related to our outstanding share-based awards as of December 31, 2019:

<b>Award Type</b>	<b>Remaining Unrecognized Compensation Expense</b>	<b>Weighted Average Life (Years)</b>
Service-based awards	\$ 1,643	1.3
Performance-based awards	\$ 678	2.0
Stock options	\$ 1	1.1

### **Service-Based Awards**

#### **Restricted Stock**

The Company grants service-based restricted shares as employee incentives under the 2019 Stock Plan after its adoption at the 2019 annual meeting of shareholders. The Company previously granted service-based restricted shares under the 2015 Stock Plan. During the year ended December 31, 2019, the Company awarded executives and key-managers long-term incentives comprised one-third of service-based

restricted stock and two-thirds of performance-based restricted stock. In 2018, the Company awarded annual service-based restricted stock to eligible employees as long-term incentives. When service-based restricted stock is granted to employees, the Company records deferred stock compensation within additional paid-in capital, representing the fair value of the common stock on the date the restricted shares are granted. The Company records stock compensation expense on a straight-line basis over the vesting period of the applicable service-based restricted shares. These grants vest over various periods; however, the restricted stock grants in 2019 and 2018 vest over three years in equal increments.

The following table summarizes service-based restricted stock activity:

	Years ended December 31,			
	2019		2018	
	Shares	Weighted Average Fair Value	Shares	Weighted Average Fair Value
<b>Unvested Restricted Stock Awards</b>				
<b>Beginning of year</b>	838,967	\$ 6.21	828,576	\$ 5.66
Shares awarded	190,159	5.25	486,975	6.92
Shares vested	(538,137)	5.96	(392,975)	5.93
Shares cancelled	(13,802)	6.27	(83,609)	6.14
<b>End of year</b>	<u>477,187</u>	<u>\$ 6.11</u>	<u>838,967</u>	<u>\$ 6.21</u>

In February 2019, the Company issued to employees 190,159 service-based restricted stock awards that vest in three substantially equal annual increments commencing in 2020. The intrinsic values of service-based restricted shares that vested were \$3.3 million and \$2.2 million during the years ended December 31, 2019, and 2018, respectively.

### Restricted Stock Units

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

The following summarizes the service-based restricted stock unit activity:

	Years Ended December 31,			
	2019		2018	
	Shares	Weighted Average Fair Value	Shares	Weighted Average Fair Value
<b>Unvested Restricted Stock Units</b>				
<b>Beginning of year</b>	18,638	\$ 5.66	31,800	\$ 5.47
Units awarded	2,700	5.27	5,500	7.05
Units vested/Shares awarded	(13,221)	5.35	(11,587)	5.35
Units cancelled	0	0	(7,075)	6.90
<b>End of year</b>	<u>8,117</u>	<u>\$ 5.83</u>	<u>18,638</u>	<u>\$ 5.66</u>

The intrinsic values of service-based restricted stock units that vested were \$97 and \$61, during the years ended December 31, 2019, and 2018, respectively.

### Stock Options

The Company may grant stock options to purchase common stock to new employees. 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 180 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 ten-year life.

The following table summarizes the Company's stock option activity:

	Years Ended December 31,			
	2019		2018	
	Options Outstanding	Weighted Average Exercise Price	Options Outstanding	Weighted Average Exercise Price
<b>Beginning of Year</b>	423,534	\$ 7.15	470,484	\$ 7.24
Options granted	0	0.00	2,000	6.98
Options exercised	(154,409)	7.18	0	0.00
Options forfeited	0	0.00	(2,793)	5.13
Options cancelled/expired	(118,879)	7.16	(46,157)	8.21
<b>End of Year</b>	<b>150,246</b>	<b>\$ 7.11</b>	<b>423,534</b>	<b>\$ 7.15</b>
<b>Exercisable</b>	<b>147,394</b>	<b>\$ 7.13</b>	<b>417,385</b>	<b>\$ 7.17</b>

During the year ended December 31, 2019, the Company received proceeds of \$0.5 million from the exercise of 62,909 options and issued 10,771 shares for the exercisable 91,500 options. The intrinsic value of the options exercised was \$0.2 million. There were no exercises for the year ended December 31, 2018. The Company did not grant stock options during 2019 and granted 2,000 stock options during 2018.

The range of exercise prices for options outstanding and exercisable at December 31, 2019, 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 — \$ 5.06	8,500	5.04	\$ 5.05	6,738	\$ 5.05	
\$ 6.84 — \$ 6.98	4,500	5.15	\$ 6.90	3,410	\$ 6.88	
\$ 7.16	84,541	0.27	\$ 7.16	84,541	\$ 7.16	
\$ 7.22	40,205	0.26	\$ 7.22	40,205	\$ 7.22	
\$ 7.31 — \$ 8.32	12,500	1.27	\$ 7.86	12,500	\$ 7.86	
\$ 5.00 — \$ 8.32	150,246	0.61	\$ 7.11	147,394	\$ 7.13	

The weighted average contractual life and intrinsic value at December 31, 2019, was the following:

	Weighted Average Contractual Life (years)	Intrinsic Value
<b>Options Outstanding</b>	0.61	\$ 205
<b>Options Exercisable</b>	0.54	\$ 197

The intrinsic value is based on the share price of \$8.47 at December 31, 2019.

The Company did not grant any stock options during 2019. The Company calculated the fair value of the 2018 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.

## Performance-Based Awards

### **Short-Term Incentive Plan**

Incentive compensation earned by executives and key managers under the Company's 2019 and 2018 Short-Term Incentive Plans were to be settled 50% in cash and 50% in shares of the Company's stock. Shares valued at \$1.2 million were earned and will be issued to participants during the first quarter 2020. No shares were issued pursuant to the 2018 STIP because the performance thresholds were not met.

### **Long-Term Incentive Plan**

The Company awards performance-based awards to executives and key managers to encourage sustainable growth, consistent earnings and management retention. Based on the fair value of the shares on the grant date, the Company records stock compensation expense over the performance period based on the estimated achievement of the award.

The following table summarizes the performance award activity:

	Years Ended December 31,			
	2019		2018	
	Awards	Weighted Average Fair Value	Awards	Weighted Average Fair Value
<b>Unvested Performance Awards - at Target</b>				
<b>Beginning of Year</b>	0	\$ 0.00	110,500	\$ 7.49
Awards Granted	174,117	5.27	0	0.00
Awards vested	0	0.00	0	0.00
Units cancelled	(2,680)	5.27	(110,500)	7.49
<b>End of Year</b>	<u>171,437</u>	<u>5.27</u>	<u>0</u>	<u>\$ 0.00</u>

The Company granted performance awards to executives and key managers in February 2019 ("2019 LTIP"). Under the 2019 LTIP shares of the Company's stock can be earned based on achievement of a three-year revenue growth target with a penalty if a certain adjusted EBITDA level is not maintained. If the Company achieves less than the target growth over the performance period, the participant will receive fewer shares than the target award, determined on a straight-line basis. If the Company, achieves greater than the target growth, the participant will receive more shares than the target award on an accelerated basis. The performance period for the 2019 LTIP is from January 1, 2019 through December 31, 2021 and the participants are required to be in service at the determination date of the award following the end of the performance period in order to receive the award. Shares earned under the 2019 LTIP will be fully vested shares. At target, the total fair market value of the award was \$0.9 million based on the share price of \$5.27 on the grant date. On the award date, the aggregate number of shares that could be earned at target was 174,117 and the maximum number of aggregate shares that could be earned was 300,015. During the year ended December 31, 2019, the target and maximum shares that can be earned declined by 2,680 and 4,690, respectively due to employee terminations.

The Company granted performance awards to executives and key managers in 2015 ("2015 LTIP") with four-year revenue goals. No shares were earned under the 2015 LTIP and the remaining awards were cancelled at December 31, 2018. The performance-based awards cancelled during 2018 consisted of 88,000 awards that were not earned and 22,500 awards related to terminated employees.

## Employee Stock Purchase Plan

The following table summarizes the ESPP activity:

	Years Ended December 31,			
	2019		2018	
	Shares	Weighted Average Fair Value at Grant Date	Shares	Weighted Average Fair Value at Grant Date
<b>Outstanding, beginning of year</b>	0	\$ 0.00	0	\$ 0.00
Granted	180,859	1.08	156,795	1.49
Vested	(180,859)	1.08	(156,795)	1.49
<b>Outstanding, end of year</b>	<b>0</b>	<b>\$ 0.00</b>	<b>0</b>	<b>\$ 0.00</b>

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. During the years ended December 31, 2019 and 2018, the Company received proceeds of \$0.7 million from the ESPP.

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:

	Employee Stock Purchase Plan	
	2019	2018
Dividend yield	4.1%	3.2%
Risk-free interest rate	2.5%	2.1%
Expected volatility	34%	33%
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 Awards**

The Company grants equity awards to members of its Board of Directors for an annual retainer and for committee services in shares of the Company's stock. These awards vest immediately. 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, 2019, the Company issued 79,918 shares of the Company's stock with a fair value of \$0.4 million which vested immediately. During the year ended December 31, 2018, the Company issued 63,897 shares of the Company's stock with a fair value of \$0.4 million which vested immediately and issued 7,246 shares with a fair value of \$50 vesting over three years to a new Director.

The following table summarizes the director awards activity:

	Years Ended December 31,			
	2019		2018	
	Shares	Weighted Average Fair Value at Grant Date	Shares	Weighted Average Fair Value at Grant Date
<b>Outstanding, beginning of year</b>	7,246	\$ 6.90	0	\$ 0.00
Granted	79,918	5.03	71,143	6.63
Vested	(82,333)	(5.08)	(63,897)	(6.60)
<b>Outstanding, end of year</b>	<b>4,831</b>	<b>\$ 6.90</b>	<b>7,246</b>	<b>\$ 6.90</b>



## 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 \$1.2 million during the year ended December 31, 2019 and \$0.6 million during the year ended December 31, 2018.

## Share Repurchases

On November 6, 2019 the Board of Directors approved a share repurchase program pursuant to which the Company may repurchase up to \$7.0 million of its common stock, effective immediately through the end of 2020. Such purchases may be made from time to time at predetermined prices in the open market, by block purchases, in private transactions or otherwise. The repurchases will be funded with cash on hand. The Company did not repurchase any shares of its common stock during the fourth quarter of 2019.

## 10. Product Line, Customer and Geographic Information

### Product Line Information:

The following tables are the product line revenues and gross profits for the years ended December 31, 2019, and 2018:

	Year Ended December 31, 2019			
	Antenna Products	Test & Measurement	Corporate	Total
Revenues	\$ 62,708	\$ 28,115	\$ (206)	\$ 90,617
Gross Profit	\$ 21,841	\$ 19,640	\$ 31	\$ 41,512
Gross Profit %	34.8%	69.9%	NA	45.8%

	Year Ended December 31, 2018			
	Antenna Products	Test & Measurement	Corporate	Total
Revenues	\$ 66,328	\$ 16,733	\$ (82)	\$ 82,979
Gross Profit	\$ 20,157	\$ 10,883	\$ 41	\$ 31,081
Gross Profit %	30.4%	65.0%	NA	37.5%

### Customer Concentration:

There were no customers that accounted for 10% or more of revenues during the years ended December 31, 2019, and 2018.

The following table represents the customers that accounted for 10% or more of total trade accounts receivable at December 31, 2019 and 2018.

Trade Accounts Receivable	As of December 31,	
	2019	2018
Customer A	15%	9%
Customer B	11%	1%
Customer C	8%	13%

## Geographic Information:

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

Region	Years Ended December 31,	
	2019	2018
Europe, Middle East, & Africa	14%	12%
Asia Pacific	10%	15%
Other Americas	3%	4%
Total Foreign sales	27%	31%
Total Domestic sales	73%	69%
	100%	100%

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

	December 31,	
	2019	2018
United States	\$ 17,485	\$ 15,153
All Other	945	1,391
	\$ 18,430	\$ 16,544

## 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, 2019 or 2018. 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:

	Years ended December 31,	
	2019	2018
PCTEL, Inc. 401(k) profit sharing plan - US employees	\$ 645	\$ 681
Defined contribution plans - foreign employees	444	527
Total	\$ 1,089	\$ 1,208

## 12. Quarterly Data (Unaudited)

	Quarters Ended,			
	March 31, 2019	June 30, 2019	September 30, 2019	December 31, 2019
Revenues	\$ 20,590	\$ 23,499	\$ 23,630	\$ 22,898
Gross profit	8,658	10,694	10,647	11,513
Operating income (loss)	(469)	629	941	1,707
Income (loss) before income taxes	(307)	949	1,334	1,814
Net income (loss)	\$ (317)	\$ 941	\$ 1,328	\$ 1,798
Net income (loss) per share:				
Basic	\$ (0.02)	\$ 0.05	\$ 0.07	\$ 0.10
Diluted	\$ (0.02)	\$ 0.05	\$ 0.07	\$ 0.10
Weighted Average Shares:				
Basic	17,617,099	17,827,591	17,921,552	18,033,548
Diluted	17,617,099	17,934,141	18,181,157	18,460,503

	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	\$ (858)	\$ (1,226)	\$ (1,670)	\$ (9,135)
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	17,055,659	17,142,318	17,234,187	17,361,255
Diluted	17,055,659	17,142,318	17,234,187	17,361,255

### 13. Accumulated Other Comprehensive Income

Accumulated other comprehensive losses of \$0.3 million and \$0.2 million at December 31, 2019 and December 31, 2018, 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 & 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 & 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 & 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. 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 antenna products 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 \$0.1 million and \$0.2 million at December 31, 2019 and December 31, 2018, respectively and is included within accrued liabilities on the accompanying 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, 2019 and December 31, 2018.

There were no contract assets at December 31, 2019 or December 31, 2018. The Company records contract liabilities for deferred revenue and customer prepayments. Contract liabilities are recorded in accrued liabilities in the consolidated balance sheets. The contract liability was \$0.2 million at December 31, 2019 and at December 31, 2018. The Company recognized revenue of \$0.2 million during the years ended December 31, 2019, and December 31, 2018 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.

There were no 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, 2019. 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, 2019, 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 reasonably 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 2020 Annual Meeting of Stockholders under the captions "Proposal #1 Election of Directors," "Information About Our Executive Officers," 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.

### **Item 11: Executive Compensation**

The information required by this Item 11 will be included in PCTEL's proxy statement for the 2020 Annual Meeting of Stockholders under the captions "Executive Compensation and Other Matters," and "Compensation of Directors," 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 2020 Annual Meeting of Stockholders under the captions under the caption "Security Ownership of Certain Beneficial Owners and Management" and "Equity Compensation and Other Matters-Summary of Equity Plans" 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 2020 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 2020 Annual Meeting of Stockholders under the captions "Summary of Fees" of Proposal #4 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, 2019.

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

	Balance at Beginning of Year	Charged to Costs and Expenses	Additions (Deductions)	Balance at End of Year
<b>Year Ended December 31, 2018:</b>				
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
<b>Year Ended December 31, 2019:</b>				
Allowance for doubtful accounts	\$ 63	(2)	43	\$ 104
Warranty reserves	\$ 339	213	(108)	\$ 444
Deferred tax asset valuation allowance	\$ 14,457	0	(967)	\$ 13,490

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, with attention to Company Secretary.

Exhibit No.	Description	Reference
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	<a href="#">Amended and Restated Bylaws of the Registrant</a>	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).
4.2	<a href="#">Description of Securities</a>	Filed Herewith
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	* <a href="#">Form of Severance Benefits Letter</a>	Incorporated by reference to Exhibit Number 10.1 filed with the Registrant's Current Report on Form 8-K on November 7, 2018.
10.3	* <a href="#">Form of Stock Plan Stock Option Award Agreement, as amended September 18, 2018</a>	Incorporated by reference to Exhibit Number 10.69 filed with the Registrant's Current Report on Form 8-K on September 22, 2008.
10.4	* <a href="#">Employee Stock Purchase Plan, as amended and restated June 10, 2014</a>	Incorporated by reference from Appendix A to the Registrant's Definitive Proxy Statement on Schedule 14A filed April 30, 2014.
10.5	* <a href="#">PCTEL, Inc., Stock Plan, as amended and restated June 30, 2015</a>	Incorporated by reference From Appendix A to the Registrant's Definitive Proxy Statement on Schedule 14A filed on April 30, 2015.
10.6	* <a href="#">Employment Agreement dated December 5, 2016 between PCTEL, Inc. and David A. Neumann</a>	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.
10.7	* <a href="#">Amended and Restated Management Retention Agreement dated April 9, 2013 between PCTEL, Inc. and David A. Neumann</a>	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.
10.7.1	* <a href="#">First Amendment to Amended and Restated Management Retention Agreement dated December 13, 2016 between PCTEL, Inc. and David A. Neumann</a>	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.
10.8	* <a href="#">Form of Management Retention Agreement</a>	Incorporated by reference to Exhibit Number 10.9 filed with the Registrant's Annual Report on Form 10-K for fiscal year ended December 31, 2018
10.9	* <a href="#">FY 2019 Amended and Restated Sales Compensation Plan dated March 15, 2019 between PCTEL, Inc. and Arnt Arvik</a>	Incorporated by reference to Exhibit Number 10.12 filed with the Registrant's Annual Report on Form 10-K for fiscal year ended December 31, 2018
10.10	* <a href="#">PCTEL, Inc. Long-Term Incentive Award Agreement dated February 6, 2019</a>	Incorporated by reference to Exhibit Number 10.13 filed with the Registrant's Annual Report on Form 10-K for fiscal year ended December 31, 2018
10.11	<a href="#">Lease Agreement between FP Gateway 270, LLC (Landlord) and PCTEL, Inc. (Tenant)</a>	Incorporated by reference to Exhibit Number 10.14 filed with the Registrant's Annual Report on Form 10-K for fiscal year ended December 31, 2018



<u>Exhibit No.</u>	<u>Description</u>	<u>Reference</u>
10.12	* <a href="#">PCTEL, Inc. 2019 Stock Incentive Plan</a>	Incorporated by reference from Appendix A to the registrants Definitive Proxy Statement on Schedule 14A Filed April 16, 2019.
10.13	* <a href="#">PCTEL, Inc. 2019 Employee Stock Purchase Plan</a>	Incorporated by reference from Appendix B to the registrants Definitive Proxy Statement on Schedule 14A Filed April 16, 2019.
10.14	* <a href="#">PCTEL, Inc. Long-Term Incentive Award Agreement dated February 5, 2020</a>	Filed Herewith
10.15	* <a href="#">PCTEL, Inc. Long-Term Incentive Award Agreement (RSUs) dated February 5, 2020</a>	Filed Herewith
10.16	* <a href="#">Sales Compensation Plan dated January 30, 2020 between PCTEL, Inc. and Arnt Arvik</a>	Filed Herewith
21	<a href="#">List of significant subsidiaries</a>	Filed Herewith
23	<a href="#">Consent of Grant Thornton LLP</a>	Filed Herewith
24	<a href="#">Power of Attorney</a>	Filed Herewith
31.1	<a href="#">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</a>	Filed Herewith
31.2	<a href="#">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</a>	Filed Herewith
32	<a href="#">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.</a>	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.

(P) Paper Filing

#### Item 16: Form 10-K Summary

Not applicable.

## 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

/s/ DAVID A. NEUMANN  
David A. Neumann

*Chief Executive Officer*  
Dated: March 13, 2020

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 13, 2020
<u>/s/ KEVIN MCGOWAN</u> (Kevin McGowan)	Chief Financial Officer (Principal Financial and Accounting Officer)	March 13, 2020
<u>/s/ CINDY K. ANDREOTTI</u> (Cindy K. Andreotti)	Director	March 13, 2020
<u>/s/ GINA HASPILAIRE</u> (Gina Haspilair)	Director	March 13, 2020
<u>/s/ CYNTHIA KEITH</u> (Cynthia Keith)	Director	March 13, 2020
<u>/s/ STEVEN D. LEVY</u> (Steven D. Levy)	Director	March 13, 2020
<u>/s/ GIACOMO MARINI</u> (Giacomo Marini)	Director	March 13, 2020
<u>/s/ M. JAY SINDER</u> (M. Jay Sinder)	Director	March 13, 2020

BYLAWS  
OF  
PC-TEL, INC.  
ARTICLE I  
CORPORATE OFFICES

1.1 REGISTERED OFFICE

The registered office of the Corporation shall be 1209 Orange Street, in the City of Wilmington, County of New Castle, State of Delaware, 19801. The name of the registered agent of the Corporation at such location is The Corporation Trust Company.

1.2 OTHER OFFICES

The board of directors may at any time establish other offices at any place or places where the Corporation is qualified to do business.

ARTICLE II  
MEETINGS OF STOCKHOLDERS

2.1 PLACE OF MEETINGS

Meetings of stockholders shall be held at any place, within or outside the State of Delaware, designated by the board of directors. In the absence of any such designation, stockholders' meetings shall be held at the registered office of the Corporation.

2.2 ANNUAL MEETING

The annual meeting of stockholders shall be held each year on a date and at a time designated by the board of directors. At the meeting, directors shall be elected and any other proper business may be transacted.

2.3 SPECIAL MEETING

Subject to the immediately following paragraph, a special meeting of the stockholders may be called at any time only by the (i) board of directors, (ii) the chairman of the board, (iii) the president, or (iv) the chief executive officer.

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Prior to such time as a Registration Statement regarding the sale of the Corporation's Common Stock to the public is declared effective by the Securities and Exchange Commission, a special meeting of the stockholders may be called at any time by one or more stockholders holding a majority of the outstanding voting shares.

If a special meeting is called by any person other than the board of directors, the request shall be in writing, specifying the time of such meeting and the general nature of the business proposed to be transacted, and shall be delivered personally or sent by registered mail or by telegraphic or other facsimile transmission to the chairman of the board, the president, any vice president, or the secretary of the corporation. No business may be transacted at such special meeting otherwise than specified in such notice. The officer receiving the request shall cause notice to be promptly given to the stockholders entitled to vote, in accordance with the provisions of Sections 2.4 and 2.5 of this Article II, that a meeting will be held at the time requested by the person or persons who called the meeting, not less than thirty-five (35) nor more than sixty (60) days after the receipt of the request. If the notice is not given within twenty (20) days after the receipt of the request, the person or persons requesting the meeting may give the notice. Nothing contained in this paragraph of this Section 2.3 shall be construed as limiting, fixing, or affecting the time when a meeting of stockholders called by action of the board of directors may be held.

#### 2.4 NOTICE OF STOCKHOLDERS' MEETINGS

All notices of meetings with stockholders shall be in writing and shall be sent or otherwise given in accordance with Section 2.6 of these Bylaws not less than ten (10) nor more than sixty (60) days before the date of the meeting to each stockholder entitled to vote at such meeting. The notice shall specify the place, date and hour of the meeting, and, in the case of a special meeting, the purpose or purposes for which the meeting is called.

#### 2.5 ADVANCE NOTICE OF STOCKHOLDER NOMINEES AND STOCKHOLDER BUSINESS

To be properly brought before an annual meeting or special meeting, nominations for the election of director or other business must be (a) specified in the notice of meeting (or any supplement thereto) given by or at the direction of the board of directors, (b) otherwise properly brought before the meeting by or at the direction of the board of directors, or (c) otherwise properly brought before the meeting by a stockholder. For such nominations or other business to be considered properly brought before the meeting by a stockholder, such stockholder must have given timely written notice and in proper form of his intent to bring such business before such meeting. To be timely, such stockholder's notice must be delivered to or mailed and received by the secretary of the Corporation not less than one hundred twenty (120) days prior to the date of the Corporation's proxy statement released to stockholders in connection with the Corporation's previous year's annual meeting of stockholders. To be in proper form, a stockholder's notice to the secretary shall set forth:

- (i) the name and address of the stockholder who intends to make the nominations, propose the business, and, as the case may be, the name and address of the

person or persons to be nominated or the nature of the business to be proposed;

- (ii) a representation that the stockholder is a holder of record of stock of the Corporation entitled to vote at such meeting and, if applicable, intends to appear in person or by proxy at the meeting to nominate the person or persons specified in the notice or introduce the business specified in the notice;
- (iii) if applicable, a description of all arrangements or understandings between the stockholder and each nominee and any other person or persons (naming such person or persons) pursuant to which the nomination or nominations are to be made by the stockholder;
- (iv) such other information regarding each nominee or each matter of business to be proposed by such stockholder as would be required to be included in a proxy statement filed pursuant to the proxy rules of the Securities and Exchange Commission had the nominee been nominated, or intended to be nominated, or the matter been proposed, or intended to be proposed by the board of directors; and
- (v) if applicable, the consent of each nominee to serve as director of the Corporation if so elected.

The chairman of the meeting may refuse to acknowledge the nomination of any person or the proposal of any business not made in compliance with the foregoing procedure.

#### 2.6 MANNER OF GIVING NOTICE; AFFIDAVIT OF NOTICE

Written notice of any meeting of stockholders, if mailed, is given when deposited in the United States mail, postage prepaid, directed to the stockholder at his address as it appears on the records of the Corporation. An affidavit of the secretary or an assistant secretary or of the transfer agent of the Corporation that the notice has been given shall, in the absence of fraud, be prima facie evidence of the facts stated therein.

#### 2.7 QUORUM

The holders of a majority of the stock issued and outstanding and entitled to vote thereat, present in person or represented by proxy, shall constitute a quorum at all meetings of the stockholders for the transaction of business except as otherwise provided by statute or by the Certificate of Incorporation. If, however, such quorum is not present or represented at any meeting of the stockholders, then either (i) the chairman of the meeting, or (ii) the stockholders entitled to vote thereat, present in person or represented by proxy, shall have power to adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum is present or

represented. At such adjourned meeting at which a quorum is present or represented, any business may be transacted that might have been transacted at the meeting as originally noticed.

When a quorum is present or represented at any meeting, the vote of the holders of a majority of the stock having voting power present in person or represented by proxy shall decide any question brought before such meeting, unless the question is one upon which, by express provisions of the statutes or of the Certificate of Incorporation, a different vote is required, in which case such express provision shall govern and control the decision of the question.

#### 2.8 ADJOURNED MEETING; NOTICE

When a meeting is adjourned to another time or place, unless these Bylaws otherwise require, notice need not be given of the adjourned meeting if the time and place thereof are announced at the meeting at which the adjournment is taken. At the adjourned meeting the Corporation may transact any business that might have been transacted at the original meeting. If the adjournment is for more than 30 days, or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting.

#### 2.9 VOTING

The stockholders entitled to vote at any meeting of stockholders shall be determined in accordance with the provisions of Sections 2.12 and 2.14 of these Bylaws, subject to the provisions of Sections 217 and 218 of the General Corporation Law of Delaware (relating to voting rights of fiduciaries, pledgors and joint owners of stock and to voting trusts and other voting agreements).

Except as may be otherwise provided in the Certificate of Incorporation, each stockholder shall be entitled to one vote for each share of capital stock held by such stockholder.

#### 2.10 WAIVER OF NOTICE

Whenever notice is required to be given under any provision of the General Corporation Law of Delaware or of the Certificate of Incorporation or these Bylaws, a written waiver thereof, signed by the person entitled to notice, whether before or after the time stated therein, shall be deemed equivalent to notice. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the stockholders need be specified in any written waiver of notice unless so required by the Certificate of Incorporation or these Bylaws.

## 2.11 STOCKHOLDER ACTION BY WRITTEN CONSENT WITHOUT A MEETING

Notwithstanding the following provisions of this Section 2.11, effective upon the listing of the Common Stock of the Corporation on the Nasdaq Stock Market and the registration of any class of securities of the Corporation pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the stockholders of the Corporation may not take action by written consent without a meeting but must take any such actions at a duly called annual or special meeting.

Except as otherwise provided in this Section 2.11, any action required by this chapter to be taken at any annual or special meeting of stockholders of a Corporation, or any action that may be taken at any annual or special meeting of such stockholders, may be taken without a meeting, without prior notice, and without a vote if a consent in writing, setting forth the action so taken, is signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote thereon were present and voted.

Prompt notice of the taking of the corporate action without a meeting by less than unanimous written consent shall be given to those stockholders who have not consented in writing. If the action which is consented to is such as would have required the filing of a certificate under any section of the General Corporation Law of Delaware if such action had been voted on by stockholders at a meeting thereof, then the certificate filed under such section shall state, in lieu of any statement required by such section concerning any vote of stockholders, that written notice and written consent have been given as provided in Section 228 of the General Corporation Law of Delaware.

## 2.12 RECORD DATE FOR STOCKHOLDER NOTICE; VOTING; GIVING CONSENTS

In order that the Corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, or entitled to express consent to corporate action in writing without a meeting, or entitled to receive payment of any dividend or other distribution or allotment of any rights, or entitled to exercise any rights in respect of any change, conversion or exchange of stock or for the purpose of any other lawful action, the board of directors may fix, in advance, a record date, which shall not be more than 60 nor less than 10 days before the date of such meeting, nor more than 60 days prior to any other action.

If the board of directors does not so fix a record date, the fixing of such record date shall be governed by the provisions of Section 213 of the General Corporation Law of Delaware.

A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the board of directors may fix a new record date for the adjourned meeting.

2.13 PROXIES

Each stockholder entitled to vote at a meeting of stockholders or to express consent or dissent to corporate action in writing without a meeting may authorize another person or persons to act for him by a written proxy, signed by the stockholder and filed with the secretary of the Corporation, but no such proxy shall be voted or acted upon after 3 years from its date, unless the proxy provides for a longer period. A proxy shall be deemed signed if the stockholder's name is placed on the proxy (whether by manual signature, typewriting, telegraphic transmission or otherwise) by the stockholder or the stockholder's attorney-in-fact. The revocability of a proxy that states on its face that it is irrevocable shall be governed by the provisions of Section 212(c) of the General Corporation Law of Delaware.

2.14 LIST OF STOCKHOLDERS ENTITLED TO VOTE

The officer who has charge of the stock ledger of a Corporation shall prepare and make, at least 10 days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting, arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, during ordinary business hours, for a period of at least 10 days prior to the meeting, either at a place within the city where the meeting is to be held, which place shall be specified in the notice of the meeting, or, if not so specified, at the place where the meeting is to be held. The stock ledger shall also be produced and kept at the time and place of the meeting during the whole time thereof, and may be inspected by any stockholder who is present. The stock ledger shall be the only evidence as to who are the stockholders entitled to examine the stock ledger, the list of stockholders or the books of the Corporation, or to vote in person or by proxy at any meeting of stockholders and of the number of shares held by each such stockholder.

2.15 CONDUCT OF BUSINESS

Meetings of stockholders shall be presided over by the chairman of the board, if any, or in his absence by the president, or in his absence by a vice president, or in the absence of the foregoing persons by a chairman designated by the board of directors, or in the absence of such designation by a chairman chosen at the meeting. The secretary shall act as secretary of the meeting, but in his absence the chairman of the meeting may appoint any person to act as secretary of the meeting. The chairman of any meeting of stockholders shall determine the order of business and the procedures at the meeting, including such matters as the regulation of the manner of voting and conduct of business.



## ARTICLE III

### DIRECTORS

#### 3.1 POWERS

Subject to the provisions of the General Corporation Law of Delaware and any limitations in the Certificate of Incorporation or these Bylaws relating to action required to be approved by the stockholders or by the outstanding shares, the business and affairs of the Corporation shall be managed and all corporate powers shall be exercised by or under the direction of the board of directors.

#### 3.2 NUMBER

The board of directors shall consist of not less than seven (7) members nor more than nine (9) members. The number of directors may be changed by an amendment to this bylaw, duly adopted by the board of directors or by the stockholders, or by a duly adopted amendment to the certificate of incorporation. No reduction of the authorized number of directors shall have the effect of removing any director before that director's term of office expires.

#### 3.3 CLASSES OF DIRECTORS

At such time as a Registration Statement regarding the sale of the Corporation's Common Stock to the public is declared effective by the Securities and Exchange Commission, the Directors shall be divided into three classes designated as Class I, Class II and Class III, respectively. Directors shall be assigned to each class in accordance with a resolution or resolutions adopted by the Board of Directors. At the first annual meeting of stockholders following the closing of the Initial Public Offering, the term of office of the Class I Directors shall expire and Class I Directors shall be elected for a full term of three years. At the second annual meeting of stockholders following the closing of the Initial Public Offering, the term of office of the Class II Directors shall expire and Class II Directors shall be elected for a full term of three years. At the third annual meeting of stockholders following the closing of the Initial Public Offering, the term of office of the Class III Directors shall expire and Class III Directors shall be elected for a full term of three years. At each succeeding annual meeting of stockholders, Directors shall be elected for a full term of three years to succeed the Directors of the class whose terms expire at such annual meeting.

Notwithstanding the foregoing provisions of this Article, each Director shall serve until his successor is duly elected and qualified or until his earlier death, resignation or removal. No decrease in the number of Directors constituting the Board of Directors shall shorten the term of any incumbent Director.

### 3.4 RESIGNATION AND VACANCIES

Any director may resign at any time upon written notice to the Corporation. Stockholders may remove directors with or without cause. Any vacancy occurring in the board of directors with or without cause may be filled by a majority of the remaining members of the board of directors, although such majority is less than a quorum, or by a plurality of the votes cast at a meeting of stockholders, and each director so elected shall hold office until the expiration of the term of office of the director whom he has replaced.

Unless otherwise provided in the Certificate of Incorporation or these Bylaws:

- (i) Vacancies and newly created directorships resulting from any increase in the authorized number of directors elected by all of the stockholders having the right to vote as a single class may be filled by a majority of the directors then in office, although less than a quorum, or by a sole remaining director.
- (ii) Whenever the holders of any class or classes of stock or series thereof are entitled to elect one or more directors by the provisions of the Certificate of Incorporation, vacancies and newly created directorships of such class or classes or series may be filled by a majority of the directors elected by such class or classes or series thereof then in office, or by a sole remaining director so elected.

If at any time, by reason of death or resignation or other cause, the Corporation should have no directors in office, then any officer or any stockholder or an executor, administrator, trustee or guardian of a stockholder, or other fiduciary entrusted with like responsibility for the person or estate of a stockholder, may apply to the Court of Chancery for a decree summarily ordering an election as provided in Section 211 of the General Corporation Law of Delaware.

If, at the time of filling any vacancy or any newly created directorship, the directors then in office constitute less than a majority of the whole board (as constituted immediately prior to any such increase), then the Court of Chancery may, upon application of any stockholder or stockholders holding at least 10% of the total number of the shares at the time outstanding having the right to vote for such directors, summarily order an election to be held to fill any such vacancies or newly created directorships, or to replace the directors chosen by the directors then in office as aforesaid, which election shall be governed by the provisions of Section 211 of the General Corporation Law of Delaware as far as applicable.

### 3.5 PLACE OF MEETINGS; MEETINGS BY TELEPHONE

The board of directors of the Corporation may hold meetings, both regular and special, either within or outside the State of Delaware.

Unless otherwise restricted by the Certificate of Incorporation or these Bylaws, members of the board of directors, or any committee designated by the board of directors, may participate in a meeting of the board of directors, or any committee, by means of conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other, and such participation in a meeting shall constitute presence in person at the meeting.

### 3.6 REGULAR MEETINGS

Regular meetings of the board of directors may be held without notice at such time and at such place as shall from time to time be determined by the board.

### 3.7 SPECIAL MEETINGS; NOTICE

Special meetings of the board of directors for any purpose or purposes may be called at any time by the chairman of the board, the president, any vice president, the secretary or any two directors.

Notice of the time and place of special meetings shall be delivered personally or by telephone to each director or sent by first-class mail or telegram, charges prepaid, addressed to each director at that director's address as it is shown on the records of the Corporation. If the notice is mailed, it shall be deposited in the United States mail at least 4 days before the time of the holding of the meeting. If the notice is delivered personally or by telephone or by telegram, it shall be delivered personally or by telephone or to the telegraph company at least 48 hours before the time of the holding of the meeting. Any oral notice given personally or by telephone may be communicated either to the director or to a person at the office of the director who the person giving the notice has reason to believe will promptly communicate it to the director. The notice need not specify the purpose or the place of the meeting, if the meeting is to be held at the principal executive office of the Corporation.

### 3.8 QUORUM

At all meetings of the board of directors, a majority of the authorized number of directors shall constitute a quorum for the transaction of business and the act of a majority of the directors present at any meeting at which there is a quorum shall be the act of the board of directors, except as may be otherwise specifically provided by statute or by the Certificate of Incorporation.

### 3.9 WAIVER OF NOTICE

Whenever notice is required to be given under any provision of the General Corporation Law of Delaware or of the Certificate of Incorporation or these Bylaws, a written waiver thereof, signed by the person entitled to notice, whether before or after the time stated therein, shall be deemed equivalent to notice. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or

special meeting of the directors, or members of a committee of directors, need be specified in any written waiver of notice unless so required by the Certificate of Incorporation or these Bylaws.

3.10 ADJOURNED MEETING; NOTICE

If a quorum is not present at any meeting of the board of directors, then the directors present thereat may adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum is present.

3.11 CONDUCT OF BUSINESS

Meetings of the board of directors shall be presided over by the chairman of the board, if any, or in his absence by the chief executive officer, or in their absence by a chairman chosen at the meeting. The secretary shall act as secretary of the meeting, but in his absence the chairman of the meeting may appoint any person to act as secretary of the meeting. The chairman of any meeting shall determine the order of business and the procedures at the meeting.

3.12 BOARD ACTION BY WRITTEN CONSENT WITHOUT A MEETING

Unless otherwise restricted by the Certificate of Incorporation or these Bylaws, any action required or permitted to be taken at any meeting of the board of directors, or of any committee thereof, may be taken without a meeting if all members of the board or committee, as the case may be, consent thereto in writing and the writing or writings are filed with the minutes of proceedings of the board or committee.

3.13 FEES AND COMPENSATION OF DIRECTORS

Unless otherwise restricted by the Certificate of Incorporation or these Bylaws, the board of directors shall have the authority to fix the compensation of directors. The directors may be paid their expenses, if any, of attendance at each meeting of the board of directors and may be paid a fixed sum for attendance at each meeting of the board of directors or a stated salary as director. No such payment shall preclude any director from serving the Corporation in any other capacity and receiving compensation therefor. Members of special or standing committees may be allowed like compensation for attending committee meetings.

3.14 REMOVAL OF DIRECTORS

Unless otherwise restricted by statute, by the Certificate of Incorporation or by these Bylaws, any director or the entire board of directors may be removed, with or without cause, by the holders of a majority of the shares then entitled to vote at an election of directors. If at any time a class or series of shares is entitled to elect one or more directors, the provisions of this Article 3.14 shall apply to the vote of that class or series and not to the vote of the outstanding shares as a whole.

## ARTICLE IV

### COMMITTEES

#### 4.1 COMMITTEES OF DIRECTORS

The board of directors may, by resolution passed by a majority of the whole board, designate one or more committees, with each committee to consist of one or more of the directors of the Corporation. The board may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of a committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not he or they constitute a quorum, may unanimously appoint another member of the board of directors to act at the meeting in the place of any such absent or disqualified member. Any such committee, to the extent provided in the resolution of the board of directors or in the Bylaws of the Corporation, shall have and may exercise all the powers and authority of the board of directors in the management of the business and affairs of the Corporation, and may authorize the seal of the Corporation to be affixed to all papers that may require it; but no such committee shall have the power or authority to (i) amend the Certificate of Incorporation (except that a committee may, to the extent authorized in the resolution or resolutions providing for the issuance of shares of stock adopted by the board of directors as provided in Section 151(a) of the General Corporation Law of Delaware, fix any of the preferences or rights of such shares relating to dividends, redemption, dissolution, any distribution of assets of the Corporation or the conversion into, or the exchange of such shares for, shares of any other class or classes or any other series of the same or any other class or classes of stock of the Corporation), (ii) adopt an agreement of merger or consolidation under Sections 251 or 252 of the General Corporation Law of Delaware, (iii) recommend to the stockholders the sale, lease or exchange of all or substantially all of the Corporation's property and assets, (iv) recommend to the stockholders a dissolution of the Corporation or a revocation of a dissolution, or (v) amend the Bylaws of the Corporation; and, unless the board resolution establishing the committee, the Bylaws or the Certificate of Incorporation expressly so provide, no such committee shall have the power or authority to declare a dividend, to authorize the issuance of stock, or to adopt a certificate of ownership and merger pursuant to Section 253 of the General Corporation Law of Delaware.

#### 4.2 COMMITTEE MINUTES

Each committee shall keep regular minutes of its meetings and report the same to the board of directors when required.

#### 4.3 MEETINGS AND ACTION OF COMMITTEES

Meetings and actions of committees shall be governed by, and held and taken in accordance with, the provisions of Article III of these Bylaws, Section 3.5 (place of meetings and meetings by telephone), Section 3.6 (regular meetings), Section 3.7 (special meetings and notice), Section 3.8 (quorum), Section 3.9 (waiver of notice), Section 3.10 (adjournment and notice of adjournment),

Section 3.11 (conduct of business) and 3.12 (action without a meeting), with such changes in the context of those Bylaws as are necessary to substitute the committee and its members for the board of directors and its members; provided, however, that the time of regular meetings of committees may also be called by resolution of the board of directors and that notice of special meetings of committees shall also be given to all alternate members, who shall have the right to attend all meetings of the committee. The board of directors may adopt rules for the government of any committee not inconsistent with the provisions of these Bylaws.

## ARTICLE V

### OFFICERS

#### 5.1 OFFICERS

The officers of the Corporation shall be a chief executive officer, one or more vice presidents, a secretary and a chief financial officer. The Corporation may also have, at the discretion of the board of directors, a chairman of the board, a president, a chief operating officer, one or more executive, senior or assistant vice presidents, assistant secretaries and any such other officers as may be appointed in accordance with the provisions of Section 5.2 of these Bylaws. Any number of offices may be held by the same person.

#### 5.2 APPOINTMENT OF OFFICERS

Except as otherwise provided in this Section 5.2, the officers of the Corporation shall be appointed by the board of directors, subject to the rights, if any, of an officer under any contract of employment. The board of directors may appoint, or empower an officer to appoint, such officers and agents of the business as the Corporation may require (whether or not such officer or agent is described in this Article V), each of whom shall hold office for such period, have such authority, and perform such duties as are provided in these Bylaws or as the board of directors may from time to time determine. Any vacancy occurring in any office of the Corporation shall be filled by the board of directors or may be filled by the officer, if any, who appointed such officer.

#### 5.3 REMOVAL AND RESIGNATION OF OFFICERS

Subject to the rights, if any, of an officer under any contract of employment, any officer may be removed, either with or without cause, by an affirmative vote of the majority of the board of directors at any regular or special meeting of the board or, except in the case of an officer chosen by the board of directors, by any officer upon whom such power of removal may be conferred by the board of directors or, in the case of an officer appointed by another officer, by such other officer.

Any officer may resign at any time by giving written notice to the Corporation. Any resignation shall take effect at the date of the receipt of that notice or at any later time specified in that notice; and, unless otherwise specified in that notice, the acceptance of the resignation shall not

be necessary to make it effective. Any resignation is without prejudice to the rights, if any, of the Corporation under any contract to which the officer is a party.

#### 5.4 CHAIRMAN OF THE BOARD

The chairman of the board, if such an officer be elected, shall, if present, preside at meetings of the board of directors and exercise and perform such other powers and duties as may from time to time be assigned to him by the board of directors or as may be prescribed by these Bylaws. If there is no chief executive officer, then the chairman of the board shall also be the chief executive officer of the Corporation and shall have the powers and duties prescribed in Section 5.5 of these Bylaws.

#### 5.5 CHIEF EXECUTIVE OFFICER

The Chief Executive Officer of the Corporation shall, subject to the control of the Board of Directors, have general supervision, direction and control of the business and the officers of the Corporation. He or she shall preside at all meetings of the stockholders and, in the absence or nonexistence of a Chairman of the Board at all meetings of the Board of Directors. He or she shall have the general powers and duties of management usually vested in the chief executive officer of a Corporation, including general supervision, direction and control of the business and supervision of other officers of the Corporation, and shall have such other powers and duties as may be prescribed by the Board of Directors or these Bylaws.

The Chief Executive Officer shall, without limitation, have the authority to execute bonds, mortgages and other contracts requiring a seal, under the seal of the Corporation, except where required or permitted by law to be otherwise signed and executed and except where the signing and execution thereof shall be expressly delegated by the Board of Directors to some other officer or agent of the Corporation.

#### 5.6 PRESIDENT

Subject to such supervisory powers as may be given by these Bylaws or the Board of Directors to the Chairman of the Board or the Chief Executive Officer, if there be such officers, the president shall have general supervision, direction and control of the business and supervision of other officers of the Corporation, and shall have such other powers and duties as may be prescribed by the Board of Directors or these Bylaws. In the event a Chief Executive Officer shall not be appointed, the President shall have the duties of such office.

#### 5.7 VICE PRESIDENT

In the absence or disability of the president, the vice presidents, if any, in order of their rank as fixed by the board of directors or, if not ranked, a vice president designated by the board of directors, shall perform all the duties of the chief executive officer and when so acting shall have all the powers of, and be subject to all the restrictions upon, the chief executive officer. The vice presidents shall have such other powers and perform such other duties as from time to time may be

prescribed for them respectively by the board of directors, these Bylaws, the chief executive officer or the chairman of the board.

#### 5.8 SECRETARY

The secretary shall keep or cause to be kept, at the principal executive office of the Corporation or such other place as the board of directors may direct, a book of minutes of all meetings and actions of directors, committees of directors, and stockholders. The minutes shall show the time and place of each meeting, whether regular or special (and, if special, how authorized and the notice given), the names of those present at directors' meetings or committee meetings, the number of shares present or represented at stockholders' meetings, and the proceedings thereof.

The secretary shall keep, or cause to be kept, at the principal executive office of the Corporation or at the office of the Corporation's transfer agent or registrar, as determined by resolution of the board of directors, a share register, or a duplicate share register, showing the names of all stockholders and their addresses, the number and classes of shares held by each, the number and date of certificates evidencing such shares, and the number and date of cancellation of every certificate surrendered for cancellation.

The secretary shall give, or cause to be given, notice of all meetings of the stockholders and of the board of directors required to be given by law or by these Bylaws. He shall keep the seal of the Corporation, if one be adopted, in safe custody and shall have such other powers and perform such other duties as may be prescribed by the board of directors or by these Bylaws.

#### 5.9 CHIEF FINANCIAL OFFICER

The chief financial officer shall keep and maintain, or cause to be kept and maintained, adequate and correct books and records of accounts of the properties and business transactions of the Corporation, including accounts of its assets, liabilities, receipts, disbursements, gains, losses, capital, retained earnings and shares. The books of account shall at all reasonable times be open to inspection by any director.

The chief financial officer shall deposit all money and other valuables in the name and to the credit of the Corporation with such depositaries as may be designated by the board of directors. He shall disburse the funds of the Corporation as may be ordered by the board of directors, shall render to the chief executive officer and directors, whenever they request it, an account of all of his transactions as treasurer and of the financial condition of the Corporation, and shall have such other powers and perform such other duties as may be prescribed by the board of directors or these Bylaws.

#### 5.10 ASSISTANT SECRETARY

The assistant secretary, or, if there is more than one, the assistant secretaries in the order determined by the stockholders or board of directors (or if there be no such determination, then in the



order of their election) shall, in the absence of the secretary or in the event of his or her inability or refusal to act, perform the duties and exercise the powers of the secretary and shall perform such other duties and have such other powers as the board of directors or the stockholders may from time to time prescribe.

#### 5.11 AUTHORITY AND DUTIES OF OFFICERS

In addition to the foregoing authority and duties, all officers of the Corporation shall respectively have such authority and perform such duties in the management of the business of the Corporation as may be designated from time to time by the board of directors or the stockholders.

### ARTICLE VI

#### INDEMNITY

#### 6.1 INDEMNIFICATION OF DIRECTORS AND OFFICERS

The Corporation shall, to the maximum extent and in the manner permitted by the General Corporation Law of Delaware, indemnify each of its directors and officers against expenses (including attorneys' fees), judgments, fines, settlements, and other amounts actually and reasonably incurred in connection with any proceeding, arising by reason of the fact that such person is or was an agent of the Corporation. For purposes of this Section 6.1, a "director" or "officer" of the Corporation includes any person (i) who is or was a director or officer of the Corporation, (ii) who is or was serving at the request of the Corporation as a director or officer of another Corporation, partnership, joint venture, trust or other enterprise, or (iii) who was a director or officer of a Corporation which was a predecessor Corporation of the Corporation or of another enterprise at the request of such predecessor Corporation.

#### 6.2 INDEMNIFICATION OF OTHERS

The Corporation shall have the power, to the extent and in the manner permitted by the General Corporation Law of Delaware, to indemnify each of its employees and agents (other than directors and officers) against expenses (including attorneys' fees), judgments, fines, settlements, and other amounts actually and reasonably incurred in connection with any proceeding, arising by reason of the fact that such person is or was an agent of the Corporation. For purposes of this Section 6.2, an "employee" or agent of the Corporation (other than a director or officer) includes any person (i) who is or was an employee or agent of the Corporation, (ii) who is or was serving at the request of the Corporation as an employee or agent of another Corporation, partnership, joint venture, trust or other enterprise, or (iii) who was an employee or agent of a Corporation which was a predecessor Corporation of the Corporation or of another enterprise at the request of such predecessor Corporation.

### 6.3 INSURANCE

The Corporation may purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the Corporation, or is or was serving at the request of the Corporation as a director, officer, employee or agent of another Corporation, partnership, joint venture, trust or other enterprise against any liability asserted against him and incurred by him in any such capacity, or arising out of his status as such, whether or not the Corporation would have the power to indemnify him against such liability under the provisions of the General Corporation Law of Delaware.

## ARTICLE VII

### RECORDS AND REPORTS

#### 7.1 MAINTENANCE AND INSPECTION OF RECORDS

The Corporation shall, either at its principal executive office or at such place or places as designated by the board of directors, keep a record of its stockholders listing their names and addresses and the number and class of shares held by each stockholder, a copy of these Bylaws as amended to date, accounting books, and other records.

Any stockholder of record, in person or by attorney or other agent, shall, upon written demand under oath stating the purpose thereof, have the right during the usual hours for business to inspect for any proper purpose the Corporation's stock ledger, a list of its stockholders, and its other books and records and to make copies or extracts therefrom. A proper purpose shall mean a purpose reasonably related to such person's interest as a stockholder. In every instance where an attorney or other agent is the person who seeks the right to inspection, the demand under oath shall be accompanied by a power of attorney or such other writing that authorizes the attorney or other agent to so act on behalf of the stockholder. The demand under oath shall be directed to the Corporation at its registered office in Delaware or at its principal place of business.

#### 7.2 INSPECTION BY DIRECTORS

Any director shall have the right to examine the Corporation's stock ledger, a list of its stockholders and its other books and records for a purpose reasonably related to his position as a director. The Court of Chancery is hereby vested with the exclusive jurisdiction to determine whether a director is entitled to the inspection sought. The Court may summarily order the Corporation to permit the director to inspect any and all books and records, the stock ledger, and the stock list and to make copies or extracts therefrom. The Court may, in its discretion, prescribe any limitations or conditions with reference to the inspection, or award such other and further relief as the Court may deem just and proper.

### 7.3 REPRESENTATION OF SHARES OF OTHER CORPORATIONS

The chairman of the board, the chief executive officer, any vice president, the chief financial officer, the secretary or assistant secretary of this Corporation, or any other person authorized by the board of directors or the chief executive officer or a vice president, is authorized to vote, represent, and exercise on behalf of this Corporation all rights incident to any and all shares of any other corporation or corporations standing in the name of this Corporation. The authority granted herein may be exercised either by such person directly or by any other person authorized to do so by proxy or power of attorney duly executed by such person having the authority.

## ARTICLE VIII

### GENERAL MATTERS

#### 8.1 CHECKS

From time to time, the board of directors shall determine by resolution which person or persons may sign or endorse all checks, drafts, other orders for payment of money, notes or other evidences of indebtedness that are issued in the name of or payable to the Corporation, and only the persons so authorized shall sign or endorse those instruments.

#### 8.2 EXECUTION OF CORPORATE CONTRACTS AND INSTRUMENTS

The board of directors, except as otherwise provided in these Bylaws, may authorize any officer or officers, or agent or agents, to enter into any contract or execute any instrument in the name of and on behalf of the Corporation; such authority may be general or confined to specific instances. Unless so authorized or ratified by the board of directors or within the agency power of an officer, no officer, agent or employee shall have any power or authority to bind the Corporation by any contract or engagement or to pledge its credit or to render it liable for any purpose or for any amount.

#### 8.3 STOCK CERTIFICATES; PARTLY PAID SHARES

The shares of a corporation shall be represented by certificates, provided that the board of directors of the Corporation may provide by resolution or resolutions that some or all of any or all classes or series of its stock shall be uncertificated shares. Any such resolution shall not apply to shares represented by a certificate until such certificate is surrendered to the Corporation. Notwithstanding the adoption of such a resolution by the board of directors, every holder of stock represented by certificates and upon request every holder of uncertificated shares shall be entitled to have a certificate signed by, or in the name of the Corporation by the chairman or vice-chairman of the board of directors, or the president or vice-president, and by the treasurer or an assistant treasurer, or the secretary or an assistant secretary of such Corporation representing the number of shares registered in certificate form. Any or all of the signatures on the certificate may be a facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been

placed upon a certificate has to be such officer, transfer agent or registrar before such certificate is issued, it may be issued by the Corporation with the same effect as if he were such officer, transfer agent or registrar at the date of issue.

The Corporation may issue the whole or any part of its shares as partly paid and subject to call for the remainder of the consideration to be paid therefor. Upon the face or back of each stock certificate issued to represent any such partly paid shares, upon the books and records of the Corporation in the case of uncertificated partly paid shares, the total amount of the consideration to be paid therefor and the amount paid thereon shall be stated. Upon the declaration of any dividend on fully paid shares, the Corporation shall declare a dividend upon partly paid shares of the same class, but only upon the basis of the percentage of the consideration actually paid thereon.

#### 8.4 SPECIAL DESIGNATION ON CERTIFICATES

If the Corporation is authorized to issue more than one class of stock or more than one series of any class, then the powers, the designations, the preferences, and the relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights shall be set forth in full or summarized on the face or back of the certificate that the Corporation shall issue to represent such class or series of stock; provided, however, that, except as otherwise provided in Section 202 of the General Corporation Law of Delaware, in lieu of the foregoing requirements there may be set forth on the face or back of the certificate that the Corporation shall issue to represent such class or series of stock a statement that the Corporation will furnish without charge to each stockholder who so requests the powers, the designations, the preferences, and the relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights.

#### 8.5 LOST CERTIFICATES

Except as provided in this Section 8.5, no new certificates for shares shall be issued to replace a previously issued certificate unless the latter is surrendered to the Corporation and cancelled at the same time. The Corporation may issue a new certificate of stock or uncertificated shares in the place of any certificate theretofore issued by it, alleged to have been lost, stolen or destroyed, and the Corporation may require the owner of the lost, stolen or destroyed certificate, or his legal representative, to give the Corporation a bond sufficient to indemnify it against any claim that may be made against it on account of the alleged loss, theft or destruction of any such certificate or the issuance of such new certificate or uncertificated shares.

#### 8.6 CONSTRUCTION; DEFINITIONS

Unless the context requires otherwise, the general provisions, rules of construction, and definitions in the Delaware General Corporation Law shall govern the construction of these Bylaws. Without limiting the generality of this provision, the singular number includes the plural, the plural

number includes the singular, and the term "person" includes both a Corporation and a natural person.

#### 8.7 DIVIDENDS

The directors of the Corporation, subject to any restrictions contained in the Certificate of Incorporation, may declare and pay dividends upon the shares of its capital stock pursuant to the General Corporation Law of Delaware. Dividends may be paid in cash, in property, or in shares of the Corporation's capital stock.

The directors of the Corporation may set apart out of any of the funds of the Corporation available for dividends a reserve or reserves for any proper purpose and may abolish any such reserve. Such purposes shall include but not be limited to equalizing dividends, repairing or maintaining any property of the Corporation, and meeting contingencies.

#### 8.8 FISCAL YEAR

The fiscal year of the Corporation shall be fixed by resolution of the board of directors and may be changed by the board of directors.

#### 8.9 SEAL

The Corporation may adopt a corporate seal, which may be altered at pleasure, and may use the same by causing it or a facsimile thereof to be impressed or affixed or in any other manner reproduced.

#### 8.10 TRANSFER OF STOCK

Upon surrender to the Corporation or the transfer agent of the Corporation of a certificate for shares duly endorsed or accompanied by proper evidence of succession, assignation or authority to transfer, it shall be the duty of the Corporation to issue a new certificate to the person entitled thereto, cancel the old certificate, and record the transaction in its books.

#### 8.11 STOCK TRANSFER AGREEMENTS

The Corporation shall have power to enter into and perform any agreement with any number of stockholders of any one or more classes of stock of the Corporation to restrict the transfer of shares of stock of the Corporation of any one or more classes owned by such stockholders in any manner not prohibited by the General Corporation Law of Delaware.

#### 8.12 REGISTERED STOCKHOLDERS

The Corporation shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends and to vote as such owner, shall be entitled to hold liable for calls and assessments the person registered on its books as the owner of shares, and shall

not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of another person, whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of Delaware.

## ARTICLE IX

### AMENDMENTS

The original or other Bylaws of the Corporation may be adopted, amended or repealed by the stockholders entitled to vote; provided, however, that the Corporation may, in its Certificate of Incorporation, confer the power to adopt, amend or repeal Bylaws upon the directors. The fact that such power has been so conferred upon the directors shall not divest the stockholders of the power, nor limit their power to adopt, amend or repeal Bylaws.

## ARTICLE X

### DISSOLUTION

If it should be deemed advisable in the judgment of the board of directors of the Corporation that the Corporation should be dissolved, the board, after the adoption of a resolution to that effect by a majority of the whole board at any meeting called for that purpose, shall cause notice to be mailed to each stockholder entitled to vote thereon of the adoption of the resolution and of a meeting of stockholders to take action upon the resolution.

At the meeting a vote shall be taken for and against the proposed dissolution. If a majority of the outstanding stock of the Corporation entitled to vote thereon votes for the proposed dissolution, then a certificate stating that the dissolution has been authorized in accordance with the provisions of Section 275 of the General Corporation Law of Delaware and setting forth the names and residences of the directors and officers shall be executed, acknowledged, and filed and shall become effective in accordance with Section 103 of the General Corporation Law of Delaware. Upon such certificate's becoming effective in accordance with Section 103 of the General Corporation Law of Delaware, the Corporation shall be dissolved.

## ARTICLE XI

### CUSTODIAN

#### 11.1 APPOINTMENT OF A CUSTODIAN IN CERTAIN CASES

The Court of Chancery, upon application of any stockholder, may appoint one or more persons to be custodians and, if the Corporation is insolvent, to be receivers, of and for the Corporation when:

- (i) at any meeting held for the election of directors the stockholders are so divided that they have failed to elect successors to directors whose terms have expired or would have expired upon qualification of their successors; or
- (ii) the business of the Corporation is suffering or is threatened with irreparable injury because the directors are so divided respecting the management of the affairs of the Corporation that the required vote for action by the board of directors cannot be obtained and the stockholders are unable to terminate this division; or
- (iii) the Corporation has abandoned its business and has failed within a reasonable time to take steps to dissolve, liquidate or distribute its assets.

#### 11.2 DUTIES OF CUSTODIAN

The custodian shall have all the powers and title of a receiver appointed under Section 291 of the General Corporation Law of Delaware, but the authority of the custodian shall be to continue the business of the Corporation and not to liquidate its affairs and distribute its assets, except when the Court of Chancery otherwise orders and except in cases arising under Sections 226(a)(3) or 352(a)(2) of the General Corporation Law of Delaware.

### ARTICLE XII

#### LOANS TO OFFICERS

The Corporation may lend money to, or guarantee any obligation of, or otherwise assist any officer or other employee of the Corporation or of its subsidiaries, including any officer or employee who is a Director of the Corporation or its subsidiaries, whenever, in the judgment of the Board of Directors, such loan, guarantee or assistance may reasonably be expected to benefit the Corporation. The loan, guarantee or other assistance may be with or without interest and may be unsecured, or secured in such manner as the Board of Directors shall approve, including, without limitation, a pledge of shares of stock of the Corporation. Nothing in this Bylaw shall be deemed to deny, limit or restrict the powers of guaranty or warranty of the Corporation at common law or under any statute.

**AMENDED AND RESTATED**

**BYLAWS**

**OF**

**PC-TEL, INC.**

**a Delaware Corporation**

**(as amended October 13, 2011 to restate Section 3.2, and previously amended August 16, 2001, to restate in its entirety Article VI of the Amended and Restated Bylaws, dated August 3, 1999)**

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**DESCRIPTION OF SECURITIES  
REGISTERED PURSUANT TO SECTION 12 OF THE  
SECURITIES EXCHANGE ACT OF 1934**

PCTEL, Inc. (“PCTEL,” the “Company,” “we,” “us,” and “our”) has one class of securities registered under Section 12 of the Securities Exchange Act of 1934, as amended (the “Exchange Act”): our common stock, par value \$0.001 per share (the “Common Stock”).

**DESCRIPTION OF COMMON STOCK**

The following description of our Common Stock is a summary and does not purport to be complete. It is subject to and qualified in its entirety by reference to our Amended and Restated Certificate of Incorporation (the “Certificate of Incorporation”) and our Bylaws, as amended (the “Bylaws”), each of which are incorporated by reference as an exhibit to our most recent Annual Report on Form 10-K, of which this exhibit is a part. We encourage you to read our Certificate of Incorporation, our Bylaws and the applicable provisions of the General Corporation Law of the State of Delaware (the “DGCL”) for additional information.

**Authorized Capital**

Our Certificate of Incorporation currently authorizes the issuance of one-hundred million (100,000,000) shares of Common Stock, and five million (5,000,000) shares of preferred stock, with a par value of \$0.001 (the “Preferred Stock”). Subject to our stockholders’ approval, the number of authorized shares of Common Stock will be reduced to 50,000,000 shares. Our Common Stock is listed and principally traded on The Nasdaq Global Select Market under the symbol “PCTI.”

There are currently no shares of Preferred Stock outstanding. However, our Board of Directors is authorized to approve the issuance of one or more series of Preferred Stock without further authorization of our stockholders and to fix the number of shares, the designations, the relative rights and the limitations of any series of Preferred Stock. As a result, our Board of Directors, without stockholder approval, could authorize the issuance of Preferred Stock with voting, conversion and other rights that could proportionately reduce, minimize or otherwise adversely affect the voting power and other rights of holders of Common Stock or other series of Preferred Stock.

**Dividend Rights**

The holders of Common Stock are entitled to receive their proportionate share of the dividends, if any, as may be declared from time to time by the Board of Directors out of funds legally available for that purpose. Dividends may be paid in cash, in property, or in shares of the Company’s capital stock. Holders of Common Stock may not receive dividends until we have satisfied our obligations to the holders of outstanding Preferred Stock, if any.

**Voting Rights**

Holders of Common Stock have the exclusive power to vote on all matters presented to our stockholders, unless the DGCL or the certificate of designation for an outstanding series of Preferred Stock gives the holders of that series of Preferred Stock the right to vote on certain matters. Holders of Common Stock are entitled to one vote for each share on all matters voted on by stockholders, including the election of directors.

Our Board of Directors is divided into three classes. Each year, one class of directors stands for election for a three-year term. When a quorum is present or represented at any meeting, each director is elected by a plurality of the votes of the shares present in person or represented by proxy at the meeting and entitled to vote on the election of directors. The vote of the holders of a majority of the shares having voting power present in person or represented by proxy decides any other question brought before such meeting, unless the question is one upon which, by express provisions of the statutes, Certificate of Incorporation, or Bylaws, a different vote is required. See “Anti-takeover Provisions Contained in Our Certificate of Incorporation and Bylaws”.

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If, at the time of filling any vacancy or any newly created directorship, the directors then in office constitute less than a majority of the whole Board (as constituted immediately prior to any such increase), then the Delaware Court of Chancery may, upon application of any stockholder or stockholders holding at least 10% of the total number of the shares at the time outstanding having the right to vote for such directors, summarily order an election to be held to fill any such vacancies or newly created directorships, or to replace the directors chosen by the directors then in office as aforesaid, which election shall be governed by the provisions of Section 211 of the DGCL as far as applicable.

### **Liquidation Rights**

In the event of a liquidation, dissolution or winding up of PCTEL, the holders of Common Stock are entitled to their proportionate share of all assets remaining after payment of liabilities, after taking into consideration the prior distribution rights of Preferred Stock, if any, then outstanding.

### **Fully Paid and Nonassessable**

All outstanding shares of our Common Stock are fully paid and nonassessable. This means the full purchase price for the outstanding shares of Common Stock has been paid and the holders of such shares will not be assessed any additional amounts for such shares. Any additional Common Stock that we may issue in the future will also be fully paid and nonassessable.

### **Other Rights and Preferences**

The holders of Common Stock do not have any conversion rights or any preemptive rights to subscribe for stock or any other securities of the Company. There are no redemption or sinking fund provisions applicable to our Common Stock.

### **Anti-takeover Provisions Contained in Our Certificate of Incorporation and Bylaws**

Certain provisions of our Certificate of Incorporation and Bylaws may make it less likely that our management would be changed or someone would acquire control of the Company without the Board's consent. These provisions may delay, defer or prevent a change in control or takeover attempts that stockholder may believe are in their best interests, including tender offers or attempts that might allow stockholders to receive premiums over the market price of their Common Stock.

- ***Effect of Preferred Stock.*** Our Board of Directors may at any time, under our Certificate of Incorporation and without stockholder approval, issue one or more new series of Preferred Stock. In some cases, the issuance of Preferred Stock without stockholder approval could discourage or make more difficult attempts to take control of the Company through a merger, tender offer, proxy contest or otherwise. Preferred Stock with special voting rights or other features issued to persons favoring our management could stop a takeover by preventing the person trying to take control of the Company from acquiring enough voting shares necessary to take control.
  - ***Certain Effects of Authorized but Unissued Stock.*** Authorized but unissued shares of Common Stock and Preferred Stock are available for future issuance without stockholder approval. These additional shares may be utilized for a variety of corporate purposes, including future public or private offerings to raise additional capital and for corporate acquisitions. The Company could also use additional shares to dilute the stock ownership of persons seeking to obtain control of the Company.
  - ***Supermajority Approval of Amendments to Certificate of Incorporation and Bylaws.*** Stockholders must approve certain amendments to our organizational documents by a supermajority vote, which can delay, defer or prevent a change in control. The affirmative vote of 66 2/3% of the voting power of the then outstanding shares voting as a single class, shall be required for the adoption, amendment, or repeal of the following sections of the Bylaws by the stockholders of the Company: Section 2.2 (Annual Meeting) and Section 2.3 (Special Meeting) and the following sections of the Certificate of Incorporation: Article Seventh (Staggered Board of Directors) and Article Ninth (Amendment of Article Seventh).
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- **Director Nomination, Election Procedures, and Classified Board.** In order to nominate candidates for the Board of Directors, a stockholder must follow the advance notice procedures described in our Bylaws. In general, a stockholder must submit a written notice containing certain information not less than 120 days prior to the date of our proxy statement for the previous year's annual meeting of stockholders. Directors are elected by a plurality of the votes, meaning that the candidates receiving the greatest number of votes are elected, regardless of whether or not they receive a majority of the votes cast. As a result, "vote no" campaigns to unseat incumbent directors may be ineffective in uncontested elections. Further, the Company has three classes of directors elected to serve staggered three-year terms, which means stockholders can only elect, or remove, a limited number of directors in a given year.
- **Stockholder Proposal Procedures.** Stockholders can propose director nominations or other business to the Board of Directors to be considered at an annual meeting of stockholders, only if the stockholder follows the advance notice procedures described in our Bylaws. In general, a stockholder must submit a written notice containing certain information not less than 120 days prior to the date of our proxy statement for the previous year's annual meeting of stockholders.
- **Right to Call Special Meeting and Action by Written Consent.** The Certificate of Incorporation and Bylaws require that any action required or permitted to be taken by our stockholders must be effected at a duly called annual or special meeting of the stockholders and may not be effected by a consent in writing. In addition, special meetings of our stockholders may be called only by the Board of Directors or some of our officers.

**PCTEL, INC.**  
**LONG-TERM INCENTIVE AWARD AGREEMENT**

This Long-Term Incentive Award Agreement (the "Agreement"), dated as of February 5, 2020 between PCTEL, Inc. (hereinafter referred to as the "Company") and \_\_\_\_\_ (hereinafter referred to as "Participant"), is intended to memorialize the authorization by the Company's Board of Directors on February 5, 2020 (the "Date of Grant") of an equity award to Participant under the Company's 2020 long-term incentive plan ("LTIP"). Capitalized terms used herein and not defined shall have the meanings ascribed thereto in the PCTEL, Inc. 2019 Stock Incentive Plan, as amended from time to time (the "Stock Plan").

1. **Award Grant.** The award under the LTIP ("LTIP Award") is comprised of two components: 33% of the LTIP Award is a time-based service award and 67% of the LTIP Award is a performance incentive award. Subject to the terms and conditions set forth herein (including Section 2) and in the Stock Plan, the Company has (i) awarded to Participant under the LTIP, as of the Date of Grant, \_\_\_\_\_ Shares of Restricted Stock as a time-based award ("Time-Based Shares"); and (ii) committed to issue a specified number of Shares to Participant provided the Company achieves the financial performance levels described in Sections 1(d) through (h) ("Performance Shares"). Unlike the Time-Based Shares, the Performance Shares do not represent immediate ownership of Shares. Participant's target number of Shares under the Performance Shares is \_\_\_\_\_, but the actual number of Shares to be issued may be higher or lower depending on Company performance. The Shares issued or issuable under this LTIP Award are collectively hereinafter referred to as "LTIP Shares."

a. **Vesting of LTIP Shares.** Unless vested earlier under Section 2, (i) Time-Based Shares shall vest in three substantially equal annual increments on the first, second and third anniversaries of the Date of Grant, and (ii) any Performance Shares earned shall vest on the Determination Date (as defined in Section 1(e)).

b. **Voting of LTIP Shares.** From and after the Date of Grant of Time-Based Shares (including the period prior to the vesting thereof), Participant shall have all voting rights and privileges accorded to holders of the Company's Shares. Participant will not have any voting rights or privileges of a holder of the Company's Shares in respect of any Performance Shares unless and until Shares have been issued thereunder, recorded on the records of the Company or its transfer agents or registrars, and delivered to Participant.

c. **Dividends on LTIP Shares.** From and after the Date of Grant of Time-Based Shares (including the period prior to the vesting thereof), Participant shall have the right to receive with respect thereto all dividends granted on the Company's Shares; provided, however that prior to the vesting of Time-Based Shares, dividends shall be accrued and not paid to Participant. If and when the Time-Based Shares vest, the accrued dividends with respect thereto will be paid in cash through the payroll system (if Participant is a Company employee) or through a method determined by the Company (if Participant is not a Company employee). No dividends will be earned or accrued with respect to Participant's Performance Shares unless and until Shares have been issued thereunder, recorded on the records of the Company or its transfer agents or registrars, and delivered to Participant.

d. **Performance Shares.** The number of Performance Shares that Participant is entitled to receive depends upon the Company's revenue growth over a period of three fiscal years commencing with fiscal year 2020 (the "Performance Period"). If the Company's revenue in the last year of the Performance Period (*i.e.*, 2022) reflects compound annual growth in revenue of 8% over the Performance Period (*i.e.*, as compared to revenue in 2019) ("Target Growth"), Participant will receive the target number of Shares indicated above ("Target Performance Award"). If the Company achieves less than Target Growth over the Performance Period, Participant will receive fewer Shares than the Target Performance Award, determined on a straight-line basis as indicated on the chart

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below. If the Company achieves greater than the Target Growth over the Performance Period, Participant will receive more Shares than the Target Performance Award, determined on an accelerated basis in accordance with the chart below. The maximum number of Shares that may be issued to Participant under the LTIP for the Performance Period is 175% of the Target Performance Award even if revenue growth over the Performance Period exceeds 12%. Award percentages at growth rates between those in the table will be mathematically interpolated.

Revenue Growth for Performance Period	% of Target Performance Award
0.00% or less	0.00%
1.00%	12.50%
2.00%	25.00%
3.00%	37.50%
4.00%	50.00%
5.00%	62.50%
6.00%	75.00%
7.00%	87.50%
8.00%	100.00%
9.00%	118.75%
10.00%	137.50%
11.00%	156.25%
12.00% or more	175.00%

e. **Determination of Revenue.** Revenue shall be determined by the Company in accordance with Generally Accepted Accounting Principles of the United States of America (“GAAP”). As soon as reasonably practicable after the date of acceptance by the Audit Committee of the Board of Directors of the annual financial statements for the third fiscal year of the Performance Period (*i.e.*, 2022), revenue growth over the Performance Period shall be determined by the Company (the “Determination Date”).

f. **Adjusted EBITDA Penalty.** The number of Shares earned in accordance with Section 1(d) will be reduced by 20% if the Company’s Adjusted EBITDA as a percentage of the Company’s revenue (“Adjusted EBITDA Percentage”) for the three years in the Performance Period is less than 8%, (the “Adjusted EBITDA Penalty”). The term “Adjusted EBITDA” means GAAP operating profit excluding stock compensation expenses, amortization of intangible assets, depreciation, restructuring charges, impairment charges, gain/loss on sale of product lines, and expenses included in GAAP operating profit to the extent their recovery is recorded below operating profit. On the Determination Date, the Company will determine whether the Adjusted EBITDA Penalty applies.

g. **Notification of Performance Achieved.** Following the Determination Date, the Company will provide Participant with written notice of the number of Shares awarded under this Agreement for the Performance Period and the calculation of the Adjusted EBITDA Penalty, if applicable.

h. **Revenue Contribution of Acquired Entities.** The treatment of revenue generated by entities acquired during the Performance Period will be determined by the Administrator (as defined in Section 2(c)) in its sole discretion.

2. **Obligation to Issue/Pay.** Each annual increment of Time-Based Shares will be released from restrictions promptly upon their vesting. The Performance Shares issued, if any, will be delivered promptly



after the Determination Date. Participant must remain in service as an Eligible Person (i) through the vesting date of each annual increment of Time-Based Shares in order to be eligible to receive the applicable annual increment, and (ii) through the Determination Date in order to be eligible to receive Performance Shares earned. Except as provided under Sections 2(a) through (c) below, Participant will have no right to receive payment of a any portion of earned LTIP Shares if Participant does not remain an Eligible Person through the dates specified in the preceding sentence. Prior to their actual issuance, Performance Shares will represent an unsecured obligation of the Company.

a. Termination of Employment, Death or Disability. Notwithstanding the foregoing provisions of this Section 2, if Participant is subject to a written employment agreement or severance benefits agreement (“Employment Agreement”) with the Company or a Subsidiary, then in the event the Company (or the Subsidiary employing Participant) terminates Participant’s employment without “Cause” or Participant resigns as a “Voluntary Termination for Good Reason,” or Participant ceases to be an Eligible Person as the result of Participant’s death or “Disability” occurring before any vesting date or Determination Date, LTIP Shares shall vest in accordance with the terms of Participant’s applicable Employment Agreement. The terms “Cause”, “Voluntary Termination for Good Reason” and “Disability” used in this Section 2(a) shall have the meanings given them in such Employment Agreement, as may be modified from time to time.

b. Change in Control. Notwithstanding the foregoing provisions of this Section 2, if Participant is subject to a Management Retention Agreement with the Company (the “Management Retention Agreement”), then in the event of a Change in Control that occurs during the Performance Period (or prior to the Determination Date for Performance Shares not yet vested and earned) while Participant is an Eligible Person, the Shares will vest and be earned in accordance with the terms of Participant’s Management Retention Agreement. If Participant is not subject to a Management Retention Agreement, then in the event of a Change in Control that occurs during the Performance Period, Participant’s target number of Performance Shares shall convert into Time-Based Shares (“Converted Shares”). Each Converted Share shall vest as to one thirty-sixth (1/36<sup>th</sup>) of the Converted Shares as of the first day of each calendar month beginning on and after the Date of Grant, provided that Participant remains in service as an Eligible Person through each such date. Participant shall be given vesting credit from the Date of Grant as if each Converted Share had been subject to a time-based vesting schedule from the Date of Grant.

c. Administrator Discretion. The Compensation Committee of the Company’s Board (the “Administrator”), in its discretion, may accelerate the vesting of the balance, or some lesser portion of the balance, of the Time-Based Shares at any time, subject to the terms of the Stock Plan. If so accelerated, such Time-Based Shares will be considered as having vested as of the date specified by the Administrator.

d. Forfeiture. Subject to the foregoing acceleration provisions, in the event Participant ceases to be an Eligible Person for any reason before the applicable vesting date for each increment of Time-Based Shares or the Determination Date for Performance Shares, the corresponding Shares (or right to acquire such Shares, as applicable) will immediately terminate and be forfeited.

3. Non-Transferability of LTIP Award. The LTIP Award (other than fully vested and unrestricted LTIP Shares issued pursuant to the LTIP Award) may not be transferred in any manner otherwise than by will or by the laws of descent or distribution, except the Committee may permit the transfer of this LTIP Award to a family member if such transfer is for no value and in accordance with the rules of Form S-8.

4. Effect on Employment. Participant acknowledges and agrees that this Agreement, the transactions contemplated hereunder, and the earning and vesting provisions set forth herein do not constitute an express or

implied promise of Participant's continuing employment for any period, or at all, and will not interfere with Participant's right or the right of the Company (or the Affiliate employing Participant) to terminate Participant's employment at any time, with or without cause.

5. **Tax Withholding.** Notwithstanding any contrary provision of this Agreement, no LTIP Shares will be issued to Participant unless and until satisfactory arrangements (as determined by the Administrator) will have been made by Participant with respect to the payment of income, employment and other taxes which the Company determines must be withheld with respect to such LTIP Shares so issuable. All income, employment and other taxes related to the LTIP Shares delivered in payment thereof are the sole responsibility of Participant. Participant hereby authorizes the Company, or its agents, to satisfy its obligations with regard to all taxes by withholding otherwise deliverable Shares having a Fair Market Value equal to the amount required to be withheld.

6. **Additional Conditions to Issuance of Stock.** If at any time the Company determines, in its discretion, that the listing, registration or qualification of the LTIP Shares upon any securities exchange or under any state or federal law, or the consent or approval of any governmental regulatory authority is necessary or desirable as a condition to the issuance of LTIP Shares to Participant (or his or her estate), such issuance will not occur unless and until such listing, registration, qualification, consent or approval will have been effected or obtained free of any conditions not acceptable to the Company. Where the Company determines that the delivery or payment of any of the LTIP Shares will violate federal securities laws or other applicable laws, the Company will defer delivery until the earliest date at which the Company reasonably anticipates that the delivery of LTIP Shares will no longer cause such violation. The Company will make all reasonable efforts to meet the requirements of any such state or federal law or securities exchange and to obtain any such consent or approval of any such governmental authority.

7. **Restrictions on Sale of Securities.** The LTIP Shares awarded under this Agreement will be registered under the federal securities laws and will be freely tradable upon vesting and delivery. However, Participant's subsequent sale of the Shares will be subject to any market blackout-period that may be imposed by the Company and must comply with the Company's insider trading policies, and any other applicable securities laws.

8. **Successors.** Subject to the limitation on the transferability of this award as contained herein, this Agreement will be binding upon and inure to the benefit of the heirs, legatees, legal representatives, successors and assigns of the parties hereto.

9. **Address for Notices.** Any notice to be given to the Company under the terms of this Agreement will be addressed to the Company, in care of its General Counsel at PCTEL, Inc., 471 Brighton Drive, Bloomingdale, Illinois 60108, or at such other address as the Company may hereafter designate in writing.

10. **Stock Plan Governs.** This Agreement is subject to all terms and provisions of the Stock Plan. In the event of a conflict between one or more provisions of this Agreement and one or more provisions of the Stock Plan, the provisions of the Stock Plan will govern, unless otherwise provided in Participant's Employment Agreement or Management Retention Agreement, if any.

11. **Administrator Authority.** The Administrator will have the power to interpret the Stock Plan and this Agreement and to adopt such rules for the administration, interpretation and application of the Stock Plan as are consistent therewith and to interpret or revoke any such rules (including, but not limited to, the determination of whether or not any LTIP Shares have been earned and vested). All actions taken and all interpretations and determinations made by the Administrator in good faith will be final and binding upon Participant, the Company

and all other interested persons. No member of the Administrator will be personally liable for any action, determination or interpretation made in good faith with respect to the Stock Plan or this Agreement.

12. **Electronic Delivery.** The Company may deliver any documents related to LTIP Shares awarded under the Stock Plan or LTIP Shares awarded under the Stock Plan by electronic means. Participant hereby consents to receive such documents by electronic delivery and agrees to participate in the Stock Plan through an on-line or electronic system established and maintained by the Company or another third party designated by the Company.

13. **Captions.** Captions provided herein are for convenience only and are not to serve as a basis for interpretation or construction of this Agreement.

14. **Agreement Severable.** In the event that any provision in this Agreement is held invalid or unenforceable, such provision will be severable from, and such invalidity or unenforceability will not be construed to have any effect on, the remaining provisions of this Agreement.

15. **Entire Agreement.** This Agreement constitutes the entire understanding of the parties on the subject matter hereof. Participant expressly warrants that he or she is not executing this Agreement in reliance on any promises, representations, or inducements other than those contained herein.

16. **Modifications to the Agreement.** Generally, modifications to this Agreement can be made only in an express written amendment executed by Participant and a duly authorized officer of the Company. Notwithstanding anything to the contrary in this Agreement, the Company may amend this Agreement without Participant's consent to the extent permitted under the Stock Plan (including, without limiting the foregoing, to comply with law changes or to adhere to any clawback policy).

17. **Amendment, Suspension or Termination of the Stock Plan.** By accepting this award of LTIP Shares, Participant expressly warrants that he or she has received a right to acquire stock under the Stock Plan, and has received, read and understood a description of the Stock Plan. Participant understands that the Stock Plan is discretionary in nature and may be modified, suspended or terminated by the Company at any time.

18. **Governing Law.** This Agreement shall be governed by the laws of the State of Delaware, without giving effect to the conflict of law principles thereof. For purposes of litigating any dispute that arises under this award of LTIP Shares or this Agreement, the parties hereby submit to and consent to the jurisdiction of the State of Illinois, and agree that such litigation shall be conducted in the courts of Cook County, Illinois, or the federal courts for the United States located in or around Cook County, Illinois, and no other courts, where this award of LTIP Shares is made and/or to be performed.

\* \* \* \* \*

IN WITNESS WHEREOF, the parties have signed this Agreement effective as of the date and year indicated above.

**PCTEL, INC.**

Printed Name:

By:

Title:

**PARTICIPANT:**

Signature:

Printed Name:

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**PCTEL, INC.**  
**LONG-TERM INCENTIVE AWARD AGREEMENT**  
**(RSUs)**

This Long-Term Incentive Award Agreement (the “Agreement”), dated as of February 5, 2020 between PCTEL, Inc. (hereinafter referred to as the “Company”) and \_\_\_\_\_ (hereinafter referred to as “Participant”), is intended to memorialize the authorization by the Company’s Board of Directors on February 5, 2020 (the “Date of Grant”) of an equity award to Participant under the Company’s 2020 long-term incentive plan (“LTIP”). Capitalized terms used herein and not defined shall have the meanings ascribed thereto in the PCTEL, Inc. 2019 Stock Incentive Plan, as amended from time to time (the “Stock Plan”).

1. **Award Grant.** The award under the LTIP (“LTIP Award”) is comprised of two components: 33% of the LTIP Award is a time-based service award and 67% of the LTIP Award is a performance incentive award. Subject to the terms and conditions set forth herein (including Section 2) and in the Stock Plan, the Company has (i) awarded to Participant under the LTIP, as of the Date of Grant, \_\_\_\_\_ Restricted Stock Units (“RSUs”) as a time-based award (“Time-Based RSUs”); and (ii) committed to issue a specified number of RSUs to Participant provided the Company achieves the financial performance levels described in Sections 1(d) through (h) (“Performance RSUs”). Each RSU represents the right to receive one Share, subject to the terms and conditions set forth in this Agreement and the Stock Plan. The RSUs shall be credited to a separate account maintained for Participant on the books and records of the Company (the “Account”). All amounts credited to the Account shall continue for all purposes to be part of the general assets of the Company. Participant’s target number of Performance RSUs is \_\_\_\_\_, but the actual number of Performance RSUs earned, and Shares to be issued thereunder may be higher or lower depending on Company performance. The RSUs issued or issuable under this LTIP Award are collectively hereinafter referred to as “LTIP RSUs.”

a. **Vesting of LTIP RSUs.** Unless vested earlier under Section 2, (i) Time-Based RSUs shall vest in three substantially equal annual increments on the first, second and third anniversaries of the Date of Grant, and (ii) any Performance RSUs earned shall vest on the Determination Date (as defined in Section 1(e)).

b. **Rights as Stockholder.** Neither Participant nor any person claiming under or through the Participant will have any of the rights or privileges of a stockholder of the Company in respect of the Shares underlying the LTIP RSUs unless and until the LTIP RSUs vest and Shares have been issued, recorded on the records of the Company or its transfer agents or registrars, and delivered to Participant. Upon settlement of the LTIP RSUs, the Participant shall be the record owner of the Shares issued in settlement of the LTIP RSUs and shall be entitled to all rights of a stockholder of the Company with respect to voting such Shares and receipt of dividends and distributions on such Shares.

c. **Dividends on LTIP RSUs.** Neither the Participant nor any person claiming under or through the Participant will be entitled to any dividends or Dividend Equivalents with respect to the LTIP RSUs to reflect any dividends payable on the Shares underlying the LTIP RSUs.

d. **Performance RSUs.** The number of Performance RSUs that Participant is entitled to receive depends upon the Company’s revenue growth over a period of three fiscal years commencing with fiscal year 2020 (the “Performance Period”). If the Company’s revenue in the last year of the Performance Period (*i.e.*, 2022) reflects compound annual growth in revenue of 8% over the Performance Period (*i.e.*, as compared to revenue in 2019) (“Target Growth”), Participant will receive the target number of Performance RSUs indicated above (“Target Performance Award”). If the Company achieves less than Target Growth over the Performance Period, Participant will receive fewer Performance RSUs than the Target Performance Award, determined on a straight-line basis as indicated on the chart below. If the Company achieves greater than the Target Growth over the

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Performance Period, Participant will receive more Performance RSUs than the Target Performance Award, determined on an accelerated basis in accordance with the chart below. The maximum number of Performance RSUs that may be issued to Participant under the LTIP for the Performance Period is 175% of the Target Performance Award even if revenue growth over the Performance Period exceeds 12%. Award percentages at growth rates between those in the table will be mathematically interpolated.

Revenue Growth for Performance Period	% of Target Performance Award
0.00% or less	0.00%
1.00%	12.50%
2.00%	25.00%
3.00%	37.50%
4.00%	50.00%
5.00%	62.50%
6.00%	75.00%
7.00%	87.50%
8.00%	100.00%
9.00%	118.75%
10.00%	137.50%
11.00%	156.25%
12.00% or more	175.00%

e. **Determination of Revenue.** Revenue shall be determined by the Company in accordance with Generally Accepted Accounting Principles of the United States of America (“GAAP”). As soon as reasonably practicable after the date of acceptance by the Audit Committee of the Board of Directors of the annual financial statements for the third fiscal year of the Performance Period (*i.e.*, 2022), revenue growth over the Performance Period shall be determined by the Company (the “Determination Date”).

f. **Adjusted EBITDA Penalty.** The number of Performance RSU’s earned in accordance with Section 1(d) will be reduced by 20% if the Company’s Adjusted EBITDA as a percentage of the Company’s revenue (“Adjusted EBITDA Percentage”) for the three years in the Performance Period is less than 8%, (the “Adjusted EBITDA Penalty”). The term “Adjusted EBITDA” means GAAP operating profit excluding stock compensation expenses, amortization of intangible assets, depreciation, restructuring charges, impairment charges, gain/loss on sale of product lines, and expenses included in GAAP operating profit to the extent their recovery is recorded below operating profit. On the Determination Date, the Company will determine whether the Adjusted EBITDA Penalty applies.

g. **Notification of Performance Achieved.** Following the Determination Date, the Company will provide Participant with written notice of the number of Performance RSUs awarded under this Agreement for the Performance Period and the calculation of the Adjusted EBITDA Penalty, if applicable.

h. **Revenue Contribution of Acquired Entities.** The treatment of revenue generated by entities acquired during the Performance Period will be determined by the Administrator (as defined in Section 2(c)) in its sole discretion.

2. **Obligation to Issue/Pay.** With respect to each portion of the RSUs that vest on a vesting date, the Company will (a) issue and deliver to the Participant, in settlement of the vested RSUs, the number of Shares

equal to the number of RSUs that vest on such vesting date; and (b) enter in the Company's records the Participant's name as the stockholder of record with respect to the Shares delivered to the Participant. Each portion of the Shares issued in settlement of the vested RSUs that vest on a vesting date shall be delivered as soon as possible after such vesting date. Participant must remain in service as an Eligible Person (i) through the vesting date of each annual increment of Time-Based RSUs in order to be eligible to receive the applicable annual increment, and (ii) through the Determination Date in order to be eligible to receive Performance RSUs earned. Except as provided under Sections 2(a) through (c) below, Participant will have no right to receive payment of a any portion of earned LTIP RSUs or the underlying Shares if Participant does not remain an Eligible Person through the dates specified in the preceding sentence. Prior to their actual issuance, RSUs will represent an unsecured obligation of the Company.

a. Termination of Employment, Death or Disability. Notwithstanding the foregoing provisions of this Section 2, if Participant is subject to a written employment agreement or severance benefits agreement ("Employment Agreement") with the Company or a Subsidiary, then in the event the Company (or the Subsidiary employing Participant) terminates Participant's employment without "Cause" or Participant resigns as a "Voluntary Termination for Good Reason," or Participant ceases to be an Eligible Person as the result of Participant's death or "Disability" occurring before any vesting date or Determination Date, RSUs shall vest in accordance with the terms of Participant's applicable Employment Agreement. The terms "Cause", "Voluntary Termination for Good Reason" and "Disability" used in this Section 2(a) shall have the meanings given them in such Employment Agreement, as may be modified from time to time.

b. Change in Control. Notwithstanding the foregoing provisions of this Section 2, if Participant is subject to a Management Retention Agreement with the Company (the "Management Retention Agreement"), then in the event of a Change in Control that occurs during the Performance Period (or prior to the Determination Date for Performance RSUs not yet vested and earned) while Participant is an Eligible Person, the RSUs will vest and be earned in accordance with the terms of Participant's Management Retention Agreement. If Participant is not subject to a Management Retention Agreement, then in the event of a Change in Control that occurs during the Performance Period, Participant's target number of Performance RSUS shall convert into Time-Based RSUs ("Converted RSUs"). Each Converted RSU shall vest as to one thirty-sixth (1/36<sup>th</sup>) of the Converted RSUs as of the first day of each calendar month beginning on and after the Date of Grant, provided that Participant remains in service as an Eligible Person through each such date. Participant shall be given vesting credit from the Date of Grant as if each Converted RSU had been subject to a time-based vesting schedule from the Date of Grant.

c. Administrator Discretion. The Compensation Committee of the Company's Board (the "Administrator"), in its discretion, may accelerate the vesting of the balance, or some lesser portion of the balance, of the Time-Based RSUs at any time, subject to the terms of the Stock Plan. If so accelerated, such Time-Based RSUs will be considered as having vested as of the date specified by the Administrator.

d. Forfeiture. Subject to the foregoing acceleration provisions, in the event Participant ceases to be an Eligible Person for any reason before the applicable vesting date for each increment of Time-Based RSUs or the Determination Date for Performance RSUs, the corresponding RSUs will immediately terminate and be forfeited.

3. Non-Transferability of LTIP Award. The LTIP Award (other than fully vested and unrestricted LTIP Shares issued pursuant to the RSUs) may not be transferred in any manner otherwise than by will or by the laws of descent or distribution, except the Committee may permit the transfer of this LTIP Award to a family member if such transfer is for no value and in accordance with the rules of Form S-8.

4. **Effect on Employment.** Participant acknowledges and agrees that this Agreement, the transactions contemplated hereunder, and the earning and vesting provisions set forth herein do not constitute an express or implied promise of Participant's continuing employment for any period, or at all, and will not interfere with Participant's right or the right of the Company (or the Affiliate employing Participant) to terminate Participant's employment at any time, with or without cause.
5. **Tax Withholding.** Notwithstanding any contrary provision of this Agreement, no Shares will be issued to Participant pursuant to LTIP RSUs unless and until satisfactory arrangements (as determined by the Administrator) will have been made by Participant with respect to the payment of income, employment and other taxes which the Company determines must be withheld with respect to such Shares so issuable. All income, employment and other taxes related to the Shares delivered in payment thereof are the sole responsibility of Participant. Participant hereby authorizes the Company, or its agents, to satisfy its obligations with regard to all taxes by withholding otherwise deliverable Shares having a Fair Market Value equal to the amount required to be withheld.
6. **Additional Conditions to Issuance of Stock.** If at any time the Company determines, in its discretion, that the listing, registration or qualification of the Shares upon any securities exchange or under any state or federal law, or the consent or approval of any governmental regulatory authority is necessary or desirable as a condition to the issuance of LTIP RSUs or the underlying Shares to Participant (or his or her estate), such issuance will not occur unless and until such listing, registration, qualification, consent or approval will have been effected or obtained free of any conditions not acceptable to the Company. Where the Company determines that the delivery or payment of any of the Shares will violate federal securities laws or other applicable laws, the Company will defer delivery until the earliest date at which the Company reasonably anticipates that the delivery of the Shares will no longer cause such violation. The Company will make all reasonable efforts to meet the requirements of any such state or federal law or securities exchange and to obtain any such consent or approval of any such governmental authority.
7. **Restrictions on Sale of Securities.** The Shares underlying LTIP RSUs awarded under this Agreement will be registered under the federal securities laws and will be freely tradable upon vesting and delivery. However, Participant's subsequent sale of the Shares will be subject to any market blackout-period that may be imposed by the Company and must comply with the Company's insider trading policies, and any other applicable securities laws.
8. **Successors.** Subject to the limitation on the transferability of this award as contained herein, this Agreement will be binding upon and inure to the benefit of the heirs, legatees, legal representatives, successors and assigns of the parties hereto.
9. **Address for Notices.** Any notice to be given to the Company under the terms of this Agreement will be addressed to the Company, in care of its General Counsel at PCTEL, Inc., 471 Brighton Drive, Bloomingdale, Illinois 60108, or at such other address as the Company may hereafter designate in writing.
10. **Stock Plan Governs.** This Agreement is subject to all terms and provisions of the Stock Plan. In the event of a conflict between one or more provisions of this Agreement and one or more provisions of the Stock Plan, the provisions of the Stock Plan will govern, unless otherwise provided in Participant's Employment Agreement or Management Retention Agreement, if any.
11. **Administrator Authority.** The Administrator will have the power to interpret the Stock Plan and this Agreement and to adopt such rules for the administration, interpretation and application of the Stock Plan as are consistent therewith and to interpret or revoke any such rules (including, but not limited to, the determination



of whether or not any LTIP RSUs have been earned and vested). All actions taken and all interpretations and determinations made by the Administrator in good faith will be final and binding upon Participant, the Company and all other interested persons. No member of the Administrator will be personally liable for any action, determination or interpretation made in good faith with respect to the Stock Plan or this Agreement.

12. **Electronic Delivery.** The Company may deliver any documents related to LTIP RSUs and the underlying Shares, and such Shares, by electronic means. Participant hereby consents to receive such documents by electronic delivery and agrees to participate in the Stock Plan through an on-line or electronic system established and maintained by the Company or another third party designated by the Company.

13. **Captions.** Captions provided herein are for convenience only and are not to serve as a basis for interpretation or construction of this Agreement.

14. **Agreement Severable.** In the event that any provision in this Agreement is held invalid or unenforceable, such provision will be severable from, and such invalidity or unenforceability will not be construed to have any effect on, the remaining provisions of this Agreement.

15. **Entire Agreement.** This Agreement constitutes the entire understanding of the parties on the subject matter hereof. Participant expressly warrants that he or she is not executing this Agreement in reliance on any promises, representations, or inducements other than those contained herein.

16. **Modifications to the Agreement.** Generally, modifications to this Agreement can be made only in an express written amendment executed by Participant and a duly authorized officer of the Company. Notwithstanding anything to the contrary in this Agreement, the Company may amend this Agreement without Participant's consent to the extent permitted under the Stock Plan (including, without limiting the foregoing, to comply with law changes or to adhere to any clawback policy).

17. **Amendment, Suspension or Termination of the Stock Plan.** By accepting this award of LTIP RSUs, Participant expressly warrants that he or she has received a right to acquire stock under the Stock Plan, and has received, read and understood a description of the Stock Plan. Participant understands that the Stock Plan is discretionary in nature and may be modified, suspended or terminated by the Company at any time.

18. **Governing Law.** This Agreement shall be governed by the laws of the State of Delaware, without giving effect to the conflict of law principles thereof. For purposes of litigating any dispute that arises under this award of LTIP RSUs or this Agreement, the parties hereby submit to and consent to the jurisdiction of the State of Illinois, and agree that such litigation shall be conducted in the courts of Cook County, Illinois, or the federal courts for the United States located in or around Cook County, Illinois, and no other courts, where this award of LTIP RSUs is made and/or to be performed.

\* \* \* \* \*

IN WITNESS WHEREOF, the parties have signed this Agreement effective as of the date and year indicated above.

**PCTEL, INC.**

Printed Name:

By:

Title:

**PARTICIPANT:**

Signature:

Printed Name:

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PCTEL, INC.

**SALES COMPENSATION PLAN**

Prepared specifically for:

Arnt Arvik

Plan Year 2020

PCTEL, Inc.  
2020 Sales Compensation Plan

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**I. Introduction**

This PCTEL Sales Compensation Plan (the “**Plan**”) has been designed by the Company (as hereinafter defined) to:

- Align sales compensation with corporate profitability;
- Motivate, incent and reward sales behavior in order to achieve PCTEL’s corporate and financial objectives; and
- Provide a compensation plan that is equitable and consistent across regions and product lines.

This Plan supersedes all prior sales compensation plans and any discussions or verbal agreements between Participant and the Company.

**II. Definitions**

**Adjusted EBITDA** – Adjusted EBITDA is GAAP operating profit excluding stock compensation expenses, amortization of intangible assets, depreciation, restructuring charges, impairment charges, gain/loss on sale of product lines, and expenses included in GAAP operating profit to the extent their recovery is recorded below operating profit.

**Base Salary** – Base Salary is the amount payable to Participant as non-variable compensation for services rendered to the Company. It is determined by Company management on an annual basis.

**CEO** – Chief Executive Officer

**CFO** – Chief Financial Officer

**Commission** – Commission is a portion of the variable compensation payable to Participant and is related to sales to customers. It is calculated in accordance with Section V below.

**Commission Payout Factor** – Commission Payout Factor has the meaning set forth in Section V(a)(1).

**Commissionable Revenue** – Revenue earned by the Company (determined in accordance with GAAP) from sales of products, services, NRE, maintenance charges, royalties and training charges, excluding freight, loans, interest charges, and other similar charges.

**Company** – PCTEL, Inc. and its subsidiaries

**EBITDA Goal** – EBITDA Goal has the meaning set forth in Section V(b).

**EBITDA Payout Factor** – EBITDA Payout Factor has the meaning set forth in Section V(b).

**GAAP** – Generally Accepted Accounting Principles in the United States of America

**Individual Quota** – Company management assigns an Individual Quota that represents the total anticipated Commissionable Revenue that management expects the Sales Team to generate for the Plan Year. Your Individual Quota is set forth on Attachment A.

**Participant** – The sales professional for whom this Plan is prepared and whose name is found on the cover page of this Plan.

**Plan** – Plan has the meaning assigned in Section I.

**Plan Administrators** – The Plan Administrators are the CEO, CFO and Vice President-Corporate Resources.

**Plan Year** – The Plan Year is January 1, 2020 through December 31, 2020.

**Quota Assignment Statement** – The Quota Assignment Statement is the statement in the form of Attachment A signed by the Company and Participant defining the amount of the Individual Quota, Target Commission, Target Adjusted EBITDA and target total variable compensation.

**Sales Team** – The Sales Team refers to all sales personnel who report directly or indirectly to Participant.

**Target Commission** – The Target Commission, as identified in Attachment A, is the percentage of Base Salary that Participant is anticipated to earn as Commission if Participant achieves his Individual Quota.

### III. General

(a) **Plan Administration.** The Plan Administrators will manage the Plan and have full discretion to (i) make adjustments or revisions to the Plan, (ii) construe and interpret the terms of the Plan, (iii) determine eligibility to participate in the Plan, and (iv) determine whether Commission is payable under the Plan; provided, however, that the Plan Administrators will not make changes to (1) the accounts assigned to Participant, (2) the Individual Quota as set forth on the executed version of Attachment A, or (3) the Commission Payout Factor or the EBITDA Payout Factor as they appear in the executed version of this Plan, except to address situations that were unforeseen at the time the Plan was established or as set forth in Section IV(b). The determination of the Plan Administrators is final and binding. In the event of any revision or adjustment to the Plan, including Attachment A, an amendment to the Plan will be prepared and signed by the Participant and the Policy Administrators.

(b) **Termination of Employment.** The final amount of Commission due to Participant upon termination of employment is the Commission earned, as provided in this Plan, up to and including the termination date. Subject to applicable law, the final payment of Commission will be made at the times set forth in Section VI.

(c) **Participation.** Participant is not eligible for the short-term incentive program offered by the Company, but is eligible for the long-term incentive program.

### IV. Quota

(a) **Individual Quota.** At the beginning of each fiscal year, the Plan Administrators will specify on a Quota Assignment Statement for each member of the Sales Team, including Participant, the applicable Individual Quota and Target Commission. The Plan Administrators have assigned Participant, as Chief Sales Officer, an Individual Quota equal to the total target revenue of the Company, as approved by the Board of Directors in the Company's 2020 financial plan.

(b) **Modifications due to Product Discontinuation.** During the Plan Year, Company may discontinue products previously sold by the Sales Team, which may impact Participant's ability to reach his Individual Quota. For example, this can occur when a product is discontinued as a result of insufficient sales, lack of component parts, or the sale of the business segment offering the product. If, based upon sales by the Sales Team of such discontinued product in the current and/or prior fiscal year, the discontinuation of the product could have a material effect on Participant's ability to meet

EXHIBIT 10.16

the Individual Quota, the Plan Administrators will determine in good faith whether Participant’s Individual Quota should be adjusted accordingly.

**V. Variable Compensation; Commission**

Variable Compensation: Participant’s variable compensation for 2020 will be comprised of two components: (i) Commission, and (ii) 2020 Adjusted EBITDA.

(a) Commission Earned: Commission is calculated based upon the amount of Commissionable Revenue generated by the Sales Team during the 2020 Plan Year.

(1) Commission Calculation - Commissionable Revenue will be calculated on a year-to-date basis from invoices issued to the Sales Team’s customers and will determine the percentage of Individual Quota attained. The “**Commission Payout Factor**” is determined by locating the percentage of Individual Quota attained year-to-date in the table below and identifying the corresponding Commission Payout Factor. If the Individual Quota attained falls between the listed percentages in the Commission Table, the Commission Payout Factor will be extrapolated (e.g., 77% Individual Quota attainment would be a 61.67% Commission Payout Factor). The Commission earned is calculated as follows:

$$\text{COMMISSION PAYOUT FACTOR} \times \text{TARGET COMMISSION} \times \text{BASE SALARY.}$$

**Commission Table:**

% Individual Quota Attained	Commission Payout Factor
0%	0%
10%	6%
20%	12%
30%	18%
40%	24%
50%	30%
60%	36%
70%	42%
75%	60%
80%	64%
90%	81%
100%	100%
110%	121%
120%	144%
130%	169%
140%	196%
150%	205%
160%	214%
170%	223%
180%	232%
190%	241%
≥ 200%	250%

(2) Cap on Commission - There is a “cap” or upper limit on the amount of Commission the Company will pay Participant for the 2020 Plan Year. If Participant were to achieve Commissionable Revenue in excess of 200% of Individual Quota, which equates to a 250% Commission Payout Factor, the excess Commissionable Revenue will not result in additional Commission for Participant.

(3) Returns and Credits - In the event that a product for which the Sales Team received credit as Commissionable Revenue is returned (or the Company credited the customer’s account as though the product was returned), the corresponding amount of Commissionable Revenue related to the returned or credited product shall be subtracted from the Commissionable Revenue otherwise credited to the Sales Team. The amount of Commissionable Revenue will be subtracted in the quarter the product return or product credit is processed. Further, if one or more assigned accounts are greater than 90 days past the due date established by the applicable payment terms, the corresponding amount of Commissionable Revenue previously credited to the Sales Team shall be subtracted and the next quarterly Commission payment shall be adjusted accordingly. Such Commissionable Revenue will be added back in the quarter in which the payment is received from the customer and will be included in the next succeeding Commission payment. No Commission will be payable for any amounts written down or written off in accordance with GAAP.

(4) Commission Payments - The amount of Commission payable to Participant will be calculated after the Company’s books are closed for the first fiscal quarter and after each calendar month thereafter.

(b) 2020 Adjusted EBITDA Payment -The Company has assigned an Adjusted EBITDA goal equal to the Company’s target total Adjusted EBITDA, as approved by the Board of Directors in the Company’s 2020 financial plan (“**EBITDA Goal**”).

(1) Adjusted EBITDA Calculation. The Company’s Finance Department will calculate the year-to-date Adjusted EBITDA in accordance with its established non-GAAP procedures. The “**EBITDA Payout Factor**” is determined by locating the percentage of the EBITDA Goal attained in the table below and identifying the corresponding EBITDA Payout Factor. If the percentage of EBITDA Goal attained falls between the listed percentages in the Adjusted EBITDA Table, the Finance Department will extrapolate to identify the EBITDA Payout Factor (e.g., 77% attainment would be a 61.67% EBITDA Payout Factor). The Adjusted EBITDA component of Variable Compensation is calculated as follows:

$$\text{EBITDA PAYOUT FACTOR} \times \text{TARGET ADJUSTED EBITDA (on Attachment A)} \\ \times \text{BASE SALARY.}$$

**Adjusted EBITDA Table:**

% EBITDA Goal Attained	EBITDA Payout Factor
0%	0%
10%	6%
20%	12%
30%	18%
40%	24%
50%	30%
60%	36%
70%	42%
75%	60%
80%	64%
90%	81%
100%	100%
110%	121%
120%	144%
130%	169%
140%	196%
150%	205%
160%	214%
170%	223%
180%	232%
190%	241%
≥ 200%	250%

(2) Limits on EBITDA - There is a “cap” or upper limit on the amount of the Adjusted EBITDA payment the Company will pay Participant for the 2020 Plan Year. If Participant were to achieve Adjusted EBITDA in excess of 200% of the EBITDA Goal, which equates to a 250% EBITDA Payout Factor, the excess Adjusted EBITDA will not result in a higher EBITDA Payout Factor than 250%. In addition, regardless of actual results, if the percentage of Individual Quota attained is less than 100%, then the percentage of EBITDA Goal attained will also be deemed to be capped at 100%.

(3) Adjusted EBITDA Payments - The amount payable to Participant as a result of attaining the EBITDA Goal will be calculated after the Company’s books are closed for each fiscal quarter.

**VI. Payment Timing**

All payments of Variable Compensation to Participant will be paid forty-five (45) days after the close of the applicable period.



**ATTACHMENT A**

**PCTEL, INC.**

**QUOTA ASSIGNMENT STATEMENT**

**Name:** Arnt Arvik

**Sales Accounts:** All accounts of the Sales Team

**Individual Quota assigned:** as stated in Section IV(a)

**Target Commission is:** 47% of your Base Salary

**Target Adjusted EBITDA is:** 20% of your Base Salary

**Target Total Variable Compensation is:** 67% of Base Salary

**I acknowledge, as of this 30th day of January 2020, that I have read, understand and agree to the terms and conditions of this specifically prepared PCTEL, INC. Sales Compensation Plan for Plan Year 2020.**

/s/ ARNT ARVIK

Employee/Participant

/s/ DAVID A. NEUMANN

Chief Executive Officer

/s/ RISHI BHARADWAJ

Vice President-Corporate Resources & Chief Risk Officer

/s/ KEVIN J. MCGOWAN

Chief Financial Officer

<u>Subsidiary</u>	<u>State or Other Jurisdiction of Incorporation or Organization</u>
PCTEL (Tianjin) Wireless Telecommunications Products Co., Ltd.	China
PCTEL Limited (United Kingdom)	United Kingdom

**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We have issued our reports dated March 13, 2020, with respect to the consolidated financial statements and internal control over financial reporting included in the Annual Report of PCTEL, Inc. on Form 10-K for the year ended December 31, 2019. We consent to the incorporation by reference of said reports in the Registration Statements of PCTEL, Inc. on Forms S-8 (File No. 333-233242; File No. 333-205754; File No. 333-198134; File No. 333-168222; File No. 333-135586; File No. 333-131020; File No. 333-122117; File No. 333-112621; File No. 333-106891; File No. 333-103233; File No. 333-82120; File No. 333-75204; File No. 333-70886; File No. 333-61926; and File No. 333-34910).

/s/ Grant Thornton LLP

Chicago, Illinois  
March 13, 2020

**POWER OF ATTORNEY**

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

Date: March 13, 2020

/s/ CINDY K. ANDREOTTI  
(Cindy K. Andreotti)

/s/ GINA HASPILAIRE  
(Gina Haspilaire)

/s/ CYNTHIA KEITH  
(Cynthia Keith)

/s/ STEVEN D. LEVY  
(Steven D. Levy)

/s/ GIACOMO MARINI  
(Giacomo Marini)

/s/ M. JAY SINDER  
(M. Jay Sinder)

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

I, David A. Neumann, certify that:

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

Date: March 13, 2020

/s/ DAVID A. NEUMANN

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David A. Neumann  
Chief Executive Officer

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

I, Kevin McGowan, certify that:

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

Date: March 13, 2020

/s/ KEVIN MCGOWAN

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Kevin McGowan  
Chief Financial Officer

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

I, David A. Neumann, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Annual Report on Form 10-K of PCTEL, Inc. for the fiscal year ended December 31, 2019 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in such Annual Report on Form 10-K fairly presents in all material respects the financial condition and results of operations of PCTEL, Inc. A signed original of this written statement required by Section 906 has been provided to PCTEL, Inc. and will be retained by PCTEL, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

By: /s/ David A Neumann  
DATE: March 13, 2020 NAME: DAVID A. NEUMANN  
Title: Chief Executive Officer

I, Kevin McGowan, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Annual Report on Form 10-K of PCTEL, Inc. for the fiscal year ended December 31, 2019 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in such Annual Report on Form 10-K fairly presents in all material respects the financial condition and results of operations of PCTEL, Inc. A signed original of this written statement required by Section 906 has been provided to PCTEL, Inc. and will be retained by PCTEL, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

By: /s/ Kevin McGowan  
DATE: March 13, 2020 NAME: KEVIN MCGOWAN  
Title: Chief Financial Officer