

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

(Mark One)

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 1-36117

inTEST Corporation

(Exact name of registrant as specified in its charter)

DELAWARE

(State or Other Jurisdiction of Incorporation or Organization)

22-2370659

(I.R.S. Employer Identification Number)

804 EAST GATE DRIVE, SUITE 200

MT. LAUREL, NEW JERSEY

(Address of Principal Executive Offices)

08054

(Zip Code)

Registrant's telephone number, including area code: (856) 505-8800

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

<u>Title of Each Class</u>	<u>Trading Symbol</u>	<u>Name of Each Exchange on Which Registered</u>
Common Stock, par value \$0.01 per share	INTT	NYSE American

Securities registered pursuant to Section 12(g) of the Act: None

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

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

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T 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, or a smaller reporting company, or emerging growth company. See definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Non-accelerated filer

Accelerated filer

Smaller reporting company

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial account 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

The aggregate market value of the voting and non-voting common equity held by non-affiliates computed by reference to the price at which the common equity was last sold on June 30, 2019 (the last business day of the registrant's most recently completed second fiscal quarter), was: \$49,247,830.

The number of shares outstanding of the registrant's Common Stock, as of March 16, 2020, was 10,429,759.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the definitive proxy statement of the Registrant for the Registrant's 2020 Annual Meeting of Stockholders, to be filed with the Securities and Exchange Commission within 120 days after the end of the fiscal year covered by this Report, are incorporated by reference into Part III of this Report.

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Cautionary Statement Regarding Forward-Looking Statements

From time to time, we make written or oral "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, as amended, including statements contained in our filings with the Securities and Exchange Commission ("SEC") (including this Annual Report on Form 10-K ("Report")), in our annual report to stockholders and in other communications. These statements do not convey historical information, but relate to predicted or potential future events, such as statements of our plans, strategies and intentions, or our future performance or goals, that are based on management's current expectations. Our forward-looking statements can often be identified by the use of forward-looking terminology such as "believes," "expects," "intends," "may," "will," "should," "plans," "projects," "forecasts," "outlook" or "anticipates" or similar terminology, and include, but are not limited to, statements made in this Report regarding:

- the impact of the coronavirus pandemic on our business, financial condition and results of operations;
- indications of a change in the market cycles in the semiconductor and automated test equipment ("ATE") markets or other markets we serve;
- developments and trends in the semiconductor and ATE markets, including changes in the demand for semiconductors;
- general economic conditions both domestically and globally, in particular in light of the coronavirus pandemic;
- changes in the rate of, and timing of, capital expenditures by our customers, including any impacts from the coronavirus pandemic;
- the availability of materials used to manufacture our products, including any impacts from the coronavirus pandemic;
- the impact of interruptions in our supply chain caused by external factors, including any impacts from the coronavirus pandemic;
- the sufficiency of cash balances, lines of credit and net cash from operations;
- stock price fluctuations, in particular the most recent stock price changes as a result of the coronavirus pandemic;
- the possibility of future acquisitions or dispositions and the successful integration of any acquired operations;
- the ability to borrow funds or raise capital to finance major potential acquisitions;
- the success of our strategy to diversify our business by entering markets outside the semiconductor and ATE markets, including the automotive, defense/aerospace, energy, industrial, telecommunications and other markets and changes in demand in these markets;
- competitive pricing pressures;
- the development of new products and technologies by us or our competitors;
- effects of exchange rate fluctuations, especially most recently as a result of the coronavirus pandemic;
- progress of product development programs;
- the anticipated market for our products;
- the availability of and retention of key personnel;
- net revenues generated by foreign subsidiaries; and
- other projections of net revenues, taxable earnings (loss), net earnings (loss), net earnings (loss) per share, capital expenditures and other financial items.

Investors and prospective investors are cautioned that such forward-looking statements are only projections based on current estimations. These statements involve risks and uncertainties and are based upon various assumptions. We discuss many of these risks and uncertainties under Item 1A "Risk Factors," below, and elsewhere in this Report. These risks and uncertainties, among others, could cause our actual future results to differ materially from those described in our forward-looking statements or from our prior results. Any forward-looking statement made by us in this Report is based only on information currently available to us and speaks to circumstances only as of the date on which it is made. We are not obligated to update these forward-looking statements, even though our situation may change in the future.

PART I

Item 1. BUSINESS

RECENT DEVELOPMENTS

In December 2019, instances of a human infection of unknown cause originating in China were first reported to the World Health Organization. In early January 2020, this infection was traced to a novel strain of coronavirus. The virus has subsequently spread to other parts of the world, including the U.S. and Europe, and has caused unprecedented disruptions in the global economy as efforts to contain the spread of the virus have intensified. On March 11, 2020, the World Health Organization officially declared the coronavirus outbreak (also referred to as COVID-19) a pandemic. Since March 17, 2020, a number of states in the U.S., including all of the states in which we have manufacturing facilities, have instituted 'shelter-in place' orders as well as provided guidance in response to the pandemic and the need to contain it. We are carefully reviewing all rules, regulations, and orders and responding accordingly. On March 17, 2020, we temporarily shut down our EMS manufacturing facility in Fremont, California. As of the date of this filing, all of our other manufacturing facilities remain open.

In the meantime, we have taken steps to take care of our employees, including providing the ability for employees to work remotely and implementing strategies to support appropriate social distancing techniques for those employees who are not able to work remotely. We have also taken precautions with regard to employee, facility and office hygiene as well as implementing significant travel restrictions. We have developed a process for the ongoing screening of employees and visitors to our facilities to assess their risk of exposure to and/or infection with the coronavirus. We are also assessing our business continuity plans for all business units in the context of the pandemic. This is a rapidly evolving situation, and we will continue to monitor and mitigate developments affecting our workforce, our suppliers, our customers, and the public at large to the extent we are able to do so.

INTRODUCTION

inTEST Corporation was incorporated in New Jersey in 1981 and reincorporated in Delaware in April 1997. The consolidated entity is comprised of inTEST Corporation (parent) and our wholly-owned subsidiaries. In this report, "we," "us," "our," and the "Company" refer to inTEST Corporation and its consolidated subsidiaries.

We are a global supplier of precision-engineered solutions for use in manufacturing and testing across a wide range of markets including automotive, defense/aerospace, energy, industrial, semiconductor and telecommunications. We manage our business as two operating segments, Thermal Products ("Thermal") and Electromechanical Semiconductor Products ("EMS"), which are also our reporting units. Our Thermal segment designs, manufactures and sells our thermal test and thermal process products while our EMS segment designs, manufactures and sells our semiconductor test products.

Our EMS segment sells its products to semiconductor manufacturers and third-party test and assembly houses (end user sales) and to ATE manufacturers (OEM sales), who ultimately resell our equipment with theirs to both semiconductor manufacturers and third-party test and assembly houses. Our Thermal segment sells its products to many of these same types of customers; however, it also sells into a variety of other markets, including the automotive, defense/aerospace, energy, industrial and telecommunications markets. As a result of the acquisition of Ambrell Corporation ("Ambrell") in May 2017, our Thermal segment also sells into the consumer products packaging, fiber optics and other sectors within the broader industrial market, and into the wafer processing sector within the broader semiconductor market.

We sell our products worldwide. Within the ATE market, we sell our products both directly to major semiconductor manufacturers and semiconductor test subcontractors and indirectly through leading ATE manufacturers. In markets outside the ATE market, we sell our products directly to the end user of the product or through third party distributors. Our largest customers include Aixtron SE, Analog Devices, Inc., Cohu, Inc., Emerson Electric Co., Hakuto Co. Ltd., NXP Semiconductors N.V., Raytheon Company, Siemens AG, Teradyne, Inc. and Texas Instruments Incorporated.

MARKETS

Overview

Historically, we have referred to our markets as "Semiconductor" (which includes both the broader semiconductor market as well as the more specialized semiconductor ATE and wafer processing sectors within the broader semiconductor market), and "Non-Semiconductor" (which includes all of the other markets we serve). In the second quarter of 2019, we began referring to the semiconductor market, including the ATE and wafer processing sectors within that market, as the "Semi Market." All other markets, when referred to collectively, are designated as "Multimarket."

While the Semi Market represents the historical roots of inTEST and remains a very important component of our business, Multimarket is where we have focused our strategic growth efforts over the last several years. Our goal has been to grow our business, both organically and through acquisition, in Multimarket as we believe these markets have historically been less cyclical than the Semi Market. Prior to the acquisition of Ambrell in May 2017, we offered only highly specialized engineering solutions used for testing applications in Multimarket, the demand for which is limited and which varies significantly from period to period. Our acquisition of Ambrell not only provided expansion into new markets but also broadened our product offerings to include products sold into process or manufacturing applications. It is important to note that business within our Thermal segment can fall into either the Semi Market or Multimarket, depending upon how our customers utilize our products or upon their respective applications, while business within our EMS segment is all within the Semi Market. Historically, Ambrell sold its precision induction heating systems almost exclusively to customers in the industrial market but since 2018, has also had significant sales into the Semi Market. Overall, however, the acquisition of Ambrell has reduced our dependence on customers in the Semi Market. We expect that our future orders and net revenues will be approximately equally split between the Semi Market and Multimarket. During 2019 and 2018, our net revenues from Multimarket were \$29.7 million and \$33.2 million, respectively, and represented 49% and 42%, respectively, of our total net revenues. In the five years prior to the acquisition of Ambrell, our net revenues from Multimarket ranged from 18% to 30% of our total net revenues.

The level of our net revenues in Multimarket varies significantly from market to market. During 2019 and 2018, our net revenues from the industrial market represented 35% and 27%, respectively, of our total net revenues, while our net revenues from the defense/aerospace market represented 8% and 6%, respectively, of our total net revenues and our net revenues from the telecommunications market represented 3% and 7%, respectively, of our total net revenues. The level of our net revenues in these markets has varied significantly in the past and we expect will vary significantly in the future as we build our presence in these markets and establish new markets for our products. One of our goals is to further expand our Multimarket sales; however, due to the highly specialized nature of many of our product offerings, we do not expect broad market penetration in many of these markets and therefore do not anticipate developing meaningful market shares in most of these markets. Consequently, we are continuing to evaluate buying patterns and opportunities for growth in these markets that may affect our performance.

In the last several years, we have developed a meaningful market share in two markets outside of the Semi Market: the induction heating market for systems with 500KW or less of power (which is a subset of the industrial market) and the optical transceiver market (which is a subset of the telecommunications market). However, more recently, we have seen technological advances in the optical transceiver market that have significantly reduced the demand for the products we sell that are used to test and characterize these devices. Furthermore, as a result of the significant demand for equipment used to test optical transceivers over the last five years, we have a large installed base of test equipment within the optical transceiver market. The combination of these two factors effectively eliminated the optical transceiver market as a meaningful market for us in 2019 and going forward. In addition, in contrast to the Semi Market, where we serve a broad range of customers and where our business trends generally follow overall market trends within the Semi Market, in the industrial market, where induction heating products are used, and in the optical transceiver submarket, we only serve a limited number of market participants, which represent only a portion of these markets and, therefore, market trends in these areas do not have as material an impact on our financial results. The following discussion of our markets is, therefore, limited to the Semi Market.

Semi Market

As noted above, the Semi Market includes both the broader semiconductor market as well as the more specialized semiconductor ATE and wafer processing sectors within the broader semiconductor market. Historically, the Semi Market has been characterized by rapid technological change, wide fluctuations in demand and shortening product life cycles. Designers and manufacturers of a variety of electronic and industrial products, such as cell phones, telecom and datacom systems, Internet access devices, computers, transportation and consumer electronics, require increasingly complex integrated circuits ("ICs") to provide improved end-product performance demanded by their customers. Semiconductor manufacturers generally compete based on product performance and price. We believe that testing costs represent a significant portion of the total cost of manufacturing ICs. Semiconductor manufacturers remain under pressure to maximize production yields and reduce testing costs. At the same time, the growing complexity of ICs has increased the difficulty of maximizing test yields. In order to address these market trends, semiconductor manufacturers strive for more effective utilization of ATE, smaller test areas and increased wafer level testing.

Demand for new ATE and related equipment depends upon several factors, including the test equipment utilization rates of semiconductor manufacturers, the demand for products that incorporate ICs, the increasing complexity of ICs and the emergence of new IC design, production and packaging technologies. Some of the evolutionary changes in IC technologies included the shift to 300 mm wafers in production, system-on-a-chip ("SOC") where digital, analog and memory functions are combined on a single IC, and chip scale packaging. As a result of these factors and other advances, semiconductor manufacturers may require additional ATE not only to handle increases in production but also to handle the more sophisticated testing requirements of ICs.

IC Test Process

Semiconductor manufacturers typically produce ICs in multiples of several hundred or more on a silicon wafer that is later separated or "diced" into individual ICs. Extended leads are then attached to the individual ICs for later connection to other electrical components. In most cases, the ICs are then encapsulated in a plastic, ceramic or other protective housing. These process steps are called "packaging."

Wafers are tested before being diced and packaged to ensure that only properly functioning ICs are packaged. This testing step has several names, including "front-end test," "wafer test," "wafer probe" or "wafer sort." In front-end test, an electronic handling device known as a wafer prober automatically positions the wafer under a probe card that is electronically connected to a "test head," which connects electrically to a test system. During front-end testing, there is a growing trend of thermally conditioning the wafer during test. Once the good ICs have been identified, they are packaged.

The packaged ICs also require testing, called "back-end test" or "final test," to determine if they meet design and performance specifications. Packaged ICs are tested after loading into another type of electronic handling device called a "package handler" or "handler," which then transfers the packaged ICs into a test socket that is attached to the test head. These handlers may be temperature controlled for testing.

Testers range in price from approximately \$100,000 to over \$2.0 million each, depending primarily on the complexity of the IC to be tested. Probers and handlers range in price from approximately \$50,000 to \$500,000 each. A typical test floor of a large semiconductor manufacturer may have 100 test heads and 100 probers or 250 handlers supplied by various vendors for use at any one time. While larger global semiconductor manufacturers typically purchase ATE to test the ICs they manufacture, there are a growing number of semiconductor manufacturers who outsource IC testing to third-party foundries, test and assembly providers.

Test head manipulators, also referred to as positioners, facilitate the movement of the test head to the electronic device handler. Docking hardware mechanically connects the test head to the wafer prober or handler. Tester interface products provide the electrical connection between the test head and the wafer or packaged IC. Traditionally, temperature management products are used in back-end test to allow a manufacturer to test packaged ICs under the extreme temperature conditions in which the IC may be required to operate. However, we believe that temperature-controlled testing will be an increasingly important part of front-end wafer testing as more parameters traditionally tested in back-end test are moved to front-end test.

Trends in IC Testing

ATE is used to identify unacceptable packaged ICs and bad die on wafers. ATE assists IC manufacturers in controlling test costs by performing IC testing in an efficient and cost-effective manner. In order to provide testing equipment that can help IC manufacturers meet these goals, we believe the ATE market must address the following issues:

Change in Technology. End-user applications are demanding ICs with increasingly higher performance, greater speeds, and smaller sizes. ICs that meet these higher standards, including SOC designs, are more complex and dense. These technology trends have significant implications for the IC testing process, including:

- the need for test heads of higher complexity;
- higher signal densities;
- increasing test speeds; and
- a new generation of testers for SOC and other technologies.

Need for Plug-Compatibility and Integration. Semiconductor manufacturers need test methodologies that will perform increasingly complex tests while lowering the overall cost of testing. This can require combining ATE manufactured by various companies into optimally performing systems. Semiconductor manufacturers have to work closely with various test hardware, software, interface and component vendors to resolve design and compatibility issues in order to make these vendors' products plug-compatible with test equipment manufactured by other vendors.

Testing Under Extreme Conditions. ICs will have to perform across a wider spectrum of temperature and environmental conditions than ever before because of the growing complexity of products in which they are deployed. In recent years, temperature testing has found an increasing role in front-end, wafer-level testing. Creating a uniform thermal profile over much larger wafer areas represents a significant engineering and design challenge for ATE manufacturers.

Demand for Higher Levels of Technical Support. As IC testing becomes more complex, semiconductor manufacturers demand higher levels of technical support on a routine basis. ATE manufacturers must commit appropriate resources to technical support in order to develop close working relationships with their customers. This level of support also requires close proximity of service and support personnel to customers' facilities.

Cost Reduction Through Increased Front-End Testing. As the cost of testing ICs increases, semiconductor manufacturers will continue to look for ways to streamline the testing process to make it more cost-effective, such as the trend to use massive parallel testing, in which semiconductor manufacturers test multiple ICs on the wafer simultaneously. We believe that this factor will lead to more front-end, wafer-level testing.

OUR SOLUTIONS

Historically, we have focused our development efforts on designing and producing high quality products that provide superior performance and cost-effectiveness. We have sought to address each manufacturer's individual needs through innovative and customized designs, use of the best materials available, quality manufacturing practices and personalized service. We have designed solutions to overcome the evolving challenges facing the Semi Market and other markets that we serve, which we believe provide the following advantages:

Temperature-Controlled Testing. Our Thermostream^(R) products are used by manufacturers in a number of markets to stress test a variety of semiconductor and electronic components, printed circuit boards and sub-assemblies. Factors motivating manufacturers to use temperature testing include design characterization, failure analysis and quality control, as well as determining performance under extreme operating temperatures, all of which contribute to manufacturing cost savings. Our acquisitions of Sigma Systems Corporation ("Sigma"), in October 2008, and Thermonics, Inc. ("Thermonics"), in January 2012, significantly increased our product offerings in the area of temperature-controlled testing and enabled us to begin serving customers in other markets outside the Semi Market. Sigma's thermal platforms and temperature chambers can accommodate large thermal masses and are found in both laboratory and production environments. Thermonics' products provide a range of precision temperature forcing systems and have been melded into Temptronic's ATS ThermoStream product line. The Thermonics brand is now used to market a family of process chillers for test and industrial applications.

Induction Heating. Our acquisition of Ambrell added induction heating capabilities to our product offerings, which can be used by customers in process applications where precision controlled heating is needed. Customers use our induction heating products in conjunction with other technologies in various manufacturing environments to improve production efficiencies. Applications for our EKOHEAT^(R) or EASYHEATTM induction heating products include annealing, bonding, brazing, curing, forging, heat treating, melting, shrink-fitting and testing.

Scalable, Universal, High Performance Interface Technology. Our universal test head manipulators provide a high degree of positioning flexibility with a minimum amount of effort. As a result, our products can be used in virtually any test setting. Our manipulator products are designed to accommodate the increased size of test heads. Our docking hardware products offer precise control over the connection to test sockets, probing assemblies and interface boards, reducing downtime and minimizing costly damage to fragile components. Our tester interface products optimize the integrity of the signals transmitted between the test head and the device under test by being virtually transparent to the test signals. This results in increased accuracy of the test data and may thus enable improved test yields. We believe that these characteristics will gain even more significance as testing becomes even more demanding.

Compatibility and Integration. A hallmark of our products has been, and continues to be, compatibility with a wide variety of ATE. Our manipulator and docking hardware products are all designed to be used with otherwise incompatible ATE. We believe this integrated approach to ATE facilitates smooth changeover from one tester to another, longer lives for interface components, better test results, increased ATE utilization and lower overall test costs.

Worldwide Customer Service and Support. We have long recognized the need to maintain a physical presence near our customers' facilities. As of December 31, 2019, we had domestic manufacturing facilities in California, Massachusetts, New Jersey and New York and provided service to our customers from sales and service personnel based in the U.S., Europe and Asia. Our engineers are easily accessible to, and can work directly with, most of our customers from the time we begin developing our initial proposal, through the delivery, installation and use of the product by our customer. In this way, we are able to develop and maintain close relationships with our customers.

OUR STRATEGIES

We remain committed to our goals of being recognized in our markets as the designer and manufacturer of the highest quality and most cost-effective products and becoming the key supplier of all of our customers' product needs. Our strategies to achieve these goals include the following:

Pursuing Revenue Growth Opportunities Outside the Semi Market. A key element of our growth strategy is to pursue revenue growth opportunities in Multimarket, which includes the automotive, defense/aerospace, energy, industrial and telecommunications markets. We believe that we may be able to reduce some of the cyclicalities that we have historically experienced by further diversifying our revenue streams outside the Semi Market. We see the most potential for this within our Thermal segment. During 2019 and 2018, approximately \$29.7 million, or 49%, and \$33.2 million, or 42%, respectively, of our total net revenues were derived from Multimarket, as noted above. These revenues were all generated by our Thermal segment. We cannot determine at this time whether we will be successful in building our sales in Multimarket or what the growth rate of our sales in Multimarket will be in future periods.

Pursuing Synergistic Acquisitions. Another element of our growth strategy has been to acquire businesses, technologies or products that are complementary to our current product offerings. Since our initial public offering, we have acquired several businesses that have enabled us to expand our line of product offerings and have given us the opportunity to market a broader range of products to our customer base. In particular, the acquisitions of Temprotonic in 2000, Sigma in 2008, Thermonics in 2012 and Ambrell in 2017 have provided access to markets that are less sensitive to cyclicalities than the Semi Market. We seek to make acquisitions that will further expand our product lines as well as increase our exposure to markets outside of the Semi Market.

Providing Technologically Advanced Solutions. We are committed to designing and producing only the highest quality products, which incorporate innovative designs to achieve optimal cost-effectiveness and functionality for each customer's particular situation. Our engineering and design staff is continually engaged in developing new and improved products and manufacturing processes.

Leveraging Our Strong Customer Relationships. Our technical personnel work closely with ATE manufacturers to design tester interface and docking hardware that are compatible with their ATE. As a result, we are often privy to proprietary technical data and information about these manufacturers' products. We believe that because we do not compete with ATE manufacturers in the prober, handler and tester markets, we have been able to establish strong collaborative relationships with these manufacturers that enable us to develop ancillary ATE products on an accelerated basis. Engineering is also at the heart of the Thermal segment where customers often return to inTEST with their next thermal challenge. We work to solidify relationships with customers that have demanding specifications, whether it be thermal testing at temperature extremes for aerospace application or delivering precise heating for efficient industrial processes, for example. We believe that with our consistent demonstration of solutions from proof of concept to manufactured products with required specifications, we can continue to strengthen our customer relationships.

Maintaining Our International Presence. Our existing and potential customers are concentrated in certain regions throughout the world. We believe that we must maintain a presence in the markets in which our customers operate. We currently have offices in the U.S., Germany, Singapore and the Netherlands.

Controlling Costs. At the same time as we are pursuing growth opportunities, we will seek ways to more aggressively streamline our cost structure, so that we are positioned to offer products at prices that provide the margin for a reasonable profit as well as the resources for continual product development.

OUR SEGMENTS

As noted above, we have two operating segments, Thermal and EMS, which are also our reporting units. Our Thermal segment consists of (i) inTEST Thermal Solutions (“iTS”), which manufactures and sells products under the Temptronic, Sigma and Thermonics brand names, and (ii) Ambrell. iTS has operations in Massachusetts, Germany and Singapore. Ambrell has operations in New York, the Netherlands and the U.K. Customers use the thermal solutions produced by iTS for product development, characterization and production test or process applications. Ambrell provides customers with induction heating system solutions for conditioning, joining, and forming conductive materials in the manufacturing process. Our Thermal segment provides these solutions across an array of markets including automotive, defense/aerospace, energy, industrial, semiconductor and telecommunications.

Our EMS segment consists of our manufacturing operations in New Jersey and California. Semiconductor manufacturers use our EMS solutions in back-end testing where our mechanical and electrical products serve production testing of wafers and specialized packaged ICs. These ICs include microprocessors, digital signal processing chips, mixed signal devices, MEMS (Micro-Electro-Mechanical Systems), application specific ICs and specialized memory ICs, and are used primarily in the automotive, defense/aerospace, energy, industrial and telecommunications markets. We custom design most of our products for each customer's particular combination of ATE.

Thermal Products

ThermoStream^(R) Products: Our ThermoStream^(R) products are used in the Semi Market as a stand-alone temperature management tool, or in a variety of electronic test applications as part of our MobileTemp systems. ThermoStream^(R) products provide a source of heated and cooled air that can be directed over the component or device under test. These systems are capable of controlling temperatures to within +/- 0.1 degree Celsius over a range of -100 degrees Celsius to as high as +300 degrees Celsius within 1.0 degree Celsius of accuracy. As a stand-alone tool, ThermoStreams^(R) provide a temperature-controlled air stream to rapidly change and stabilize the temperature of packaged ICs and other devices.

Our MobileTemp Series combines our ThermoStream^(R) products with our family of exclusive, high-speed ThermoChambers to offer thermal test systems with fast, uniform temperature control in a compact package enabling temperature testing at the test location. MobileTemp Systems are designed specifically for small thermal-mass applications beyond the Semi Market and have found application in the automotive, electronic, fiber optic and oil field service markets testing such things as electronic sub-assemblies, sensor assemblies, and printed circuit boards.

Traditionally, our customers used ThermoStream^(R) products primarily in engineering, quality assurance and small-run manufacturing environments. However, increasingly, our customers use ThermoStream^(R) products in longer-run production applications. ThermoStream^(R) and MobileTemp products range in price from approximately \$15,000 to \$50,000.

ThermoChambers: Our chamber products are available in a variety of sizes, from small bench-top units to chambers with internal volumes of twenty-seven cubic feet and greater and with temperature ranges as wide as from -190 degrees Celsius to +500 degrees Celsius. Chambers can be designed to utilize liquid nitrogen or liquid carbon dioxide cooling or mechanical refrigeration, and sometimes both. These chambers can accommodate large thermal masses and are found in both laboratory and production environments. Chambers are priced from \$15,000 to \$150,000.

Thermal Platforms: Our platforms are available in surface sizes ranging from 7.2 square inches to 616 square inches. They provide a flat, thermally conductive, precisely temperature controllable surface that is ideal for conditioning of testing devices with a flat surface. Platforms are available with temperature ranges as broad as -100 degrees Celsius to +250 degrees Celsius. Thermal platforms can be designed to utilize either liquid nitrogen or liquid carbon dioxide cooling or mechanical refrigeration. Platforms offer virtually unimpeded access to the device under test and their easy access and compact size makes them ideal for convenient bench-top use. Platforms are priced from \$6,500 to \$65,000.

Thermonics^(R) Products: Our Thermonics temperature conditioning products provide tempered gas or fluid to enable customers to maintain desired thermal conditions within their tool or process. Applications include general industrial, chemical processing, energy, electronics, automotive, defense/aerospace and semiconductor markets. Prices range from \$20,000 to greater than \$230,000.

EKOHEAT^(R) Products: Our EKOHEAT^(R) induction heating systems with power ratings from 10KW to 500KW are manufactured by Ambrell and are used to conduct fast, efficient, repeatable non-contact heating of metals or other electrically conductive materials in order to transform raw materials into finished parts. Prices range from \$25,000 to \$250,000.

EASYHEAT™ Products: Our compact EASYHEAT™ induction heating systems with power ratings from 1KW to 10KW are manufactured by Ambrell are used to conduct fast, efficient, repeatable non-contact heating of metals or other electrically conductive materials in order to transform raw materials into finished parts. Prices range from \$5,000 to \$25,000.

Applications for both EKOHEAT^(R) and EASYHEAT™ products include annealing, bonding, brazing, curing, forging, heat treating, melting, shrink-fitting, soldering and testing.

EMS Products

Manipulator Products. We offer three lines of manipulator products: the in2^(R), the Cobal and the recently introduced LS Series. These free-standing universal manipulators can hold a variety of test heads and enable an operator to reposition a test head for alternate use with any one of several probers or handlers on a test floor.

Our manipulator products incorporate a balanced floating-head design. This design permits a test head weighing up to 1,760 pounds to be held in an effectively weightless state, so it can be moved manually or with optional powered assistance, up or down, right or left, forward or backward and rotated around each axis (known as six degrees of motion freedom) by an operator using a modest amount of force or with a computer controlled pendant. The same design features enable the operator to dock the test head without causing inadvertent damage to the fragile electrical contacts. As a result, after testing a particular production lot of ICs, the operator can quickly and easily disconnect a test head that is held in an in2^(R) or Cobal Series manipulator and equipped with our docking hardware and dock it to another electronic device handler for testing either a subsequent lot of the same packaged ICs or to test different ICs. With the LS Series manipulators, the undocking, movement of the test head and redocking can be done automatically through the pendant. Our manipulator products range in price from approximately \$12,000 to \$75,000.

Docking Hardware Products. We offer two lines of docking hardware products: fixed manual docking and IntelliDock pin and cup docking. Both types protect the delicate interface contacts and ensure proper repeatable and precise alignment between the test head's interface board and the prober's probing assembly or the handler's test socket as they are brought together, or "docked." Fixed manual docking includes a mechanical cam mechanism to dock and lock the test head to the prober or handler. IntelliDock is an automated docking solution that provides operator feedback for each docking step via a touchscreen display, and when coupled with the LS Series manipulator, redeployment of the test head can be done automatically and accurately via the computer pendant. Both types of docking hardware products eliminate motion of the test head relative to the prober or handler once docked. This minimizes deterioration of the interface boards, test sockets and probing assemblies that is caused by constant vibration during testing. Our docking hardware products are used primarily with floating-head universal manipulators when maximum mobility and inter-changeability of handlers and probers between test heads is required. By using our docking hardware products, semiconductor manufacturers can achieve cost savings through improved ATE utilization, improved accuracy and integrity of test results, optimized floor support and reduced repairs and replacements of expensive ATE interface products.

We believe our docking hardware products offer our customers the ability to make various competing brands of test heads compatible with various brands of probers and handlers by only changing interface boards. This is called "plug-compatibility." Plug-compatibility enables increased flexibility and utilization of test heads, probers and handlers purchased from various ATE manufacturers. We believe that because we do not compete with ATE manufacturers in the sale of probers, handlers or testers, ATE manufacturers are willing to provide us with the information that is integral to the design of plug-compatible products. Our docking hardware products range in price from approximately \$2,000 to \$25,000.

Interface Products. Our tester interface products provide the electrical connections between the tester and the wafer prober or IC handler to carry the electrical signals between the tester and the probe card on the prober or the test socket on the handler. Our designs optimize the integrity of the transmitted signal. Therefore, our tester interfaces can be used with high speed, high frequency, digital or mixed signal testers used in testing more complex ICs. Because our tester interface products enable the tester to provide more reliable yield data, our interfaces may also reduce IC production costs. We design standard and modular interface products to address most possible tester/prober combinations on the market today. In addition, we provide a custom design service that will allow any of our customers to use virtually any tester, prober or handler combination with any type of device, such as analog, digital, mixed signal and radio frequency. For example, our Centaur^(R) modular interface is designed to provide flexibility and scalability through the use of replaceable signal modules which can be easily changed on the test floor as our customers' testing requirements change. In addition to the Centaur^(R) modular interface, we also offer over 200 different types of tester interface models that we custom designed for our customers' specific applications. These tester interface products range in price from approximately \$7,000 to \$110,000.

Financial Information About Operating Segments and Geographic Areas

Please see Note 15 to the consolidated financial statements included in Item 8 of this Report on Form 10-K for additional data regarding net revenues, profit or loss and total assets of each of our segments and revenues attributable to foreign countries.

MARKETING, SALES AND CUSTOMER SUPPORT

We market and sell our products primarily in markets where semiconductors are manufactured. North American and European semiconductor manufacturers, as well as third-party foundries, test and assembly providers, have located most of their back-end factories in Southeast Asia. The front-end wafer fabrication plants of U.S. semiconductor manufacturers are primarily in the U.S. Likewise, European, Taiwanese, South Korean and Japanese semiconductor manufacturers generally have located their wafer fabrication plants in their respective countries. We have been providing a greater number of engineered solutions to markets outside the Semi Market. These are thermal-based solutions that fall into the categories of test and process, involving automotive, defense/aerospace, energy, industrial and telecommunications markets.

Thermal Products: We market our thermal products brands, Temptronic, Sigma and Thermonics, under the umbrella name of inTEST Thermal Solutions and sales to ATE manufacturers are handled directly by our own sales force. Sales to semiconductor manufacturers and customers in other markets in the U.S. are handled through independent sales representative organizations. In Singapore and Malaysia, our sales and service are handled through our internal sales and service staff. In the rest of Asia, our sales are handled through distributors. In Europe, sales managers at our office in Germany, as well as regional distributors and independent sales representatives, sell to semiconductor manufacturers and customers in other markets. We visit our distributors regularly and have trained them to sell and service our thermal products.

We market our EASYHEAT™ and EKOHEAT(R) precision induction heating equipment to manufacturers who require specialized industrial heating in a wide array of industries, including automotive, aerospace and semiconductor, and are sold globally through a combination of regional sales managers, independent sales representatives and independent distributors. In North America, direct regional sales managers provide sales coverage augmented by independent sales representatives. In Europe, direct sales managers provide sales coverage augmented by independent distributors. In Asia, distributors have responsibility for sales and service of our products.

We also provide induction heating product support through our SmartCARE Service offering, which includes equipment repairs and training, preventative maintenance, enhanced warranties and spare parts. Our field service engineers, located in the U.S. and Europe, provide service and support globally. Additionally, a number of distributors in Europe and Asia have factory-trained service technicians.

EMS Products: In North America, we sell to semiconductor manufacturers principally through independent, commissioned sales representatives. North American sales representatives also coordinate product installation and support with our technical staff and participate in trade shows.

Our internal sales account managers handle sales to ATE manufacturers and are responsible for a portfolio of customer accounts and for managing certain independent sales representatives. In addition, our sales account managers are responsible for pricing, quotations, proposals and transaction negotiations, and they assist with applications engineering and custom product design. Technical support is provided to North American customers and independent sales representatives by employees based in New Jersey, California and Texas.

In Europe, we sell to semiconductor and ATE manufacturers through our internal sales staff. Technical support is provided by our staff in the U.K. In China, Japan, the Philippines, South Korea, and Thailand, we sell through the use of independent sales representatives who are supervised by our internal sales staff. In Malaysia, Singapore and Taiwan, our sales are handled by our internal sales staff. International sales representatives are responsible for sales, installation, support and trade show participation in their geographic market areas. Technical support is provided to Asian customers primarily by employees based in Malaysia, the Philippines and Taiwan.

CUSTOMERS

We market all of our products to end users, which include semiconductor manufacturers and third-party foundries, test and assembly providers, as well as to original equipment manufacturers ("OEMs"), which include ATE manufacturers and their third-party outsource manufacturing partners. In the case of thermal products, we also market our products to independent testers of semiconductors, manufacturers of automotive, defense/aerospace, energy, industrial and telecommunications products, semiconductor research facilities, and manufacturers and manufacturing process integrators for a variety of industrial process applications. Our customers use our products principally in production testing or process/manufacturing applications, although our ThermoStream(R) products traditionally have been used largely in engineering development and quality assurance. We believe that we sell to most of the major semiconductor manufacturers in the world.

During the years ended December 31, 2019 and 2018, Texas Instruments Incorporated accounted for 10% and 11% of our consolidated net revenues, respectively. While both of our operating segments sold products to this customer, these revenues were primarily generated by our EMS segment. Our ten largest customers accounted for approximately 34% and 40% of our consolidated net revenues in 2019 and 2018, respectively. The loss of any one or more of our largest customers, or a reduction in orders by a major customer, could materially reduce our net revenues or otherwise materially affect our business, financial condition or results of operations.

Our largest customers in 2019 include:

Semiconductor Manufacturers

Aixtron SE
Analog Devices, Inc.
NXP Semiconductors N.V.
Texas Instruments Incorporated

ATE Manufacturers

Cohu, Inc.
Teradyne, Inc.

Other

Emerson Electric Co.
Hakuto Co. Ltd.
Raytheon Company
Siemens AG

MANUFACTURING AND SUPPLY

As of December 31, 2019, our principal manufacturing operations consisted of assembly and testing at our facilities in California, Massachusetts, New Jersey and New York. We assemble most of our products from a combination of standard components and custom parts that have been fabricated to our specifications by either third-party manufacturers or our own fabrication operation in New Jersey. Our practice is to use the highest quality raw materials and components in our products. The primary raw materials used in fabricated parts are all widely available. We purchase substantially all of our components from multiple suppliers. We purchase certain raw materials and components from single suppliers. We believe, however, that all materials and components are available in adequate amounts from other sources, although from time to time, certain components may be in short supply because of high demand or the inability of some vendors to consistently meet our quality or delivery requirements. We expect the coronavirus pandemic will impact our supply chain in the coming months and may cause delays in receipt of materials needed to manufacture our products. Additionally, as discussed above, since March 17, 2020, a number of states in the U.S., including all of the states in which we have manufacturing facilities, have instituted ‘shelter-in place’ orders as well as provided guidance in response to the pandemic and the need to contain it. We are carefully reviewing all rules, regulations, and orders and responding accordingly. On March 17, 2020, we temporarily shut down our EMS manufacturing facility in Fremont, California. As of the date of this filing, all of our other manufacturing facilities remain open.

We conduct inspections of incoming raw materials, fabricated parts and components using sophisticated measurement equipment. This includes testing with coordinate measuring machines in all but one of our manufacturing facilities to ensure that products with critical dimensions meet our specifications. We have designed our inspection standards to comply with applicable MIL specifications and ANSI standards.

Our Massachusetts facility is ISO 9001:2015 certified. Our New York facility is ISO 9001:2015 certified. Our New Jersey and California facilities manufacture products only for the semiconductor industry where ISO certification is not required. However, these locations do employ the practices embodied in the ISO 9001:2008.

ENGINEERING AND PRODUCT DEVELOPMENT

Our success depends on our ability to provide our customers with products and solutions that are well engineered and to design those products and solutions before, or at least no later than, our competitors. As of December 31, 2019, we employed a total of 43 engineers engaged in engineering and product development. In addition, when the demands of engineering and product development projects exceed the capacity or knowledge of our in-house staff, we retain temporary third-party engineering and product development consultants to assist us. Our practice in many cases is to assign engineers to work with specific customers, thereby enabling us to develop the relationships and exchange of information that is most conducive to successful product development and enhancement. In addition, some of our engineers are assigned to new product research and development and have worked on such projects as the development of new types of universal manipulators, the redesign and development of new thermal products and the development of high performance interfaces.

Since most of our products are customized, we consider substantially all of our engineering activities to be engineering and product development. We spent approximately \$5.0 million in 2019 and \$4.9 million in 2018 on engineering and product development.

PATENTS AND OTHER PROPRIETARY RIGHTS

Our policy is to protect our technology by filing patent applications for the technologies that we consider important to our business. We also rely on trademarks, trade secrets, copyrights and unpatented know-how to protect our proprietary rights. It is our practice to require that all of our employees and third-party product development consultants assign to us all rights to inventions or other discoveries relating to our business that were made while working for us. In addition, all employees and third-party product development consultants agree not to disclose any private or confidential information relating to our technology, trade secrets or intellectual property.

As of December 31, 2019, we held 64 active U.S. patents and had four pending U.S. patent applications covering various aspects of our technology. Our U.S. patents expire at various times beginning in 2020 and extending through 2034. During 2019, one U.S. patent was issued and we had eight U.S. patents expire. We do not believe that the upcoming expiration of certain of our patents in 2020 will have a material impact on our business. We also hold foreign patents and file foreign patent applications, in selected cases corresponding to our U.S. patents and patent applications, to the extent management deems appropriate.

While we believe that our patents and other proprietary rights are important to our business, we also believe that, due to the rapid pace of technological change in the markets we serve, the successful manufacture and sale of our products also depends upon our engineering, manufacturing, marketing and servicing skills. In the absence of patent protection, we would be vulnerable to competitors who attempt to copy or imitate our products or processes. We believe our intellectual property has value, and we have taken in the past, and will take in the future, actions we deem appropriate to protect such property from misappropriation. There can be no assurance, however, that such actions will provide meaningful protection from competition. For additional information regarding risks related to our intellectual property, see the "Risk Factors" section of this Report.

COMPETITION

We operate in an increasingly competitive environment within both of our operating segments. Some of our competitors have greater financial resources and more extensive design and production capabilities than us. Certain markets in which we operate have become more fragmented, with smaller companies entering the market. These new smaller entrants typically have much lower levels of fixed operating overhead than us, which enables them to be profitable with lower priced products. In order to remain competitive with these and other companies, we must continue to commit a significant portion of our personnel, financial resources, research and development and customer support to developing new products and maintaining customer relationships worldwide.

Our competitors include independent manufacturers, ATE manufacturers and, to a lesser extent, semiconductor manufacturers' in-house ATE interface groups. Competitive factors in the markets we serve include price, functionality, timely product delivery, customer service, applications support, product performance and reliability. We believe that our long-term relationships with our customers in the various markets we support and our commitment to, and reputation for, providing high quality products, are important elements in our ability to compete effectively in all of our markets.

Our principal competitors for Thermostream[®] products are FTS Systems, a part of SP Industries, and MPI Corporation. Our principal competitors for environmental chambers are Cincinnati Sub-Zero Products, Inc., Espec Corp. and Thermotron Industries. Our principal competitor for thermal platforms is Environmental Stress Systems Inc. Our principal competitors for EKOHEAT[®] and EASYHEAT[™] products are Inductotherm Corporation, Park-Ohio Holdings, EFD Induction Corporation, Trumpf Huettinger GmbH, Ultraflex Power Technologies and CEIA SpA.

Our principal competitors for manipulator products are Advantest Corporation, Esmo AG, Reid-Ashman Manufacturing and Teradyne, Inc. Our principal competitors for docking hardware products include Advantest Corporation, Esmo AG, Knight Automation, Reid-Ashman Manufacturing and Teradyne, Inc. Our principal competitors for tester interface products are Advantest Corporation, Esmo AG, Reid-Ashman Manufacturing and Teradyne, Inc.

BACKLOG

At December 31, 2019, our backlog of unfilled orders for all products was approximately \$5.5 million compared with approximately \$13.4 million at December 31, 2018. Our backlog includes customer orders that we have accepted, substantially all of which we expect to deliver in 2020. While backlog is calculated on the basis of firm purchase orders, a customer may cancel an order or accelerate or postpone currently scheduled delivery dates. Our backlog may be affected by the tendency of customers to rely on shorter lead times available from suppliers, including us, in periods of depressed demand. In periods of increased demand, there is a tendency towards longer lead times, which has the effect of increasing backlog. As a result of these factors, our backlog at a particular date is not necessarily indicative of sales for any future period.

EMPLOYEES

At December 31, 2019, we had 198 full time employees, including 101 in manufacturing operations, 56 in customer support/operations and 41 in administration. Substantially all of our key employees are highly skilled and trained technical personnel. None of our employees are represented by a labor union, and we have never experienced a work stoppage. From time to time, we retain third-party contractors to assist us in manufacturing operations and engineering and product development projects.

ADDITIONAL INFORMATION

Our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, and amendments to these reports that are filed with the SEC pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended ("Exchange Act"), are available free of charge through our website (www.intest.com) as soon as reasonably practicable after we electronically file them with, or furnish them to, the SEC. We also routinely post press releases, presentations, webcasts and other information regarding the Company on our website. The information posted to our website is not part of this Report.

Item 1A. RISK FACTORS

The following are some of the factors that could materially and adversely affect our future performance or could cause actual results to differ materially from those expressed or implied in our forward-looking statements. The risks and uncertainties described below are not the only ones facing us and we cannot predict every event and circumstance that may adversely affect our business. However, these risks and uncertainties are the most significant factors that we have identified at this time. If one or more of these risks actually occurs, our business, results of operations and/or financial condition could suffer, and the price of our stock could be negatively affected.

Our business, financial condition and results of operations and the market price of our common stock have been and will continue to be adversely affected by the coronavirus pandemic.

In December 2019, instances of a human infection of unknown cause originating in China were first reported to the World Health Organization. In early January 2020, this infection was traced to a novel strain of coronavirus. The virus has subsequently spread to other parts of the world, including the U.S. and Europe, and has caused unprecedented disruptions in the global economy as efforts to contain the spread of the virus have intensified. On March 11, 2020, the World Health Organization officially declared this coronavirus outbreak (also referred to as COVID-19) a pandemic. Our business has been and will continue to be adversely affected by the coronavirus pandemic. Since March 17, 2020, a number of states in the U.S., including all of the states in which we have manufacturing facilities, have instituted 'shelter-in place' orders as well as provided guidance in response to the pandemic and the need to contain it. We are carefully reviewing all rules, regulations, and orders and responding accordingly. On March 17, 2020, we temporarily shut down our EMS manufacturing facility in Fremont, California. As of the date of this filing, all of our other manufacturing facilities remain open.

If the current pace of the coronavirus pandemic cannot be slowed and the spread of the virus is not contained, our business operations could be further delayed or interrupted. We expect that government and health authorities may announce new or extend existing restrictions, which could require us to make further adjustments to our operations in order to comply with any such restrictions. These adjustments to our operations could include additional facility closures. We may also experience limitations in employee resources. Global supply chains and the timely availability of products have been and will continue to be materially disrupted by quarantines, factory slowdowns or shutdowns, border closings and travel restrictions resulting from the coronavirus pandemic. Our operations would be disrupted if any of our employees or employees of our business partners were suspected of having coronavirus, which could require quarantine of some or all such employees or closure of our facilities for disinfection.

The adverse effects of the coronavirus pandemic on our business could be material in future periods, particularly if there are significant and prolonged economic slowdowns in regions where we derive a significant amount of our revenue or profit, or where our suppliers are located, or if we are forced to close additional facilities and limit or cease manufacturing operations for extended periods of time. We could experience delays in receipt of customer orders, cancellation or postponement of existing orders and/or our ability to fulfill orders placed with us within the order's specified timeline and for the cost we estimated when we accepted the order may be negatively affected. This would lead to a reduction in revenue and/or an increase in our cost of revenues in future periods and to a material adverse effect on our business, financial condition and results of operations. The coronavirus pandemic has also led to extreme volatility in capital markets and has adversely affected, and may continue to adversely affect, the market price of our common stock.

The duration of any business disruption and related financial impact cannot be reasonably estimated at this time but may materially affect our ability to operate our business and result in additional costs. The extent to which the coronavirus pandemic may impact our results will depend on future developments, which are highly uncertain and cannot be predicted as of the time of this filing, including new information that may emerge concerning the severity of the coronavirus and steps taken to contain the coronavirus or treat its impact, among others.

Changes in the buying patterns of our customers, including as a result of the coronavirus pandemic, have affected, and may continue to affect, demand for our products and our gross and net operating margins. Such changes in patterns are difficult to predict and may not be immediately apparent.

In addition to the cyclical and seasonality of the Semi Market, demand for our products and our gross and net operating margins have also been affected by changes in the buying patterns of our customers, including as a result of the coronavirus pandemic. Some of the changes in customer buying patterns that have impacted us in the past, and may continue to do so in the future, have included customers placing heightened emphasis on shorter lead times (which places increased demands on our available engineering and production capacity and may result in increasing unit costs) and ordering in smaller quantities (which prevents us from acquiring component materials in larger volumes at lower unit costs.) We have also experienced customer supply chain management groups demanding lower prices and spreading purchases across multiple vendors. We believe some of the changes in customer buying patterns are the result of changes within the Semi Market over the last several years, including, for example, changing product requirements and longer time periods between new product offerings by OEMs. The recent coronavirus pandemic has also resulted in decreased customer demand. Such shifts in market practices have had, and may continue to have, varying degrees of impact on our net revenues and our gross and net operating margins. Such shifts are difficult to predict and may not be immediately apparent, and the impact of these practices is difficult to quantify from period to period. There can be no assurance that we will be successful in implementing effective strategies to counter these shifts.

Our sales are affected by the cyclical and seasonality of the Semi Market, which causes our operating results to fluctuate significantly.

Our business depends in significant part upon the capital expenditures of semiconductor manufacturers. Capital expenditures by these companies depend upon, among other things, the current and anticipated market demand for semiconductors and the products that utilize them. Typically, semiconductor manufacturers curtail capital expenditures during periods of economic downturn. Conversely, semiconductor manufacturers increase capital expenditures when market demand requires the addition of new or expanded production capabilities or the reconfiguration of existing fabrication facilities to accommodate new products. In addition to being cyclical, the Semi Market has also developed a seasonal pattern, with the second and third quarters being the periods of strong demand and the first and fourth quarters being periods of weakened demand. We believe this change has been driven by the strong demand for consumer products containing semiconductor content sold during the year-end holiday shopping season. These market changes and seasonal sales pattern have contributed in the past, and will likely continue to contribute in the future, to fluctuations in our operating results.

Our business is subject to intense competition, which has in the past and could in the future, materially adversely affect our business, financial condition and results of operations.

We face significant competition throughout the world in each of our operating segments. Some of our competitors have substantial financial resources and more extensive design and production capabilities than us. Some of our competitors are much smaller than we are, and therefore have much lower levels of overhead than us, which enables them to sell their competing products at lower prices. In order to remain competitive, we must continually commit a significant portion of our personnel and financial resources to developing new products and maintaining customer satisfaction worldwide. We expect our competitors to continue to improve the performance of their current products and introduce new products or technologies. In the recent past, in response to significant declines in global demand for our products, some competitors have reduced their product pricing significantly, which has led to intensified price based competition, which has and could continue to materially adversely affect our business, financial condition and results of operations.

We generate a large portion of our sales from a small number of customers. If we were to lose one or more of our large customers, operating results could suffer dramatically.

During the years ended December 31, 2019 and 2018, Texas Instruments Incorporated accounted for 10% and 11% of our consolidated net revenues, respectively. While both of our operating segments sold products to this customer, these revenues were primarily generated by our EMS segment. Our ten largest customers accounted for approximately 34% and 40% of our consolidated net revenues in 2019 and 2018, respectively. The loss of any one or more of our largest customers, or a reduction in orders by a major customer, including as a result of the coronavirus pandemic, could materially reduce our net revenues or otherwise materially affect our business, financial condition or results of operations.

We seek to further diversify the markets for our thermal products in order to increase the proportion of our sales attributable to markets which are less subject to cyclicity than the Semi market. If we are unable to do so, our future performance will remain substantially exposed to the fluctuations of the cyclicity of the Semi Market.

Since 2009, we have sold our thermal products in markets outside of the Semi Market, including the automotive, defense/aerospace, energy, industrial and telecommunications markets. We refer to these other markets collectively as Multimarket. During 2019 and 2018, our Multimarket sales were \$29.7 million and \$33.2 million, respectively, and represented 49% and 42% of our consolidated net revenues, respectively. Prior to our acquisition of Ambrell, we offered only highly specialized engineering solutions in Multimarket, the demand for which is limited and which we expect may vary significantly from period to period. Our goal is to increase our Multimarket sales; however, in most cases, the expansion of our thermal product sales into these new markets has occurred in the last several years, and we may experience difficulty in expanding our sales efforts further into these markets. These difficulties could include hiring sales and marketing staff with sufficient experience selling into these new markets and our ability to continue to develop products which meet the needs of customers in these markets and which are not currently offered by our competitors. In addition, due to the highly specialized nature of certain of our product offerings in Multimarket, we do not expect broad market penetration in many of these markets. If we are unable to expand our Multimarket sales, our net revenues and results of operations will remain substantially dependent upon the cycles of the Semi Market.

We seek to acquire additional businesses. If we are unable to do so, our future rate of growth may be reduced or limited. We may incur significant expenses related to due diligence or other transaction-related expenses for a proposed acquisition that may not be completed.

A key element of our growth strategy is to acquire businesses, technologies or products that are complementary to our current product offerings. We seek to make acquisitions that will further expand our product lines as well as reduce our overall reliance on the Semi Market. We may not be able to execute our acquisition strategy and our future growth may be limited if:

- we are unable to identify suitable businesses, technologies or products to acquire;
- we do not have sufficient cash or access to required capital at the necessary time;
- we are unwilling or unable to outbid larger, more resourceful companies; or
- we are unable to successfully close proposed acquisitions.

We may incur significant expenses related to due diligence or other transaction-related expenses for a proposed acquisition that may not be completed, which may have a material adverse effect on our financial condition and results of operations.

Our acquisition strategy involves financial and management risks which may adversely affect our results in the future.

If we acquire additional businesses, technologies or products, we will face the following additional risks:

- future acquisitions could divert management's attention from daily operations or otherwise require additional management, operational and financial resources;
- we might not be able to integrate future acquisitions into our business successfully or operate acquired businesses profitably;
- we may realize substantial acquisition related expenses that would reduce our net earnings in future years; and
- our investigation of potential acquisition candidates may not reveal problems and liabilities of the companies that we acquire.

If any of the events described above occur, our earnings could be reduced. If we issue shares of our stock or other rights to purchase our stock in connection with any future acquisitions, we would dilute our existing stockholders' interests and our earnings per share may decrease. If we issue or incur debt in connection with any future acquisitions, lenders may require that we pledge our assets to secure repayment of such debt and impose covenants on us, which could, among other things, restrict our ability to increase capital expenditures or to acquire additional businesses.

We may attempt to acquire a substantial business that would require us to issue or incur significant debt from third parties. If we are unable to secure sufficient financing at terms that are acceptable to us, we may not be able to close the proposed acquisition. Additionally, should we incur significant debt, we may not be able to achieve compliance with all covenants related to the debt depending on our financial results in future periods.

In connection with our acquisition strategy, we are pursuing potential acquisition opportunities that may be significant in size compared to us, which could require us to obtain significant third party financing to close the proposed transaction. We may encounter difficulties in securing necessary financing at terms that would be acceptable to us and may not be able to close on the proposed acquisition. In addition, should we incur significant third party debt, our future financial results may be negatively impacted by external factors, such as an economic recession, which may impact our ability to achieve compliance with any covenants related to the debt as well as make the required payments under the terms of the indebtedness.

We may acquire businesses in the future and utilize an earnout structure as we have done on prior transactions we have closed. In connection with the earnout, we may be required to accrue significant increases or decreases to the contingent consideration liability we would establish. These adjustments to the contingent consideration liability could cause our results of operations to have increased variability, which may negatively impact our stock's trading price.

We may utilize an earnout structure on future acquisitions. The initial contingent consideration liability is established as part of the accounting for the business combination. In subsequent periods, we are required to estimate the fair value of the contingent consideration associated with any earnout on a quarterly basis and record an adjustment to the contingent consideration liability in our results of operations for the period concerned. The contingent consideration adjustment we record quarterly may cause increased variability in our future results of operations, which may cause fluctuations in our stock price.

Our operating results often change significantly from quarter to quarter and may cause fluctuations in our stock price.

Historically, our operating results have fluctuated significantly from quarter to quarter. We believe that these fluctuations occur primarily due to the cycles of demand in the semiconductor manufacturing industry. In addition to these changing cycles of demand, other factors that have caused our quarterly operating results to fluctuate in the past or that may cause fluctuations and losses in the future, include:

- the impact of the coronavirus pandemic on our business;
- changes in demand in Multimarket including the automotive, defense/aerospace, energy, industrial and telecommunication markets;
- the state of the U.S. and global economies, including any impacts from the coronavirus pandemic;
- changes in the buying patterns of our customers including any changes in the rate of, and timing of, purchases by our customers, including any impacts from the coronavirus pandemic;
- the impact of interruptions in our supply chain caused by external factors, including any impacts from the coronavirus pandemic;
- changes in our market share;
- costs related to due diligence and transaction-related expenses for a proposed acquisition that does not get completed;
- costs and timing of integration of our acquisitions and plant consolidations and relocations;
- the technological obsolescence of our inventories;
- quantities of our inventories greater than is reasonably likely to be utilized in future periods;
- fluctuations in the level of product warranty charges;
- competitive pricing pressures;
- excess manufacturing capacity;
- our ability to control operating costs;

- delays in shipments of our products, including any impacts from the coronavirus pandemic;
- the mix of our products sold;
- the mix of customers and geographic regions where we sell our products;
- changes in the level of our fixed costs, including any costs incurred as a result of our response to the coronavirus pandemic;
- costs associated with the development of our proprietary technology;
- our ability to obtain raw materials or fabricated parts when needed;
- increases in costs of component materials, including any impacts from the coronavirus pandemic;
- cancellation or rescheduling of orders by our customers, including any impacts from the coronavirus pandemic;
- changes in government regulations; and
- political or economic instability.

Because the market price of our common stock has tended to vary based on, and in relation to, changes in our operating results, fluctuations in the market price of our stock are likely to continue as variations in our quarterly results continue.

A breach of our operational or security systems could negatively affect our business, our reputation and results of operations.

We rely on various information technology networks and systems, some of which are managed by third parties, to process, transmit and store electronic information, including confidential data, and to carry out and support a variety of business activities, including manufacturing, research and development, supply chain management, sales and accounting. A failure in or a breach of our operational or security systems or infrastructure, or those of our suppliers and other service providers, including as a result of cyberattacks, could disrupt our business, result in the disclosure or misuse of proprietary or confidential information, litigation, damage our reputation, cause losses and significantly increase our costs. Although we have been the target of security breaches in the past, the Company has not experienced material losses to date related to such incidents. Nevertheless, there can be no assurance that we will not suffer such losses in the future. In addition, domestic and international regulatory agencies have implemented, and are continuing to implement, various reporting and remediation requirements that companies must comply with upon learning of a breach. While we have insurance that may protect us from incurring some of these costs, there is no assurance that such insurance coverage is adequate to cover all costs and damages incurred in connection with a cyberattack.

Our industry is subject to rapid technological change, and our business prospects would be negatively affected if we are unable to quickly and effectively respond to innovation in the Semi Market.

Semiconductor technology continues to become more complex as manufacturers incorporate ICs into an increasing variety of products. This trend, and the changes needed in automated testing systems to respond to developments in the semiconductor market, are likely to continue. We cannot be certain that we will be successful or timely in developing, manufacturing or selling products that will satisfy customer needs or that will attain market acceptance. Our failure to provide products that effectively and timely meet customer needs or gain market acceptance will negatively affect our business prospects.

If our suppliers do not meet product or delivery requirements, we could have reduced revenues and earnings.

Certain components may be in short supply from time to time because of high demand or the inability of some vendors to consistently meet our quality or delivery requirements, including in light of the coronavirus pandemic. A significant portion of our material purchases require some custom work, and there are not always multiple suppliers capable of performing such custom work on a timely or cost-effective basis. If any of our suppliers were to cancel commitments or fail to meet quality or delivery requirements needed to satisfy customer orders for our products, we could lose time-sensitive customer orders, have reduced revenues and earnings, and be subject to contractual penalties, any of which could have a material adverse effect on our business, results of operations and financial condition. The coronavirus pandemic could increase the likelihood or significance of the occurrence of any of the aforementioned events.

Our business may suffer if we are unable to attract and retain key employees.

The loss of key personnel could adversely affect our ability to manage our business effectively. Our future success will depend largely upon the continued services of our senior management and other key employees or the development of successors with commensurate skills and talents. In the past, during periods of weakened demand that caused us to experience operating losses, we have implemented temporary salary and benefit reductions and eliminations that have remained in place until our operations returned to profitability. If global economic conditions were to deteriorate further and we were to implement such salary and benefit reductions or eliminations again, or if we cannot continue to increase employee salaries and maintain employee benefits commensurate with competitive opportunities, we may not be able to retain our senior management and other key employees. Our business could suffer if we were to lose one or more of our senior officers or other key employees.

A substantial portion of our customers are located outside the U.S., which exposes us to foreign political and economic risks.

We have operated internationally for many years and expect to expand our international operations as necessary to continue expansion of our sales and service to our non-U.S. customers. Our foreign subsidiaries generated 15% and 16% of consolidated net revenues in 2019 and 2018, respectively. Net revenues from foreign customers totaled \$35.4 million, or 58% of consolidated net revenues in 2019, and \$53.0 million, or 68% of consolidated net revenues in 2018. We expect our net revenues from foreign customers will continue to represent a significant portion of total net revenues. In addition to the risks generally associated with sales and operations in the U.S., sales to customers outside the U.S. and operations in foreign countries are subject to additional risks, which may, in the future, affect our operations. These risks include:

- the effects of the coronavirus pandemic on markets outside the U.S.;
- the implementation of trade tariffs by the U.S. and other countries that would impact our products;
- political and economic instability in foreign countries;
- the imposition of financial and operational controls and regulatory restrictions by foreign governments;
- the need to comply with a wide variety of U.S. and foreign import and export laws;
- local business and cultural factors that differ from our normal standards and practices, including business practices that we are prohibited from engaging in by the Foreign Corrupt Practices Act and other anti-corruption laws and regulations;
- trade restrictions;
- changes in taxes;
- longer payment cycles;
- fluctuations in currency exchange rates; and
- the greater difficulty of administering business abroad.

A significant portion of our cash position is maintained overseas and we may not be able to repatriate cash from overseas when necessary, which could have an adverse effect on our financial condition.

While much of our cash is in the U.S., a significant portion is generated from and maintained by our foreign operations. As of December 31, 2019, \$2.5 million, or 32%, of our cash and cash equivalents were held by our foreign subsidiaries. Our financial condition and results of operations could be adversely impacted if we are unable to maintain a sufficient level of cash flow in the U.S. to address our cash requirements and if we are unable to efficiently and timely repatriate cash from overseas. Any payment of distributions, loans or advances to us by our foreign subsidiaries could be subject to restrictions on, or taxation of, dividends or repatriation of earnings under applicable local law, monetary transfer restrictions and foreign currency exchange regulations in the jurisdictions in which our subsidiaries operate. If we are unable to repatriate the earnings of our subsidiaries, it could have an adverse impact on our ability to redeploy earnings in other jurisdictions where they could be used more profitably.

We have experienced and may continue to experience significant variability in our effective tax rates and may have exposure to additional tax liabilities and costs.

We are subject to paying income taxes in the U.S. and various other countries in which we operate. Our effective tax rate is dependent on where our earnings are generated and the tax regulations and the interpretation and judgment of administrative tax or revenue entities in the U.S. and other countries. We are also subject to tax audits in the countries where we operate. Any material assessment resulting from an audit from an administrative tax or revenue entity could negatively affect our financial results.

Claims of intellectual property infringement by or against us could seriously harm our businesses.

From time to time, we may be forced to respond to or prosecute intellectual property infringement claims to defend or protect our rights or a customer's rights. These claims, regardless of merit, may consume valuable management time, result in costly litigation or cause product shipment delays. Any of these factors could seriously harm our business and operating results. We may have to enter into royalty or licensing agreements with third parties who claim infringement. These royalty or licensing agreements, if available, may be costly to us. If we are unable to enter into royalty or licensing agreements with satisfactory terms, our business could suffer. In instances where we have had reason to believe that we may be infringing the patent rights of others, or that someone may be infringing our patent rights, we have asked our patent counsel to evaluate the validity of the patents in question, as well as the potentially infringing conduct. If we become involved in a dispute, neither the third parties nor the courts are bound by our counsel's conclusions.

We cannot guarantee that we will repurchase our common stock pursuant to our stock repurchase plan or that our stock repurchase plan will enhance long-term stockholder value. Stock repurchases could also increase the volatility of the price of our common stock and could diminish our cash reserves.

On July 31, 2019, our Board of Directors authorized the repurchase of up to \$3.0 million of our common stock from time to time on the open market, in compliance with Rule 10b-18 under the Exchange Act, or in privately negotiated transactions pursuant to a newly authorized stock repurchase plan (the “2019 Repurchase Plan”). The 2019 Repurchase Plan does not obligate us to purchase any particular amount of common stock and may be suspended, as is currently the case, or discontinued at any time without prior notice. The 2019 Repurchase Plan is funded using our operating cash flow or available cash.

The timing and amount of repurchases, if any in the future, will depend upon several factors, including market, business and global conditions, the trading price of our common stock and the nature of other investment opportunities. Repurchases of our common stock pursuant to the 2019 Repurchase Plan could affect the market price of our common stock or increase its volatility. For example, the existence of a stock repurchase program could cause our stock price to be higher than it would be in the absence of such a program and could potentially reduce the market liquidity for our stock. Additionally, our 2019 Repurchase Plan could diminish our cash reserves, which may impact our ability to finance future growth and to pursue possible future strategic opportunities and acquisitions. There can be no assurance that any stock repurchases will enhance stockholder value because the market price of our common stock may decline below the levels at which we determine to repurchase our stock. Although the 2019 Repurchase Plan is intended to enhance long-term stockholder value, there is no assurance that it will do so and short-term stock price fluctuations could reduce the plan’s effectiveness.

Item 1B. UNRESOLVED STAFF COMMENTS

None.

Item 2. PROPERTIES

At December 31, 2019, we leased seven facilities worldwide. The following chart provides information regarding each of our principal facilities that we leased at December 31, 2019:

Location	Lease Expiration	Approx. Square Footage	Principal Uses
Mansfield, MA	December 2024	58,800	Corporate headquarters and Thermal segment operations (principal facility for iTS)
Mt. Laurel, NJ	April 2021	54,897	Principal executive offices and EMS segment operations
Fremont, CA	October 2020*	15,746	EMS segment operations
Rochester, NY	April 2028	79,150	Thermal segment operations (principal facility for Ambrell)

All of our facilities have space to accommodate our needs for the foreseeable future.

* On January 23, 2020, we executed an amendment to the lease for our facility in Fremont, California that extended the term of the lease for a period of 61 months commencing on November 1, 2020 and expiring on November 30, 2025.

Item 3. LEGAL PROCEEDINGS

From time to time we may be a party to legal proceedings occurring in the ordinary course of business. We are not currently involved in any material legal proceedings.

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 for Common Stock

Our common stock is traded on NYSE American LLC ("NYSE American") under the symbol "INTT." On March 16, 2020, the closing price for our common stock as reported on the NYSE American was \$2.43. As of March 16, 2020, we had 10,429,759 shares outstanding that were held by approximately 1,000 beneficial and record holders.

No dividends were paid on our common stock in the years ended December 31, 2019 or 2018. We do not currently plan to pay cash dividends in the foreseeable future. Our current policy is to use any future earnings for reinvestment in the operation and expansion of our business, including possible acquisitions of other businesses, technologies or products and, when approved by our Board of Directors, to repurchase our outstanding common stock. Payment of any future dividends will be at the discretion of our Board of Directors.

Purchases of Equity Securities

The following table provides information with respect to purchases made by or on behalf of the Company or any "affiliated purchaser" as defined in Rule 10b-18(a)(3) under the Exchange Act, of our common stock during the three months ended December 31, 2019, including those made pursuant to publicly announced plans or programs and those not made pursuant to publicly announced plans or programs.

Period	Total Number of Shares Repurchased	Average Price Paid Per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Approximate Dollar Value of Shares That May Yet Be Purchased Under the Plans or Programs
October 1-31 ⁽¹⁾	76,294	\$ 4.66	76,294	\$ 2,466,000
November 1-30 ⁽¹⁾	113,856	\$ 5.29	113,856	\$ 1,864,000
December 1-31 ⁽¹⁾	-	\$ -	-	\$ 1,864,000
Total	<u>190,150</u>	\$ 5.04	<u>190,150</u>	

- (1) On July 31, 2019, our Board of Directors authorized the repurchase of up to \$3.0 million of our common stock from time to time on the open market, in compliance with Rule 10b-18 under the Exchange Act, or in privately negotiated transactions pursuant to the 2019 Repurchase Plan. Repurchases may be made under a Rule 10b5-1 plan entered into with RW Baird & Co., which would permit shares to be repurchased when we might otherwise be precluded from doing so under insider trading laws and our internal trading windows. The 2019 Repurchase Plan does not obligate us to purchase any particular amount of common stock and may be suspended or discontinued at any time without prior notice. The 2019 Repurchase Plan is funded using our operating cash flow or available cash. Purchases began on September 18, 2019 under this plan. During the year ended December 31, 2019, we repurchased 229,308 shares under the 2019 Repurchase Plan at a cost of \$1.1 million. All of the repurchased shares were retired. Fees paid to our broker related to the repurchase of shares during the year ended December 31, 2019 totaled \$6,000. On March 2, 2020, the Company suspended repurchases under the 2019 Repurchase Plan.

In addition, on July 31, 2019, our Board of Directors terminated the 2015 Stock Repurchase Plan which had been authorized on October 27, 2015 and under which we had repurchased a total of 297,020 shares at a cost of \$1.2 million. These shares were repurchased between December 2015 and January 2017. All of the repurchased shares were retired.

Item 6. SELECTED FINANCIAL DATA

The following table contains certain selected consolidated financial data of inTEST and is qualified by the more detailed Consolidated Financial Statements and Notes thereto included elsewhere in this Report and should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the other financial information included in this Annual Report on Form 10-K. On May 24, 2017, we completed the acquisition of Ambrell. This acquisition is discussed in further detail in Note 3 to the consolidated financial statements in our Form 10-K for the year ended December 31, 2018 ("2018 Form 10-K") filed on March 26, 2019 with the Securities and Exchange Commission, including a discussion of the adjustments to our liability for contingent consideration in 2018 and 2017, which are listed below.

	Years Ended December 31,				
	2019	2018	2017	2016	2015
	(in thousands, except per share data)				
Condensed Consolidated Statement of Operations Data:					
Net revenues	\$ 60,660	\$ 78,563	\$ 66,801	\$ 40,227	\$ 38,889
Gross margin	29,225	39,401	34,690	20,378	18,698
Adjustment to contingent consideration liability	-	6,901	6,976	-	-
Operating income	2,549	5,180	3,611	4,146	2,562
Net earnings	2,322	3,037	975	2,658	1,861
Net earnings per common share:					
Basic	\$ 0.22	\$ 0.29	\$ 0.09	\$ 0.26	\$ 0.18
Diluted	\$ 0.22	\$ 0.29	\$ 0.09	\$ 0.26	\$ 0.18
Weighted average common shares outstanding:					
Basic	10,373	10,348	10,285	10,314	10,473
Diluted	10,392	10,382	10,339	10,333	10,494

	As of December 31,				
	2019	2018	2017	2016	2015
	(in thousands)				
Condensed Consolidated Balance Sheet Data:					
Cash and cash equivalents	\$ 7,612	\$ 17,861	\$ 13,290	\$ 28,611	\$ 25,710
Working capital	16,534	14,203	16,580	32,950	30,205
Total assets	59,715	67,187	62,493	42,844	39,984
Long-term obligations	6,520	2,889	8,786	-	-
Total stockholders' equity	44,834	42,880	39,288	37,788	35,925

Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS**Recent Developments**

In December 2019, instances of a human infection of unknown cause originating in China were first reported to the World Health Organization. In early January 2020, this infection was traced to a novel strain of coronavirus. The virus has subsequently spread to other parts of the world, including the U.S. and Europe, and has caused broad disruptions in the global economy as efforts to contain the spread have intensified. On March 11, 2020, the World Health Organization officially declared the recent coronavirus outbreak (also referred to as COVID-19) a pandemic. Our business has been and will continue to be adversely affected by the coronavirus outbreak. Since March 17, 2020, a number of states, including all of the states in which we have manufacturing facilities, have instituted 'shelter-in place' orders as well as guidance in response to the pandemic and the need to contain it. We are carefully reviewing all rules, regulations, and orders and responding accordingly. On March 17, 2020, we temporarily shut down our EMS manufacturing facility in Fremont, California. As of the date of this filing, all of our other manufacturing facilities remain open.

If the current pace of the coronavirus pandemic cannot be slowed and the spread of the virus is not contained, our business operations could be further delayed or interrupted. We expect that government and health authorities may announce new or extend existing restrictions, which could require us to make further adjustments to our operations in order to comply with any such restrictions. These adjustments to our operations could include additional facility closures. We may also experience limitations in employee resources. Global supply chains and the timely availability of products have been and will continue to be materially disrupted by quarantines, factory slowdowns or shutdowns, border closings and travel restrictions resulting from the coronavirus outbreak. In addition, our operations could be disrupted if any of our employees or employees of our business partners were suspected of having coronavirus, which could require quarantine of some or all such employees or closure of our facilities for disinfection.

We have taken steps to take care of our employees, including providing the ability for employees to work remotely and implementing strategies to support appropriate social distancing techniques for those employees who are not able to work remotely. We have also taken precautions with regard to employee, facility and office hygiene as well as implementing significant travel restrictions. We have developed a process for the ongoing screening of employees and visitors to our facilities to assess their risk of exposure to and/or infection with the coronavirus. We are also assessing our business continuity plans for all business units in the context of the pandemic. This is a rapidly evolving situation, and we will continue to monitor and mitigate developments affecting our workforce, our suppliers, our customers, and the public at large to the extent we are able to do so.

The duration of any business disruption and related financial impact cannot be reasonably estimated at this time but may materially affect our ability to operate our business and result in additional costs. The extent to which the coronavirus may impact our results will depend on future developments, which are highly uncertain and cannot be predicted as of the time of this filing, including new information that may emerge concerning the severity of the coronavirus and steps taken to contain the coronavirus or treat its impact, among others.

Overview

This MD&A should be read in conjunction with the accompanying consolidated financial statements.

We are a global supplier of precision-engineered solutions for use in manufacturing and testing across a wide range of markets including automotive, defense/aerospace, energy, industrial, semiconductor and telecommunications. We manage our business as two operating segments: Thermal and EMS. Our Thermal segment designs, manufactures and sells our thermal test and thermal process products while our EMS segment designs, manufactures and sells our semiconductor test products.

Our EMS segment sells its products to semiconductor manufacturers and third-party test and assembly houses (end user sales) and to ATE manufacturers (OEM sales), who ultimately resell our equipment with theirs to both semiconductor manufacturers and third-party test and assembly houses. Our Thermal segment sells its products to many of these same types of customers; however, it also sells into a variety of other markets, including the automotive, defense/aerospace, energy, industrial and telecommunications markets. As a result of the acquisition of Ambrell in May 2017, our Thermal segment also sells into the consumer products packaging, fiber optics and other sectors within the broader industrial market, and into the wafer processing sector within the broader semiconductor market.

Both of our operating segments have multiple products that we design, manufacture and market to our customers. Due to a number of factors, our products have varying levels of gross margin. The mix of products we sell in any period is ultimately determined by our customers' needs. Therefore, the mix of products sold in any given period can change significantly from the prior period. As a result, our consolidated gross margin can be significantly impacted in any given period by a change in the mix of products sold in that period.

Markets

Historically, we have referred to our markets as "Semiconductor" (which includes both the broader semiconductor market as well as the more specialized semiconductor ATE and wafer processing sectors within the broader semiconductor market), and "Non-Semiconductor" (which included all of the other markets we serve). In the second quarter of 2019, we began referring to the semiconductor market, including the ATE and wafer processing sectors within that market, as the "Semi Market." All other markets are designated as "Multimarket." While the Semi Market represents the historical roots of inTEST and remains a very important component of our business, Multimarket is where we have focused our strategic growth efforts in the last several years. Our goal has been to grow our business, both organically and through acquisition, in these markets as we believe these markets have historically been less cyclical than the Semi Market. It is important to note that business within our Thermal segment can fall into either the Semi Market or Multimarket, depending upon how our customers utilize our products or upon their respective applications. Prior to the acquisition of Ambrell in May 2017, we offered only highly specialized engineering solutions used for testing applications in Multimarket, the demand for which is limited and which varies significantly from period to period. Our acquisition of Ambrell not only provided expansion into new markets but also broadened our product offerings to include products sold into process or manufacturing applications. Historically, Ambrell sold its precision induction heating systems almost exclusively to customers in the industrial market but since 2018, has also had significant sales into the Semi Market. Overall, however, the acquisition of Ambrell has reduced our dependence on customers in the Semi Market. We expect that our future orders and net revenues will be approximately equally split between the Semi Market and Multimarket.

The portion of our business that is derived from the Semi Market is substantially dependent upon the demand for ATE by semiconductor manufacturers and companies that specialize in the testing of integrated circuits or, for Ambrell, the demand for wafer processing equipment. Demand for ATE or wafer processing equipment is driven by semiconductor manufacturers that are opening new, or expanding existing, semiconductor fabrication facilities or upgrading equipment, which in turn is dependent upon the current and anticipated market demand for semiconductors and products incorporating semiconductors. Such market demand can be the result of market expansion, development of new technologies or redesigned products to incorporate new features, or the replacement of aging equipment. In addition, we continue to focus on design improvements and new approaches for our own products that contribute to our net revenues as our customers adopt these new products.

In the past, the Semi Market has been highly cyclical with recurring periods of oversupply, which often severely impact the Semi Market's demand for the products we manufacture and sell into the market. This cyclicity can cause wide fluctuations in both our orders and net revenues and, depending on our ability to react quickly to these shifts in demand, can significantly impact our results of operations. Market cycles are difficult to predict, and because they are generally characterized by sequential periods of growth or declines in orders and net revenues during each cycle, year over year comparisons of operating results may not always be as meaningful as comparisons of periods at similar points in either up or down cycles. In addition, during both downward and upward cycles in the Semi Market, in any given quarter, the trend in both our orders and net revenues can be erratic. This can occur, for example, when orders are canceled or currently scheduled delivery dates are accelerated or postponed by a significant customer or when customer forecasts and general business conditions fluctuate during a quarter.

In addition to being cyclical, the Semi Market has also developed a seasonal pattern, with the second and third quarters being the periods of strong demand and the first and fourth quarters being periods of weakened demand. These periods of heightened or reduced demand can shift depending on various factors impacting both our customers and the markets that they serve.

Third party market share statistics are not available for the products we manufacture and sell into the Semi Market; therefore, comparisons of period over period changes in our market share are not easily determined. As a result, it is difficult to ascertain if Semi Market volatility in any period is the

result of macro-economic or customer-specific factors impacting Semi Market demand, or if we have gained or lost market share to a competitor during the period.

While the majority of our orders and net revenues are derived from the Semi Market, and our operating results generally follow the overall trend in the Semi Market, in any given period, we may experience anomalies that cause the trend in our net revenues to deviate from the overall trend in the Semi Market. We believe that these anomalies may be driven by a variety of factors within the Semi Market, including, for example, changing product requirements, longer periods between new product offerings by OEMs and changes in customer buying patterns. In addition, in recent periods, we have seen instances when demand within the Semi Market is not consistent for each of our operating segments or for any given product within a particular operating segment. This inconsistency in demand can be driven by a number of factors, but in most cases, we have found that the primary reason is unique customer-specific changes in demand for certain products driven by the needs of their customers or markets served. These shifts in market practices and customer-specific needs have had, and may continue to have, varying levels of impact on our operating results and are difficult to quantify or predict from period to period. Management has taken, and will continue to take, such actions it deems appropriate to adjust our strategies, products and operations to counter such shifts in market practices as they become evident.

As previously mentioned, as part of our ongoing strategy to reduce the impact of Semi Market volatility on our business operations, we continue to diversify our served markets to address the thermal test and thermal process requirements of several other markets outside the Semi Market. These include the automotive, defense/aerospace, energy, industrial, telecommunications and other markets, which we now refer to as Multimarket. We believe that these markets usually are less cyclical than the Semi Market. While market share statistics exist for some of these markets, due to the nature of our highly specialized product offerings in these markets, we do not expect broad market penetration in many of these markets and therefore do not anticipate developing meaningful market shares in most of these markets. However, in the last several years, we have developed a meaningful market share in two markets outside of the Semi Market: the induction heating market for systems with 500KW or less of power (which is a subset of the industrial market) and the optical transceiver market (which is a subset of the telecommunications market). However, more recently, we have seen technological advances in the optical transceiver market that have significantly reduced the demand for the products we sell that are used to test and characterize these devices. Furthermore, as a result of the significant demand for equipment used to test optical transceivers over the last five years, we have a large installed base of test equipment within the optical transceiver market. The combination of these two factors effectively eliminated the optical transceiver market as a meaningful market for us in 2019 and going forward.

In addition, our Multimarket orders and net revenues in any given period do not necessarily reflect the overall trends in the markets within Multimarket due to our limited market shares. Consequently, we are continuing to evaluate buying patterns and opportunities for growth in Multimarket that may affect our performance. The level of our Multimarket orders and net revenues has varied in the past, and we expect will vary significantly in the future, as we work to build our presence in Multimarket and establish new markets for our products.

Orders and Backlog

The following table sets forth, for the periods indicated, a breakdown of the orders received by operating segment and market (in thousands).

	Years Ended		Change	
	December 31,		\$	%
	2019	2018		
Orders:				
Thermal	\$ 39,158	\$ 55,110	\$ (15,952)	(29)%
EMS	13,655	23,124	(9,469)	(41)%
	<u>\$ 52,813</u>	<u>\$ 78,234</u>	<u>\$ (25,421)</u>	<u>(32)%</u>
Semi Market	\$ 25,416	\$ 45,954	\$ (20,538)	(45)%
Multimarket	27,397	32,280	(4,883)	(15)%
	<u>\$ 52,813</u>	<u>\$ 78,234</u>	<u>\$ (25,421)</u>	<u>(32)%</u>

Total consolidated orders for the year ended December 31, 2019 were \$52.8 million compared to \$78.2 million in 2018, a decrease of \$25.4 million, or 32%. The decrease primarily reflects lower levels of demand experienced by both of our segments from customers within the Semi Market, and to a lesser extent, a decline in demand from certain customers of our Thermal segment in the industrial and telecommunications markets. These declines were partially offset by an increase in revenues from customers in the defense/aerospace market.

Multimarket orders for the year ended December 31, 2019 were \$27.4 million, or 52% of total consolidated orders, compared to \$32.3 million, or 41% of total consolidated orders in 2018. The level of our Multimarket orders has varied in the past, and we expect it will vary significantly in the future as we build our presence in these markets and establish new markets for our products.

At December 31, 2019, our backlog of unfilled orders for all products was approximately \$5.5 million compared with approximately \$13.4 million at December 31, 2018. The significant decrease in our backlog primarily reflects the aforementioned reduction in demand during 2019. Our backlog includes customer orders that we have accepted, substantially all of which we expect to deliver in 2020. While backlog is calculated on the basis of firm purchase orders, a customer may cancel an order or accelerate or postpone currently scheduled delivery dates. Our backlog may be affected by the tendency of customers to rely on short lead times available from suppliers, including us, in periods of depressed demand. In periods of increased demand, there is a tendency towards longer lead times that has the effect of increasing backlog. As a result, our backlog at a particular date is not necessarily indicative of sales for any future period.

Net Revenues

The following table sets forth, for the periods indicated, a breakdown of the net revenues by operating segment and market (in thousands).

	Years Ended December 31,		Change	
	2019	2018	\$	%
Net revenues:				
Thermal	\$ 43,823	\$ 55,994	\$ (12,171)	(22)%
EMS	16,837	22,569	(5,732)	(25)%
	<u>\$ 60,660</u>	<u>\$ 78,563</u>	<u>\$ (17,903)</u>	<u>(23)%</u>
Semi Market	\$ 30,953	\$ 45,378	\$ (14,425)	(32)%
Multi market	29,707	33,185	(3,478)	(10)%
	<u>\$ 60,660</u>	<u>\$ 78,563</u>	<u>\$ (17,903)</u>	<u>(23)%</u>

Total consolidated net revenues for the year ended December 31, 2019 were \$60.7 million compared to \$78.6 million in 2018, a decrease of \$17.9 million or 23% as compared to 2018. The decrease in net revenues primarily reflects the aforementioned reduction in demand experienced by both of our segments from customers in the Semi Market, and to a lesser extent, a decline in demand from certain customers of our Thermal segment in the telecommunications market.

Multimarket net revenues for the year ended December 31, 2019 were \$29.7 million, or 49% of total consolidated net revenues, compared to \$33.2 million, or 42% of total consolidated net revenues in 2018. The level of our Multimarket net revenues has varied in the past, and we expect it will vary significantly in the future as we build our presence in these markets and establish new markets for our products.

Results of Operations

The results of operations for our two operating segments are generally affected by the same factors described in the Overview section above. Separate discussions and analyses for each segment would be repetitive. The discussion and analysis that follows, therefore, is presented on a consolidated basis and includes discussion of factors unique to each operating segment where significant to an understanding of that segment.

Year Ended December 31, 2019 Compared to Year Ended December 31, 2018

Net Revenues. Net revenues were \$60.7 million for the year ended December 31, 2019 compared to \$78.6 million in 2018, a decrease of \$17.9 million or 23%. We believe this decrease reflects the factors previously discussed in the Overview.

Gross Margin. Gross margin was 48% for the year ended December 31, 2019 compared to 50% in 2018. Our fixed operating costs decreased \$744,000 in absolute dollar terms in 2019 as compared to 2018. However, as a percentage of net revenues, these costs increased from 14% of net revenues in 2018 to 17% of net revenues in 2019 as a result of not being as fully absorbed by the lower net revenues levels in 2019. The \$744,000 decrease in our fixed operating costs primarily reflects lower facility costs and a reduction in the use of temporary labor resources in our Thermal segment. The increase in our fixed operating costs as a percentage of net revenues was partially offset by a reduction in component material costs as a percentage of net revenues during 2019 as compared to 2018. The reduction in component material costs reflects changes in product and customer mix in our Thermal segment.

Selling Expense. Selling expense was \$8.5 million for the year ended December 31, 2019 compared to \$9.6 million in 2018, a decrease of \$1.2 million or 12%. The decrease primarily reflects lower levels of commission expense as a result of the lower net revenue levels in 2019. To a lesser extent, there was also a reduction in warranty expense in our Thermal segment, reflecting improved warranty claims experience, and lower travel costs in both of our segments, reflecting the lower levels of business activity in 2019 as compared to 2018.

Engineering and Product Development Expense. Engineering and product development expense was \$5.0 million for the year ended December 31, 2019 compared to \$4.9 million in 2018, an increase of \$56,000, or 1%. Increases in spending on third party consultants and materials used in new product development were partially offset by decreased spending on legal matters related to our intellectual property.

General and Administrative Expense. General and administrative expense was \$13.3 million for the year ended December 31, 2019 compared to \$12.8 million in 2018, an increase of \$451,000, or 4%. During 2019, we incurred \$683,000 related to an acquisition opportunity that we decided not to pursue, and \$240,000 for costs related to the consolidation of Ambrell's European operations. There were no similar costs in 2018. If we had not incurred these costs in 2019, general and administrative expense would have declined \$472,000 as compared to 2018, primarily reflecting lower levels of accruals for profit-based bonuses in 2019. The decrease in profit-based bonuses in 2019 was partially offset by higher salary and benefits expense, reflecting an increase in corporate headcount, greater levels of stock-based compensation expense and an increase in amortization expense related to our intangible assets.

Contingent Consideration Liability. For the year ended December 31, 2018, we recorded an increase of \$6.9 million in the fair value of our liability for contingent consideration. This liability is a result of the acquisition of Ambrell in May 2017 and is discussed further in Notes 3 and 4 to our consolidated financial statements in our 2018 Form 10-K. The increase reflects higher actual adjusted EBITDA for the year ended December 31, 2018 as compared to the amount projected as of the acquisition date. There was no similar expense recorded in 2019 as the earnout related to the acquisition of Ambrell applied only to the years ended December 31, 2017 and 2018.

Income Tax Expense. For the year ended December 31, 2019, we recorded income tax expense of \$282,000 compared to \$2.0 million in 2018. Our effective tax rate was 11% for 2019 compared to 40% for 2018. On a quarterly basis, we record income tax expense or benefit based on the expected annualized effective tax rate for the various taxing jurisdictions in which we operate our businesses. Our effective tax rate for 2018 reflects the impact of the aforementioned adjustment to our liability for contingent consideration, which is not deductible for tax purposes. In addition, our effective tax rates for 2019 and 2018 reflect the impact of tax legislation enacted in December 2017, which, among other things, reduced the corporate tax rate to 21% starting in 2018 and created a territorial tax system with a one-time mandatory transition tax on previously deferred earnings of foreign subsidiaries. In connection with this new tax legislation, we recorded a provisional amount during the fourth quarter of 2017 related to the transition tax. During the second quarter of 2018, as a result of the finalization of our analysis of the impact of the new tax legislation, we determined we did not owe this amount and reversed the \$476,000 accrual that had been made in the fourth quarter of 2017. There was no similar adjustment in 2019. See Note 10 to the consolidated financial statements for further detail of the difference between our effective tax rates in 2019 and 2018 and the statutory tax rate of 21%.

Liquidity and Capital Resources

As discussed more fully in the Overview, our business and results of operations are substantially dependent upon the demand for ATE by semiconductor manufacturers and companies that specialize in the testing of ICs. The cyclical and volatile nature of demand for ATE makes estimates of future revenues, results of operations and net cash flows difficult.

Our primary historical source of liquidity and capital resources has been cash flow generated by our operations and we manage our businesses to maximize operating cash flows as our primary source of liquidity. We use cash to fund growth in our operating assets, for new product research and development, for acquisitions and for stock repurchases.

Liquidity

Our cash and cash equivalents and working capital were as follows (in thousands):

	December 31,	
	2019	2018
Cash and cash equivalents	\$ 7,612	\$ 17,861
Working capital	\$ 16,534	\$ 14,203

As of December 31, 2019, \$2.5 million of our cash and cash equivalents was held by our foreign subsidiaries. We currently expect our cash and cash equivalents and projected future cash flow to be sufficient to support our short-term working capital requirements and other corporate requirements. However, we may need additional financial resources, which could include debt or equity financings, to consummate a significant acquisition if the consideration in such a transaction would require us to utilize a substantial portion of, or an amount equal to or in excess of, our available cash. Additionally, should the impact of the coronavirus pandemic on our operations, including the disruption to our business caused by prolonged closures of our facilities, be more significant than we currently anticipate, we may need additional financial resources, including debt or equity financings. We do not currently have any credit facilities under which we can borrow to help fund our working capital or other requirements.

Cash Flows

Operating Activities. Net cash used in operations for the year ended December 31, 2019 was \$8.4 million. During 2019, we paid the \$12.2 million earnout payable that was on our balance sheet at December 31, 2018. This earnout payable was related to the acquisition of Ambrell. For the year ended December 31, 2019, we recorded net earnings of \$2.3 million. During this same period, we had non-cash charges of \$3.2 million for depreciation and amortization that included \$1.3 million of amortization related to our right-of-use (“ROU”) assets. These ROU assets, and the related operating lease liabilities, were established at January 1, 2019 in connection with the adoption of Accounting Standards Codification (“ASC”) Topic 842, as discussed further in Notes 2 and 7 to our consolidated financial statements. During the year ended December 31, 2019, we also recorded \$884,000 of non-cash charges for deferred compensation expense related to stock-based awards. Accounts receivable decreased \$1.2 million during 2019, primarily reflecting the reduced level of shipments in 2019, while inventories increased \$1.1 million, primarily reflecting purchasing activity for products with long-lead times. Accrued wages and benefits declined \$912,000 during 2019, reflecting the payout of profit-related bonuses that had been accrued at December 31, 2018 on our results for the year, and operating lease liabilities decreased \$1.4 million, reflecting payments made under our various lease agreements. Customer deposits and deferred revenue decreased \$797,000 during 2019, reflecting changes in the timing of payments received from customers and the recognition of revenue under our contracts with customers.

Investing Activities. During the year ended December 31, 2019, purchases of property and equipment were \$620,000, and primarily reflected additions to fixed assets related to products leased to customers; leasehold improvements to our facilities in Mansfield, MA and Hengelo, the Netherlands, and new laboratory and demonstration equipment for our Ambrell operation. We have no significant commitments for capital expenditures in 2020; however, depending upon changes in market demand or manufacturing and sales strategies, we may make such purchases or investments as we deem necessary and appropriate.

Financing Activities. During the year ended December 31, 2019, we utilized \$1.1 million to repurchase 229,308 shares of our common stock under the 2019 Repurchase Plan. On March 2, 2020, we suspended repurchases under the 2019 Repurchase Plan.

New or Recently Adopted Accounting Standards

See Note 2 to the consolidated financial statements for information concerning the implementation and impact of new or recently adopted accounting standards.

Critical Accounting Policies and Estimates

The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States of America requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues, expenses and related disclosure of contingent assets and liabilities. On an on-going basis, we evaluate our estimates, including those related to inventories, long-lived assets, goodwill, identifiable intangibles and deferred income tax valuation allowances. We base our estimates on historical experience and on appropriate and customary assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Some of these accounting estimates and assumptions are particularly sensitive because of their significance to our consolidated financial statements and because of the possibility that future events affecting them may differ markedly from what had been assumed when the financial statements were prepared.

Inventory Valuation

Inventories are valued at cost on a first-in, first-out basis, not in excess of market value. On a quarterly basis, we review our inventories and record excess and obsolete inventory charges based upon our established objective excess and obsolete inventory criteria. These criteria identify material that has not been used in a work order during the prior twelve months and the quantity of material on hand that is greater than the average annual usage of that material over the prior three years. In certain cases, additional excess and obsolete inventory charges are recorded based upon current market conditions, anticipated product life cycles, new product introductions and expected future use of the inventory. The excess and obsolete inventory charges we record establish a new cost basis for the related inventories. During 2019 and 2018, we recorded inventory obsolescence charges for excess and obsolete inventory of \$391,000 and \$285,000, respectively.

Goodwill, Intangible and Long-Lived Assets

We account for goodwill and intangible assets in accordance with Accounting Standards Codification ("ASC") 350 (Intangibles- Goodwill and Other). Finite-lived intangible assets are amortized over their estimated useful economic life and are carried at cost less accumulated amortization. Goodwill is assessed for impairment at least annually in the fourth quarter, on a reporting unit basis, or more frequently when events and circumstances occur indicating that the recorded goodwill may be impaired. As a part of the goodwill impairment assessment, we have the option to perform a qualitative assessment to determine whether it is more-likely-than-not that the fair value of a reporting unit is less than its carrying amount. If, as a result of our qualitative assessment, we determine this is the case, we are required to perform a goodwill impairment test to identify potential goodwill impairment and measure the amount of goodwill impairment loss to be recognized. The test is discussed below. If, as a result of our qualitative assessment, we determine that it is more-likely-than-not that the fair value of the reporting unit is greater than its carrying amounts, the goodwill impairment test is not required.

The quantitative goodwill impairment test, used to identify both the existence of impairment and the amount of impairment loss, compares the fair value of a reporting unit with its carrying amount, including goodwill. If the fair value of a reporting unit exceeds its carrying amount, goodwill of the reporting unit is considered not impaired. If the carrying amount of a reporting unit exceeds its fair value, an impairment loss shall be recognized in an amount equal to that excess, limited to the total amount of goodwill allocated to that reporting unit. The goodwill impairment assessment is based upon the income approach, which estimates the fair value of our reporting units based upon a discounted cash flow approach. This fair value is then reconciled to our market capitalization at year end with an appropriate control premium. The determination of the fair value of our reporting units requires management to make significant estimates and assumptions including the selection of control premiums, discount rates, terminal growth rates, forecasts of revenue and expense growth rates, income tax rates, changes in working capital, depreciation, amortization and capital expenditures. Changes in assumptions concerning future financial results or other underlying assumptions could have a significant impact on either the fair value of the reporting unit or the amount of the goodwill impairment charge. At each of December 31, 2019 and 2018, goodwill was \$13.7 million. We did not record any impairment charges related to our goodwill during 2019 or 2018.

Indefinite-lived intangible assets are assessed for impairment at least annually in the fourth quarter, or more frequently if events or changes in circumstances indicate that the asset might be impaired. As a part of the impairment assessment, we have the option to perform a qualitative assessment to determine whether it is more likely than not that an indefinite-lived intangible asset is impaired. If, as a result of our qualitative assessment, we determine that it is more-likely-than-not that the fair value of the indefinite-lived intangible asset is less than its carrying amount, the quantitative impairment test is required; otherwise, no further testing is required. The quantitative impairment test consists of a comparison of the fair value of the intangible asset with its carrying amount. If the carrying amount of the intangible asset exceeds its fair value, an impairment loss is recognized in an amount equal to that excess. At each of December 31, 2019 and 2018, our indefinite-lived intangible assets were trademarks carried at \$6.7 million. We did not record any impairment charges related to our indefinite-lived intangible assets during 2019 or 2018.

Long-lived assets, which consist of finite-lived intangible assets and property and equipment, are assessed for impairment whenever events or changes in business circumstances indicate that the carrying amount of the assets may not be fully recoverable or that the useful lives of these assets are no longer appropriate. Each impairment test is based on a comparison of the estimated undiscounted cash flows to the recorded value of the asset. If impairment is indicated, the asset is written down to its estimated fair value. The cash flow estimates used to determine the impairment, if any, contain management's best estimates using appropriate assumptions and projections at that time. At December 31, 2019 and 2018, finite-lived intangibles and long-lived assets were \$9.4 million and \$10.9 million, respectively. We did not record any impairment charges related to our long-lived assets during 2019 or 2018.

Income Taxes

The asset and liability method is used in accounting for income taxes. Under this method, deferred tax assets and liabilities are recognized for operating loss and tax credit carryforwards and for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. 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 the results of operations in the period that includes the enactment date.

Deferred tax assets are analyzed to determine if there will be sufficient taxable income in the future in order to realize such assets. We assess all of the positive and negative evidence concerning the realizability of the deferred tax assets, including our historical results of operations for the recent past and our projections of future results of operations, in which we make subjective determinations of future events. If, after assessing all of the evidence, both positive and negative, a determination is made that the realizability of the deferred tax assets is not more likely than not, we establish a deferred tax valuation allowance for all or a portion of the deferred tax assets depending upon the specific facts. If any of the significant assumptions were changed, materially different results could occur, which could significantly change the amount of the deferred tax valuation allowance established. As of December 31, 2019 and 2018, we had a net deferred tax liability of \$2.3 million and \$2.7 million, respectively. Our deferred tax valuation allowance at December 31, 2019 and 2018 was \$234,000 and \$241,000, respectively.

Off-Balance Sheet Arrangements

There were no off-balance sheet arrangements during the year ended December 31, 2019 that have or are reasonably likely to have, a current or future effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources that is material to our interests.

Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

This disclosure is not required for a smaller reporting company.

Item 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Consolidated financial statements are set forth in this Report beginning at page F-1 and are incorporated by reference into this Item 8.

Item 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

Item 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures, as such term is defined in Rule 13a-15(e) under the Exchange Act. Because there are inherent limitations in all control systems, a control system, no matter how well conceived and operated, can provide only reasonable, as opposed to absolute, assurance that the objectives of the control system are met. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the control. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Our management, including the Chief Executive Officer (“CEO”) and Chief Financial Officer (“CFO”), does not expect that our disclosure controls and procedures or our internal control over financial reporting will prevent all error and all fraud. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected. Accordingly, our management has designed the disclosure controls and procedures to provide reasonable assurance that the objectives of the control system were met.

CEO/CFO Conclusions about the Effectiveness of the Disclosure Controls and Procedures. As required by Rule 13a-15(b) of the Exchange Act, inTEST management, including our CEO and CFO, conducted an evaluation as of the end of the period covered by this Report, of the effectiveness of our disclosure controls and procedures. Based on that evaluation, our CEO and CFO concluded that, as of the end of the period covered by this Report, our disclosure controls and procedures were effective at the reasonable assurance level.

Changes in Internal Control Over Financial Reporting

During the period covered by this Report, there has been no change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) that occurred during the period covered by this Report that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is defined in Rule 13a-15(f) and 15d-15(f) under the Exchange Act as a process designed by, or under the supervision of, our principal executive and principal financial officers 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 and 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 our assets;
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 our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and
3. Provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of our assets that could have a material effect on the financial statements.

Because of inherent limitations, internal control over financial reporting may not prevent or detect misstatements. 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.

Management assessed the effectiveness of our internal control over financial reporting as of December 31, 2019. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) on Internal Control-Integrated 2013 Framework. Based upon this assessment, management believes that, as of December 31, 2019, our internal control over financial reporting is effective at a reasonable assurance level.

This annual report does not include an attestation report of our independent registered public accounting firm regarding internal control over financial reporting, as such an attestation is not required pursuant to rules of the SEC applicable to registrants that are non-accelerated filers.

Item 9B. OTHER INFORMATION

None.

PART III

Item 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information required by this Item is incorporated by reference from our definitive proxy statement for our 2020 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year covered by this Report.

Code of Ethics

We have adopted a Code of Ethics (the “Code”) as a guide to the standards of business conduct to which our employees, officers and directors must adhere. A copy of the Code can be found on our website at <https://intestcorp.gcs-web.com/corporate-governance>. We intend to satisfy the disclosure requirements of the SEC regarding amendments to, or waivers from, the Code by posting such information on the same website.

Item 11. EXECUTIVE COMPENSATION

The information required by this Item is incorporated by reference from our definitive proxy statement for our 2020 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year covered by this Report.

Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information required by Item 201(d) of Regulation S-K is set forth below. The remainder of the information required by this Item 12 is incorporated by reference from our definitive proxy statement for our 2020 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year covered by this Report.

The following table shows the number of securities that may be issued pursuant to our equity compensation plans (including individual compensation arrangements) as of December 31, 2019:

Equity Compensation Plan Information

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights(1)	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans(2)
Equity compensation plans approved by security holders	506,810	\$ 6.89	1,198,935
Equity compensation plans not approved by security holders	-	-	-
Total	506,810	\$ 6.89	1,198,935

(1) The securities that may be issued are shares of inTEST common stock, issuable upon exercise of outstanding stock options.

(2) The securities that remain available for future issuance are issuable pursuant to the Second Amended and Restated 2014 Stock Plan.

Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by this Item is incorporated by reference from our definitive proxy statement for our 2020 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year covered by this Report.

Item 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information required by this Item is incorporated by reference from our definitive proxy statement for our 2020 Annual Meeting of Stockholders to be filed with the SEC within 120 days after the end of the fiscal year covered by this Report.

PART IV

Item 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

- (a) The documents filed as part of this Annual Report on Form 10-K are:
- (i) Our consolidated financial statements and notes thereto as well as the applicable report of our independent registered public accounting firm are included in Part II, Item 8 of this Annual Report on Form 10-K.
 - (ii) The following financial statement schedule should be read in conjunction with the consolidated financial statements set forth in Part II, Item 8 of this Annual Report on Form 10-K:
Schedule II -- Valuation and Qualifying Accounts
 - (iii) The exhibits required by Item 601 of Regulation S-K are included under Item 15(b) of this Annual Report on Form 10-K.
- (b) Exhibits required by Item 601 of Regulation S-K:

A list of the Exhibits which are required by Item 601 of Regulation S-K and filed with this Report is set forth in the Exhibit Index immediately preceding the signature page, which Exhibit Index is incorporated herein by reference.

Item 16. FORM 10-K SUMMARY

None.

Index to Exhibits

Exhibit Number	Description of Exhibit
2.1	Stock Purchase Agreement among Ambrell Holdings, LLC, Ambrell Corporation, Graycliff Private Equity Partners III LP, Hudson River Co-Investment Fund II LP and inTEST Corporation dated as of May 24, 2017. (1)
3.1	Certificate of Incorporation.
3.2	Bylaws as amended and restated on April 23, 2018. (2)
4.1	Description of Securities.
10.1	Lease Agreement between Exeter 804 East Gate, LLC and the Company dated May 10, 2010. (3)
10.2	Lease Agreement between AMB-SGP Seattle/Boston, LLC and Temptronic Corporation (a subsidiary of the Company), dated October 25, 2010. (4)
10.3	Second Amendment to Lease between James Campbell Company, LLC and Temptronic Corporation dated April 8, 2019 (5).
10.4	Lease Agreement between Columbia California Warm Springs Industrial, LLC and inTEST Silicon Valley Corporation dated January 9, 2012. (6)
10.5	First Amendment to Lease Agreement between Columbia California Warm Springs Industrial, LLC and inTEST Silicon Valley Corporation dated November 18, 2016. (7)
10.6	Second Amendment to Standard Lease Agreement, dated January 23, 2020, by and between inTEST Silicon Valley Corporation and Fremont Business Center, LLC. (8)
10.7	Guaranty Agreements between Columbia California Warm Springs Industrial, LLC and inTEST Corporation dated January 9, 2012. (6)
10.8	Lease Agreement between Maguire Family Properties, Inc. and Ambrell Corporation dated December 19, 2017 (9)
10.9	Guaranty of Lease between Maguire Family Properties, Inc. and Ambrell Corporation dated December 19, 2017 (9)
10.10	Form of Indemnification Agreement (10)(*)
10.11	inTEST Corporation Second Amended and Restated 2014 Stock Plan (11)(*)
10.12	inTEST Corporation 2007 Stock Plan. (12)(*)
10.13	Form of Restricted Stock Award Agreement for Employees. (13)(*)
10.14	Form of Restricted Stock Award Agreement for Directors. (13)(*)
10.15	Form of Non-Qualified Stock Option Agreement. (13)(*)
10.16	Form of Incentive Stock Option Agreement. (13)(*)
10.17	Change of Control Agreement dated August 27, 2007 between the Company and Hugh T. Regan, Jr. (14)(*)
10.18	Change of Control Agreement dated May 5, 2008 between the Company and James Pelrin. (15)(*)
10.19	Amendment to Change of Control Agreement dated December 31, 2008 between the Company and Hugh T. Regan, Jr. (16)(*)
10.20	Amendment to Change of Control Agreement dated December 31, 2008 between the Company and James Pelrin. (16)(*)
10.21	2020 Executive Compensation Plan. (17)(*)
10.22	Compensatory Arrangements of Directors. (*)
21	Subsidiaries of the Company.
23	Consent of RSM US LLP.
31.1	Certification of Chief Executive Officer pursuant to Rule 13a-14(a).
31.2	Certification of Chief Financial Officer pursuant to Rule 13a-14(a).
32.1	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	XBRL Taxonomy Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document

- (1) Previously filed by the Company as an exhibit to the Company's Current Report on Form 8-K dated May 24, 2017, File No. 001-36117, filed May 24, 2017, and incorporated herein by reference.
- (2) Previously filed by the Company as an exhibit to the Company's Current Report on Form 8-K dated April 23, 2018, File No. 001-36117, filed April 25, 2018, and incorporated herein by reference.
- (3) Previously filed by the Company as an exhibit to the Company's Current Report on Form 8-K dated May 10, 2010, File No. 000-22529, filed May 13, 2010, and incorporated herein by reference.
- (4) Previously filed by the Company as an exhibit to the Company's Current Report on Form 8-K dated October 27, 2010, File No. 000-22529, filed October 29, 2010, and incorporated herein by reference.
- (5) Previously filed by the Company as an exhibit to the Company's Current Report on Form 8-K dated April 8, 2019, File No. 001-36117, filed April 12, 2019, and incorporated herein by reference.
- (6) Previously filed by the Company as an exhibit to the Company's Form 10-Q for the quarter ended March 31, 2012, File No. 000-22529, filed May 15, 2012, and incorporated herein by reference.
- (7) Previously filed by the Company as an exhibit to the Company's Current Report on Form 8-K dated November 18, 2016, File No. 001-36117, filed November 22, 2016, and incorporated herein by reference.
- (8) Previously filed by the Company as an exhibit to the Company's Current Report on Form 8-K dated January 23, 2020, File No. 001-36117, filed January 28, 2020, and incorporated herein by reference.
- (9) Previously filed by the Company as an exhibit to the Company's Current Report on Form 8-K dated December 19, 2017, File No. 001-36117, filed December 22, 2017, and incorporated herein by reference.
- (10) Previously filed by the Company as an exhibit to the Company's Current Report on Form 8-K dated October 2, 2017, File No. 001-36117, filed October 6, 2017, and incorporated herein by reference.
- (11) Previously filed by the Company as an exhibit to the Company's Current Report on Form 8-K dated June 19, 2020, File No. 001-36117, filed June 24, 2019.
- (12) Previously filed by the Company as an exhibit to the Company's Form 10-K for the year ended December 31, 2017, File No. 001-36117, filed March 28, 2017.
- (13) Previously filed by the Company as an exhibit to the Company's Form 10-Q for the quarter ended June 30, 2019, File No. 001-36117, filed August 13, 2019, and incorporated herein by reference.
- (14) Previously filed by the Company as an exhibit to the Company's Form 10-K for the year ended December 31, 2007, File No. 000-22529, filed March 31, 2008, and incorporated herein by reference.
- (15) Previously filed by the Company as an exhibit to the Company's Form 10-Q for the quarter ended June 30, 2008, File No. 000-22529, filed August 14, 2008, and incorporated herein by reference.
- (16) Previously filed by the Company as an exhibit to the Company's Form 10-Q for the quarter ended June 30, 2009, File No. 000-22529, filed August 14, 2009, and incorporated herein by reference.
- (17) Previously filed by the Company as an exhibit to the Company's Current Report on Form 8-K dated March 9, 2020, File No. 001-36117, filed March 11, 2020, and incorporated herein by reference.
- (*) Indicates a management contract or compensatory plan, contract or arrangement in which directors or executive officers participate.

Signatures

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

inTEST Corporation

By: /s/ James Pelrin
James Pelrin
President and Chief Executive Officer

March 23, 2020

Pursuant to the requirements of 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.

/s/ James Pelrin
James Pelrin, President,
Chief Executive Officer and Director
(Principal Executive Officer)

March 23, 2020

/s/ Hugh T. Regan, Jr.
Hugh T. Regan, Jr., Treasurer, Chief
Financial Officer and Secretary
(Principal Financial Officer)

March 23, 2020

/s/ Joseph W. Dews IV
Joseph W. Dews IV, Chairman

March 23, 2020

/s/ Steven J. Abrams
Steven J. Abrams, Esq., Director

March 23, 2020

/s/ Jeffrey A. Beck
Jeffrey A. Beck, Director

March 23, 2020

/s/ William Kraut
William Kraut, Director

March 23, 2020

inTEST CORPORATION

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of inTEST Corporation

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of inTEST Corporation and its subsidiaries (the Company) as of December 31, 2019 and 2018, the related consolidated statements of operations, comprehensive earnings, stockholders' equity and cash flows for the years then ended, and the related notes to the consolidated financial statements and schedule (collectively, 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 the years then ended, in conformity with accounting principles generally accepted in the United States of America.

Adoption of Accounting Standards Update No. 2016-02

As discussed in Note 2 to the financial statements, the Company changed its method of accounting for leases in 2019 due to the adoption of Accounting Standards Update No. 2016-02, *Leases (Topic 842)*, and its related amendments.

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 Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with 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. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

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 regarding 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/ RSM US LLP

We have served as the Company's auditor since 2008.

Blue Bell, Pennsylvania
March 23, 2020

inTEST CORPORATION
CONSOLIDATED BALANCE SHEETS
(In thousands, except share and per share data)

	December 31,	
	2019	2018
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 7,612	\$ 17,861
Trade accounts receivable, net of allowance for doubtful accounts of \$211 and \$233, respectively	9,296	10,563
Inventories	7,182	6,520
Prepaid expenses and other current assets	805	677
Total current assets	<u>24,895</u>	<u>35,621</u>
Property and equipment:		
Machinery and equipment	5,269	5,166
Leasehold improvements	2,424	2,341
Gross property and equipment	7,693	7,507
Less: accumulated depreciation	(5,273)	(4,790)
Net property and equipment	<u>2,420</u>	<u>2,717</u>
Right of use assets, net	4,842	-
Goodwill	13,738	13,738
Intangible assets, net	13,654	14,911
Restricted certificates of deposit	140	175
Other assets	26	25
Total assets	<u>\$ 59,715</u>	<u>\$ 67,187</u>
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 1,984	\$ 1,787
Accrued wages and benefits	2,007	2,921
Accrued professional fees	805	774
Customer deposits and deferred revenue	456	1,258
Accrued sales commission	442	703
Current portion of operating lease liabilities	1,302	-
Domestic and foreign income taxes payable	868	700
Earnout payable	-	12,167
Other current liabilities	497	1,108
Total current liabilities	<u>8,361</u>	<u>21,418</u>
Operating lease liabilities, net of current portion	3,794	-
Contingent liability for repayment of state and local grant funds received	463	200
Deferred tax liabilities	2,263	2,689
Total liabilities	<u>14,881</u>	<u>24,307</u>
Commitments and Contingencies (Note 11)		
Stockholders' equity:		
Preferred stock, \$0.01 par value; 5,000,000 shares authorized; no shares issued or outstanding	-	-
Common stock, \$0.01 par value; 20,000,000 shares authorized; 10,413,982 and 10,523,035 shares issued, respectively	104	105
Additional paid-in capital	26,256	26,513
Retained earnings	18,005	15,683
Accumulated other comprehensive earnings	673	783
Treasury stock, at cost; 33,077 shares	(204)	(204)
Total stockholders' equity	<u>44,834</u>	<u>42,880</u>
Total liabilities and stockholders' equity	<u>\$ 59,715</u>	<u>\$ 67,187</u>

See accompanying Notes to Consolidated Financial Statements.

inTEST CORPORATION
CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands, except share and per share data)

	Years Ended	
	December 31,	
	2019	2018
Net revenues	\$ 60,660	\$ 78,563
Cost of revenues	31,435	39,162
Gross margin	29,225	39,401
Operating expenses:		
Selling expense	8,460	9,611
Engineering and product development expense	4,964	4,908
General and administrative expense	13,252	12,801
Adjustment to contingent consideration liability	-	6,901
Total operating expenses	26,676	34,221
Operating income	2,549	5,180
Other income (loss)	55	(137)
Earnings before income tax expense	2,604	5,043
Income tax expense	282	2,006
Net earnings	\$ 2,322	\$ 3,037
Net earnings per common share – basic	\$ 0.22	\$ 0.29
Weighted average common shares outstanding – basic	10,373,164	10,347,947
Net earnings per common share – diluted	\$ 0.22	\$ 0.29
Weighted average common shares and common share equivalents outstanding – diluted	10,391,975	10,382,194

See accompanying Notes to Consolidated Financial Statements.

inTEST CORPORATION
CONSOLIDATED STATEMENTS OF COMPREHENSIVE EARNINGS
(In thousands)

	Years Ended	
	December 31,	
	<u>2019</u>	<u>2018</u>
Net earnings	\$ 2,322	\$ 3,037
Foreign currency translation adjustments	<u>(110)</u>	<u>(99)</u>
Comprehensive earnings	<u>\$ 2,212</u>	<u>\$ 2,938</u>

See accompanying Notes to Consolidated Financial Statements

inTEST CORPORATION
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(In thousands, except share data)

	<u>Common Stock</u>		<u>Additional Paid-In Capital</u>	<u>Retained Earnings</u>	<u>Accumulated Other Comprehensive Earnings</u>	<u>Treasury Stock</u>	<u>Total Stockholders' Equity</u>
	<u>Shares</u>	<u>Amount</u>					
Balance, January 1, 2018	10,427,435	\$ 104	\$ 25,860	\$ 12,646	\$ 882	\$ (204)	\$ 39,288
Net earnings	-	-	-	3,037	-	-	3,037
Other comprehensive loss	-	-	-	-	(99)	-	(99)
Amortization of deferred compensation related to stock-based awards	-	-	654	-	-	-	654
Issuance of unvested shares of restricted stock	95,600	1	(1)	-	-	-	-
Balance, December 31, 2018	<u>10,523,035</u>	<u>\$ 105</u>	<u>\$ 26,513</u>	<u>\$ 15,683</u>	<u>\$ 783</u>	<u>\$ (204)</u>	<u>\$ 42,880</u>
Net earnings	-	-	-	2,322	-	-	2,322
Other comprehensive loss	-	-	-	-	(110)	-	(110)
Amortization of deferred compensation related to stock-based awards	-	-	884	-	-	-	884
Issuance of unvested shares of restricted stock	132,580	1	(1)	-	-	-	-
Forfeiture of unvested shares of restricted stock	(12,325)	-	-	-	-	-	-
Repurchase and retirement of common stock	(229,308)	(2)	(1,140)	-	-	-	(1,142)
Balance, December 31, 2019	<u>10,413,982</u>	<u>\$ 104</u>	<u>\$ 26,256</u>	<u>\$ 18,005</u>	<u>\$ 673</u>	<u>\$ (204)</u>	<u>\$ 44,834</u>

See accompanying Notes to Consolidated Financial Statements

inTEST CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)

	Years Ended	
	December 31,	
	2019	2018
CASH FLOWS FROM OPERATING ACTIVITIES		
Net earnings	\$ 2,322	\$ 3,037
Adjustments to reconcile net earnings to net cash provided by (used in) operating activities:		
Depreciation and amortization	3,193	1,871
Payment of earnout related to Ambrell acquisition	(12,167)	(1,710)
Adjustment to earnout payable	-	12,645
Adjustment to contingent consideration liability	-	(5,744)
Provision for excess and obsolete inventory	391	285
Foreign exchange loss	3	165
Amortization of deferred compensation related to stock-based awards	884	653
Proceeds from sale of demonstration equipment, net of gain	167	186
Loss on disposal of property and equipment	55	61
Deferred income tax expense (benefit)	(426)	83
Changes in assets and liabilities:		
Trade accounts receivable	1,244	1,414
Inventories	(1,058)	(1,847)
Prepaid expenses and other current assets	(129)	(102)
Restricted certificates of deposit	35	-
Other assets	(1)	1
Accounts payable	197	(245)
Accrued wages and benefits	(912)	143
Accrued professional fees	31	58
Customer deposits and deferred revenue	(797)	376
Accrued sales commission	(261)	174
Operating lease liabilities	(1,378)	-
Domestic and foreign income taxes payable	171	(495)
Contingent liability for repayment of state and local grant funds received	263	200
Federal transition tax payable	-	(436)
Other current liabilities	(232)	187
Net cash provided by (used in) operating activities	<u>(8,405)</u>	<u>10,960</u>
CASH FLOWS FROM INVESTING ACTIVITIES		
Payment of earnout for 2017 related to Ambrell acquisition	-	(4,123)
Purchase of property and equipment	(620)	(2,212)
Net cash used in investing activities	<u>(620)</u>	<u>(6,335)</u>
CASH FLOWS FROM FINANCING ACTIVITIES		
Repurchases of common stock	(1,142)	-
Net cash used in financing activities	<u>(1,142)</u>	<u>-</u>
Effects of exchange rates on cash	(82)	(54)
Net cash provided by (used in) all activities	(10,249)	4,571
Cash and cash equivalents at beginning of period	17,861	13,290
Cash and cash equivalents at end of period	<u>\$ 7,612</u>	<u>\$ 17,861</u>
Cash payments for:		
Domestic and foreign income taxes	\$ 595	\$ 2,855
SUPPLEMENTAL DISCLOSURE OF NON-CASH INVESTING AND FINANCING ACTIVITIES:		
Issuance of unvested shares of restricted stock	\$ 837	\$ 788
Forfeiture of unvested shares of restricted stock	(88)	-

See accompanying Notes to Consolidated Financial Statements.

inTEST CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(In thousands, except share and per share data)

(1) NATURE OF OPERATIONS

We are a global supplier of precision-engineered solutions for use in manufacturing and testing across a wide range of markets including automotive, defense/aerospace, energy, industrial, semiconductor and telecommunications. We manage our business as two operating segments which are also our reportable segments: Thermal Products ("Thermal") and Electromechanical Semiconductor Products ("EMS"). Our Thermal segment designs, manufactures and sells our thermal test and thermal process products while our EMS segment designs, manufactures and sells our semiconductor test products. We manufacture our products in the U.S. Marketing and support activities are conducted worldwide from our facilities in the U.S., Germany, Singapore, the Netherlands and the U.K. The consolidated entity is comprised of inTEST Corporation and our wholly-owned subsidiaries.

Our EMS segment sells its products to semiconductor manufacturers and third-party test and assembly houses (end user sales) and to automated test equipment ("ATE") manufacturers (original equipment manufacturer ("OEM") sales), who ultimately resell our equipment with theirs to both semiconductor manufacturers and third-party test and assembly houses. Our Thermal segment sells its products to many of these same types of customer; however, it also sells into a variety of other markets, including the automotive, defense/aerospace, energy, industrial and telecommunications markets. As a result of the acquisition of Ambrell Corporation ("Ambrell") in May 2017, our Thermal segment also sells into the consumer products packaging, fiber optics and other sectors within the broader industrial market, and into the wafer processing sector within the broader semiconductor market.

Both of our operating segments have multiple products that we design, manufacture and market to our customers. Due to a number of factors, our products have varying levels of gross margin. The mix of products we sell in any period is ultimately determined by our customers' needs. Therefore, the mix of products sold in any given period can change significantly from the prior period. As a result, our consolidated gross margin can be significantly impacted in any given period by a change in the mix of products sold in that period.

Historically, we have referred to our markets as "Semiconductor" (which includes both the broader semiconductor market as well as the more specialized ATE and wafer processing sectors within the broader semiconductor market), and "Non-Semiconductor" (which includes all of the other markets we serve). Starting in the second quarter of 2019, we are referring to the broader semiconductor market, including the ATE and wafer processing sectors within that market, as the "Semi Market." All other markets are designated as "Multimarket." The Semi Market, which is the principal market in which we operate, is characterized by rapid technological change, competitive pricing pressures and cyclical as well as seasonal market patterns. This market is subject to significant economic downturns at various times. Our financial results are affected by a wide variety of factors, including, but not limited to, general economic conditions worldwide and in the markets in which we operate, economic conditions specific to the Semi Market and the other markets we serve, our ability to safeguard patented technology and intellectual property in a rapidly evolving market, downward pricing pressures from customers, and our reliance on a relatively few number of customers for a significant portion of our sales. In addition, we are exposed to the risk of obsolescence of our inventory depending on the mix of future business and technological changes within the markets that we serve. We also continue to implement an acquisition strategy that may cause us to incur substantial expense in reviewing and evaluating potential transactions. We may or may not be successful in locating suitable businesses to acquire and in closing acquisitions of businesses we pursue. In addition, we may not be able to successfully integrate any business we do acquire with our existing business and we may not be able to operate the acquired business profitably. As a result of these or other factors, we may experience significant period-to-period fluctuations in future operating results.

(2) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation and Use of Estimates

The accompanying consolidated financial statements include our accounts and those of our wholly-owned subsidiaries. All significant intercompany accounts and transactions have been eliminated upon consolidation. The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America ("U.S. GAAP") requires us 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 reporting period. Actual results could differ from those estimates. Certain of our accounts, including inventories, long-lived assets, goodwill, identifiable intangibles and deferred tax assets and liabilities including related valuation allowances, are particularly impacted by estimates.

Reclassification

Certain prior year amounts have been reclassified to be comparable with the current year's presentation.

Subsequent Events

We have made an assessment of our operations and determined that there were no material subsequent events requiring adjustment to, or disclosure in, our consolidated financial statements for the year ended December 31, 2019 other than those described in Notes 13 and 17.

Business Combinations

Acquired businesses are accounted for using the purchase method of accounting, which requires that the purchase price be allocated to the net assets acquired at their respective fair values. Any excess of the purchase price over the estimated fair values of the net assets acquired is recorded as goodwill. Fair values of intangible assets are estimated by valuation models prepared by our management and third-party advisors. The assets purchased and liabilities assumed have been reflected in our consolidated balance sheets, and the operating results are included in the consolidated statements of operations and consolidated statements of cash flows from the date of acquisition. Any change in the fair value of acquisition-related contingent consideration subsequent to the acquisition date, including changes from events after the acquisition date, will be recognized in the consolidated statement of operations in the period of the estimated fair value change. Acquisition-related transaction costs, including legal and accounting fees and other external costs directly related to the acquisition, are recognized separately from the acquisition and expensed as incurred in general and administrative expense in the consolidated statements of operations.

Cash and Cash Equivalents

Short-term investments that have maturities of three months or less when purchased are considered to be cash equivalents and are carried at cost, which approximates fair value. Our cash balances, which are deposited with highly reputable financial institutions, at times may exceed the federally insured limits. We have not experienced any losses related to these cash balances and believe the credit risk to be minimal.

Trade Accounts Receivable and Allowance for Doubtful Accounts

Trade accounts receivable are recorded at the invoiced amount and do not bear interest. We grant credit to customers and generally require no collateral. To minimize our risk, we perform ongoing credit evaluations of our customers' financial condition. The allowance for doubtful accounts is our best estimate of the amount of probable credit losses in our existing accounts receivable. We determine the allowance based on historical write-off experience and the aging of such receivables, among other factors. Account balances are charged off against the allowance after all means of collection have been exhausted and the potential for recovery is considered remote. We do not have any off-balance sheet credit exposure related to our customers. We recorded bad debt expense of \$3 and \$20 for the years ended December 31, 2019 and 2018, respectively. Cash flows from accounts receivable are recorded in operating cash flows.

Fair Value of Financial Instruments

Our financial instruments, principally accounts receivable and accounts payable, are carried at cost which approximates fair value, due to the short maturities of the accounts.

Goodwill, Intangible and Long-Lived Assets

We account for goodwill and intangible assets in accordance with Accounting Standards Codification ("ASC") Topic 350 (Intangibles - Goodwill and Other). Finite-lived intangible assets are amortized over their estimated useful economic life and are carried at cost less accumulated amortization. Goodwill is assessed for impairment annually in the fourth quarter on a reporting unit basis, or more frequently when events and circumstances occur indicating that the recorded goodwill may be impaired. Goodwill is considered to be impaired if the fair value of a reporting unit is less than its carrying amount. As a part of the goodwill impairment assessment, we have the option to perform a qualitative assessment to determine whether it is more-likely-than-not that the fair value of a reporting unit is less than its carrying amount. If, as a result of our qualitative assessment, we determine that it is more-likely-than-not that the fair value of the reporting unit is greater than its carrying amount, a quantitative goodwill impairment test is not required. However, if, as a result of our qualitative assessment, we determine it is more-likely-than-not that the fair value of a reporting unit is less than its carrying amount, or, if we choose not to perform a qualitative assessment, we are required to perform a quantitative goodwill impairment test to identify potential goodwill impairment and measure the amount of goodwill impairment loss to be recognized.

The quantitative goodwill impairment test compares the fair value of a reporting unit with its carrying amount, including goodwill. If the fair value of a reporting unit exceeds its carrying amount, goodwill of the reporting unit is considered not impaired. If the carrying amount of a reporting unit exceeds its fair value, an impairment loss will be recognized in an amount equal to that excess, limited to the total amount of goodwill allocated to that reporting unit. The goodwill impairment assessment is based upon the income approach, which estimates the fair value of our reporting units based upon a discounted cash flow approach. This fair value is then reconciled to our market capitalization at year end with an appropriate control premium. The determination of the fair value of our reporting units requires management to make significant estimates and assumptions including the selection of control premiums, discount rates, terminal growth rates, forecasts of revenue and expense growth rates, income tax rates, changes in working capital, depreciation, amortization and capital expenditures. Changes in assumptions concerning future financial results or other underlying assumptions could have a significant impact on either the fair value of the reporting unit or the amount of the goodwill impairment charge.

Indefinite-lived intangible assets are assessed for impairment annually in the fourth quarter, or more frequently if events or changes in circumstances indicate that the asset might be impaired. As a part of the impairment assessment, we have the option to perform a qualitative assessment to determine whether it is more likely than not that an indefinite-lived intangible asset is impaired. If, as a result of our qualitative assessment, we determine that it is more-likely-than-not that the fair value of the indefinite-lived intangible asset is less than its carrying amount, the quantitative impairment test is required; otherwise, no further testing is required. The quantitative impairment test consists of a comparison of the fair value of the intangible asset with its carrying amount. If the carrying amount of the intangible asset exceeds its fair value, an impairment loss is recognized in an amount equal to that excess.

Long-lived assets, which consist of finite-lived intangible assets and property and equipment, are assessed for impairment whenever events or changes in business circumstances indicate that the carrying amount of the assets may not be fully recoverable or that the useful lives of these assets are no longer appropriate. Each impairment test is based on a comparison of the estimated undiscounted cash flows to the recorded value of the asset. If impairment is indicated, the asset is written down to its estimated fair value. The cash flow estimates used to determine the impairment, if any, contain management's best estimates using appropriate assumptions and projections at that time.

Revenue Recognition

We recognize revenue in accordance with the guidance in ASC Topic 606 (Revenue from Contracts with Customers). We recognize revenue for the sale of products or services when our performance obligations under the terms of a contract with a customer are satisfied and control of the product or service has been transferred to the customer. Generally, this occurs when we ship a product or perform a service. In certain cases, recognition of revenue is deferred until the product is received by the customer or at some other point in the future when we have determined that we have satisfied our performance obligations under the contract. Our contracts with customers may include a combination of products and services, which are generally capable of being distinct and accounted for as separate performance obligations. In addition to the sale of products and services, we also lease certain of our equipment under short-term lease agreements. We recognize revenue from equipment leases on a straight-line basis over the lease term.

Revenue is recorded in an amount that reflects the consideration we expect to receive in exchange for those products or services. We do not have any material variable consideration arrangements, or any material payment terms with our customers other than standard net 30, net 45 or net 60 day payment terms. We generally do not provide a right of return to our customers. Revenue is recognized net of any taxes collected from customers, which are subsequently remitted to governmental authorities.

Nature of Products and Services

We sell thermal management products and semiconductor ATE interface solutions. Our thermal management products include ThermoStreams, ThermoChambers and process chillers, which we sell under our Temptronic, Sigma and Thermonics product lines, and Ambrell's precision induction heating systems, including EkoHeat and EasyHeat products. Our semiconductor ATE interface solutions include manipulators, docking hardware and electrical interface products. We provide post-warranty service for the equipment we sell. We sell semiconductor ATE interface solutions and certain thermal management products to the Semi Market. We also sell our thermal management products to various other markets including the automotive, defense/aerospace, industrial and telecommunications markets.

We lease certain of our equipment under short-term leasing agreements with original lease terms of six months or less. Our lease agreements do not contain purchase options.

Types of Contracts with Customers

Our contracts with customers are generally structured as individual purchase orders which specify the exact products or services being sold or equipment being leased along with the selling price, service fee or monthly lease amount for each individual item on the purchase order. Payment terms and any other customer-specific acceptance criteria are also specified on the purchase order. We generally do not have any customer-specific acceptance criteria, other than that the product performs within the agreed upon specifications. We test substantially all products manufactured as part of our quality assurance process to determine that they comply with specifications prior to shipment to a customer.

Contract Balances

We record accounts receivable at the time of invoicing. Accounts receivable, net of the allowance for doubtful accounts, is included in current assets on our balance sheet. To the extent that we do not recognize revenue at the same time as we invoice, we record a liability for deferred revenue. In certain instances, we also receive customer deposits in advance of invoicing and recording of accounts receivable. Deferred revenue and customer deposits are included in current liabilities on our consolidated balance sheets.

The allowance for doubtful accounts reflects our best estimate of probable losses inherent in the accounts receivable balance. We determine the allowance based on known troubled accounts, if any, historical experience, and other currently available evidence.

Costs to Obtain a Contract with a Customer

The only costs we incur associated with obtaining contracts with customers are sales commissions that we pay to our internal sales personnel or third-party sales representatives. These costs are calculated based on an established percentage of the selling price of each product or service sold. Commissions are considered earned by our internal sales personnel at the time we recognize revenue for a particular transaction. Commissions are considered earned by third-party sales representatives at the time that revenue is recognized for a particular transaction. We record commission expense in our consolidated statements of operations at the time the commission is earned. Commissions earned but not yet paid are included in current liabilities on our balance sheets.

Product Warranties

In connection with the sale of our products, we generally provide standard one or two year product warranties which are detailed in our terms and conditions and communicated to our customers. Our standard warranties are not offered for sale separately from our products, therefore there is not a separate performance obligation related to our standard warranties. We record estimated warranty expense for our standard warranties at the time of sale based upon historical claims experience. In very limited cases, we offer customers an option to separately purchase an extended warranty for certain of our products. In the case of extended warranties, we recognize revenue in the amount of the sale price for the extended warranty on a straight-line basis over the extended warranty period. We record costs incurred to provide service under an extended warranty at the time the service is provided. Warranty expense is included in selling expense in our consolidated statements of operations.

Refer to Notes 4 and 15 for further information about our revenue from contracts with customers.

Inventories

Inventories are valued at cost on a first-in, first-out basis, not in excess of market value. Cash flows from the sale of inventories are recorded in operating cash flows. On a quarterly basis, we review our inventories and record excess and obsolete inventory charges based upon our established objective excess and obsolete inventory criteria. These criteria identify material that has not been used in a work order during the prior twelve months and the quantity of material on hand that is greater than the average annual usage of that material over the prior three years. In certain cases, additional excess and obsolete inventory charges are recorded based upon current market conditions, anticipated product life cycles, new product introductions and expected future use of the inventory. The excess and obsolete inventory charges we record establish a new cost basis for the related inventories. We incurred excess and obsolete inventory charges of \$391 and \$285 for the years ended December 31, 2019 and 2018, respectively.

Property and Equipment

Machinery and equipment are stated at cost, except for machinery and equipment acquired in a business combination, which are stated at fair value at the time of acquisition. As previously discussed above under "Goodwill, Intangible and Long-Lived Assets," machinery and equipment that has been determined to be impaired is written down to its fair value at the time of the impairment. Depreciation is based upon the estimated useful life of the assets using the straight-line method. The estimated useful lives range from one to ten years. Leasehold improvements are recorded at cost and amortized over the shorter of the lease term or the estimated useful life of the asset. Total depreciation expense was \$685 and \$768 for the years ended December 31, 2019 and 2018, respectively.

Leases

We account for leases in accordance with ASC Topic 842 (Leases). We determine if an arrangement is a lease at inception. A lease contract is within scope if the contract has an identified asset (property, plant or equipment) and grants the lessee the right to control the use of the asset during the lease term. The identified asset may be either explicitly or implicitly specified in the contract. In addition, the supplier must not have any practical ability to substitute a different asset and would not economically benefit from doing so for the lease contract to be in scope. The lessee's right to control the use of the asset during the term of the lease must include the ability to obtain substantially all of the economic benefits from the use of the asset as well as decision-making authority over how the asset will be used. Leases are classified as either operating leases or finance leases based on the guidance in ASC Topic 842. Operating leases are included in operating lease right-of-use ("ROU") assets and operating lease liabilities in our consolidated balance sheets. Finance leases are included in property and equipment and financing lease liabilities. We do not currently have any financing leases.

ROU assets represent our right to use an underlying asset for the lease term and lease liabilities represent our obligation to make lease payments arising from the lease. Operating lease ROU assets and liabilities are recognized at commencement date based on the present value of lease payments over the lease term. None of our leases provide an implicit rate; therefore, we use our incremental borrowing rate based on the information available at commencement date in determining the present value of lease payments. The operating lease ROU asset also includes any lease payments made and excludes lease incentives. Our lease terms may include options to extend or terminate the lease. We include these options in the determination of the amount of the ROU asset and lease liability when it is reasonably certain that we will exercise that option. Lease expense for lease payments is recognized on a straight-line basis over the lease term. Certain of our operating leases contain predetermined fixed escalations of minimum rentals and rent holidays during the original lease terms. Rent holidays are periods during which we have control of the leased facility but are not obligated to pay rent. For these leases, our ROU asset and lease liability are calculated including any rent holiday in the determination of the life of the lease.

We have lease agreements which contain both lease and non-lease components, which are generally accounted for separately. In addition to the monthly rental payments due, most of our leases for our offices and warehouse facilities include non-lease components representing our portion of the common area maintenance, property taxes and insurance charges incurred by the landlord for the facilities which we occupy. These amounts are not included in the calculation of the ROU assets and lease liabilities as they are based on actual charges incurred in the periods to which they apply.

Operating lease payments are included in cash outflows from operating activities on our consolidated statements of cash flows. Amortization of right of use assets is presented separately from the change in operating lease liabilities and is included in Depreciation and Amortization on our consolidated statements of cash flows.

We have made an accounting policy election not to apply the recognition requirements of ASC Topic 842 to short-term leases (leases with a term of one year or less at the commencement date of the lease). Lease expense for short-term lease payments is recognized on a straight-line basis over the lease term.

See "Effect of Recently Adopted Amendments to Authoritative Accounting Guidance" below and Note 7 for further disclosures regarding our leases.

Contingent Liability for Repayment of State and Local Grant Funds Received

In connection with leasing a new facility in Rochester, New York, which our subsidiary, Ambrell, occupied in May 2018, we entered into agreements with the city of Rochester and the state of New York under which we may receive grants totaling up to \$550 to help offset a portion of the cost of the leasehold improvements we have made to this facility. In exchange for the funds we may receive under these agreements, we are required to create and maintain specified levels of employment in this location through various dates ending in 2023. If we fail to meet these employment targets, we may be required to repay a proportionate share of the funds received. As of December 31, 2019, we have received \$463 in grant funds. We do not expect to receive the remaining \$87 of grant funds during 2020, as we currently do not expect to increase our number of employees to the level required to receive these funds during 2020. As of December 31, 2019, we are not in compliance with the employment targets as specified in the grant agreement with the city of Rochester. We have applied for and received a waiver of this requirement for the year ended December 31, 2019.

We have recorded the amounts received under these agreements as a contingent liability on our balance sheet. As time passes, portions of the funds received will no longer be subject to repayment if we have met the employment requirements of the agreements. Amounts that we are irrevocably entitled to keep will be reclassified to deferred revenue and amortized to income on a straight-line basis over the remaining lease term for the Rochester facility.

Stock-Based Compensation

We account for stock-based compensation in accordance with ASC Topic 718 (Compensation - Stock Compensation) which requires that employee share-based equity awards be accounted for under the fair value method and requires the use of an option pricing model for estimating fair value of stock options, which is then amortized to expense over the service periods. See further disclosures related to our stock-based compensation plans in Note 12.

Engineering and Product Development

Engineering and product development costs, which consist primarily of the salary and related benefits costs of our technical staff, as well as the cost of materials used in product development, are expensed as incurred.

Foreign Currency

For our foreign subsidiaries whose functional currencies are not the U.S. dollar, assets and liabilities are translated using the exchange rate in effect at the balance sheet date. The results of operations are translated using an average exchange rate for the period. The effects of rate fluctuations in translating assets and liabilities of these international operations into U.S. dollars are included in accumulated other comprehensive earnings in stockholders' equity. Transaction gains or losses are included in net earnings. For the years ended December 31, 2019 and 2018, foreign currency transaction losses were \$3 and \$165, respectively.

Income Taxes

The asset and liability method is used in accounting for income taxes. Under this method, deferred tax assets and liabilities are recognized for operating loss and tax credit carryforwards and for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. 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 the results of operations in the period that includes the enactment date. A valuation allowance is recorded to reduce the carrying amounts of deferred tax assets if it is more likely than not that such assets will not be realized. See Note 10 for additional information regarding income taxes.

Net Earnings Per Common Share

Net earnings per common share - basic is computed by dividing net earnings by the weighted average number of common shares outstanding during each period. Net earnings per common share - diluted is computed by dividing net earnings by the weighted average number of common shares and common share equivalents outstanding during each period. Common share equivalents represent unvested shares of restricted stock and stock options and are calculated using the treasury stock method. Common share equivalents are excluded from the calculation if their effect is anti-dilutive.

The table below sets forth, for the periods indicated, a reconciliation of weighted average common shares outstanding - basic to weighted average common shares and common share equivalents outstanding - diluted and the average number of potentially dilutive securities that were excluded from the calculation of diluted earnings per share because their effect was anti-dilutive:

	Years Ended December 31,	
	2019	2018
Weighted average common shares outstanding—basic	10,373,164	10,347,947
Potentially dilutive securities:		
Unvested shares of restricted stock and employee stock options	18,811	34,247
Weighted average common shares and common share equivalents outstanding—diluted	10,391,975	10,382,194
Average number of potentially dilutive securities excluded from calculation	523,485	216,420

Effect of Recently Adopted Amendments to Authoritative Accounting Guidance

In February 2016, the Financial Accounting Standards Board (“FASB”) issued amendments to the current guidance on accounting for lease transactions, which is presented in ASC Topic 842. Subsequent to February 2016, the FASB has issued additional clarifying guidance on certain aspects of this new guidance, along with certain practical expedients that may be applied. The intent of the updated guidance is to increase transparency and comparability among organizations by requiring lessees to recognize assets and liabilities on the balance sheet for the rights and obligations created by leases and to disclose key information about leasing arrangements. Under the new guidance, a lessee is required to record a ROU asset and a lease liability on the balance sheet for all leases with terms longer than 12 months. Leases are classified as either finance or operating, with classification affecting the pattern of expense recognition in the income statement. The two permitted transition methods under the guidance are the modified retrospective transition approach, which requires application of the guidance for all comparative periods presented, and the cumulative effect adjustment approach, which requires prospective application at the adoption date.

The amendments were effective for us as of January 1, 2019. We adopted the amendments on January 1, 2019 using the cumulative effect adjustment approach. Accordingly, prior periods have not been restated. We have decided to elect the package of practical expedients, which includes the grandfathering of lease classification and, accordingly, we have not re-evaluated any of our leases for classification purposes in connection with the implementation of ASC Topic 842. They are all still being treated as operating leases under ASC Topic 842. We do not currently have any lease contracts that meet the criteria to be categorized as financing leases under ASC Topic 842. We have no embedded leases, nor do we have any initial direct costs. We are not electing the hindsight practical expedient and therefore are not reevaluating the lease terms that we used under ASC Topic 840. The implementation of this new guidance had a significant impact on our consolidated balance sheet as a result of recording ROU assets and lease liabilities for all of our multi-year leases. Under prior guidance, none of these leases had any related asset recorded on our balance sheets. The only related liability recorded on our balance sheets was the amount which represented the difference between the lease payments we had made and the straight-line rent expense we had recorded in our statements of operations. The implementation of this new guidance did not have a significant impact on our pattern of expense recognition for any of our multi-year leases. See "Leases" above and Note 7 for further disclosures regarding our leases.

Effect of Recently Issued Amendments to Authoritative Accounting Guidance

In June 2016, the FASB issued amendments to the guidance for accounting for credit losses. In November 2019, the FASB deferred the effective date of these amendments for certain companies, including smaller reporting companies. As a result of the deferral, the amendments are effective for us for reporting periods beginning after December 15, 2022. The amendments replace the incurred loss impairment methodology under current GAAP with a methodology that reflects expected credit losses and requires the use of a forward-looking expected credit loss model for accounts receivables, loans, and other financial instruments. The amendments require a modified retrospective approach through a cumulative-effect adjustment to retained earnings as of the beginning of the first reporting period in which the guidance is effective. We plan to adopt the amendments when they become effective for us on January 1, 2023. We are currently evaluating the impact the adoption of these amendments will have on our consolidated financial statements.

In December 2019, the FASB issued amendments to the accounting for income taxes, which add new guidance to simplify the accounting for income taxes by removing certain exceptions to the general principles in ASC Topic 740 (Income Taxes) and changing the accounting for certain income tax transactions. The amendments are effective for us as of January 1, 2021. Early adoption is permitted. We plan to adopt the amendments when they become effective for us on January 1, 2021. We do not expect these amendments to have a material impact on our consolidated financial statements.

(3) GOODWILL AND INTANGIBLE ASSETS

Goodwill and intangible assets on our balance sheets are the result of our acquisitions of Sigma Systems Corp. ("Sigma") in October 2008, Thermonics, Inc. ("Thermonics") in January 2012 and Ambrell in May 2017. All of our goodwill and intangible assets are allocated to our Thermal segment.

Goodwill

Goodwill totaled \$13,738 at both December 31, 2019 and 2018 and was comprised of the following:

Sigma	\$	1,656
Thermonics		50
Ambrell		12,032
Total	\$	<u>13,738</u>

Intangible Assets

Changes in the amount of the carrying value of finite-lived intangible assets for the years ended December 31, 2019 and 2018 are as follows:

Balance - January 1, 2018	\$	9,304
Amortization		<u>(1,103)</u>
Balance - December 31, 2018		8,201
Amortization		<u>(1,257)</u>
Balance - December 31, 2019	\$	<u>6,944</u>

The following tables provide further detail about our intangible assets as of December 31, 2019 and 2018:

	December 31, 2019		
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Finite-lived intangible assets:			
Customer relationships	\$ 10,480	\$ 3,805	\$ 6,675
Technology	600	380	220
Patents	590	541	49
Software	270	270	-
Trade name	140	140	-
Total finite-lived intangible assets	12,080	5,136	6,944
Indefinite-lived intangible assets:			
Trademarks	6,710	-	6,710
Total intangible assets	\$ 18,790	\$ 5,136	\$ 13,654
	December 31, 2018		
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Finite-lived intangible assets:			
Customer relationships	\$ 10,480	\$ 2,717	\$ 7,763
Technology	600	250	350
Patents	590	502	88
Software	270	270	-
Trade name	140	140	-
Total finite-lived intangible assets	12,080	3,879	8,201
Indefinite-lived intangible assets:			
Trademarks	6,710	-	6,710
Total intangible assets	\$ 18,790	\$ 3,879	\$ 14,911

We generally amortize our finite-lived intangible assets over their estimated useful lives on a straight-line basis, unless an alternate amortization method can be reliably determined. Any such alternate amortization method would be based on the pattern in which the economic benefits of the intangible asset are expected to be consumed. None of our intangible assets have any residual value.

Total amortization expense for our finite-lived intangible assets was \$1,257 and \$1,103, respectively, for the years ended December 31, 2019 and 2018. The following table sets forth the estimated annual amortization expense for each of the next five years:

2020	\$ 1,233
2021	\$ 1,227
2022	\$ 1,167
2023	\$ 1,067
2024	\$ 980

Impairment of Goodwill and Indefinite Life Intangible Assets

During December 2019 and 2018, we assessed our goodwill and indefinite life intangible asset for impairment in accordance with the requirements of ASC Topic 350 using a quantitative approach. Our goodwill impairment assessment is based upon the income approach, which estimates the fair value of our reporting units based upon a discounted cash flow approach. This fair value is then reconciled to our market capitalization at year end with an appropriate control premium. The discount rates used in 2019 and 2018 for the discounted cash flows were 20.0% and 18.5%, respectively. The selection of these rates was based upon our analysis of market-based estimates of capital costs and discount rates. The determination of the fair value of our reporting units requires management to make significant estimates and assumptions including the selection of control premiums, discount rates, terminal growth rates, forecasts of revenue and expense growth rates, income tax rates, changes in working capital, depreciation, amortization and capital expenditures. Changes in assumptions concerning future financial results or other underlying assumptions could have a significant impact on either the fair value of the reporting unit or the amount of the goodwill impairment charge.

During the goodwill impairment assessment in both 2019 and 2018, we compared the fair value of our Thermal reporting unit with its carrying value. This assessment indicated no impairment existed as the fair value of the reporting unit exceeded its carrying value in both 2019 and 2018.

During the indefinite life intangible asset impairment assessment in both 2019 and 2018, we compared the fair value of our indefinite life intangible assets with their carrying values. This assessment indicated no impairment existed as the fair value of the indefinite life intangible assets exceeded their carrying values in both 2019 and 2018.

Impairment of Long-Lived Assets and Finite-lived Intangible Assets

During 2019 and 2018, we did not review any of our long-lived assets for impairment as there were no events or changes in business circumstances that would indicate an impairment might exist.

(4) REVENUE FROM CONTRACTS WITH CUSTOMERS

The following tables provide additional information about our revenue from contracts with customers, including revenue by customer and product type and revenue by market. See also Note 15 for information about revenue by operating segment and geographic region.

	Years Ended December 31,	
	2019	2018
<i>Net revenues by customer type:</i>		
End user	\$ 55,074	\$ 68,093
OEM/Integrator	5,586	10,470
	<u>\$ 60,660</u>	<u>\$ 78,563</u>
<i>Net revenues by product type:</i>		
Thermal test	\$ 17,631	\$ 23,654
Thermal process	20,079	25,739
Semiconductor test	16,273	21,445
Service/other	6,677	7,725
	<u>\$ 60,660</u>	<u>\$ 78,563</u>
<i>Net revenues by market:</i>		
Semi	\$ 30,953	\$ 45,378
Industrial	21,231	21,220
Defense/aerospace	4,842	4,943
Telecommunications	1,845	5,574
Other Multimarket	1,789	1,448
	<u>\$ 60,660</u>	<u>\$ 78,563</u>

Changes in the amount of the allowance for doubtful accounts for the years ended December 31, 2019 and 2018 are as follows:

Balance - January 1, 2018	\$ 213
Bad debt expense	20
Write-offs	-
Balance - December 31, 2018	233
Bad debt expense	3
Write-offs	(25)
Balance - December 31, 2019	<u>\$ 211</u>

(5) MAJOR CUSTOMERS

During the years ended December 31, 2019 and 2018, Texas Instruments Incorporated accounted for 10% and 11% of our consolidated net revenues, respectively. While both of our operating segments sold products to this customer, these revenues were primarily generated by our EMS segment. During the years ended December 31, 2019 and 2018, no other customer accounted for 10% or more of our consolidated net revenues.

(6) INVENTORIES

Inventories held at December 31 were comprised of the following:

	2019	2018
Raw materials	\$ 5,369	\$ 4,654
Work in process	949	1,026
Inventory consigned to others	54	62
Finished goods	810	778
Total inventories	<u>\$ 7,182</u>	<u>\$ 6,520</u>

(7) LEASES

As previously discussed in Note 2, we account for our leases in accordance with the guidance in ASC Topic 842, which was effective for us as of January 1, 2019. In connection with the implementation of ASC Topic 842, we recorded non-cash increases in operating lease liabilities and ROU assets of \$5,197 and \$4,816, respectively, as of the effective date of this guidance.

We lease our offices, warehouse facilities and certain equipment under non-cancellable operating leases that expire at various dates through 2028. Total operating lease and short-term lease costs for years ended December 31, 2019 and 2018, respectively, were as follows:

	Years Ended December 31,	
	2019	2018
Operating lease cost	\$ 1,476	\$ 1,513
Short-term lease cost	\$ 51	\$ 55

The following is additional information about our leases as of December 31, 2019:

Range of remaining lease terms (in years)	0.8 to 8.4
Weighted average remaining lease term (in years)	5.5
Weighted average discount rate	5.0%

Maturities of lease liabilities as of December 31, 2019 were as follows:

2020	\$ 1,527
2021	1,007
2022	824
2023	834
2024	859
Thereafter	766
Total lease payments	<u>\$ 5,817</u>
Less imputed interest	(721)
Total	<u>\$ 5,096</u>

Cash Flow Information

Total amortization of right of use assets for the year ended December 31, 2019 was \$1,251.

Supplemental cash flow information related to leases for the year ended December 31, 2019 was as follows:

Non-cash increases (decreases) in operating lease liabilities and ROU assets as a result of lease modifications:	
Modification to Ambrell's U.K. facility lease	\$ (486)
Modification to lease for facility in Mansfield, Massachusetts	\$ 1,811
Modification to Ambrell's Netherlands facility lease	\$ (48)

The lease for Ambrell's U.K. facility had an original term of 15 years, which extended through August 2029. The lease included the option to terminate the lease at specified points in time without penalty. We exercised this option in March 2019, and the lease expired in September 2019. At the effective date of this modification, we recorded a reduction in our ROU assets and operating lease liabilities of approximately \$486.

On April 8, 2019, we executed an amendment to the lease for our facility in Mansfield, Massachusetts that extended the term of the lease for an additional forty months to December 31, 2024 and expanded the amount of leased space by approximately 6,100 square feet. The current rate per square foot that is in place through August 31, 2021 (the original expiration date of the lease) did not change. After August 31, 2021, there are predetermined fixed escalations of the rate as outlined in the amendment. As a result of this modification, we recorded an increase in our ROU assets and operating lease liabilities of approximately \$1,811.

During the third quarter of 2019, the lease for a portion of Ambrell's facility in the Netherlands was modified to reduce the term of that lease to expire in September 2019 as that portion of the space was no longer needed. At the effective date of this modification, we recorded a reduction in our ROU assets and operating lease liabilities of approximately \$48.

Prior Period Disclosures under ASC Topic 840 (Leases)

Prior to January 1, 2019, we accounted for our leases in accordance with the guidance in ASC Topic 840. Under the guidance in ASC Topic 840, total rental expense for the year ended December 31, 2018 was \$1,848 which includes costs for common area maintenance, property taxes and insurance charges incurred by the landlord for the facilities which we occupy. These costs are not included in operating lease cost under the guidance in ASC Topic 842.

The aggregate minimum rental commitments under the non-cancellable operating leases in effect at December 31, 2018 were as follows:

2019	\$	1,710
2020		1,612
2021		868
2022		296
2023		286
Thereafter		1,421
Total	\$	6,193

(8) OTHER CURRENT LIABILITIES

Other current liabilities at December 31 were comprised of the following:

	2019	2018
Accrued warranty	\$ 334	\$ 346
Accrued rent/facility costs	25	406
Other	138	356
Total other current liabilities	\$ 497	\$ 1,108

(9) DEBT

Letters of Credit

We have issued letters of credit as the security deposits for certain of our domestic leases. These letters of credit are secured by pledged certificates of deposit which are classified as Restricted Certificates of Deposit on our balance sheets. The terms of our leases require us to renew these letters of credit at least 30 days prior to their expiration dates for successive terms of not less than one year until lease expiration. In accordance with the terms of our lease, the letter of credit related to our facility in Mt. Laurel, New Jersey was reduced from \$125 to \$90 on April 1, 2019. Our outstanding letters of credit at December 31, 2019 and 2018 consisted of the following:

Facility	Original L/C Issue Date	L/C Expiration Date	Lease Expiration Date	Letters of Credit Amount Outstanding	
				Dec. 31 2019	Dec. 31 2018
Mt. Laurel, NJ	3/29/2010	3/31/2020	4/30/2021	\$ 90	\$ 125
Mansfield, MA	10/27/2010	12/31/2024	12/31/2024	50	50
				\$ 140	\$ 175

(10) INCOME TAXES

We are subject to Federal and certain state income taxes. In addition, we are taxed in certain foreign countries.

On December 22, 2017 the President of the United States signed into law the Tax Act. One of the principal elements of the Tax was a one-time transition tax that was imposed on the previously unremitted earnings of our foreign subsidiaries. Due to the complexities involved in determining the previously unremitted earnings of our foreign subsidiaries, at December 31, 2017, we recorded a provisional amount for the transition tax payable on those unremitted earnings. The provisional amount recorded, net of related foreign tax credits, was a tax of \$476. During the first half of 2018 we completed the process of obtaining, preparing and analyzing the required information, including a Section 965 analysis and an earnings and profits study. As a result, we determined that no transition tax was due, and, accordingly, during the second quarter of 2018 we reversed the \$476 that had been accrued in the fourth quarter of 2017.

Earnings before income taxes was as follows:

	Years Ended December 31,	
	2019	2018
Domestic	\$ 1,804	\$ 3,647
Foreign	800	1,396
Total	<u>\$ 2,604</u>	<u>\$ 5,043</u>

Income tax expense (benefit) was as follows:

	Years Ended December 31,	
	2019	2018
Current		
Domestic – Federal	\$ 510	\$ 1,352
Domestic – state	101	190
Foreign	97	381
Total	<u>\$ 708</u>	<u>\$ 1,923</u>
Deferred		
Domestic – Federal	\$ (413)	\$ 103
Domestic – state	(13)	(20)
Foreign	-	-
Total	<u>(426)</u>	<u>83</u>
Income tax expense	<u>\$ 282</u>	<u>\$ 2,006</u>

Deferred income taxes reflect the net tax effect of net operating loss and tax credit carryforwards as well as temporary differences between the carrying amount of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. The following is a summary of the significant components of our deferred tax assets and liabilities as of December 31, 2019 and 2018:

	December 31,	
	2019	2018
Deferred tax assets:		
Operating lease liabilities	\$ 1,123	\$ -
Net operating loss (state and foreign)	280	299
Inventories	247	212
Accrued vacation pay and stock-based compensation	279	184
Tax credit carryforwards	112	81
Allowance for doubtful accounts	44	46
Accrued warranty	19	20
Acquisition costs	12	13
Other	13	18
Total	<u>2,129</u>	<u>873</u>
Valuation allowance	<u>(234)</u>	<u>(241)</u>
Deferred tax assets	<u>1,895</u>	<u>632</u>
Deferred tax liabilities:		
Net intangible assets	(2,923)	(3,167)
Right of use assets	(1,066)	-
Depreciation of property and equipment	(169)	(154)
Deferred tax liabilities	<u>(4,158)</u>	<u>(3,321)</u>
Net deferred tax liabilities	<u>\$ (2,263)</u>	<u>\$ (2,689)</u>

The net change in the valuation allowance for the years ended December 31, 2019 and 2018 was a decrease of \$7 and \$129, respectively. In assessing the ability to realize the deferred tax assets, we consider whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during periods in which those temporary differences become deductible. We consider the scheduled reversal of deferred tax liabilities, projected future taxable income and tax planning strategies in making this assessment. In order to fully realize the total deferred tax assets, we will need to generate future taxable income prior to the expiration of net operating loss and tax credit carryforwards which expire in various years through 2039.

An analysis of the effective tax rate for the years ended December 31, 2019 and 2018 and a reconciliation from the expected statutory rate of 21% is as follows:

	Years Ended December 31,	
	2019	2018
Expected income tax provision at U.S. statutory rate	\$ 547	\$ 1,059
Increase (decrease) in tax from:		
Restricted stock	114	67
Dividend from foreign subsidiaries	97	175
NOL carryforwards utilized	32	118
Global intangible low taxed income	30	57
Nondeductible expenses	4	1,466
Current year tax credits (foreign and research)	(234)	(553)
Domestic tax expense (benefit), net of Federal benefit	(184)	310
Section 250 foreign derived intangible income deduction	(145)	(233)
Foreign income tax rate differences	(51)	90
Changes in valuation allowance	(7)	(129)
Federal transition tax payable	-	(476)
Other	79	55
Income tax expense	<u>\$ 282</u>	<u>\$ 2,006</u>

In accounting for income taxes, we follow the guidance in ASC Topic 740 (Income Taxes) regarding the recognition and measurement of uncertain tax positions in our financial statements. Recognition involves a determination of whether it is more likely than not that a tax position will be sustained upon examination with the presumption that the tax position will be examined by the appropriate taxing authority having full knowledge of all relevant information. Our policy is to record interest and penalties associated with unrecognized tax benefits as additional income taxes in the statement of operations. As of December 31, 2019 and 2018, we did not have an accrual for uncertain tax positions.

(11) LEGAL PROCEEDINGS

From time to time we may be a party to legal proceedings occurring in the ordinary course of business. We are not currently involved in any legal proceedings the resolution of which we believe could have a material effect on our business, financial position, results of operations or long-term liquidity.

(12) STOCK-BASED COMPENSATION PLAN

As of December 31, 2019, we have unvested restricted stock awards and stock options outstanding which were granted under the inTEST Corporation 2007 Stock Plan (the "2007 Stock Plan") and the inTEST Corporation Second Amended and Restated 2014 Stock Plan (the "2014 Stock Plan"). The 2007 Stock Plan was approved at our annual meeting of stockholders held on June 13, 2007 and permitted the granting of stock options or restricted stock for up to 500,000 shares of our common stock to officers, other key employees and consultants. No further grants may be made under the 2007 Stock Plan. The 2014 Stock Plan was originally approved at our annual meeting of stockholders held on June 25, 2014 and permits the granting of stock options, restricted stock, stock appreciation rights or restricted stock units for up to 500,000 shares of our common stock to directors, officers, other key employees and consultants. On June 27, 2018, our stockholders approved the amendment and restatement of the 2014 Stock Plan to increase the number of shares of common stock that may be delivered pursuant to awards granted under the 2014 Stock Plan from 500,000 to 1,000,000 shares. On June 19, 2019, our stockholders approved the amendment and restatement of the 2014 Stock Plan to increase the number of shares of common stock that may be delivered pursuant to awards granted under the 2014 Stock Plan from 1,000,000 to 2,000,000 shares. As of December 31, 2019, there were 1,198,935 aggregate shares available to grant under the 2014 Plan.

Our unvested restricted stock awards and stock options are accounted for based on their grant date fair value. As of December 31, 2019, total compensation expense to be recognized in future periods is \$1,779. The weighted average period over which this expense is expected to be recognized is 2.7 years.

The following table summarizes the compensation expense we recorded during 2019 and 2018, related to unvested shares of restricted stock and stock options.

	Years Ended December 31,	
	2019	2018
Cost of revenues	\$ -	\$ -
Selling expense	8	-
Engineering and product development expense	35	9
General and administrative expense	841	645
	<u>\$ 884</u>	<u>\$ 654</u>

There was no compensation expense capitalized in 2019 or 2018.

Stock Options

We record compensation expense for stock options based on the fair market value of the options as of the grant date. No option may be granted with an exercise period in excess of ten years from the date of grant. Generally, stock options will be granted with an exercise price equal to the fair market value of our stock on the date of grant and will vest over four years.

The fair value for stock options granted during 2019 and 2018 was estimated at the date of grant using the Black-Scholes option pricing model with the following weighted average assumptions:

	2019	2018
Risk-free interest rate	2.35%	2.75%
Dividend yield	0.00%	0.00%
Expected common stock market price volatility factor	.42	.39
Weighted average expected life of stock options (years)	6.25	6.25

The per share weighted average fair value of stock options issued during 2019 and 2018 was \$2.75 and \$3.50, respectively.

The following table summarizes the activity related to stock options for the two years ended December 31, 2019:

	Number of Shares	Weighted Average Exercise Price
Options outstanding, January 1, 2018	76,400	\$ 5.98
Granted	189,800	8.14
Exercised	-	-
Canceled	(1,800)	4.37
Options outstanding, December 31, 2018 (21,800 exercisable)	264,400	7.54
Granted	249,460	6.25
Exercised	-	-
Canceled	(7,050)	8.45
Options outstanding, December 31, 2019 (87,900 exercisable)	506,810	6.89

Restricted Stock Awards

We record compensation expense for restricted stock awards (unvested shares) based on the quoted market price of our stock at the grant date and amortize the expense over the vesting period. Restricted stock awards generally vest over four years, except for restricted stock awards granted to our directors, which vest over one year.

The following table summarizes the activity related to unvested shares for the two years ended December 31, 2019:

	Number of Shares	Weighted Average Grant Date Fair Value
Unvested shares outstanding, January 1, 2018	75,225	\$ 5.29
Granted	95,600	8.24
Vested	(56,075)	7.18
Forfeited	-	-
Unvested shares outstanding, December 31, 2018	114,750	6.92
Granted	132,580	6.31
Vested	(69,974)	6.60
Forfeited	(12,325)	7.14
Unvested shares outstanding, December 31, 2019	165,031	6.55

The total fair value of the shares that vested during the years ended December 31, 2019 and 2018 was \$426 and \$423, respectively, as of the vesting dates of these shares.

(13) STOCK REPURCHASE PLAN

On July 31, 2019, our Board of Directors authorized the repurchase of up to \$3,000 of our common stock from time to time on the open market, in compliance with Rule 10b-18 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or in privately negotiated transactions pursuant to a newly authorized stock repurchase plan (the "2019 Repurchase Plan"). Repurchases may be made under a Rule 10b5-1 plan entered into with RW Baird & Co., which would permit shares to be repurchased when we might otherwise be precluded from doing so under insider trading laws and our internal trading windows. The 2019 Repurchase Plan does not obligate us to purchase any particular amount of common stock and may be suspended or discontinued at any time without prior notice. The 2019 Repurchase Plan is funded using our operating cash flow or available cash. Purchases began on September 18, 2019 under this plan. During the year ended December 31, 2019, we repurchased 229,308 shares under the 2019 Repurchase Plan at a cost of \$1,142, which includes fees paid to our broker of \$6. All of the repurchased shares were retired. On March 2, 2020, we suspended repurchases under the 2019 Repurchase Plan.

In addition, on July 31, 2019, our Board of Directors terminated the 2015 Stock Repurchase Plan which had been authorized on October 27, 2015 and under which we had repurchased a total of 297,020 shares at a cost of \$1,195. The shares were repurchased between December 2015 and January 2017. All of the repurchased shares were retired.

(14) EMPLOYEE BENEFIT PLANS

We have defined contribution 401(k) plans for our employees who work in the U.S. All permanent employees of inTEST Corporation, Temptronic Corporation ("Temptronic") and inTEST Silicon Valley Corporation who are at least 18 years of age are eligible to participate in the inTEST Corporation Incentive Savings Plan. We match employee contributions dollar for dollar up to 10% of the employee's annual compensation, with a maximum limit of \$5. Employer contributions vest ratably over four years. Matching contributions are discretionary. For the years ended December 31, 2019 and 2018, expense under the plan was \$382 and \$299, respectively.

All permanent employees of Ambrell are immediately eligible to participate in the Ambrell Corporation Savings & Profit Sharing Plan (the "Ambrell Plan") upon employment and are eligible for employer matching contributions after completing one year of service, as defined in the Ambrell Plan. The Ambrell Plan allows eligible employees to make voluntary contributions up to 100% of compensation, up to the federal government contribution limits. We will make a matching contribution of 25% of each employee's contributions up to a maximum of 2% of such employee's annual compensation. For the years ended December 31, 2019 and 2018, expense under the plan was \$49 and \$68, respectively.

(15) SEGMENT INFORMATION

We have two reportable segments, which are also our reporting units, Thermal and EMS. Thermal includes the operations of Temptronic, Thermonics, Sigma, inTEST Thermal Solutions GmbH (Germany), inTEST Pte, Limited (Singapore) and Ambrell. Sales of this segment consist primarily of temperature management systems which we design, manufacture and market under our Temptronic, Thermonics and Sigma product lines, and precision induction heating systems which are designed, manufactured and marketed by Ambrell. In addition, this segment provides post-warranty service and support. EMS includes the operations of our manufacturing facilities in Mt. Laurel, New Jersey and Fremont, California. Sales of this segment consist primarily of manipulator, docking hardware and tester interface products, which we design, manufacture and market.

We operate our business worldwide and sell our products both domestically and internationally. Both of our segments sell to semiconductor manufacturers, third-party test and assembly houses and ATE manufacturers. Thermal also sells into a variety of markets outside of the Semi Market, including the automotive, defense/aerospace, energy, industrial, telecommunications and other markets.

	Years Ended	
	December 31,	
	2019	2018
<i>Net revenues from unaffiliated customers:</i>		
Thermal	\$ 43,823	\$ 55,994
EMS	16,837	22,569
	<u>\$ 60,660</u>	<u>\$ 78,563</u>
<i>Depreciation/amortization:</i>		
Thermal	\$ 1,810	\$ 1,739
EMS	118	122
Corporate	14	10
	<u>\$ 1,942</u>	<u>\$ 1,871</u>

	Years Ended December 31,	
	2019	2018
Operating income (loss):		
Thermal	\$ 2,334	\$ 1,218
EMS	1,725	5,382
Corporate	(1,510)	(1,420)
	<u>\$ 2,549</u>	<u>\$ 5,180</u>
Earnings (loss) before income tax expense (benefit):		
Thermal	\$ 2,370	\$ 1,024
EMS	1,767	5,416
Corporate	(1,533)	(1,397)
	<u>\$ 2,604</u>	<u>\$ 5,043</u>
Income tax expense (benefit):		
Thermal	\$ 257	\$ 1,331
EMS	194	910
Corporate	(169)	(235)
	<u>\$ 282</u>	<u>\$ 2,006</u>
Net earnings (loss):		
Thermal	\$ 2,113	\$ (307)
EMS	1,573	4,506
Corporate	(1,364)	(1,162)
	<u>\$ 2,322</u>	<u>\$ 3,037</u>
Capital expenditures:		
Thermal	\$ 501	\$ 2,149
EMS	46	50
Corporate	73	13
	<u>\$ 620</u>	<u>\$ 2,212</u>

	December 31,	
	2019	2018
Identifiable assets:		
Thermal	\$ 51,621	\$ 55,343
EMS	7,319	6,692
Corporate	775	5,152
	<u>\$ 59,715</u>	<u>\$ 67,187</u>

The following table provides information about our geographic areas of operation. Net revenues from unaffiliated customers are based on the location to which the goods are shipped.

	Years Ended December 31,	
	2019	2018
Net revenues from unaffiliated customers:		
U.S.	\$ 25,283	\$ 25,517
Foreign	35,377	53,046
	<u>\$ 60,660</u>	<u>\$ 78,563</u>
Property and equipment:		
U.S.	\$ 2,163	\$ 2,327
Foreign	257	390
	<u>\$ 2,420</u>	<u>\$ 2,717</u>

(16) QUARTERLY CONSOLIDATED FINANCIAL DATA (Unaudited)

The following tables present certain unaudited consolidated quarterly financial information for each of the eight quarters ended December 31, 2019. In our opinion, this quarterly information has been prepared on the same basis as the consolidated financial statements and includes all adjustments (consisting only of normal recurring adjustments) necessary to present fairly the information for the periods presented. The results of operations for any quarter are not necessarily indicative of results for the full year or for any future period.

Year-over-year quarterly comparisons of our results of operations may not be as meaningful as the sequential quarterly comparisons set forth below that tend to reflect the cyclical and seasonal activity of the Semi Market. Quarterly fluctuations in expenses are related directly to sales activity and volume and may also reflect the timing of operating expenses incurred throughout the year.

	Quarters Ended				Total
	3/31/19	6/30/19	9/30/19	12/31/19	
Net revenues	\$ 18,062	\$ 14,352	\$ 14,632	\$ 13,614	\$ 60,660
Gross margin	8,836	6,719	7,205	6,465	29,225
Earnings (loss) before income tax expense	1,462	(300)	794	648	2,604
Income tax expense (benefit)	324	(113)	147	(76)	282
Net earnings (loss)	1,138	(187)	647	724	2,322
Net earnings (loss) per common share – basic	\$ 0.11	\$ (0.02)	\$ 0.06	\$ 0.07	\$ 0.22
Weighted average common shares outstanding – basic	10,385,017	10,411,276	10,421,383	10,274,980	10,373,164
Net earnings (loss) per common share – diluted	\$ 0.11	\$ (0.02)	\$ 0.06	\$ 0.07	\$ 0.22
Weighted average common shares outstanding – diluted	10,414,330	10,411,276	10,429,536	10,298,535	10,391,975

	Quarters Ended				Total
	3/31/18(1)	6/30/18(2)(3)	9/30/18(4)	12/31/18(5)	
Net revenues	\$ 18,871	\$ 21,097	\$ 20,160	\$ 18,435	\$ 78,563
Gross margin	9,395	10,910	10,092	9,004	39,401
Earnings (loss) before income tax expense	982	4,396	162	(497)	5,043
Income tax expense	601	382	728	295	2,006
Net earnings (loss)	381	4,014	(566)	(792)	3,037
Net earnings (loss) per common share – basic	\$ 0.04	\$ 0.39	\$ (0.05)	\$ (0.08)	\$ 0.29
Weighted average common shares outstanding – basic	10,326,309	10,342,674	10,355,673	10,367,132	10,347,947
Net earnings (loss) per common share – diluted	\$ 0.04	\$ 0.39	\$ (0.05)	\$ (0.08)	\$ 0.29
Weighted average common shares outstanding – diluted	10,365,306	10,370,318	10,355,673	10,367,132	10,382,194

- (1) The quarter ended March 31, 2018 includes a \$1,726 increase in the fair value of contingent consideration, which was not deductible for tax purposes.
- (2) The quarter ended June 30, 2018 includes a \$710 reduction in the fair value of contingent consideration, which was not taxable.
- (3) The quarter ended June 30, 2018 includes the reversal of certain adjustments originally recorded in the quarter ended December 31, 2017 which were related to tax legislation enacted in December 2017, as discussed in Note 10.
- (4) The quarter ended September 30, 2018 includes \$3,057 increase in the fair value of contingent consideration, which was not deductible for tax purposes.
- (5) The quarter ended December 31, 2018 includes a \$2,828 increase in the fair value of contingent consideration, which was not deductible for tax purposes.

(17) SUBSEQUENT EVENTS

Leases

On January 23, 2020, we executed an amendment to the lease for our facility in Fremont, California, which extended the term of the lease for a period of 61 months commencing on November 1, 2020 and expiring on November 30, 2025. Beginning on November 1, 2020, the scheduled base rent payments under the lease will be as follows:

Period	Monthly Base Rent
11/1/2020 – 11/30/2020	\$ 0.00
12/1/2020 – 10/31/2021	\$ 21,257.10
11/1/2021 – 10/31/2022	\$ 21,894.81
11/1/2022 – 10/31/2023	\$ 22,551.66
11/1/2023 – 10/31/2024	\$ 23,228.21
11/1/2024 – 10/31/2025	\$ 23,925.05
11/1/2025 – 11/30/2025	\$ 24,642.80

At the effective date of this modification, we will record an increase in our ROU assets and operating lease liabilities of approximately \$1,176.

COVID-19 Pandemic

In early January 2020, a human infection originating in China was traced to a novel strain of coronavirus. The virus has subsequently spread to other parts of the world, including the U.S. and Europe, and has caused unprecedented disruptions in the global economy as efforts to contain the spread of the virus have intensified. On March 11, 2020, the World Health Organization officially declared this coronavirus outbreak (also referred to as COVID-19) a pandemic. Our business has been and will continue to be adversely affected by the coronavirus pandemic. Since March 17, 2020, a number of states, including all of the states in which we have manufacturing facilities, have instituted 'shelter-in place' orders as well as guidance in response to the pandemic and the need to contain it. We are carefully reviewing all rules, regulations, and orders and responding accordingly. On March 17, 2020, we temporarily shut down our EMS manufacturing facility in Fremont, California. As of the date of this filing, all of our other manufacturing facilities remain open. If the current pace of the coronavirus pandemic cannot be slowed and the spread of the virus is not contained, our business operations could be further delayed or interrupted. We expect that government and health authorities may announce new or extend existing restrictions, which could require us to make further adjustments to our operations in order to comply with any such restrictions. These adjustments to our operations could include additional facility closures. We may also experience limitations in employee resources. Global supply chains and the timely availability of products have been and will continue to be materially disrupted by quarantines, factory slowdowns or shutdowns, border closings and travel restrictions resulting from the coronavirus pandemic. The adverse effects of the coronavirus pandemic on our business could be material in future periods.

The duration of any business disruption and related financial impact cannot be reasonably estimated at this time but may materially affect our ability to operate our business and result in additional costs. The extent to which the coronavirus pandemic may impact our operating results, financial condition, and cash flows will depend on future developments, which are highly uncertain and cannot be predicted as of the time of this filing, including new information that may emerge concerning the severity of the coronavirus and steps taken to contain the coronavirus or treat its impact, among others.

inTEST CORPORATION
SCHEDULE II -- VALUATION AND QUALIFYING ACCOUNTS
(in thousands)

	<u>Balance at Beginning of Period</u>	<u>Expense (Recovery)</u>	<u>Deductions</u>	<u>Balance at End of Period</u>
Year Ended December 31, 2019				
Allowance for doubtful accounts	\$ 233	\$ 3	\$ (25)	\$ 211
Warranty reserve	346	243	(255)	334
Year Ended December 31, 2018				
Allowance for doubtful accounts	\$ 213	\$ 20	\$ -	\$ 233
Warranty reserve	233	452	(339)	346

CERTIFICATE OF INCORPORATION

of

inTEST CORPORATION

The undersigned, a natural person, for the purpose of organizing a corporation for conducting the business and promoting the purposes hereinafter stated, under the provisions and subject to the requirements of the laws of the State of Delaware (particularly Chapter 1, Title 8 of the Delaware Code and the acts amendatory thereof and supplemental thereto, and known, identified and referred to as the "General Corporation Law of the State of Delaware"), hereby states that:

FIRST: Name. The name of the corporation (hereinafter called the "Corporation") is: inTEST Corporation.

SECOND: Registered Office and Agent. The address of its registered office in the State of Delaware is Corporation Trust Center, 1209 Orange Street, Wilmington, New Castle County, Delaware 19801. The name of its registered agent at such address is The Corporation Trust Company.

THIRD: Purpose and Powers. The nature of the business and the objects or purposes to be transacted, promoted or carried on are:

To engage in any lawful act or activity for which corporations may be organized under the General Corporation Law of the State of Delaware and to do all things and exercise all powers, rights and privileges that a business corporation may now or hereafter be organized or authorized to do or to exercise under the laws of the State of Delaware.

FOURTH: Capital.

A. **Authorized Shares.** The total number of shares of stock that the Corporation shall have authority to issue is 25,000,000 shares, consisting of 20,000,000 shares of Common Stock, having a par value of \$.01 per share, and 5,000,000 shares of Preferred Stock, having a par value of \$.01 per share.

B. **The Preferred Stock.** The Preferred Stock may be issued from time to time in one or more series of any number of shares of Preferred Stock herein authorized. Each series of Preferred Stock shall be distinctly designated by letter or descriptive words. Authority is hereby vested in the Board of Directors to issue from time to time the Preferred Stock as Preferred Stock of any series and in connection with the creation of such series to fix by resolution or resolutions providing for the issue of shares thereof the voting rights, if any, the designations, preferences and relative, participating, optional or other special rights,

and, qualifications, or restrictions of such series to the full extent now or hereafter permitted by this Certificate of Incorporation and laws of the State of Delaware.

C. **Voting.**

1. **Voting Rights.** In addition to any voting rights to which they may be entitled under the laws of the State of Delaware, the holders of shares of the Preferred Stock (to the extent they have voting rights) and the holders of shares of the Common Stock shall vote, as a single class, upon all matters upon which stockholders are entitled to vote. Each share of Common Stock shall be entitled to one vote. The holders of shares of stock which do not have voting rights shall not have the right to vote in the election of directors or for any other purpose and shall not be entitled to notice of any meeting of stockholders.

2. **Cumulative Voting.** There shall be no cumulative voting rights.

3. **Voting by Ballot.** Elections of directors need not be by ballot unless the Bylaws of the Corporation provide otherwise.

D. **Preemptive Rights.** Except as otherwise provided in this Certificate of Incorporation, the holders of the Preferred Stock and the holders of the Common Stock shall have no preemptive rights to subscribe for any shares of any class of stock of the Corporation whether now or hereafter authorized.

E. **Dividends.** The holders of the Common Stock shall be entitled, in any calendar year, to receive, when, as and if declared by the Board of Directors, out of funds legally available for the payment of dividends, such dividends as may be declared or paid or set apart for payment to the holders of the Common Stock.

F. **Liquidation and Dissolution.** Except as otherwise provided in this Certificate of Incorporation, upon any liquidation, dissolution or winding up of the Corporation, whether voluntary or involuntary, the holders of the Common Stock shall be ratably entitled to receive, out of the assets of the Corporation available for distribution to the holders of the Common Stock, whether from surplus or earnings, the remaining assets and funds of the Corporation. Neither the consolidation nor merger of the Corporation with or into any other corporation or corporations, nor the sale of all or substantially all of the assets of the Corporation shall be deemed to be a liquidation or dissolution or winding up of the Corporation within the meaning of this paragraph.

G. **Repurchase of Stock.** Upon any repurchase or reacquisition of the shares of the Common Stock, the shares so repurchased or reacquired shall resume and have the status of authorized and unissued shares of Common Stock, and the number of shares of

Common Stock which the Corporation shall have authority to issue shall not be decreased by the repurchase or reacquisition of such shares.

FIFTH: Incorporator. The name and mailing address of the incorporator is as follows:

<u>Name</u>	<u>Mailing Address</u>
James W. Schwartz	Saul, Ewing, Remick & Saul 3800 Centre Square West Philadelphia, PA 19102

SIXTH: Term. The Corporation is to have perpetual existence.

SEVENTH: Liability of Stockholders. The stockholders shall not be personally liable for the payment of the debts of the Corporation.

EIGHTH: Additional Powers of Board of Directors. The Board of Directors shall have power, without stockholder action, to make Bylaws for the Corporation and to amend, alter or repeal any Bylaws.

The powers and authorities herein conferred upon the Board of Directors are in furtherance and not in limitation of those conferred by the laws of the State of Delaware. In addition to the powers and authorities herein or by statute expressly conferred upon it, the Board of Directors may exercise all such powers and do all such acts and things as may be exercised or done by the Corporation, subject, nevertheless, to the provisions of the laws of the State of Delaware, of this Certificate of Incorporation and of the Bylaws of the Corporation.

NINTH: Elimination of Certain Liability of Directors. A director of the Corporation shall not be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, except for liability (i) for any breach of the director's duty of loyalty to the Corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or knowing violation of law, (iii) under Section 174 of the Delaware General Corporation Law or (iv) for any transaction from which the director derived any improper personal benefit. If the Delaware General Corporation Law is amended to authorize corporate action further eliminating or limiting the personal liability of directors, then, without further action by the Board of Directors or the stockholders, the liability of a director of the Corporation shall be eliminated or limited to the fullest extent permitted by the Delaware General Corporation Law, as so amended. Any repeal or modification of this Article NINTH by the stockholders of the Corporation shall not adversely affect any right or protection of a director of the Corporation existing at the time of such repeal or modification.

TENTH: Elections; Books of the Corporation. Elections of directors need not be by written ballot unless the bylaws of the Corporation shall so provide. The books of the Corporation may be kept (subject to any requirement of law) outside the State of Delaware at such place or places as may be designated from time to time by the Board of Directors or in the bylaws of the Corporation.

ELEVENTH: Right to Amend Certificate of Incorporation. The Corporation reserves the right at any time and from time to time to amend, alter, change or repeal any provision contained in this Certificate of Incorporation. In addition, other provisions, authorized by the laws of the State of Delaware at the time in force, may be added or inserted in this Certificate of Incorporation, in the manner now or hereafter prescribed by law. All rights, preferences and privileges of whatever nature conferred upon stockholders, directors or any other person whomsoever by and pursuant to this Certificate of Incorporation in its present form or as hereafter amended shall be subject to the right of the Corporation reserved in this Article ELEVENTH.

THE UNDERSIGNED, being the sole incorporator hereinbefore named, does hereby make this Certificate of Incorporation, declaring and acknowledging that this is my act and deed and the facts herein stated are true, and accordingly have hereunto set my hand this 21st day of March, 1997.

/s/ James W. Schwartz
James W. Schwartz

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

inTEST Corporation ("our" or the "Company") has one class of securities registered under Section 12 of the Securities Exchange Act of 1934, as amended: our 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 Certificate of Incorporation (the "Certificate of Incorporation"), and our Bylaws, as amended and restated effective April 23, 2018 (the "Bylaws"), each of which is filed with or incorporated by reference as an exhibit to the Annual Report on Form 10-K. For additional information, please read the Certificate of Incorporation, Bylaws and the applicable provisions of the Delaware General Corporation Law (the "DGCL").

Description of Common Stock

Authorized Common Stock. Our Board of Directors (the "Board") has the authority to issue up to 20,000,000 shares of common stock, par value \$0.01 per share.

Voting Rights. Holders of the Company's common stock are entitled to one vote for each share held of record on all matters submitted to a vote of the stockholders and do not have cumulative voting rights. Except as otherwise provided by law, the Certificate of Incorporation or the Bylaws, matters will generally be decided by the vote of the holders of a majority of the voting power present in person or represented by proxy, and an election of directors by our stockholders will be determined by a plurality of the votes cast by the stockholders entitled to vote on the election.

Dividends. Subject to preferences that may be applicable to any outstanding preferred stock, holders of our common stock are entitled to receive dividends when and if declared by the Board out of funds legally available for the payment of dividends.

Liquidation Rights. Holders of our common stock are entitled to share ratably in the assets of the Company legally available for distribution to our stockholders in the event of liquidation, dissolution or winding up of the Company, but only after satisfaction of all of the Company's liabilities and of the prior rights of any outstanding series of our preferred stock.

Rights and Preferences. Holders of our common stock have no preemptive, subscription, redemption or conversion rights. The rights, preferences and privileges of holders of our common stock will be subject to the rights of the holders of any series of our preferred stock that the Board may issue in the future.

Fully Paid and Nonassessable. All outstanding shares of our common stock are duly authorized, fully paid and nonassessable.

Exchange Listing. Our common stock is listed on NYSE American under the symbol "INTT."

Transfer Agent and Registrar. The transfer agent and registrar for our common stock is Computershare Investor Services.

Certain Anti-takeover Provisions

Some provisions of the DGCL and the Certificate of Incorporation and Bylaws could discourage or make more difficult a change in control of the Company without the support of the Board. A summary of these provisions follows.

Delaware Anti-takeover Law

The Company is subject to Section 203 of the DGCL. Section 203 provides that, subject to certain exceptions specified in the law, a Delaware corporation shall not engage in certain “business combinations” with any “interested stockholder” for a three-year period following the time that the stockholder became an interested stockholder unless:

- prior to such time, the Board approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock outstanding at the time the transaction commenced, excluding certain shares; or
- at or subsequent to that time, the business combination is approved by the Board and by the affirmative vote of holders of at least 66 2/3% of the outstanding voting stock that is not owned by the interested stockholder.

Generally, a “business combination” includes a merger, asset or stock sale or other transaction resulting in a financial benefit to the interested stockholder. Subject to certain exceptions, an “interested stockholder” is a person who, together with that person’s affiliates and associates, owns, or within the previous three years did own, 15% or more of the Company’s voting stock.

Under certain circumstances, Section 203 makes it more difficult for a person who would be an “interested stockholder” to effect various business combinations with a corporation for a three-year period. The provisions of Section 203 may encourage companies interested in acquiring the Company to negotiate in advance with the Board because the stockholder approval requirement would be avoided if the Board approves either the business combination or the transaction that results in the stockholder becoming an interested stockholder. These provisions also may make it more difficult to accomplish transactions that stockholders may otherwise deem to be in their best interests.

Potential Issuances of the Company’s Preferred Stock

The Board is authorized under the Certificate of Incorporation to issue 5,000,000 shares of preferred stock. The rights, preferences and privileges of holders of common stock are subject to, and may be adversely affected by, the rights of the holders of any series of preferred stock that the Company may designate and issue in the future. The ability to authorize preferred stock makes it possible for the Board to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to acquire the Company. These and other provisions may have the effect of deterring hostile takeovers or delaying changes in control or management of the Company.

Special Meetings of Stockholders

The Bylaws provide that the Board may call special meetings of stockholders for any purpose or purposes at any time pursuant to a resolution approved by a majority of the Board. Special meetings of the stockholders of the Company may be called by the Board upon written request to the Secretary of the Company or by one or more stockholders owning at least fifty percent (50%) of the voting power of the shares of stock of the Company entitled to vote on the matter or matters to be brought before the proposed special meeting. Notwithstanding the foregoing, a special meeting requested by stockholders will not be held if either (a) the Board or a court of competent jurisdiction has called or calls for an annual or special meeting of stockholders to be held within 90 days after the Secretary receives the request for the special meeting and the Board determines in good faith that the business of such annual or special meeting includes (among any other matters properly brought before the annual or special meeting) the business specified in the request or (b) an annual or special meeting that included the business specified in the request (as determined in good faith by the Board) was held not more than 90 days before the request to call the special meeting was received by the Secretary.

Requirements for Advance Notification of Stockholder Nominations and Proposals

Nominations for election to the Board and the proposal of business other than nominations to be considered by the stockholders may be made by or at the direction of the Board or by any stockholder entitled to vote generally in the election of directors who follows the advance notice procedures described in paragraphs (b) and (c) of Section 1.10 in the Bylaws. In general, a stockholder must submit a written notice of the nomination and other business proposed to be brought before the meeting of stockholders to the Secretary at the principal executive offices of the Company not less than 90 days nor more than 120 days prior to the first anniversary of the date on which we first mailed our proxy materials for the preceding year's annual meeting of stockholders, together with required information regarding the stockholder and each person the stockholder proposes to nominate.

Stockholder Action by Written Consent

The Bylaws provide that, unless otherwise restricted by the Certificate of Incorporation, any action required or permitted to be taken at any annual or special meeting of the stockholders may be taken without a meeting if a consent or consents in writing 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 on the action were present and voted.

Director Vacancies

Any newly created directorship or any vacancy occurring in the Board for any cause may be filled by a majority of the remaining members of the Board, even though such majority is less than a quorum, and each director so elected will hold office until the expiration of the term of office of the director whom he or she has replaced, or until his or her successor is elected and qualified, or until his or her earlier death, resignation, or removal.

COMPENSATORY ARRANGEMENTS OF DIRECTORS

Directors who are not also our officers (each a "non-employee director") currently receive an annual retainer of \$25,000. The Board Chairman is paid an additional annual retainer of \$40,000. The Chair of each of the committees of the Board are paid an additional annual fee as follows: the Chair of the Audit Committee is paid an additional annual fee of \$20,000; the Chair of the Compensation Committee is paid an additional annual fee of \$10,000; and the Chair of the Nominating and Corporate Governance Committee is paid an additional annual fee of \$10,000. The members of the committees, other than the Chair, are paid additional annual fees as follows: members of the Audit Committee are paid an additional annual fee of \$10,000, members of the Compensation Committee are paid an additional annual fee of \$5,000, and members of the Nominating and Corporate Governance Committee are paid an additional annual fee of \$5,000. Non-employee directors also receive an annual award of restricted stock under our Second Amended and Restated 2014 Stock Plan. In addition, we reimburse non-employee directors' travel expenses and other costs associated with attending Board or committee meetings. We do not pay compensation to our executive officers for their service as directors.

Subsidiaries of the Registrant

Name of Subsidiaries	Jurisdiction of Incorporation
Ambrell Corporation	Delaware
inTEST EMS LLC (a)	Delaware
inTEST Silicon Valley Corporation (a)	Delaware
Temptronic Corporation (b)	Delaware
Ambrell B.V.	Netherlands
Ambrell Limited	U.K.
inTEST PTE, Ltd.	Singapore
inTEST Thermal Solutions GmbH	Germany

(a) Doing business as inTEST EMS.
(b) Doing business as inTEST Thermal Solutions Corp.

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statements (No. 333-145176, 333-197858, 333-226815 and 333-233297) on Form S-8 and the Registration Statement (No. 333-221558) on Form S-3 of inTEST Corporation of our report dated March 23, 2020, relating to the consolidated financial statements and the financial statement schedule of inTEST Corporation, appearing in this Annual Report on Form 10-K of inTEST Corporation for the year ended December 31, 2019.

/s/ RSM US LLP

Blue Bell, Pennsylvania
March 23, 2020

CERTIFICATION

I, James Pelrin, certify that:

1. I have reviewed this annual report on Form 10-K of inTEST Corporation;
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 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 the 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 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 23, 2020

/s/ James Pelrin
James Pelrin
President and Chief Executive Officer

CERTIFICATION

I, Hugh T. Regan, Jr., certify that:

1. I have reviewed this annual report on Form 10-K of inTEST Corporation;
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 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 the 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 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 23, 2020

/s/ Hugh T. Regan, Jr.
Hugh T. Regan, Jr.
Secretary, Treasurer and Chief Financial Officer

inTEST CORPORATION

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report of inTEST Corporation (the "Company") on Form 10-K for the year ended December 31, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, James Pelrin, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 23, 2020

/s/ James Pelrin
James Pelrin
President and Chief Executive Officer

inTEST CORPORATION

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report of inTEST Corporation (the "Company") on Form 10-K for the year ended December 31, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Hugh T. Regan, Jr., Secretary, Treasurer and Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 23, 2020

/s/ Hugh T. Regan, Jr.
Hugh T. Regan, Jr.
Secretary, Treasurer and Chief Financial Officer